

The complex set of interrelationships between top managers and capital markets has increasingly received attention from both theory and practice.

Based on empirical analyses for large German corporations this work provides insights into this complex set of relationships and specifically highlights the role of active investors. It advances previous research on managerial discretion at a national level and on market-related governance mechanisms.

Voußem

Capital market effects of top management succession in Germany

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## List of Abbreviations

AI	Active investor
CAR	Cumulative abnormal return
CDAX	German stock index (Composite DAX)
CEO	Chief executive officer
CFO	Chief financial officer
COO	Chief operating officer
DAX	German stock index (Deutscher Aktien IndeX)
EIASM	European Institute of Advanced Studies in Management
EURAM	European Academy of Management
HF	Hedge fund
HHI	Herfindahl-Hirschman index
LOA	Latitude of action
LOO	Latitude of objectives
MDAX	German stock index (Mid-Cap DAX)
PE	Private equity fund
ROA	Return on assets
ROE	Return on equity
SOX	Sarbanes-Oxley Act
S&P	Standard & Poor's
S.D.	Standard deviation
TMT	Top management team



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## **A. Introduction**

### **1. Research Motivation**

Top managers are the most visible single individuals in a firm, and they are therefore the most identified with it. Some have even attained a kind of celebrity status (Hayward, Rindova, and Pollock, 2004). Top managers directly shape the firms they lead via the decisions they make (Hambrick, 2007; Hambrick and Mason, 1984), and they have thus become subjects of enormous research interest (for reviews, see Carpenter, 2011; Carpenter, Geletkanycz, and Sanders, 2004; Finkelstein, Hambrick, and Cannella, 2009; Giambatista, Rowe, and Riaz, 2005).

Naturally, the turnover of these elite managers has received significant attention, because it can hold particularly critical ramifications for a firm's future strategy and performance (Kesner and Dalton, 1994). If managers influence firm performance, a change in top management is expected to result in a change in future firm performance. Interestingly, top management turnovers have increased in frequency during the last several years (Finkelstein et al., 2009; Giambatista et al., 2005; Huson, Parrino, and Starks, 2001; Wiersema, 2002). Prior research on the determinants of such turnovers has focused primarily on the internal mechanism of monitoring (Fredrickson, Hambrick, and Baumrin, 1988). The board of directors plays a pivotal role in these analyses, because monitoring is one of their primary tasks (Haleblian and Rajagopalan, 2006; McDonald and Westphal, 2010; Shen, 2003; Tuggle, Schnatterly, and Johnson, 2010a).

In addition to internal monitoring, external and capital market-based actors have also increasingly engaged in monitoring that has led to top management turnover. This is a result of how important the capital markets have become for listed companies (Davis, 2009), which tend to exhibit a much stronger shareholder value orientation today than they have in the past (Fiss, 2006; Fiss and Zajac, 2004). Top managers also interact more directly with the capital markets (Zorn, Dobbin, Dierkes, and Kwok,

2005), and market participants are increasingly scrutinizing their performance (Del Guercio and Hawkins, 1999; Morck, Shleifer, and Vishny, 1989).

However, the increased relevance of external monitoring mechanisms has not been widely studied thus far. Therefore, recent research has asked for an inclusion of capital market-based mechanisms of monitoring into management research (Beck and Wiersema, 2011; Wiersema and Zhang, 2011). Although one study has already analyzed the influence of security analysts (Wiersema and Zhang, 2011), the influence of institutional investors remains yet to be explored. My dissertation contributes to this research.

The question of market-based monitoring is not merely of academic relevance. Although agency theory regards the monitoring of top managers by capital market participants as potentially advantageous (Jensen, 1986; Jensen and Meckling, 1976; Jensen and Ruback, 1983), recent public debate in Germany has focused on its dysfunctional and destructive potential. For example, the so-called “locust” debate centers on the destructive conduct of private equity and hedge funds in their portfolio companies (Ernst, Koziol, and Schweizer, 2011). My work seeks to disentangle the relationships between capital markets and top managers, and to shed light on some of their aspects.

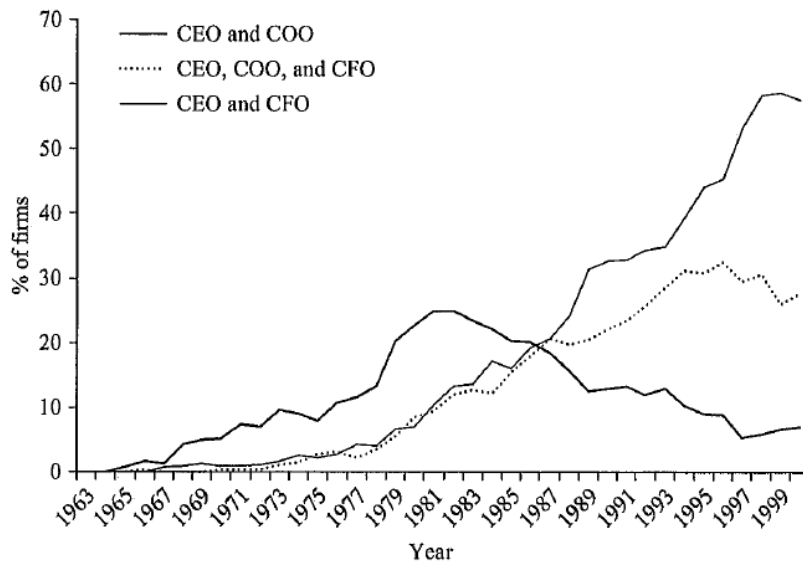
Now that I have outlined the monitoring mechanisms analyzed here, I can introduce the specific objects of the monitoring, i.e., the top managers examined in my dissertation: In addition to the CEO, I include the CFO as a member of the top management team. In this way, I address Hambrick’s (2007) call for research to selectively expand the definition of top management team beyond the CEO. Furthermore, this work takes a capital market perspective, so CFOs are a logical choice to include, because next to CEOs they are most directly visible to the capital markets, interacting in tasks such as investor road shows.

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From a capital market perspective, the CFO appears to be the most important single individual after the CEO. The title has also become increasingly widespread in large corporations, greatly exceeding other executive board members such as COOs (see Figure 1, taken from Zorn et al., 2005: 281). Some earlier research included COOs in their analyses (Hambrick and Cannella, 2004; Zhang, 2006). However, nowadays, the CFO has become a greater subject of research interest, particularly since the introduction of the Sarbanes-Oxley Act (SOX) in the U.S. (Hoitash, Hoitash, and Bedard, 2009). SOX requires the CFO and the CEO to sign the quarterly and annual statements, thus elevating the position to almost the same level of financial oversight as the CEO (Arthaud-Day, Certo, Dalton, and Dalton, 2006; Collins, Masli, Reitenga, and Sanchez, 2009; Collins, Reitenga, and Sanchez, 2008).

Early research focusing on the CFO was centered on career development as well as capabilities. For example, Baker and Phillips (1999) analyzed career paths and found no single typical path, but identified some common patterns. Baxter and Chua (2008) described some of the common practices of CFOs. Zorn (2004) documented a significant increase in persons holding the title of CFO, and related this phenomenon to the end of the conglomerate type that required a COO as well as to the increased significance of the capital markets. As Figure 1 shows, the CEO and CFO duo is the most prevalent among S&P 500 firms.





**Figure 1: CEO, COO, and CFO Combinations Over Time**

It is against this backdrop that the influence of the CFO on specific, fine-grained (finance) decisions has come into focus in research. Some of the management and financial accounting literature has related CFO characteristics to accounting choices (Bamber, Jiang, and Wang, 2010; Ge, Matsumoto, and Zhang, 2011; Geiger and North, 2006; Geiger and Taylor, 2003; Naranjo-Gil and Hartmann, 2007; Naranjo-Gil, Maas, and Hartmann, 2009). However, in financial research, much of the work has focused on comparing how CEOs and CFOs influence specific company effects such as firm performance or debt maturity choice (Chava and Purnanandam, 2010; Jiang, Petroni, and Yanyan Wang, 2010; Kim, Li, and Zhang, 2011).

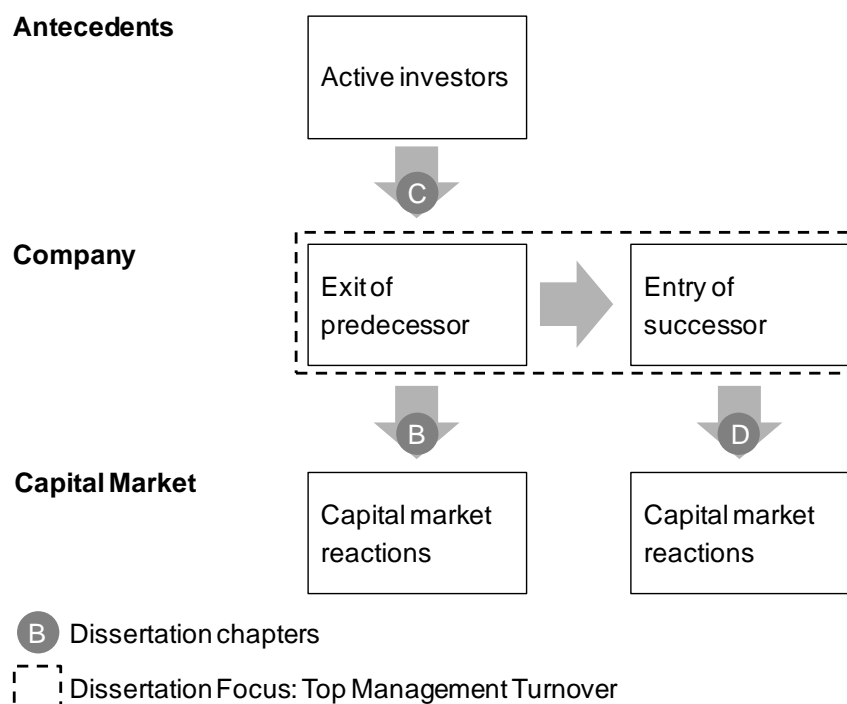
For practitioners, CFOs have gained in interest even more over the course of the recent worldwide financial crisis: "A strong, conservative CFO is needed now more than ever, and should be given greater authority within the executive suite" (Economist, 2008: 2). Although the relevance of CFOs to the capital markets has been studied as described above, it is yet unclear how capital market participants such as active investors influence CFOs.

The research gaps identified above illustrate the need to further clarify the relationships between top managers and the capital markets. I highlight several aspects of how

the markets may impact top management turnover. I analyze the effects of both managerial exit and entry announcements (sections B and D), and I explore the role of a select group of protagonists in top management turnover: active investors (see section C).

## 2. Research Questions

The aim of this work is to analyze the link between top management turnover and capital markets. Figure 2 provides an overview of the three essays presented in sections B-D of this dissertation. My analysis of turnovers follows Finkelstein, Hambrick, and Cannella (2009), and analytically divides the turnover event into two parts: 1) the exit of the predecessor, and 2) the subsequent entry of the successor. This differentiation is used for structure. The first two sections focus on the predecessor's exit, while section D focuses on the successor's entry. Section C includes active investors as an external, capital market-based antecedent of top management exits, as a means to broaden the focus of section B. Taken together, the three sections analyze the entire turnover process to provide a fuller and more consistent picture.



**Figure 2: A Model of Top Management Turnover**

While the predecessor's exit and the successor's entry may actually occur on the same day, they do not necessarily coincide. This is especially relevant for studies analyzing capital market reactions, because the informational content of the two events is different. Capital markets only incorporate new information into stock prices (Fama, 1970, 1991; Fama, Fisher, Jensen, and Roll, 1969), so stale information will not cause market reactions.

At the announcement of the successor, it is already known that the predecessor will exit. Because his characteristics and achievements have been visible to the public, the successor announcement is very often made after the predecessor's exit. Thus, capital market reactions to an exit announcement cannot be used for the analysis of successor effects.

The same effect prevails in the analysis of successor announcements: If the predecessor's exit has been announced several days earlier, the information about that event will already be incorporated into stock prices, and will not lead to any further capital market reactions. Because this work takes a capital market perspective, the analytical differentiation between exit and entry is particularly important.

The link between top managers and firm performance is a critical part of the premise for the existence of capital market reactions to top management exits. In an efficient capital market (the semi-strong and the strong forms), stock prices reflect expectations about a firm's future performance (Fama, 1970, 1991; Fama et al., 1969). If a change in top management leads to a change in stock prices, capital market participants suppose it is due to a direct relationship between top managers and firm performance.

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This link is provided by upper echelons theory (Hambrick, 2007; Hambrick and Mason, 1984), which states that top managers shape the fate of the firms they lead via the decisions they make, resulting in strategic outcomes such as firm performance. Their decisions are subject to bounded rationality (Cyert and March, 1963; March and Simon, 1958), because “(1) executives act on the basis of their personalized interpretations of the strategic situations they face, and (2) these personalized construals are a function of the executives’ experiences, values, and personalities” (Hambrick, 2007: 334). Because top manager characteristics may serve as proxies for the filters used in the decision making process, a significant research stream has emerged that analyzes the link between managerial characteristics and strategic outcomes on a firm level.

Along with this theoretical concept come the questions of when and under what circumstances top managers actually matter for firm performance. To provide an answer, Hambrick and Finkelstein (1987) developed the idea of managerial discretion to bridge two different research views of managers. Population ecology scholars generally assert that top managers are relatively identical in their contributions to a firm (Aldrich, 1979; Hannan and Freeman, 1977; Lieberman and O'Connor, 1972; Salancik and Pfeffer, 1977). Strategic choice theorists, on the other hand, argue that top managers have some discretion to shape their own fates and the firms they work for, and hence they can influence firm performance (Andrews, 1971; Chandler, 1962; Child, 1972).

The concept of managerial discretion integrates both perspectives by asserting that top managers can shape their own fates and influence firm performance, but only to the extent to which they possess discretion (Hambrick and Finkelstein, 1987). And, because discretion varies among the manager-, firm- and industry-level (Hambrick and Abrahamson, 1995), managers’ influence on firm performance also varies.

Recently, Crossland and Hambrick (2007, 2011) introduced another level of managerial discretion: the national level. They argue theoretically and demonstrate empirically that in countries with low managerial discretion, such as Germany, individual

managers possess comparatively less direct influence on firm performance. In such a country, they argue, managerial turnover should have a very limited effect on the capital markets.

I address Crossland and Hambrick's (2007, 2011) call for further research on this topic in section B of my dissertation, where I analyze the capital market effects of top managers' exits. I also describe in detail the components of the German corporate governance system that have resulted in the limited discretion for top managers.

***First research question:** Do capital markets react to the announcement of top management turnover in Germany?*

Top management turnover can be a consequence of monitoring (Fama, 1980; Fama and Jensen, 1983). As noted earlier, until recently, internal monitoring, such as by board members, was the primary focus of research (Brunello, Graziano, and Parigi, 2003; Ocasio, 1994; Tuggle, Sirmon, Reutzler, and Bierman, 2010b; Westphal and Fredrickson, 2001; Zajac and Westphal, 1996). However, monitoring by capital market participants has become of greater interest (Beck and Wiersema, 2011), with a particular focus on the influence of investment analysts (Wiersema and Zhang, 2011). In capital market research, the role of market participants as monitors of managers has received comparatively more attention. Based on agency theory, shareholders monitor firm managers to ensure they do not promote their own ambitions over the interests of shareholders (Jensen and Meckling, 1976). However, monitoring is costly and time-consuming. Thus, large shareholders are more liable to engage in it (Shleifer and Vishny, 1986), because the costs remain relatively constant but the possible gains increase with the size of the shareholding.

Among the different groups of large shareholders, active investors are especially well equipped to engage in monitoring. They usually buy comparably higher stakes in their portfolio companies (Achleitner, Betzer, and Gider, 2010), and they tend to em-

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ploy highly skilled managers for the monitoring whose remuneration is directly linked to investment success.

Some U.S. evidence suggests that the engagement of active investors can lead to increased CEO turnover (Brav, Jiang, Partnoy, and Thomas, 2008; Del Guercio, Seery, and Woidtke, 2008; Gong and Wu, 2011), but this relationship has not been analyzed in a German context thus far. Given the insider-controlled corporate governance system in Germany, which is characterized by more checks and balances than the American system, it is somewhat doubtful that active investors can engage in monitoring and promote top management turnover as extensively in Germany (Vitols, 2005).

Thus, my second research question relates directly to Beck and Wiersema's (2011) call for research to include institutional investors, as representatives of the broader governance system, into an analysis of top management turnover. I address this research question in section C of my dissertation.

***Second research question:*** *Do active investors influence top management turnover in German corporations?*

The first two research questions relate to the exit of top managers, but the third focuses on the successor's entry announcement. With the announcement of a successor, the course for a company's future is set. The new top manager will influence the firm's future strategy and performance – and often he will manage differently than his predecessor. Therefore, capital market participants will update their expectations about the firm's future, and this can result in stock price changes (Davidson III, Worrell, and Cheng, 1990; Davidson III, Worrell, and Dutia, 1993).

However, no clear picture exists so far about capital market reactions to successor announcements. Some research has investigated the relationship between managerial characteristics and stock price reactions, but the findings have been very mixed (see, for example, Bonnier and Bruner, 1989; Furtado and Karan, 1990; Khanna and Poulsen, 1995; Reinganum, 1985). And most of the research has focused on manageri-

al characteristics as determinants of capital market reactions, thereby largely ignoring the effects of the succession process and context (despite calls for such research by, e.g., Finkelstein et al., 2009).

Based on market signaling theory (Heil and Robertson, 1991; Spence, 1973), I argue that investors regard information about the turnover process and context as signals about a firm's state. Prior research has reached similar conclusions that uncertainty caused by disruptive processes is contrary to investor interests (Graffin, Carpenter, and Boivie, 2011). Naturally, investors may infer from a well managed turnover process that processes at the company are also generally well managed. Because investor reactions have been found to depend on a firm's situation (Shen and Cannella, 2003), I use prior firm performance as a moderator of investor reactions. I aim to analyze how the capital markets react to the signals about the state of a firm that they infer from the process characteristics of successor announcements.

***Third research question:** What drives capital market reactions to succession announcements? Do investors react more strongly to process characteristics than to individual successor characteristics?*

Table 1 gives an overview of my three dissertation sections and my research questions addressed in each of them. It also describes the theories and methods used in order to provide a basis for the next chapter.

**Table 1: Section Overview**

	Section		
	B	C	D
<b>Research Question</b>	1	2	3
<b>Event Analyzed</b>	Predecessor's Exit	Predecessor's Exit	Successor's Entry
<b>External Influence</b>	--	Active Investors	--
<b>Theory</b>	Upper Echelons	Upper Echelons / Agency	Market Signaling
<b>Method</b>	Event Study	Event History Analysis	Event Study

### 3. Research Approach

#### 3.1. Theoretical Foundation

I use the upper echelons theory (Hambrick, 2007; Hambrick and Mason, 1984) as my theoretical foundation because it is particularly suitable for a large body of research that aims to identify the relationships among top managers, their decisions, and ultimately firm performance (for reviews, see Carpenter et al., 2004; Finkelstein et al., 2009). Upper echelons theory proposes that top managers shape the firms they lead via their decisions. The decision making process is subject to the managers' values, preferences, and character traits, which are not usually directly observable. Thus, a great deal of research has examined the relationship between directly observable characteristics such as age (Davidson III et al., 1990; Hambrick, 1991; Hambrick, Geletkanycz, and Fredrickson, 1993; Henderson, Miller, and Hambrick, 2006; Miller, 1991) or managerial background (Cannella, Park, and Lee, 2008; Ocasio and Kim, 1999; Zhang and Wiersema, 2009), and how they relate to decision making and ultimately firm performance. Section B is presented entirely from an upper echelons perspective, so as to avoid any potential theoretical inconsistencies. However, section C presents the case in a more complex manner.



In section C, I analyze the role of active investors as monitors. I note that recent management research has called for including market-related governance mechanisms, such as investment analysts or institutional investors, into analysis (Beck and Wiersema, 2011; Wiersema and Zhang, 2011). But most of the studies on active investors have been conducted in the area of finance. At the center of most of this research is the question of how investors can ensure that top managers will pursue goals that maximize shareholder value. The agency theory (Shleifer and Vishny, 1986) is the theoretical foundation for this question.

Agency theory (Jensen, 1986; Jensen and Meckling, 1976) assumes that managers possess their own goals, which may differ from those of the firm's owners, i.e., the shareholders. Two main methods have emerged to prevent top managers from choosing to maximize their own goals at the expense of shareholder interests: 1) incentivizing top managers to pursue the same goals as shareholders (for example, by tying their pay to shareholder value), and 2) monitoring their behavior and decisions. From an agency perspective, the ultimate result of monitoring would be dismissal (Cannella and Monroe, 1997; Fama, 1980). Thus, agency theory treats managerial competence and abilities as either constant over time or irrelevant (Hendry, 2002). In order to make my arguments about the monitoring of active investors comparable to other research on investor monitoring, I develop further the arguments of the monitoring hypothesis based on agency theory.

In the goal maximization that is at the heart of agency theory, individuals act rationally (Eisenhardt, 1989). However, this assumption of rationality is at first glance opposed to the assumption of bounded rationality that underlies upper echelons theory (Cyert and March, 1963; March and Simon, 1958). This states that people are not able to act completely rationally. Instead, they are limited in their ability to process information and solve complex problems, which may result in non-rational, non-optimal decisions. This understanding of managerial decisions is fundamentally different from agency theory. However, they are not both used as the basis for the same hypothesis, but on the contrary they each provide the foundation for one of the contrasting hypoth-

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eses that I explore further in section C. Thus, there is no problem of theoretical inconsistency. Cannella and Monroe (1997) and Shen and Cho (2005) both attempted to integrate agency theory into the managerial perspective of managerial discretion, while Wowak and Hambrick (2010) have worked on reconciling upper echelons and agency theory.

In section D, I focus mainly on market signaling theory (Heil and Robertson, 1991; Spence, 1973), which analyzes markets with asymmetric information, where market participants rely on certain credentials to communicate desired abilities or qualities. This theory is closely related to agency theory. It analyzes the mechanisms that can be used to overcome market failures based on information asymmetries that result from hidden information. Spence (1973) uses the job market as an example. Employees seek to signal certain abilities to future employers in order to be hired at a certain wage. While the employee knows his abilities thoroughly, they are not directly visible to the future employer. Therefore, employees invest in credentials such as university degrees to reduce information asymmetries. The credential is used as a signal that the employer then interprets by, for example, paying a higher wage to a university graduate than to an unskilled employee.

In section D, I also examine the characteristics of succession processes and their possible signaling effects to capital market participants, moderated by prior firm performance. Capital market participants will analyze certain facts of succession announcements and adjust their behavior accordingly, e.g., by selling and buying shares. Thus, they use the signals provided by the succession announcement to obtain critical information about the state of the firm. To be consistent with the other sections of my dissertation, especially the analyses in section B, I control for the managerial characteristics that are so crucial for upper echelons theory, but I find no statistically significant effects.

All of my analyses are conducted in a German setting. This is significant from a theoretical perspective, because Germany, as noted earlier, provides comparatively

less discretion to its top managers than the U.S., for example. This is a direct consequence of the checks and balances that arise from its corporate governance system (Crossland and Hambrick, 2007, 2011).

The factors limiting managerial discretion are discussed in each of the three sections. I especially analyze the influence of a civil law context (Johnson, La Porta, Lopez-de-Silanes, and Shleifer, 2000; La Porta, Lopez-de-Silanes, and Shleifer, 1999), workers' representation (Witt and Redding, 2009), banking orientation (Dittmann, Maug, and Schneider, 2010), the two-tiered board system and the collective liability of the entire top management team that limit CEO duality (i.e., the CEO holding the titles of "CEO" and "Chairman of the Board" simultaneously) (Finkelstein and D'Aveni, 1994; Quigley and Hambrick, 2011), and the "superstar" status of CEOs (Hayward et al., 2004). These factors align to reduce top managers' discretion relating to both latitude of actions and latitude of objectives.

Note that I have chosen the German setting for my research project because I believe it will be challenging and enriching to take theories that were developed and tested primarily in Anglo-Saxon surroundings (such as upper echelons or market signaling), and apply them in different settings. In my research setting, top managers are less directly linked to firm performance, and they are thus under less scrutiny of capital market participants. I believe my results will better reflect the generalizability of these theories and their predictions.

### **3.2. Data Collection**

To analyze aspects of the relationships between the capital markets and top management turnover, I focus on large, listed German corporations, for two reasons: First, listed companies and their top managers interact more directly with the capital markets than their peers in small, privately held firms. Hence, top managers are more visible to capital market participants, and more directly under investor scrutiny. Second, information asymmetry tends to be lower for larger firms, because newspaper coverage and data availability are better.

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There is no single database in Germany that contains all top management turnovers, so I hand-collected my data sample<sup>1</sup>. My first step was to identify all companies listed on the German DAX and MDAX indices for at least one year from January 1998 through December 2008. The DAX is a German stock index comprised of the thirty largest listed companies by market capitalization on the Frankfurt Stock Exchange. The MDAX is comprised of the next fifty largest companies (prior to March 24, 2003, the MDAX was comprised of the next seventy largest companies).

I only collected data through the end of 2008 because I also needed to obtain information about post-turnover performance. From the end of 2008, I went back to 1998, which I use as my base year because it provides a large sample of financial information and newspaper articles. All companies listed for at least one year in one of the indices were included in my analysis for the entire time they were part of the indices. I deleted seven companies because they were listed for less than one year. I ultimately identified management turnovers for 157 companies.

I used the *Hoppenstedt Aktienführer*<sup>2</sup> as my first source to identify top management turnovers. I also relied on companies' annual reports to identify the names of CEOs and CFOs at the end of each year. If the position could not be clearly identified, I consulted *LexisNexis* to obtain the name of the top manager with the corresponding responsibilities at year-end.

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<sup>1</sup> I based the data used in my analyses of top management turnover on a proprietary database available at the Institute of Management Accounting and Control (IMC) at the WHU – Otto Beisheim School of Management. This database contains a list of top management turnovers in the position of CEOs and CFOs in German corporations as well as additional information regarding the turnovers and the persons involved and newspaper articles. From this starting point I set out to build the specific samples of my dissertation chapters, for example by obtaining the eventdate (the date of the ad hoc announcements in my case), by searching for additional information in order to classify the turnovers and by validating the information via random checks. Additionally I used information about investor activism provided by Denis Schweizer.

<sup>2</sup> The *Hoppenstedt Aktienführer* is a database that contains company profiles for all publicly listed companies in Germany, including the composition of management boards. The website is: <http://www.hoppenstedt-aktienfuehrer.de/>.

If the name pairs at year-end were not identical, I then conducted a newspaper search on *LexisNexis* to ascertain whether more than one turnover occurred during the year. Furthermore, I collected newspaper articles for the one to two years prior to each turnover to gain a better understanding of the circumstances surrounding the events, and to exclude any other potentially confounding events.

The exact dates of the turnover announcements (for both entries and exits) were obtained from *LexisNexis* as well. Therefore, I relied on the so-called ad hoc announcements that German stock corporations are required to file immediately according to § 15 *Wertpapierhandelsgesetz*. Any material information that could possibly influence a company's stock price falls within this regulation, including changes in the CEO or CFO.

In order to test the respective research questions, the exact sample of turnovers differs among the three sections. Sections A and D both contain event studies of top management changes. But section B focuses on top manager exits, while section D analyzes top manager entries. Furthermore, not every departing top manager is replaced immediately, and it is possible that the CFO position did not exist before. Thus not every exit corresponds to a subsequent entry.

The samples are presented in more detail in each section. The sample I use in section B differs from the other two in several key aspects: First, it includes not only turnovers, but every year in which a top manager served on the executive board in either a CEO or CFO position. Second, because the analytic focus is on tenure, or, more specifically, years in position, it also includes managers that have served continually on the executive board. These are not included in the section B and D samples, because no change in position occurred there. Third, it is much larger, because it includes information for each year of top management tenure. For the construction of this sample, see the method chapter of section C.

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### 3.3. Methods

To measure the capital market effects of top managers, in sections B and D, I apply a capital market perspective to the top management turnover announcements to conduct an event study. However, in section C, I use a different methodology, the event history analysis. I describe these methods in more detail next.

Compared to an accounting-based analysis of top managers' influence on company performance, I believe using an event study, which relies on stock performance, is advantageous here for my purposes for several reasons (McWilliams and Siegel, 1997). First, stock prices directly reflect the value generated for investors (Merchant and Van der Stede, 2011). They thus represent the variable that is most directly important for investors. Second, some research has found that accounting-based measures may be subject to the direct influence of top managers, especially in a turnover context (Geiger and North, 2006; Schäffer, Lüdtke, Bremer, and Häußler, 2011). Hence, in such a context, these measures are potentially endogenous. On the other hand, shares are traded in a market, so their prices are derived by supply and demand. They cannot be influenced to the same degree by top managers, and they are thus less endogenous. Third, time orientation is especially relevant for the analysis of succession effects. At the time of the succession announcement, the successor has not yet had time to influence firm performance. Accounting-based measures are mainly backward-oriented, but stock prices are based on capital market participants' expectations about future firm performance, and as such are forward-oriented. Fourth, accounting-based data are available on an annual or quarterly basis only, while stock prices are available on a daily or even intra-daily basis. With a long period between the turnover announcement and the measurement of performance data, it is difficult to isolate which effects are attributable solely to the event. Therefore, stock prices allow for a more timely and precise measurement.

In light of these numerous arguments for using stock prices in performance measurement, it is not surprising that many prior studies have also used an event study

methodology in a turnover context (for example, refer to Daily, Certo, and Dalton, 2000; Davidson III et al., 1990; Davidson III et al., 1993; Finkelstein and Hambrick, 1990; Gorton and Schmid, 2000; Mian, 2001; Tian, Haleblan, and Rajagopalan, 2011). Furthermore, this approach is quite feasible in single-country studies (Crossland and Hambrick, 2007, 2011) such as this one.

In my empirical analyses, I measure capital market performance as the abnormal returns around the turnover announcement (the announcement of a top management exit in section C, and the announcement of a top management entry in section D). I use the date of the ad hoc issuance as the event date. In accordance with common event study methodology (Brown and Warner, 1985; Fuller, Netter, and Stegemoller, 2002), I also use abnormal returns, and a market model that uses the German CDAX as a benchmark. For more details on the event studies conducted here, see the method chapters of sections B and D.

In section C, I conduct an event history analysis (Allison, 1984; Tuma and Hannan, 1984; Yamaguchi, 1991), a method often used in longitudinal management research (Ballinger and Marcel, 2010; Dowell, Shackell, and Stuart, 2011; Shen and Cannella, 2002b; Zhang, 2008). This type of analysis provides several further advantages for my research design. For example, it explicitly captures all effects, and can include all managers as right-censored into the analysis who are still in their positions at the end of the observation period. This reduces survivorship bias. Another advantage is the inclusion of time-varying covariates. In my analyses, I use a Cox (1972) proportional hazard model. For more details, see the method chapter of section C.

## **4. Organization of This Work**

The dissertation is organized as follows: Chapter A provides an introduction to the motivation for this research, as well as the corresponding research questions. It fully describes the approach used to answer the questions, and the research methods. The chapter closes with a description of how the remainder of the work is organized. Chap-

ters B, C, and D each contain a section that answers one of the research questions described in the Introduction.

Chapter B presents a study on the capital market consequences of top management exits in large German companies. I find that, because of the comparatively limited managerial discretion provided to German top managers, the capital markets generally react very little if at all to exit announcements. This is contrary to observations found in U.S. studies, where top managers generally enjoy a much greater level of discretion.

Chapter C examines the influence of active investors on top management turnover by means of an event history analysis. I find that private equity funds are not associated with shorter tenures of top managers, but hedge funds are, and they often have longer-tenured top managers in their portfolio companies.

Chapter D complements the analysis of top management turnover with an analysis of turnover process characteristics as determinants of capital market reactions to successor announcements. Interestingly, process characteristics are found to be better signifiers of capital market reactions to succession announcements than individual managerial characteristics. This highlights the importance of meticulous and diligent management of the entire turnover process, especially regarding communication with the capital markets.

Chapter E synthesizes the results of all the chapters. It discusses the overall theoretical contributions of this work, and the implications for practical applications. It also discusses the limitations of this research project, and provides suggestions for further research.





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## **B. Do Top Managers Really Matter?**

### **Abstract**

Top managers can impact company outcomes only to the extent that they possess discretion. Managerial discretion has been shown to differ among managers, companies, industries, and nations. In low-discretion countries, corporate governance mechanisms, as well as national values and culture, can limit the range of actions available to managers and hence their individual impact on firm performance. I analyze the factors that constitute the low-discretion environment in Germany, and show theoretically and empirically that the capital markets attribute little importance to individual top managers. To gauge manager influence, I use standard event study methodology and analyze stock price reactions around announcements of top management turnover. The data sample consists of 344 top management turnovers (172 for CEOs, and 172 for CFOs) in companies listed on the German DAX and MDAX from 1998 through 2008.

Contrary to studies conducted in high-discretion countries, I find that, in a low-discretion country, the standard factors for turnover classification, e.g., forced or routine turnover, insider or outsider succession, are not significant in explaining the abnormal returns. This is argued to be a consequence of the German corporate governance system that limits the discretion of individual top managers and hence their influence on firm performance.

Earlier versions of this chapter have been presented at the EIASM Workshops on Top Management Teams in Valencia (2010) and Istanbul (2011), at the EURAM Doctoral Colloquium in Rome (2010) and at the DFTM in Dortmund (2011). A revised version of this chapter with Cord Burchard, Utz Schäffer and Denis Schweizer as co-authors has been submitted to the *Zeitschrift für Betriebswirtschaftslehre (ZfB)* and is currently in the second round of revision.

## 1. Introduction

The question of how much top managers impact company performance is an intensely studied research topic (Finkelstein et al., 2009; Mackey, 2008). Historically, two opposing research streams had emerged: between managers that are able to shape their own fates (Child, 1972, 1997) and those who are highly constrained in their decisions by internal and external forces (Hannan and Freeman, 1977).

To bridge these opposing views, Hambrick and Finkelstein (1987) developed the concept of managerial discretion, which states that managers can only influence company outcomes to the extent that they possess discretion. In the concept's initial iteration, managerial discretion depended on the task environment, internal organization, and individual managerial characteristics (Hambrick and Finkelstein, 1987: 379). A fourth factor, the macro-environment or national level, was introduced by Crossland and Hambrick (2007) to capture the broader social and economic system. In low-discretion countries, corporate governance mechanisms limit the range of managers' actions. Hence, their individual impact on firm performance is more limited than it would be in high-discretion countries.

This limited impact of top managers in low-discretion countries is the starting point of my study. In a low-discretion context, the turnover of a top manager can only be used symbolically by the company or board of directors to signal to the market that the company is taking action to address problems (Arthaud-Day et al., 2006; Shen and Cho, 2005). For example, as Zhang and Wiersema (2009: 699) note, the turnover could be used "to signal a firm's commitment to change." Under these circumstances, a turnover is merely used for scapegoating purposes (Boeker, 1992; Khanna and Poulsen, 1995; Shen and Cho, 2005).

In order to measure managers' influence, I use standard event study methodology to analyze stock price reactions around top management turnovers (Brown and Warner, 1985; Fama and French, 1993; Lyon, Barber, and Tsai, 1999; McWilliams

and Siegel, 1997). Contrary to studies in high-discretion countries, I show that, in a low-discretion country, the standard factors for turnover classification (forced versus routine turnovers, insider versus outsider succession) are not significant as predictors of the abnormal returns.

The remainder of this chapter is organized as follows. Section 2 develops the theory and hypotheses. Section 3 introduces my sample and the methods used. The empirical results are presented in section 4. Section 5 discusses the results and provides a conclusion.

## **2. Theoretical Background**

The connection between top managers and the performance of the companies they lead is an intensively studied subject in management research (Mackey, 2008). Upper echelons theory provides the link between top managers and corporate performance: It argues that top managers' decisions are based on their values and cognitive framing. These decisions lead to organizational outcomes that result in company performance (Carpenter et al., 2004; Finkelstein et al., 2009; Hambrick, 2007; Hambrick and Mason, 1984).

Obviously, in order for top managers to strongly impact company performance, they must have a certain degree of freedom in their decision-making. Starting from the question of when and under what circumstances top managers have the most (or least) impact, Hambrick and Finkelstein (1987) introduced the concept of managerial discretion, defined as latitude of action. This concept refers to the range of possible actions available to top managers to achieve a certain goal, e.g., a choice between cost-cutting and growth to achieve higher profitability. This perspective was later complemented by Shen and Cho (2005), who integrated latitude of objectives, which describes the range of goals available to top managers, into the managerial discretion construct. Managerial discretion has been shown to vary among companies, industries (Finkelstein and Hambrick, 1990; Hambrick and Abrahamson, 1995), and nations, be-

cause the regulatory context and corporate governance system set the boundaries for managerial action (Crossland and Hambrick, 2007, 2011).

In countries with fewer constraints and hence more managerial discretion, managers will necessarily have more of an impact on company performance than in countries with low managerial discretion (Crossland and Hambrick, 2007; Hambrick and Finkelstein, 1987). This theoretical assumption, however, has not been the subject of extensive empirical testing thus far. Most tests of the effects of top managers on corporate performance were conducted for the U.S., an environment of high managerial discretion. Only a few studies have been done in single low-discretion countries such as China (Li and Tang, 2010) or Japan (Kang and Shivdasani, 1995). However, some cross-country studies have compared countries with different levels of managerial discretion from an accounting performance perspective (Crossland and Hambrick, 2007, 2011).

### **2.1. The German National System**

Crossland and Hambrick (2007: 768) find that “an array of interconnected factors – including national values of individualism and tolerance for uncertainty, a prevailing ownership structure of widely dispersed, well-diversified shareholders who seek share price maximization while having little concern for firm failure and governance arrangements that tend to give CEOs great power – all align to provide the CEOs of American firms relatively great latitude of action,” in comparison to low-discretion countries. Germany’s corporate governance system offers an ideal setting for analyzing the importance of top managers in a low-discretion environment because it has many checks and balances on the distribution of power of the top managers:

- There is a two-tiered board system that consists of an executive board, which is basically the top management team, and an additional supervisory board. No current member of the top management team is permitted to be a member of the supervisory board at the same time, and even for former members of the top management team the German Corporate Governance Codex recommends a

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transition period of two years of absence prior to joining the supervisory board. Additionally, no more than two former members of the top management team are permitted on the supervisory board at the same time. CEO duality, i.e., the CEO being a member of the board or even its chairman, which is often the case in the United States therefore is prevented by the two-tiered board system in Germany. CEO duality can lead to entrenchment and to less intensive and efficient monitoring by the board (Finkelstein and D'Aveni, 1994; Tuggle et al., 2010b; Weir, Laing, and Wright, 2005). The two-tiered board system also provides a context from which the board can monitor top management more independently and hence reduce managerial discretion.

- The German law system is based on the roman civil law. Civil law systems – as opposed to the common-law systems in Anglo-Saxon countries and their shareholder value orientation – focus on the protection of all stakeholder rights (Johnson et al., 2000; La Porta et al., 1999). “German corporate governance is shaped by a legal tradition that dates back to the 1920s and regards corporations as entities which act not only in the interests of their shareholders, but also have to serve a multitude of other interests.” (Schmidt, 2004: 387). It is not the maximization of shareholder value, that is the goal of the top management team; but a balance between stakeholder and shareholder rights, such as “stability and growth” (Schmidt, 2004: 396). Thus, top managers have to involve stakeholders in their decisions, and balance their interests. This lessens the options available to achieve goals, and leads to a reduction in the latitude of top manager actions (Shen and Cho, 2005). I follow Crossland and Hambrick’s (2011: 803) arguments that “CEOs of firms in common-law countries will tend to have greater discretion than CEOs of firms in civil-law countries.”
- German law demands that workers participate in all management decisions. As opposed to the Anglo-Saxon system, where board seats are directly linked to shareholding in a company, the German corporate governance system reserves a certain amount of board seats for workers’ representatives and union members. The number of board seats available to employees’ representatives depends on the size of the company and the industry it belongs to, and varies be-

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tween half and one third of the seats on the supervisory boards. The workers' representation in the supervisory board enforces the participation of employees and unions in all major company decisions, ensuring that all interests are taken into account. This limits the power of top managers to follow their own goals (Crossland and Hambrick, 2007). Not surprisingly, prior research has found that German top managers are dissatisfied with workers' representations (Witt and Redding, 2009: 877).

- In contrast to the USA, in Germany it is the entire top management team that is ultimately accountable for company decisions; they are collectively liable. This reduces the prominence of the CEO, who in Germany very often is only a speaker of the top management team, and mitigates a status of “superstar CEOs” like in the USA (Hayward et al., 2004). The collective responsibility (§77 AktG) of the top management team sets clear boundaries on the “narcissism” of individual top managers (Chatterjee and Hambrick, 2007). The limited impact of individual members of the top management team leads to less managerial discretion in Germany than in the U.S.
- The large crossholdings between German corporations became known under the name of “Deutschland AG” and have been the object of a lot of discussion (Crossland and Hambrick, 2007, 2011). As Elsas and Krahnert put it (2004: 197): “Some of the most widely expressed myths about the German financial system are concerned with the close ties and intensive interaction between banks and firms.” The name “Deutschland AG” refers to the large amount of crossholdings among German corporations, with German commercial banks at the core of it. German corporations have comparatively concentrated ownership: A study by Becht and Böhrer (2003) documents that 82% of all listed companies have a minority owner controlling at least 25% of the votes and 65% have a majority blockholder. The banking oriented system resulted from stable, long term relationships between banks and companies (Elsas and Krahnert, 2004; Gorton and Schmid, 2000; Hackethal, Schmidt, and Tyrell, 2005; Vitols, 2005), which were not limited to equity stakes, but often combined with positions as major creditors. Additionally, in consequence of the large sharehold-

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ings, the banks were very often represented on the supervisory board of these firms (Franks and Mayer, 1998), as large shareholdings also in Germany qualify for board representation. The presence of blockholders is expected to significantly limit top managers' discretion.

Thus I conclude that reduced managerial discretion will limit top managers' influence on companies, and lead to comparatively lower performance effects of top managers in Germany.

## **2.2. Turnover as a Measurement Context for Top Manager Importance**

One potential way to analyze company performance and indirectly top manager performance (and importance) (Fee and Hadlock, 2004) is to examine stock returns (Warner, Watts, and Wruck, 1988). The capital markets reflect the expected future performance of companies, which includes managers' contributions (Fama, 1970, 1991; Fama et al., 1969; Fama and French, 1993). Thus, the importance of top managers to company performance should be clearly observable through the stock market reactions to the announcement of a top manager departure.<sup>3</sup> There should be a reevaluation of expected future company performance by market participants as soon as the information becomes known (Fama, 1980). This reevaluation should include an assessment of the departing manager compared to the (often unknown) successor, their respective expected abilities to achieve future performance, and information about the state of the company. This can include, for example, an intended strategic redirection or a change in investment opportunities (Furtado and Karan, 1990). Stock price changes will occur if market participants estimate the company's future performance will differ due to the information contained in the turnover announcement.

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<sup>3</sup> How stock prices react to management turnover, especially CEO turnover, has been the object of much research in the U.S., but the results differ depending on the context. Some studies have found positive abnormal returns for CEO turnover (Bonnier and Bruner, 1989; Furtado and Rozeff, 1987; Huson, Malatesta, and Parrino, 2004; Weisbach, 1988); others find no significant abnormal returns (Reinganum, 1985; Warner et al., 1988). One study even identifies negative abnormal returns (Khanna and Poulsen, 1995).



In contrast to accounting information, the stock market's evaluation of the importance of top managers provides us with several advantages. First, top managers cannot influence stock prices to the same degree that they can influence financial statements, which several authors have shown are subject to earnings manipulation (Arthaud-Day et al., 2006; Geiger and North, 2006; Jiang et al., 2010). Second, market prices reflect turnover decisions in a timelier and more direct manner, because accounting information is available only on a quarterly or annual basis. Third, while accounting-based information is rather backward-oriented, stock prices reflect the expectations about the future value of the company (McWilliams and Siegel, 1997). Therefore, I consider capital market reactions to be a superior measure of company performance, especially during top management turnovers (Bromiley, Govekar, and Marcus, 1988; McWilliams and Siegel, 1997).

However, as noted earlier, when analyzing manager importance, one must consider their degree of discretion in order to fully assess their likely impact. In the past, the question of how much top managers can impact company performance was usually analyzed by looking solely at the CEO (Crossland and Hambrick, 2007, 2011; Davidson III et al., 1993; Furtado and Rozeff, 1987; Huson et al., 2004; Reinganum, 1985; Warner et al., 1988; Weisbach, 1988; Worrell, Davidson III, Chandy, and Garrison, 1986). In order to follow Hambrick's (2007) call to extend the research to other top managers, I propose focusing on the CEO and CFO together. They are generally the two individuals with the most direct impact on a company's financial situation (Jiang et al., 2010) and are regarded as its strategic leaders (Arthaud-Day et al., 2006).

While the CEO is often considered the single most important individual in a company (Mackey, 2008), research has begun analyzing CFO performance as well. Earlier research focused primarily on the career paths and capabilities of CFOs (Baker and Phillips, 1999; Baxter and Chua, 2008; Collier and Wilson, 1994; Ocasio and Kim, 1999; Zorn, 2004). But later research has emphasized CFO turnover (Arthaud-Day et al., 2006; Geiger and North, 2006; Menon and Williams, 2008; Mian, 2001).

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In recent research, CFOs have gained further in interest (Chava and Purnanandam, 2010; Gore, Matsunaga, and Eric Yeung, 2011; Jiang et al., 2010; Li, Sun, and Ettredge, 2010; Naranjo-Gil and Hartmann, 2007) because of the increase in their responsibilities following the Sarbanes-Oxley Act (SOX). In the U.S., SOX requires that CFOs, in addition to CEOs (Jiang et al., 2010), sign the annual financial statements. This has elevated the CFO to almost the same level of financial oversight as the CEO, making this position the clear #2 in a company (Zorn, 2004).<sup>4</sup>

CFOs have also become more involved in specialized decisions such as debt maturity and accrual management (Chava and Purnanandam, 2010; Gore et al., 2011). As the person responsible for external financial communications, interaction with the capital markets, and ultimately raising capital resources, CFOs can directly influence performance as measured by stock prices (Mian, 2001). An in-depth empirical analysis of capital market reactions to CFO turnover has not been undertaken thus far, although it has been suggested (Mian, 2001).

I have argued in the prior section that Germany tends to provide relatively low discretion to top management, and thus management influence on companies is somewhat limited. If translated into a capital market-based examination of their influence, it follows that stock price reactions will also be limited, because the regulatory context and especially the corporate governance system set clear boundaries on how much influence managers are *allowed* to have. Therefore, if the capital markets react to top management turnover at all, I argue that it should occur primarily to CEO and CFO announcements. My first hypothesis is thus:

*Hypothesis 1: In a low-discretion context, the capital markets will tend to exhibit insignificant stock price reactions around top management turnover announcements, whether CEO or CFO turnover.*

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<sup>4</sup> This transformation of the CFO role by SOX has not affected German managers as much, because in Germany the entire management board has always been responsible collectively for company results.

Research on top management turnovers typically differentiates between routine and forced turnovers (Bresser and Thiele, 2008; Bresser, Thiele, Biedermann, and Lüdeke, 2005; Fee and Hadlock, 2004; Huson et al., 2004; Mian, 2001; Zander, Büttner, Hadem, Schäffer, and Richter, 2009).<sup>5</sup> Although there are several different methods to reliably distinguish between the two, the informational content is not necessarily publicly visible (Finkelstein et al., 2009): In fact, similar factors, such as performance pressure, board conflicts, or job fatigue, can be the drivers behind both types of turnover. Future prospects, such as imminent performance downturns, can also lead to both forced and routine turnovers (Finkelstein et al., 2009).

The informational value of the forced/routine dichotomy is thus ambiguous, and the direction of subsequent stock price movements cannot be predicted. I therefore posit that no performance differences will result from either scenario.

*Hypothesis 2: In a low-discretion context, the capital markets will tend to exhibit insignificant stock price reactions around top management turnover announcements, whether the turnover is forced or routine.*

In addition to a pre-succession context, it is also often necessary to analyze post-succession contextual factors when evaluating performance effects (Karaevli, 2007). If an outsider is appointed as the new CEO or CFO, I may assume that the hiring board does not consider any of the internal candidates to be adequate (Shen and Cannella, 2002a). On the one hand, one can argue that top managers are hired from the outside to create further disruptions, with the goal of creating strategic changes. This can be achieved by bringing in a manager with new knowledge and a new skill set (Cannella

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<sup>5</sup> Empirical studies that have examined the relationship between a forced/routine turnover and company performance in a high-discretion environment have come to mixed conclusions. Warner et al. (1988) do not find abnormal returns after a forced management turnover while Denis & Denis (1995) and Furtado & Rozeff (1987) find positive abnormal returns for forced turnovers. Huson et al. (2004) find positive abnormal returns for forced turnovers when an outsider is appointed as the successor, but negative abnormal returns when an insider becomes the successor.

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and Lubatkin, 1993), as well as by causing management changes at other levels (Kesner and Dalton, 1994).

On the other hand, however, outside managers might be hired because the supervisory board feels they are more likely to follow strategic orders from the board, not because of their own open-mindedness (Hambrick, 2007). At the time of a turnover announcement, the board's intentions cannot be known, so the informational value is usually ambiguous.<sup>6</sup> The successor is often unknown as well, especially when the turnover is unexpected. I conclude that, in the context of my study, differentiating between insider and outsider succession will not lead to different performance consequences.

*Hypothesis 3: In a low-discretion context, the capital markets will tend to exhibit insignificant stock price reactions around top management turnover, whether the turnover is followed by insider or outsider succession.*

In a low-discretion context, I posit that the effect of individual top managers on firm performance is so limited that there will be few consequences for firm performance. I argue the turnover will be merely for scapegoating purposes (Shen and Cho, 2005). Therefore, the turnover itself has a rather symbolic value: It reveals information about the company that was unknown beforehand (Furtado and Karan, 1990).

For example, the market may interpret the turnover as a signal of upcoming changes in strategy (Zhang and Wiersema, 2009). The changes may result from hitherto unknown troubles that the company is now planning to address (Arthaud-Day et al., 2006). Furthermore, along with a turnover announcement, other news is often made

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<sup>6</sup> For the forced/routine dichotomy, the empirical findings for abnormal returns for insider and outsider succession in high-discretion countries are also inconclusive. Bonnier & Bruner (1989) and Shen & Cannella (2003) find significantly larger abnormal returns for outside CEO successors than for inside successors. Furtado & Rozeff (1987), on the contrary, find positive abnormal returns for inside successors and negative abnormal returns for outside successors in large firms. Tian et al. (2011) find no significant abnormal returns for inside or outside successors, but they do find some for interactions with other board variables.

public that may have even more informational content and can lead to stock price reactions. Such information may pertain, for example, to fraudulent behavior by a top manager, poorer than expected financial results, or to a deterioration in market position.

### **3. Method**

#### **3.1. Data and Sample**

To obtain my sample, I began by identifying all companies listed on the German DAX and MDAX indices for at least one year between January 1998 and December 2008. I included these companies in the analysis for the entire time that they were part of one of the two indices. The final sample consisted of 157 companies for which turnovers were identified and analyzed; I removed seven companies because they were listed for less than one year on the indices.

Because there is no database in Germany that contains all the data on top management turnovers, I hand-collected my turnover sample. The first source to identify top management changes was the *Hoppenstedt Aktienführer*. I also used companies' annual reports to identify the names of the CEO and CFO at every year-end. If I could not clearly identify one of the positions, I used newspaper articles from *LexisNexis* to find the name of the executive board member with the corresponding responsibility of either CEO or CFO at year-end.

For all consecutive years in which the name pairs at year-end did not match, I took the further step of searching *LexisNexis* to check whether more than one change occurred during the year. I also conducted an in-depth press analysis for all turnovers of one to two years prior to the date of the top management change, in order to obtain more detailed information on the circumstances behind the change.

To find the exact dates of turnover announcements, I again used *LexisNexis*. In Germany, every stock corporation is required by § 15 Wertpapierhandelsgesetz to immediately disclose any facts that can significantly influence a company's stock price. CEO or CFO changes are generally considered to fall within this category.

I eliminated twenty-four top management changes of interim managers, changes that occurred due to mergers or acquisitions, and top management changes for which no clear information was available. Furthermore, in a number of cases, I found that one executive held both the CEO and CFO titles. In these cases, I eliminated the turnover case for the CFO position (twenty-seven cases), and only included it as a CEO position, because that is normally the stronger role.

**Table 2: Composition of Turnover Cases**

<b>I. Companies in DAX/MDAX</b>		
Total number of companies in DAX/MDAX		164
Companies with less than 1 year in indices		7
<b>Total number of relevant companies</b>		<b>157</b>
<b>II. CEO and CFO Turnover Cases</b>		
	<b>CEO</b>	<b>CFO</b>
Total number of relevant companies	157	157
Firms without turnover cases in relevant time frame*	44	42
<b>Firms with turnover cases</b>	<b>113</b>	<b>115</b>
Total turnover cases	185	213
Interim changes	8	13
Mergers and acquisitions	3	0
Double role CEO/CFO	--	27
Insufficient time for calculation	2	1
<b>Total relevant turnover cases</b>	<b>172</b>	<b>172</b>
Firms with relevant turnover cases	109	107

\*either due to period of analysis or due to time of company listing

Finally, I also excluded three cases in which the turnover announcement itself was within the sample period, but for which no calculations could be made due to an insufficient time period between the starting point of trading on the stock exchange and the announcement date.

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Ultimately I obtained 172 CEO changes in 109 companies, and 172 CFO changes in 107 companies. As Table 2 shows, forty-four companies had no CEO change, and forty-two companies had no CFO change during the sample period.

To classify the turnover reasons, I followed a method used by, for example, Bresser et al. (2005), Bresser and Thiele (2008), and Zander et al. (2009), in which two researchers independently classify a turnover as “forced” or “routine” based on newspaper articles obtained from *LexisNexis*. A turnover is classified as “forced” if the newspaper articles indicate 1) it was forced by the supervisory board without any stated reasons, 2) it was due to clear differences between the manager and the supervisory board, 3) that the manager made explicit mistakes that caused the turnover, or 4) that the contract was prematurely and unexpectedly terminated, with no other reasons given.

For “routine” classifications, I included all changes in which managers 1) were promoted to the supervisory board or a higher position within the same company, 2) left the company for a career opportunity elsewhere, 3) left the company for personal reasons or illness, 3) underwent a reorganization, or 4) retired. In 94.77% of the CEO turnover cases and in 96.51% of the CFO turnover cases, the different turnover types for “routine” and “forced,” which were classified by two independent coders, were identical.

Two measures often used to test the reliability of these classifications are the Cohen (1960) kappa and the Perreault and Leigh (1989) coefficient. All values, including the Cohen kappa of 0.8943 for CEOs and 0.9191 for CFOs and the Perreault and Leigh coefficient of 0.9462 for CEOs and 0.9645 for CFOs, indicate a reliable classification and are comparable to other studies (Bresser et al., 2005; Zander et al., 2009).

The two independent coders differed on classification for nine CEO cases and six CFO cases. All were reclassified afterwards by having the two coders discuss these exceptions jointly. The final sample thus comprised 92 routine changes and 80 forced

turnover cases for the CEO sample, and 120 routine changes and 52 forced turnover cases for the CFO sample (see Table 3).

**Table 3: Reasons for CEO and CFO Turnover**

I. Classification of CEO Turnover Reasons		Observations	
		Absolute	Relative
<b>Total CEO Turnover Cases</b>		<b>172</b>	<b>100.0%</b>
<b>Routine Turnover</b>	<b>Total</b>	<b>92</b>	<b>53.5%</b>
	Internal Promotion (Incl. Supervisory Board / Consulting Role)	19	11.0%
	External Career Opportunities	10	5.8%
	Organizational Change	3	1.7%
	Personal Reasons and Motivation	7	4.1%
	Health Issues / Death	2	1.2%
	Retirement	51	29.7%
<b>Forced Turnover</b>	<b>Total</b>	<b>80</b>	<b>46.5%</b>
	Differences of Opinion (Incl. Other Management and Supervisory Board)	52	30.2%
	Explicit Failure	18	10.5%
	Unexpected Early Contract Termination	10	5.8%
II. Classification of CFO Turnover Reasons		Observations	
		Absolute	Relative
<b>Total CFO Turnover Cases</b>		<b>172</b>	<b>100.0%</b>
<b>Routine Turnover</b>	<b>Total</b>	<b>120</b>	<b>69.8%</b>
	Internal Promotion (Incl. Supervisory Board / Consulting Role)	20	11.6%
	External Career Opportunities	27	15.7%
	Organizational Change	17	9.9%
	Personal Reasons and Motivation	16	9.3%
	Health Issues / Death	3	1.7%
	Retirement	37	21.5%
<b>Forced Turnover</b>	<b>Total</b>	<b>52</b>	<b>30.2%</b>
	Differences of Opinion (Incl. Other Management and Supervisory Board)	23	13.4%
	Explicit Failure	15	8.7%
	Unexpected Early Contract Termination	14	8.1%

Note that another classic differentiation in turnover characteristics is between type of successor. Successors can either be promoted from inside a firm, or they can be outsiders to the firm (Karaevli, 2007; Zhang and Rajagopalan, 2003). In my study, I define an insider as a person who has been with the company for more than one year. I classify all others as outsiders. The CEO sample thus consists of 96 insiders and 76 outsiders; the CFO sample consists of 75 insiders and 97 outsiders (see Table 4).



**Table 4: Successor Type**

	CEO		CFO		Total	
	Absolute	Relative	Absolute	Relative	Absolute	Relative
<b>Insider</b>	96	55.8%	75	43.6%	171	49.7%
<b>Outsider</b>	76	44.2%	97	56.4%	173	50.3%
<b>Total</b>	172	100.0%	172	100.0%	344	100.0%

In addition to turnover-related information, however, I also collected stock information, i.e., daily closing prices for all firms in the sample and for the German CDAX index from *Thomson Financial DataStream*. I used the CDAX index for the event study based on Brown and Warner's (1985) market model. For the regression analyses, I also obtained accounting data from the *Thomson Financial Worldscope* database for the entire sample period.

### 3.2. Empirical Analysis

The aim of my study is to analyze CEO and CFO influence by applying a capital market perspective to turnover announcements and by conducting an event study. As Crossland and Hambrick (2007, 2011) argue, this approach is indeed suitable in single country studies.

I measure the capital market performance as the abnormal returns around the departure of a CEO or CFO (Mian, 2001). I define the event date as the date of issuance of the ad hoc announcement. Following Brown and Warner (1985) and Fuller, Netter, and Stegemoller (2002), I focus the analysis on abnormal returns, using standard event study methodology and applying the market model as the basis for the abnormal returns.<sup>7</sup>

<sup>7</sup> My results remain quantitatively and qualitatively similar when I use the Fama-French (1993) three-factor model or the Carhart (1997) four-factor model. Tables are available from the authors upon request.

For the benchmark index, I used the German CDAX, which includes all publicly listed German companies. I thus eliminated single market movements (McWilliams and Siegel, 1997; McWilliams and McWilliams, 2000), and I was able to isolate effects attributable solely to the turnover event.

I calculate the abnormal returns as the difference between the market and predicted returns for each company. Predicted returns were calculated using ordinary least squares regression over a 250-day estimation period, ending 11 days before the event date. Then I summed the abnormal returns over the length of the event window to obtain the cumulative abnormal returns (CARs):

$$\text{CAR}_{[t_0-\tau_1, t_0+\tau_2]} = \sum_{t_0-\tau_1}^{t_0+\tau_2} (R_{i,t} - \alpha_i - \beta_i \times R_{CDAX,t})$$

In this case,  $R_{i,t}$  is the return of company  $i$  on day  $t$ ,  $\alpha_i$  and  $\beta_i$  are estimates from the ordinary least squares regression over the 250-day window,  $\tau_1$  and  $\tau_2$  are the trading days prior to and after the announcement date, respectively, that are included in the calculation, and  $R_{CDAX,t}$  is the return of the market on day  $t$ . To test the empirical results, I applied standard t-tests to the CARs for the different event windows. I also used the Boehmer, Musumeci, and Poulsen's (1991) test for event-induced increased variance, the Lyon, Barber, and Tsai's (1999) test for skewness bias, and the Wilcoxon (1945) rank sum z-score test. I calculate CARs as well as other test statistics for different event windows prior to the event, on the event date itself, after the event, and for time frames including both days prior to and after the announcement.<sup>8</sup>

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<sup>8</sup> In particular, I tested and reported results for the [-5, 0], [-4, 0], [-3, 0], [-2, 0], and [-1, 0] windows prior to the event [0, 0], and the [0, +1], [0, +2], [0, +3], [0, +4], and [0, +5] windows after the event. The [-5, +5], [-4, +4], [-3, +3], [-2, +2], and [-1, +1] windows were also tested, but the results are not reported here for the sake of space.

As a next step, I performed regression analyses using least squares estimation with the White correction (1980) for heteroscedasticity. The regressions allow us to examine the effects of the “classic factors” forced/routine turnover and insider/outsider succession on the analysis of performance effects, while simultaneously controlling for several other factors, such as firm size or prior firm performance.

### **Dependent variables**

*Cumulative abnormal returns.* The dependent variables in the regressions are the cumulative abnormal returns around top management turnovers for all samples. Note that, in prior event studies for abnormal returns on top management turnover announcements, no clear event windows were established. Different window sizes have been used prior to and after the announcement date, and especially short windows around the announcement date have been used to avoid confounding events (McWilliams and Siegel, 1997; Shen and Cannella, 2003; Tian et al., 2011). Following current literature, I report the results for a three day window [-1, +1].<sup>9</sup>

### **Independent variables**

*Turnover type.* The market may react differently to the announcement of a CEO turnover than to other top management turnover announcements. Therefore, I include a dummy variable in the analysis equal to 1 if the announced turnover refers to a CEO, and 0 if it refers to a CFO.

*Turnover reason.* Following prior research, I include the reason for the turnover in the analysis. I use a dummy variable equal to 1 if the turnover was forced, and 0 if it was a routine turnover (Adams and Mansi, 2009; Bresser and Thiele, 2008; Bresser et al., 2005; Parrino, 1997; Zander et al., 2009).

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<sup>9</sup> In a recent review of event studies, Zhang and Wiersema (2009: 710) noted mainly the application of a three-day window.

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*Successor origin.* Outsiders tend to be associated more with strategic change, but they are usually less well connected within the company (Huson et al., 2001). I posit that the capital markets may react differently to the announcement of an outsider successor. Therefore, I include a dummy variable to control for successor origin that is equal to 1 if the successor is an outsider, and 0 if the successor is an insider.

### **Control variables**

*Joint turnover.* Stock markets may react more strongly if several manager turnovers are announced simultaneously, because the implications for the company are more serious. Therefore, I include a dummy variable to control for the joint announcement of CEO and CFO turnover that is equal to 1 if both turnovers are announced on the same day, and 0 otherwise.

*Age of departing manager.* I measure the age of the departing manager as the age in years at the announcement date (Cannella and Shen, 2001).

*Age of incoming manager.* The age of the successor can be a sign of the turnover strategy: A younger manager can signal more innovative strategies, while an older manager can signal increased risk aversion (Hambrick and Mason, 1984).

*Tenure of departing manager.* I measure the tenure of the departing manager as the total number of years spent working for the company.

*Prior firm performance.* Research has found prior firm performance is linked to top management turnover (Shen and Cannella, 2002b). I thus include this as a control variable in the analysis, measured as prior company stock performance against the CDAX over the same 250 days used in the market model, to calculate the abnormal returns around the event windows.

*Herfindahl-Hirschman Index.* I include the Herfindahl-Hirschman index based on sales (Datta and Rajagopalan, 1998), defined as follows:

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$$\text{HHI}_{j,t} = \sum_{i=1}^{N_j} s_{ijt}^2$$

where  $s_{ijt}$  is the market share of firm  $i$  (based on sales) in industry  $j$  at turnover day  $t$ , and  $N$  is the number of firms in the industry. The industry classification is based on the four-digit SIC code from Thomson Worldscope.

*Firm size.* I measure firm size as the natural logarithm of total assets in € millions (Grusky, 1961; James and Soref, 1981).

*Return on assets.* To control for profitability, I include the return on assets of the fiscal year of the turnover, measured in percent.

*Current ratio.* To control for liquidity, I include the current ratio, defined as current assets over current liabilities.

*Market-to-book value.* I included the market-to-book ratio of equity, defined as the firm's market value of equity divided by the book value of equity.

*Investment.* I define investment as the amount of capital expenditures, divided by net property, plant, and equipment at the end of the previous year, in order to measure a company's investment policy.

*Price/earnings ratio.* I define price/earnings ratio as the ratio of price per share at year-end, divided by earnings per share.

*Closely held shares.* To control for ownership structure, I include the percentage of shares held by insiders, defined as the number of closely held shares over shares outstanding.

## 4. Results

### 4.1. CAR Analyses

I first examine the two turnover samples of 172 CEOs (see Table 5) and 172 CFOs (see Table 6). For the CEO turnovers, none of the event windows exhibit significant abnormal returns, which is consistent with the limits on managerial ability in low-discretion countries. The CFO turnover cases, however, exhibit significant abnormal returns of 1.4% and 1.2% for the [-2, 0] and [-1, 0] event windows, respectively. These are also higher than the abnormal returns for the CEO sample of 0.50% and 0.40% for the respective windows.

**Table 5: CEO Turnover Announcement**

Event window	t-Test		Böhmer et al. (1991) Test	Lyon et al. (1999) Test	Wilcoxon Signed Rank (1945) Test	No. Obs.
	Mean	t-value	z-score	t-value	z-score	
[-5, 0]	1.18%	1.5410	1.3527	1.5464	-1.4816	172
[-4, 0]	1.00%	1.4125	1.2009	1.4167	-1.5259	172
[-3, 0]	0.86%	1.4709	1.2310	1.4675	-1.6452 *	172
[-2, 0]	0.50%	0.9704	0.6972	0.9673	-1.1789	172
[-1, 0]	0.40%	0.8954	0.6190	0.8948	-1.2339	172
[0, 0]	0.00%	0.0107	-0.1478	0.0108	-0.1957	172
[0, +1]	-0.14%	-0.3097	-0.3805	-0.3093	-0.4113	172
[0, +2]	-0.19%	-0.3182	-0.5148	-0.3175	-1.0565	172
[0, +3]	-0.20%	-0.2730	-0.5323	-0.2709	-0.7553	172
[0, +4]	0.02%	0.0253	-0.1909	0.0261	-0.4220	172
[0, +5]	0.18%	0.2365	0.0390	0.2379	-0.2003	172

\* indicates statistical significance at the 10% level.

\*\* indicates statistical significance at the 5% level

\*\*\* indicates statistical significance at the 1% level

This strongly supports my approach to not only include the CEO into a research setting like mine, but to extend the field of analysis to other relevant members of the top management team (Finkelstein et al., 2009), such as, in my case, the CFO. However, at this point, these results do not confirm my argument of limited managerial importance.

**Table 6: CFO Turnover Announcement**

Event window	Mean	t-Test	Böhmer et al. (1991) Test	Lyon et al. (1999) Test	Wilcoxon Signed Rank (1945) Test	No. Obs.
		t-value	z-score	t-value	z-score	
[-5, 0]	0.69%	1.0608	0.6984	1.0688	-0.3410	172
[-4, 0]	0.95%	1.4757	1.1692	1.4937	-0.5780	172
[-3, 0]	1.02%	1.7081 *	1.5243	1.7325 *	-0.8899	172
[-2, 0]	1.43%	2.1178 **	2.1823 **	2.1604 **	-0.9923	172
[-1, 0]	1.15%	2.1949 **	2.1096 **	2.2455 **	-1.4266	172
[0, 0]	-0.10%	-0.3210	-0.2736	-0.3190	-0.5321	172
[0, +1]	-0.55%	-1.0347	-1.0152	-1.0442	-0.2691	172
[0, +2]	-0.89%	-1.2812	-1.3313	-1.2971	-0.7645	172
[0, +3]	-1.21%	-1.4300	-1.4192	-1.4499	-0.7630	172
[0, +4]	-0.78%	-0.9060	-0.8702	-0.9148	-0.4740	172
[0, +5]	-0.40%	-0.4939	-0.4872	-0.4960	-0.4908	172

\* indicates statistical significance at the 10% level.

\*\* indicates statistical significance at the 5% level

\*\*\* indicates statistical significance at the 1% level

I performed a difference in means test for all tested event windows. The results are not reported here. I found no significant differences between the CEO and CFO samples, so I conclude that the limited valuation effects for the samples are not driven by the type of position that is departing. This supports Hypothesis 1, that managers overall have a limited impact on company performance, because I observe that their turnover does not lead to significant stock price reactions. Furthermore, this finding is not driven by a differentiation between CEOs and CFOs.

To test Hypothesis 2, I divided the samples differently, between forced (see Table 7) and routine turnovers (see Table 8). The forced turnover sample does not show any significant abnormal returns in any of the analyzed event windows. Note, however, that returns are slightly positive prior to the event, and turn negative in the days afterward. This change toward negative abnormal returns is not persistent, though, as the negative peak is in the [0, +3] event window and decreases for longer event windows.

Table 7: Forced Turnover Announcement

Event window	t-Test		Böhmer et al. (1991) Test	Lyon et al. (1999) Test	Wilcoxon Signed Rank (1945) Test	No. Obs.
	Mean	t-value	z-score	t-value	z-score	
[-5, 0]	0.64%	0.6448	0.1955	0.6470	-0.1772	132
[-4,0]	0.83%	0.9059	0.4216	0.9086	-0.5814	132
[-3, 0]	0.91%	1.1834	0.6862	1.1806	-1.1447	132
[-2, 0]	0.91%	1.0938	0.8402	1.0999	-0.9789	132
[-1, 0]	0.72%	1.1719	0.7180	1.1719	-1.3355	132
[0, 0]	-0.19%	-0.4209	-0.5630	-0.4216	-0.3044	132
[0, +1]	-1.09%	-1.3973	-1.3976	-1.4091	-0.9676	132
[0, +2]	-1.39%	-1.3188	-1.3948	-1.3298	-0.6496	132
[0, +3]	-1.50%	-1.1347	-1.2537	-1.1408	-0.7041	132
[0, +4]	-1.46%	-1.0634	-1.1164	-1.0689	-1.1629	132
[0, +5]	-1.09%	-0.8724	-0.9577	-0.8739	-1.0607	132

\* indicates statistical significance at the 10% level.

\*\* indicates statistical significance at the 5% level

\*\*\* indicates statistical significance at the 1% level

The routine turnover sample shows positive abnormal returns of around 1% at a 5% significance level for the [-5, 0], [-4, 0], [-3, 0], [-2, 0], and [-1, 0] windows, which become insignificant 0% abnormal returns at the announcement date. This is contrary to my hypothesis of no market reactions.

Table 8: Routine Turnover Announcement

Event window	t-Test		Böhmer et al. (1991) Test	Lyon et al. (1999) Test	Wilcoxon Signed Rank (1945) Test	No. Obs.
	Mean	t-value	z-score	t-value	z-score	
[-5, 0]	1.11%	2.1034 **	2.1563 **	2.1241 **	-1.6170	212
[-4,0]	1.06%	2.0249 **	2.1110 **	2.0520 **	-1.4884	212
[-3, 0]	0.96%	1.9952 **	2.1319 **	2.0248 **	-1.3509	212
[-2, 0]	1.00%	2.1882 **	2.2958 **	2.2308 **	-1.1474	212
[-1, 0]	0.81%	1.9697 *	2.0324 **	2.0096 **	-1.2793	212
[0, 0]	0.04%	0.1763	0.2308	0.1792	-0.0984	212
[0, +1]	0.12%	0.4050	0.3681	0.4072	-0.2102	212
[0, +2]	0.00%	-0.0124	-0.2022	-0.0105	-1.0601	212
[0, +3]	-0.21%	-0.5341	-0.5630	-0.5332	-0.7985	212
[0, +4]	0.29%	0.7223	0.6240	0.7247	-0.1800	212
[0, +5]	0.49%	1.0884	1.0425	1.0947	-0.2483	212

\* indicates statistical significance at the 10% level.

\*\* indicates statistical significance at the 5% level

\*\*\* indicates statistical significance at the 1% level



I performed a difference in means test (not reported here), which showed that, except for the [0, +1] window, the differences between the forced and routine turnover samples are not statistically significant. The [0, +1] window, with a difference of about 1.2%, is significant at the 10% level. I conclude that this single difference, in just one window for which neither sample provided statistically significant abnormal returns, is not enough to determine that a differentiation between forced and routine turnovers results in different abnormal returns. I consider these results as support for Hypothesis 2 that the market reaction to the turnover announcement will be insignificant, whether the turnover is routine or forced.

To test the next hypothesis, that successor origin is of limited importance for stock market reactions, I analyzed the samples for insider and outsider succession for abnormal returns. I find that no event windows are statistically significant, neither prior to nor after the announcement, except for the [-5, 0] and [-2, 0] windows for the outsider sample, which are significant at the 10% level (see Table 9). For turnovers with insider successions (see Table 10), I find that all windows around the event are insignificant, and are only about 0.5% in size. I consider this as confirmation for Hypothesis 3.

**Table 9: Outsider Turnover Announcement**

Event window	t-Test		Böhmer et al. (1991) Test	Lyon et al. (1999) Test	Wilcoxon Signed Rank (1945) Test	No. Obs.
	Mean	t-value	z-score	t-value	z-score	
[-5, 0]	1.60%	1.9082 *	1.6513 *	1.9207 *	-2.0228 **	173
[-4,0]	1.41%	1.7382 *	1.4656	1.7515 *	-1.6636 *	173
[-3, 0]	1.25%	1.8084 *	1.5242	1.8197 *	-1.8046 *	173
[-2, 0]	1.44%	1.9949 **	1.7350 *	2.0196 **	-1.6727 *	173
[-1, 0]	1.07%	1.9086 *	1.6266	1.9334 *	-1.8910 *	173
[0, 0]	-0.16%	-0.4954	-0.5047	-0.4964	-0.2691	173
[0, +1]	-0.91%	-1.5682	-1.5175	-1.5827	-0.8678	173
[0, +2]	-1.13%	-1.4305	-1.4598	-1.4430	-0.6738	173
[0, +3]	-1.61%	-1.6152	-1.6432	-1.6252	-1.0133	173
[0, +4]	-1.20%	-1.1602	-1.2726	-1.1658	-1.0846	173
[0, +5]	-0.58%	-0.6044	-0.7025	-0.6048	-0.6374	173

\* indicates statistical significance at the 10% level.

\*\* indicates statistical significance at the 5% level

\*\*\* indicates statistical significance at the 1% level

**Table 10: Insider Turnover Announcement**

Event window	Mean	t-Test	Böhmer et al. (1991) Test	Lyon et al. (1999) Test	Wilcoxon Signed Rank (1945) Test	No. Obs.
		t-value	z-score	t-value	z-score	
[-5, 0]	0.26%	0.4801	0.2614	0.4814	-0.2622	171
[-4, 0]	0.54%	1.0687	0.8159	1.0721	-0.4026	171
[-3, 0]	0.63%	1.3458	1.1830	1.3513	-0.7388	171
[-2, 0]	0.48%	1.0974	1.1319	1.1017	-0.4673	171
[-1, 0]	0.47%	1.1893	0.9820	1.1961	-0.6339	171
[0, 0]	0.07%	0.2139	0.1119	0.2168	-0.0170	171
[0, +1]	0.22%	0.5608	0.4008	0.5633	-0.2530	171
[0, +2]	0.06%	0.1263	-0.1473	0.1282	-0.9794	171
[0, +3]	0.21%	0.4168	0.1624	0.4186	-0.4365	171
[0, +4]	0.44%	0.8635	0.7819	0.8651	-0.2298	171
[0, +5]	0.36%	0.6391	0.5097	0.6393	-0.0401	171

\* indicates statistical significance at the 10% level.

\*\* indicates statistical significance at the 5% level

\*\*\* indicates statistical significance at the 1% level

## 4.2. Regression Analyses

In order to analyze the effects of the classical factors of turnover analysis simultaneously and to control for other influences such as managers' characteristics, prior firm performance or firm size, I conduct regression analyses in order to rule out alternative explanations for the returns (see Appendix 1 for mean, standard deviations and correlations of the variables). For all models, I used the [-1, +1] window (Tian et al., 2011) using least squares estimation with the White (1980) correction for heteroscedasticity. The variance inflation factors were all comparatively small, and therefore exhibited no sign of multicollinearity (compare

Appendix 2). The first model contains the results for the entire sample. Models 2 and 3 include only forced and routine turnover, respectively. Model 4 consists only out of turnovers with outsider succession, while model 5 represents only succession events with inside successors. Model 6 includes only CEO turnover, model 7 CFO turnover. The results for all three regressions are presented in Table 11.

Table 11: Results of Regressions on CARs [-1, +1]

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Sample	Entire Sample	Forced	Routine	Outsider	Insider	CEO	CFO
Dependent Variable	CAR	CAR	CAR	CAR	CAR	CAR	CAR
Constant	0.023 (0.061)	-0.012 (0.177)	0.056 (0.068)	0.087 (0.086)	-0.057 (0.092)	-0.007 (0.108)	0.017 (0.094)
<b>Explanatory Variables</b>							
Turnover type (dummy)	0.008 (0.009)	0.005 (0.019)	0.007 (0.011)	0.018 (0.019)	-0.003 (0.011)	---	---
Turnover reason (dummy)	-0.010 (0.012)	---	---	-0.011 (0.017)	-0.010 (0.020)	-0.004 (0.021)	-0.014 (0.014)
Successor origin (dummy)	0.004 (0.012)	0.013 (0.026)	0.000 (0.012)	---	---	0.016 (0.020)	-0.003 (0.016)
<b>Control Variables</b>							
<b>Turnover/Manager Variables</b>							
Joint turnover (dummy)	-0.033 * (0.019)	-0.039 (0.047)	-0.027 (0.021)	-0.074 *** (0.027)	-0.036 (0.024)	0.011 (0.035)	-0.050 (0.038)
Age departing manager	0.000 (0.001)	0.000 (0.002)	-0.001 (0.001)	0.000 (0.001)	-0.001 (0.001)	0.000 (0.002)	0.000 (0.001)
Age incoming manager	0.000 (0.001)	0.000 (0.002)	0.000 (0.001)	-0.001 (0.001)	0.000 (0.001)	-0.002 (0.001)	0.001 (0.001)
Tenure departing manager	0.001 (0.000)	0.002 (0.001)	0.000 (0.000)	0.000 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
<b>Company Variables</b>							
Prior firm performance	-0.044 *** (0.017)	-0.069 ** (0.028)	-0.024 (0.021)	-0.034 (0.024)	-0.053 ** (0.025)	-0.063 ** (0.030)	-0.029 (0.018)
Herfindahl Hirschman index	0.015 (0.022)	0.021 (0.042)	-0.001 (0.022)	-0.046 (0.032)	0.069 ** (0.028)	0.024 (0.036)	-0.003 (0.028)
Log (total assets)	0.000 (0.003)	0.002 (0.007)	-0.002 (0.004)	-0.002 (0.006)	0.004 (0.004)	0.006 (0.005)	-0.007 (0.005)
Return on assets	-0.002 (0.002)	-0.001 (0.002)	-0.003 (0.003)	-0.005 (0.003)	-0.001 (0.002)	-0.003 (0.002)	-0.002 (0.003)
Current ratio	-0.004 (0.007)	-0.002 (0.011)	0.000 (0.008)	-0.010 (0.014)	0.000 (0.010)	0.011 (0.009)	-0.014 (0.012)
Market to book value	0.007 (0.005)	-0.003 (0.005)	0.010 (0.006)	0.007 (0.006)	0.007 (0.005)	-0.001 (0.004)	0.010 (0.006)
Investment	0.011 (0.007)	-0.045 (0.125)	0.012 *** (0.005)	0.012 (0.014)	0.013 * (0.007)	0.009 (0.013)	0.008 (0.009)
Price earnings ratio	0.000 ** (0.000)	0.000 (0.001)	0.000 (0.000)	0.000 (0.000)	0.000 *** (0.000)	0.000 ** (0.000)	0.000 (0.000)
Closely held shares	0.000 (0.000)	0.000 (0.001)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Included observations	197	71	126	95	102	95	102
R-squared	15.44%	18.53%	26.31%	21.73%	25.68%	16.58%	31.00%
F-statistic	2.360	.	1.870	1.410	3.270	3.600	1.700
Prob(F-statistic)	0.003	.	0.034	0.162	0.000	0.000	0.066

standard errors in parentheses

\* indicates statistical significance at the 10% level.

\*\* indicates statistical significance at the 5% level

\*\*\* indicates statistical significance at the 1% level

The results of the regression analyses sustain, that across all the models, the coefficients for turnover type, turnover reason and successor origin are not significant. This indicates that capital market reactions do not differ between forced and routine turnovers or between insider and outsider successions or CEO and CFO departure. This re-

sult supports hypotheses 1-3, because none of the classic factors of turnover analyses appears to significantly influence the capital market reactions. This is evidence again that the capital markets do not attribute a great deal of importance to top managers' characteristics. My control variables for managerial characteristics are also not significant across all seven models. Only the announcement of a joint turnover is significant in model 1 at the 10% level and in model 4 at the 1% level.

The effects of the control variables vary significantly across the seven models. Among the control variables, prior firm performance is negative in all models and significant in models 2, 5 and 6 at the 5% level and in model 1 at the 1% level. The Herfindahl-Hirschman index is slightly positive and significant at the 5% level in model 5. Investment is slightly positive and significant at the 10% level in model 5 and at the 1% level in model 3. The price earnings ratio is statistically significant at the 5% level in model 1 and 6 and at the 1% level in model 5. The current ratio, log(total assets), return on assets, market to book value and closelyheldshares are not significant across all models.

## **5. Discussion and Conclusion**

The studies of Crossland and Hambrick (2007, 2011) suggest that national factors influence the extent to which top managers can influence companies. From this starting point, I use standard event study methodology to analyze the performance effects of CEO and CFO turnover in a low-discretion country from a capital markets perspective.

To the best of my knowledge, this study is the first attempt to empirically test, in a turnover context, the limited importance of top executives in Germany, as a country with a low level of managerial discretion. I show that the announcement of a top manager departure does not lead to systematic or statistically significant price movements across the sample. This suggests, as hypothesized, that the capital markets do not attribute much importance to individual managers. I also hypothesize that CEO and CFO

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turnover will lead only to insignificant capital market reactions, and that the CEO, as the single most important individual in a company (Mackey, 2008), will not have a larger effect than the CFO, the second most important individual. These hypotheses are not refuted.

The analysis of classic explanatory factors, turnover reason or successor origin, showed only immaterial abnormal returns to turnover. I validated all of the results by using a regression analysis as a robustness check, including different control variables such as prior firm performance, forced versus routine turnovers, and insider versus outsider successions.

The results are quite interesting compared to those obtained for studies set in the U.S., where significant abnormal returns are also observed for the classic differentiations between forced versus routine turnovers and insider versus outsider successions (Bonnier and Bruner, 1989; Furtado and Rozeff, 1987; Warner et al., 1988). I state at the beginning of this article that the comparatively low level of managerial discretion in Germany (Crossland, 2010; Elsas and Krahn, 2004; Schmidt, 2004) will tend to limit the influence that top managers can exert on firm performance. I find strong support for the managerial discretion concept, that managers in a low-discretion country such as Germany are not considered as important to the capital markets as popular press or evidence from the U.S. would suggest (Chatterjee and Hambrick, 2007; Hayward and Hambrick, 1997; Hayward et al., 2004).

Because I conducted my study on only a single country, however, I was not able to perform any direct, comparative measurement of corporate governance factors or managerial discretion. This limitation could be overcome by conducting a comparative study for several countries with differing corporate governance systems, national values, and cultures. Another limitation of this section is the classification of turnovers: Although I follow the differentiation of turnovers into forced and routine, from a capital markets perspective, a distinction between expected and unexpected turnovers might be more appropriate (Crossland, 2010), as it takes into account the informational

value of the announcements and capital markets should react only to new information (Fama, 1970, 1991; Fama et al., 1969).

## **C. Top Management Turnover Under The Influence Of Active Investors**

### **Abstract**

This chapter analyzes how active investors affect top management turnover in Germany, a low-discretion country. I contrast two hypotheses: Under the *monitoring hypothesis*, I expect active investors to increase top management turnover as a result of their more intensive monitoring efforts. Under the *restraint hypothesis*, I expect active investors to exert little influence on top management turnover. The latter hypothesis is a consequence of the limited influence active investors can exert in Germany because of the insider-controlled corporate governance system in contrast to the USA.

I test both hypotheses using an event history analysis based on a sample of top managers in the 100 largest German corporations between 1998 and 2008. Contrary to studies in high-discretion countries and in accordance with the restraint hypothesis, I do not find increased top management turnover in the presence of active investors. While private equity funds do not exhibit any significant influence on turnover, I find that hedge funds can even reduce top management turnover.

Earlier versions of this chapter have been presented at the Annual Conference for Management Accounting Research in Vallendar (2011) and the EIASM Workshop on Top Management Teams in Istanbul (2011).



## 1. Introduction

Top managers exert significant influence on firm performance, because their decisions drive firm strategy (Carpenter et al., 2004; Hambrick, 2007; Hambrick and Finkelstein, 1987; Hambrick and Mason, 1984). Their decisions at times may even be contrary to shareholder interests and quite costly, for example, deciding to invest free cash flows in value-destroying mergers, in order to increase their own influence (Jensen, 1986). Therefore, top managers are subject to monitoring by shareholders (Jensen and Meckling, 1976).

Studies such as Shleifer and Vishny (1986) have found that large shareholders are best able to monitor top managers, primarily because monitoring is expensive and knowledge-intensive. More specifically, active investors such as hedge funds and private equity funds are most likely to monitor top managers because they employ professional managers whose compensation is based largely on the returns of their portfolio companies (Brav et al., 2008; Burrough and Helyar, 2003; Del Guercio et al., 2008).

However, different classes of active investors approach the monitoring process differently (Achleitner et al., 2010; Cronqvist and Fahlenbrach, 2009; Klein and Zur, 2009; Mietzner, Schweizer, and Tyrell, 2011). Based on prior research, I argue under the *monitoring hypothesis* that the presence of active investors in a company will lead to increased monitoring. The ultimate device for monitoring top managers is their dismissal – or its announcement (Fama, 1980). Thus, top management turnover is an important monitoring mechanism for active investors (Brav et al., 2008; Del Guercio et al., 2008). I follow Beck and Wiersema (2011), and include institutional investors as representatives of the broader governance context in my analysis of top management turnover. These arguments are subsumed into the *monitoring hypothesis*.

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However, recent U.S. research has concluded that the value creation observed by active investors is likely attributable more to their superior firm selection ability (Greenwood and Schor, 2009) than to their monitoring ability. Nevertheless, some evidence from the U.S. has found increased top management turnover under the influence of active investors,<sup>10</sup> but we know little about its effects in Germany.

The German corporate governance system has strict cultural and regulatory restraints (Fiss and Zajac, 2004; La Porta et al., 1999), which could hinder active investors from promoting top management turnover. Moreover, individual top managers in Germany are comparatively less important for firm performance than in the U.S. because of the limits on their discretion (Crossland and Hambrick, 2007, 2011). Thus, I believe top management turnover will be of less interest to active investors in Germany, and I extend upper echelons research to capture this low-discretion environment. These arguments are subsumed into the *restraint hypothesis*.

I contrast these two hypotheses here, and test them empirically. I aim to add to the debate over investor activism by exploring its effects in Germany, and then comparing it to the effects observed in the U.S. I first use two specific examples from Germany to illustrate the broad spectrum of effects active investors can have in Germany, and how public reception and reaction can range from loud criticism to tacit indifference.

In 2007, the entrance of Permira, a private equity fund, at Hugo Boss, a large clothing company, received a great deal of public attention. The employees' representatives were particularly critical. Permira's plans for Boss – then a successful clothing com-

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<sup>10</sup> Brav et al. (2008: 1732) report: "In particular, hedge fund activism is not kind to CEOs of target firms. During the year after the announcement of activism, average CEO pay declines by about \$1 million dollars, and the CEO turnover rate increases by almost 10 percentage points, controlling for the normal turnover rates in the same industry, and for firms of similar size and stock valuation." In the same vein, Del Guercio, Seery, and Woidtke (2008: 85) find "a forced CEO turnover rate of 25% in target firms in the 1 year following a campaign, a rate more than three times higher than the 7.5% rate for a control sample matched on sales and performance and over 12 times the annual 2% rate in the general population of firms. I find this result to be robust to controlling for a variety of firm performance and governance control variables, as well as for concurrent events, such as changes in the board of directors or external pressure from blockholders."

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pany – included a significant increase in leverage (Boss' equity dropped from 52% in 2007 to 19% in 2008), and large special dividend payments of € 350 million in 2008 (Wirtschafts Woche, 2009). These plans incited the opposition of the CEO, Bruno Sälzer, who had successfully managed the company since 2002 and initiated its profitable growth of 12% p.a. The differences between management and the owners ultimately resulted in his exit and subsequent change to Escada, another German high-end clothing company. The exits of the COO, the chairman of the supervisory board, and finally the CFO followed, all within one year. By 2009, forty of fifty secondary-level managers had left Boss due to differences with Permira and the new CEO, Claus-Dietrich Lahrs. This case highlights the patterns described in the *monitoring hypothesis*.

However, my second example, on the other hand, is an excellent illustration of the behavior described in the *restraint hypothesis*. In January 2005, Orbis Holdings Ltd. (a hedge fund) announced its intention to purchase 5.41% of the capital of Medion AG, a company listed on the German MDAX. This news received only limited public attention at the time, and almost no further news since. Medion, a producer of electronic consumer goods such as personal computers, was founded in 1983 by Gerd Brachmann, who remains as the company's CEO and was the majority owner of Medion AG with a 54.9% stake. The other top manager on the company's board is the CFO and deputy CEO, Christian Eigen, who has served with Brachmann since 1998 (the year of Medion's IPO) as CFO and is still in office.

In February 2011, the Chinese electronics company Lenovo made an offer for Medion's shares, which was accepted by Brachmann, who then sold them the majority of his shares. In July 2011, Orbis announced the sale, and Lenovo notified the public that they had acquired the majority stake in Medion, with more than 75% of the voting rights.

As these two examples highlight, the effects of active investors on portfolio companies and their top managers can vary widely. This effect has also been described by

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Gospel et al. (2011: 280): “Those cases where PE activity has adverse effects on employees are said to be relatively few but attract a disproportionate amount of publicity.” In this chapter, I proceed in the same direction, because I find no evidence for the *monitoring hypothesis*. Indeed, I find no effect of private equity funds on top managers’ tenure, but I do find that hedge funds are associated with comparatively longer tenures of their portfolio companies’ top managers.

The top managers I analyze here are the CEOs and CFOs of portfolio companies. Following Hambrick’s (2007) call for future research to selectively include other top managers into the analysis, I chose to include CFOs as well as CEOs. These two individuals are the most directly involved in firm strategy (Arthaud-Day et al., 2006; Baxter and Chua, 2008). They are also generally responsible for companies’ financial systems (Geiger and North, 2006; Li et al., 2010), and they directly interact with the capital markets (Chava and Purnanandam, 2010; Mian, 2001; Zorn, 2004), and with shareholders such as active investors.

Therefore, I aim to analyze CEO and CFO turnover in the presence of active investors in large listed corporations through a managerial discretion framework. Using a sample of the 100 largest German corporations between 1998 and 2008, I conduct event history analyses for the tenures of 565 top managers to investigate how hedge funds and private equity funds may have influenced the turnover of CEOs and CFOs.

My chapter proceeds as follows: Section 2 develops the theoretical background and hypotheses. Section 3 then outlines my method and the sample used. The results are presented in section 4. Section 5 presents a discussion, and summarizes my findings.

## 2. Theoretical Background

From a discretionary perspective, it is not immediately clear whether active investors are associated with an increase in top management turnover in Germany. Some research on the U.S. has found a theoretical connection (Beck and Wiersema, 2011), and an empirical connection (Del Guercio et al., 2008). However, these results could differ for a country such as Germany that provides comparatively lower discretion (Crossland and Hambrick, 2007, 2011). In Germany, the national system<sup>11</sup> and the limited experience of active investors with the German market could limit their influence on and their desire for top management turnover.

It is against this backdrop that I develop and contrast two hypotheses. First, I explore the *monitoring hypothesis*, which draws from Beck and Wiersema (2011) and states that active investors can contribute significantly to the monitoring of top managers. Furthermore, I follow Shen and Cho (2005) and conclude that this monitoring can be considered as a reduction in managerial discretion. And, as Denis, Denis, and Sarin (1997) find, under the *monitoring hypothesis*, active investors tend to cause an increase in turnovers at their portfolio companies, which is similar to empirical findings for the U.S.

Second, I propose the *restraint hypothesis*, following the arguments of Crossland and Hambrick (2007, 2011) that the German corporate governance system limits individual discretion in Germany. This has two effects: 1) Individual top managers are comparatively less important to active investors, and 2) the inherent insider controls of the German national system hinder active investors from promoting top management turnover.

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<sup>11</sup> I follow Crossland and Hambrick's (2007: 771) definition, and refer to the interrelated factors that shape the context of a firm's headquarters as "national systems." These factors include, among others, the corporate governance system, the legal system, the national culture, and national values.

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I expand this argument to cover the discretion of active investors, and posit that under the *restraint hypothesis* active investors do not lead to increased turnover. I develop these two hypotheses further next.

## 2.1. The Monitoring Hypothesis

According to the well-known upper echelons theory, firm performance can be considered as a reflection of top manager decisions. The potential influence that top managers can have on firm performance is described as managerial discretion (Finkelstein and Boyd, 1998; Finkelstein et al., 2009; Finkelstein and Peteraf, 2007; Shen and Cho, 2005). Following Shen and Cho (2005), I can combine the definitions of managerial discretion from an economic and a management perspective by differentiating between 1) the latitude of objectives, and 2) the latitude of actions.

In accordance with the economic perspective of managerial discretion (Jensen and Meckling, 1976; Jensen and Ruback, 1983), the latitude of objectives refers to how much flexibility top managers have to pursue their own goals instead of the goals set by shareholders. Latitude of action, on the other hand, corresponds to the managerial perspective (Carpenter et al., 2004; Hambrick, 2007; Hambrick and Mason, 1984). It refers to the range of possible actions top managers can take when following a particular objective.

Latitude of objectives is closely related to agency theory, because it refers to the range of objectives available to managers. The separation of ownership and control in modern corporations can give rise to agency conflicts between shareholders and managers if managers choose to pursue their own goals rather than operating in shareholders' best interests (Fama and Jensen, 1983; Jensen and Meckling, 1976; Jensen and Ruback, 1983).

Common solutions to this problem are incentive systems for managers that better align their interests with those of shareholders, and a closer monitoring of managers.

This monitoring can be done either internally from within the firm or externally by shareholders (Fama and Jensen, 1983). However, external monitoring is often less attractive to small shareholders, because it tends to be expensive and requires detailed and specialized knowledge. And large shareholders are typically more prone to engage in monitoring, because the benefits increase with share size, while the costs remain nearly constant. Thus, the gain increases with the stake in the company (Grossman and Hart, 1980; Shleifer and Vishny, 1986).

With large investments, it pays for active investors to closely monitor companies (Shleifer and Vishny, 1986) in order to reduce agency costs (Boyson and Mooradian, 2007). Active investors tend to possess “relative bargaining power with the target firm’s management and/or board” (Clifford, 2008: 335). Active investors also “buy stakes in publicly held corporations and bargain with management to bring about productive change and thereby realize a profit on their investment” (Pound, 1992: 7). The compensation system of active investors also provides incentives for them to readily engage in monitoring. Hence, active investors tend to closely monitor management, and do not hesitate to engage in company decisions (Del Guercio et al., 2008).

One way to reduce the latitude of objectives for management and thus reduce agency costs is to ensure that managers generally share the objectives of shareholders (Jensen, 1986; Jensen and Ruback, 1983). Similarly, active investors can cause a reduction in the latitude of action for top managers. For example, active investors are more likely to extract cash from their portfolio companies (Achleitner et al., 2010; Jensen, 1986; Klein and Zur, 2009), thus hindering managers’ abilities to invest in growth acquisitions. This can be considered a reduction in the latitude of action.

To monitor effectively, active investors can use several methods to initiate change and ultimately improve company performance (Demsetz and Villalonga, 2001; Denis and Denis, 1995; Denis, Denis, and Sarin, 1997; Denis and Serrano, 1996). These range from informal talks with top management (Pound, 1992), letters to top management (Solarz, 2010), “vote-no” and proxy voting campaigns (Davis and Kim, 2007;

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Del Guercio et al., 2008; Klein and Zur, 2009; Wahal, 1996), to what is probably the most extreme method, the actual dismissal of top management (Bethel, Liebeskind, and Opler, 1998; Fama, 1980).

In the U.S., it has been shown that, “During the year after the announcement of activism, average CEO pay declines by about \$1 million dollars, and the CEO turnover rate increases by almost 10 percentage points” (Brav et al., 2008: 1732). Similarly, Bethel, Liebeskind, and Opler (1998) report an increase in CEO turnover after the entrance of activist blockholders (22.3%, compared to 15.5% without blockholders). A recent study by Gong and Wu (2011: 196) documents a “CEO turnover rate of 51 per cent within two years of an LBO announcement” and that especially entrenched CEOs as well as CEOs in companies with high agency costs are most likely to be replaced. In their latest study, Helwege, Intintoli and Zhang (2012: 36) find that “News of activism is a significant factor in forced CEO turnover”. Similarly, Guo, Hotchkiss and Song (2011) show that company performance post LBO (measured as Cash-Flow Performance) is greater when the CEO has been replaced either directly at the buyout or soon thereafter. However, in their study tax benefits derived from increased leverage are the largest source of returns to pre-buyout capital. As Carl Icahn<sup>12</sup> (2009) stated it in an interview: “I have shaken up boards and managements at many companies in which I have invested [...] It is important to get new blood, new strategies and new ideas into underperforming companies.”

I argue here, under the *monitoring hypothesis*, that the presence of active investors causes a reduction in the latitude of objectives and of action for companies’ top managers by closer monitoring and disciplining. My first hypothesis is thus:

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<sup>12</sup> Carl Celian Icahn is an American investor and business magnate who has taken during his career significant or controlling stakes in a large number of international corporations. He has served as the model for the famous speculator “Gordon Gekko” in the movie “Wall Street” from 1987.



*Hypothesis 1: The presence of an active investor increases the probability of a top management change.*

## **2.2. The Restraint Hypothesis**

While the arguments I have put forth under the *monitoring hypothesis* appear especially valid in the U.S., I posit further that the effects of investor activism will be different in Germany, and that active investors will not be associated with increased top management turnover there. This is partially because the German national system provides more checks and balances than Anglo-Saxon systems, and it sets narrower boundaries on individual discretion (for both top managers and active investors) with respect to the latitude of action and the latitude of objectives.

This can reduce active investor influence in two ways: First, it limits investor discretion and ability to promote top management turnover. Second, it implies that, in a low-discretion environment, individual top managers are naturally less important for firm performance (Crossland and Hambrick, 2007). Thus, top manager turnover is also less important to active investors.

Five factors of the German national system appear to be especially important in this respect:

- **The civil law system:** Contrary to Anglo-Saxon case law-based systems, the German civil law system supports a pluralism of objectives, i.e., a stakeholder orientation instead of a clear shareholder orientation (Johnson et al., 2000; La Porta et al., 1999). The adoption of a clear shareholder value orientation is not very advanced yet in Germany (Fiss and Zajac, 2004). This is strongly connected with the German sensibility of protecting the weak (Witt and Redding, 2009) that is also prevalent under German top managers. This pluralism of objectives tends to have a limiting influence on active investors in their pursuit of shareholder value maximization, and it may thus limit their latitude of actions, in-

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cluding their ability to impact top management turnover. This diminution in options to achieve goals leads to a reduction in the latitude of actions of top managers (Shen and Cho, 2005). I follow Crossland and Hambrick's (2011: 803) argument that "CEOs of firms in common-law countries will tend to have greater discretion than CEOs of firms in civil-law countries". Moreover, in their study, Judge, Gaur, and Muller-Kahle (2010) show empirically that the legal system is an important moderator of shareholder activism.

- **Codetermination:** Again in contrast to the Anglo-Saxon system, in the German system, seats on the supervisory board are not only linked to shareholdings. Some seats are reserved for worker representatives,<sup>13</sup> which ensures their involvement with and integration in all major decisions. This clearly limits the opportunities for active investors to pursue their goals, because they are often opposed to workers' objectives. In the same vein, the workers' representation limits the power of top managers to achieve certain goals (Crossland and Hambrick, 2007). Not surprisingly, prior research has found that German top managers are dissatisfied with workers' representation (Witt and Redding, 2009).
- **The banking-oriented system:** The German system has traditionally been very banking-oriented, which has led to a system with large crossholdings and where banks enjoy a double role as both shareholders and creditors (Elsas and Krahn, 2004; Schmidt, 2004). Therefore, banks are often present on supervisory boards (Becht and Boehmer, 2003), and they are very active in German corporations (Franks and Mayer, 1998, 2001; Gorton and Schmid, 2000). This presence on the supervisory board may also limit active investor influence and their latitude of action. These crossholdings, which are generally referred to as

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<sup>13</sup> All German publicly listed firms with more than 2,000 employees (which comprise the majority of my sample) are subject to the regular codetermination law that requires half of all supervisory board seats to be given to employees and trade union representatives. However, the chairman of the board is a representative from the capital, and as such has a double voting right (cf. §29 MibestG). This implies that owners have a greater potential to influence decisions. Furthermore, mining companies (and some energy companies) are subject to the "Montanmitbestimmung" (the codetermination law in mining), which requires that half of all supervisory board seats be held by representatives of the capital, with the other half held by worker and trade union representatives. Both parties must agree on one additional, neutral person in order to avoid stalemates (cf. §4 MontanMitBestG).

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“Deutschland AG,” have been reduced in recent years (Dittmann et al., 2010). However, they are still quite important compared to other countries, such as the U.S. Therefore, the German system is still considered banking-oriented (Hackethal et al., 2005; Vitols, 2005). In consequence of the important role of banks and their role as creditors, creditor protection is stronger in Germany than in the U.S. or the U.K. (Mintz, 2005). Moreover, as a result, U.S.- and U.K.-based active investors do not generally have a long tradition of market experience in Germany, which may hinder them from engaging in the promotion of top management turnover.

- **The two-tiered system:** The two-tiered separation of German boards into executive and supervisory arms provides more independence to the executive board and makes it more difficult for the supervisory board to get involved in the operational decision making of the firm. Moreover, it prevents CEO duality, which can lead to entrenchment and thus less intensive and efficient monitoring by the board (Finkelstein and D'Aveni, 1994; Tuggle et al., 2010b; Weir et al., 2005). Boards are therefore able to monitor top management more independently, and hence reduce managerial discretion.
- **The collective responsibility** (§77 AktG) of the top management team (meaning that the entire top management team is collectively legally liable) sets clear boundaries on the “narcissism” of individual top managers (Chatterjee and Hambrick, 2007). It also impedes the phenomenon of “superstar” CEOs that is sometimes observed in the U.S. (Hayward et al., 2004). This lack of prominence of individual managers in Germany leads to less managerial discretion than in the U.S. Hence, the turnover of prominent individual top managers such as CEOs or CFOs has less symbolic value, and is much less important for active investors.

Additionally, active investors have been strongly opposed by the German public, which tends to watch the engagements of active investors in large corporations very

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carefully. An example is the so-called “locust” debate<sup>14</sup> (Ernst et al., 2011). This more informal monitoring by the public may also limit the eagerness of active investors to shake up a top management team. Given their general lack of market experience in Germany, it may be more advantageous for active investors to cooperate with top management, and even to seek out their analysis during due diligence in order to profit from their experience.

This idea is made even more plausible by U.S. evidence suggesting that returns to investor activism arise not from monitoring, but rather from investors’ ability to select companies that will become desirable takeover targets and thereby generate takeover premia (Greenwood and Schor, 2009). Thus, in this context, active investors may naturally refrain from monitoring portfolio companies or shaking up management. I therefore propose my second hypothesis:

*Hypothesis 2: The presence of active investors will not lead to subsequent top management turnover.*

### **3. Data and Method**

#### **3.1. Sample Construction**

My sample was constructed with three key steps. I identified 1) all top management turnovers in large listed German corporations between 1998 and 2008, 2) all cases of private equity activism, and 3) all hedge fund activism cases for large German corporations. These three datasets were then merged afterward to construct my final dataset.

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<sup>14</sup> In the so-called “locust” debate, the then-leader of the German Social Democratic Party compared private equity firms and hedge funds to “locusts” that graze underpriced firms, cut employees, and realize profits by reselling the firms (Der Spiegel, 2005). This inspired a plethora of newspaper articles and public discussions, and resulted in 2008 in the enacting of the “Risikobegrenzungs-gesetz” law, which requires investors who possess more than 10% of a firm’s voting rights to make public their financial sources and their investment goals.

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Because there is no database in Germany that contains all the information, I collected the data for my analysis from five primary sources:

1. Time series data, such as daily closing prices for all firms in the sample, come from Thomson Financial Datastream.
2. Accounting data for all the enterprises in the sample were downloaded from the Thomson Financial Worldscope database.
3. M&A transaction identifications come from the Thomson Financial Mergers and Acquisition database.
4. Disclosures of shareholders owning more than 5%<sup>15</sup> of a company's voting rights from 1998 through year-end 2008 come from BaFin (Bundesanstalt für Finanzdienstleistungsaufsicht), the database of the Federal Financial Supervisory Authority. This database is comparable to the 13G filings in the SEC Edgar database. The German Securities Trading Act (§§21 et sqq. German Securities and Trading Acts) requires all investors to disclose acquisitions of at least 5% of voting rights in any publicly traded German company within nine days after the transaction. Because of these regulatory requirements, this database can be considered a complete source of all blockholdings. It also provides information on direct holdings and cumulative voting rights acquired by investors. Hence, I can also use it to obtain information about chains of direct stakes, such as, for example, joint controls (Becht and Boehmer, 2003).
5. Information on companies' top managers at year-end comes from *Hoppenstedt Aktienführer*, as well as annual reports and *LexisNexis*. I also obtain other manager-related information, such as age, from these sources.

My first main step was to identify instances of top management turnover. I began with all companies listed on the German DAX and MDAX for at least one year between January 1998 and December 2008. For the resulting list, I then included all years in which a company was part of one of the indices. Thus, when the MDAX was

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<sup>15</sup> In January 2007, the minimum threshold was lowered to 3%.

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reduced in size from seventy to fifty companies in 2003, it did not significantly impact my sample, and I also eliminated the problem of survivorship bias. My final sample consisted of 140 companies, for which I identified and analyzed changes in the CEO and the CFO.

I identified the names of the persons holding the CEO and CFO positions for all the companies in my sample at each year-end from the *Hoppenstedt Aktienführer*. I also obtained each company's annual financial statements. If I could not identify one of the positions clearly, I then used newspaper articles from *LexisNexis* to obtain the name of the executive board member with the corresponding responsibilities of either position at year-end. For years in which there was a change in the CEO or the CFO, I relied on *LexisNexis* to ascertain whether more than one change had occurred during that year, and to obtain the turnover dates. I also conducted an in-depth press analysis for the two years prior to each turnover event to obtain more detailed information on the circumstances of each management change, and to clarify the reasons for the turnovers.

In my next step, I eliminated all interim changes (ten cases), changes resulting from a merger or an acquisition (fourteen), the filling of positions that had already been vacant (three), and changes for which no clear information was available (twenty). This resulted in my final sample of 565 top managers, which was comprised of 290 CEOs and 275 CFOs (see Table 12).

Of the 565 top managers, 345 left their positions during my observation period, while 220 were still in office at the end of the period. My sample therefore includes 2,638 total years of tenure in positions where the top managers were at risk.

Table 12: Sample Composition

		Number	
		Absolut	Relative
<b>I. Top Managers Total</b>		<b>565</b>	<b>100.00%</b>
Position	CEOs	290	51.33%
	CFOs	275	48.67%
Status	In Office	220	38.94%
	Exited	345	61.06%
Investor Experience	No Active Investor	478	84.60%
	Private Equity Fund	53	9.38%
	Hedge Fund	34	6.02%
<b>II. Top Managers Exits</b>		<b>345</b>	<b>100.00%</b>
Exit Reason	Routine	226	65.51%
	Dismissal	119	34.49%

### Private Equity Subsample Construction

Next, in order to construct the private equity subsample, it was critical to identify private equity-related transactions in the BaFin database. Acquisitions by private equity funds are often conducted by means of special-purpose vehicles (SPVs) or complex holding structures. In these cases, it may be difficult to directly identify the acquirer, for example, if an SPV has filed an acquisition under a different name from its owner.

To address this issue, I conducted an examination of the Thomson Financial Mergers Acquisition database, and collected a raw sample of 31,496 mergers and acquisition transactions with targets located in Germany. Identifying those transactions with a private equity fund as the acquirer was then carried out using a two-step approach:

1. I constructed an exhaustive list of private equity funds from the following data sources: member lists of investment associations such as BVI<sup>16</sup> and BVK,<sup>17</sup> public rankings of private equity funds, Thomson One Banker “Private Equity Flag,” and Venture Xpert. I reduced the private equity funds to their distin-

<sup>16</sup> Bundesverband Investment und Asset Management e.V.

<sup>17</sup> Bundesverband deutscher Kapitalbeteiligungsgesellschaften.

guishing names by removing the legal form identifiers and the non-distinctive forms from their names. For example, “The Blackstone Group” was reduced to “Blackstone.”

2. I applied a text-matching program to match the list generated in step 1 with the following: the acquirer’s name, the acquirer’s direct parent’s name, the acquirer’s ultimate parent’s name, and the deal description (deal synopsis). Additionally, I added deal descriptive terms, such as “LBO” or “leveraged buyout,” to the search criteria applied to the deal synopsis.

This two-step approach resulted in an initial sample of 891 transactions. By deleting double entries and non-publicly listed target firms, I further reduced the sample to 171 transactions. Afterward, every match was visually inspected to ensure accuracy.

My next step was to apply individual judgments, and then to complement these judgments with practitioners. To avoid any potential illiquidity bias, I excluded all companies with absolute daily returns of less than .001% on more than 70% of the trading days within the 200 days prior to the announcement. I also excluded all cases involving company subsidiaries, because I expect that only direct activism at a company level will lead to top management turnover.

I then repeated the text-matching program procedure, this time for the complete list with the disclosures obtained from the BaFin database. I also conducted an additional search of *LexisNexis* for news articles of publicly listed companies in Germany in order to validate my sample. I found no further events. My final private equity subsample consists of seventeen firms on the German DAX and MDAX between 1998 and 2008.

### **Hedge Fund Subsample Construction**

I followed the same two-step procedure used above to construct the hedge fund subsample:



1. I first constructed a complete list of hedge funds using databases such as Eureka Hedge Fund and Credit Suisse Tremont. I again removed the legal form identifiers and non-distinctive terms from their names, in order to reduce them to their distinguishing names. I complemented this with a *LexisNexis* search of publicly listed companies in Germany for terms such as “hedge fund” or “shareholder activism” to complete my list.
2. I then used the same text-matching procedure as above to match the complete list with the BaFin database.

After this two-step approach, my initial sample consisted of 251 transactions conducted by 81 hedge funds. At this point, it was critical to isolate only those hedge funds pursuing pure activism strategies.<sup>18</sup> Hedge fund managers may apply a plethora of heterogeneous investment strategies, such as merger arbitrage, long-short equity, etc. However, I needed to ensure comparability of the events where blocks of voting rights are acquired, for example, for investment purposes only (i.e., long-short equity), or in distressed cases (e.g., debt equity swap transactions). My results would otherwise be at risk for biases.

Therefore, I confirmed the self-classifications from the hedge fund databases, and I further contacted every hedge fund, with the assistance of industry participants, to check whether they apply activism strategies. This resulted in a sample of seventy-eight events. My next step was to eliminate all events that were disclosed within three months of a prior announcement of a 5% shareholding by another hedge fund in the same company.<sup>19</sup> Again, I excluded all the cases of activism on the part of subsidiaries, because these are not expected to significantly influence top management turnover

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<sup>18</sup> Note that the German Securities Trading Act does not require acquirers to publicize their investment purposes, as do 13G filings in the U.S.

<sup>19</sup> This should ensure that the results of my subsequent analysis are not biased by the clustering of single events due to hedge fund herding behavior (Achleitner et al., 2010).

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in the parent company. My final sample is comprised of twelve<sup>20</sup> investments of active hedge funds in DAX and MDAX companies between 2001 and 2008.

I then merged the three subsamples based on their ISINs, so that I could identify all the top managers whose firms had active investors (either a hedge fund or a private equity fund). I obtained fifty-three top managers with a private equity investor, and thirty-four top managers with a hedge fund investor, representing 261 years of tenure in position with an active private equity investor, and 215 years of tenure with an active hedge fund investor.

### **Dependent Variable**

I use *top management turnover* as the dependent variable. I create a binary time-varying variable, coded as 1 for the year in which a top manager left office, and 0 for all other years. Top managers who were still in office at the end of my study were included as right-censored in the analysis.

### **Independent Variables**

*Active investor* is a binary variable used to test for the effect of the prior entrance of an active investor on top management turnover. I code this variable as 1 if a private equity fund or hedge fund was invested in the firm during the tenure of a top manager, and 0 otherwise.

*Private equity fund* is a binary variable that represents the presence of a private equity fund in the company. It is coded as 1 if a private equity fund was invested during the tenure of a top manager, and 0 otherwise.

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<sup>20</sup> Some of the sample firms did have more than one CEO or CFO over my observation period. Hence, the twelve firms with active hedge fund investors actually had more than twenty-four top managers (CEOs and CFOs) between 1998 and 2008. This effect also led to a total of fifty-three top managers observed in my private equity sample for the seventeen companies.

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*Hedge fund* is a binary variable constructed analogously to *private equity fund* and *active investor*. It is coded as 1 if a hedge fund was invested during the tenure of a top manager, and 0 otherwise.

### **Control Variables – Manager**

*Age* is a time-varying variable that controls for top managers' career experience. It represents the age in years of the top manager in each year of my analysis (Cannella and Shen, 2001; Huson et al., 2001; Tian et al., 2011).

*Dismissal* is also included as a time-varying variable, coded as 1 in the year of a forced turnover, and 0 in all other years. To classify turnover reasons, I follow a standard methodology used in prior research (Adams and Mansi, 2009; Parrino, 1997). Two researchers independently coded all the turnovers as either "forced" or "routine," based on *LexisNexis* newspaper articles. I classify turnovers as "forced" for any of the following reasons:

- The turnover was forced by the board without any further comments or reasons.
- The turnover was forced by the board as a consequence of clear differences between the top manager and the board, for example, over the strategic direction of the company.
- The manager committed grave mistakes that led to the turnover.
- The contract was terminated prematurely and unexpectedly, and no additional reasons were given.

I coded the dismissal variable as 1 if the top manager's exit was forced, and 0 otherwise. In these cases, the top manager is either still in office at the end of my observation period, or the top manager has left due to a routine exit.

*CEO* is a dichotomous variable, coded as 1 if the top manager served as CEO, and 0 otherwise (when the top manager was the CFO). If a manager served simultaneously as both CEO and CFO, I coded him as CEO, because that role is generally considered stronger.

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### **Control Variables – Firm**

*Company age* measures years since the founding of the company.

*Employees* refers to the number of employees (in the thousands) for each fiscal year.

*Net debt* is used to control for a firm's financial situation. This variable is measured as the difference between a firm's debt and its cash and cash equivalents in € millions for each fiscal year.

*Return on assets* measures firm performance, because it is highly visible to both top managers and investors (Ballinger and Marcel, 2010; Carpenter, 2002; Shen and Cannella, 2002a).

*Change in return on assets* measures the difference between the current and prior year's return on assets, divided by the prior year's return on assets, i.e., a relative change.

*Free cash flow* measures agency costs in € millions (Gong and Wu, 2011; Jensen, 1986).

*Closely held shares* controls for ownership structure. This variable is measured as the percent of total shares outstanding held by firm insiders for each fiscal year.

*Log total assets* controls for firm size. This variable is measured as the natural logarithm of a firm's total assets in € millions in each fiscal year (Grusky, 1961; James and Soref, 1981; Shen and Cannella, 2002b).

*Capex*, the total capital expenditures each year in € millions, controls for firms' investment policies (Greenwood and Schor, 2009).

*EBIT* is an unscaled measure of firm profitability, and is measured in € millions for each fiscal year.

*ROE* is the return on equity for each year in my analysis. This variable measures how well the equity provided by stockholders is used by the firm (Graffin et al., 2011).

*Sales* measures sales in € millions for each fiscal year.

### **3.2. Data Analysis**

To test my hypotheses, I rely on continuous-time event history analyses, a method frequently used in management research to conduct longitudinal studies (Ballinger and Marcel, 2010; Morita, Lee, and Mowday, 1993; Shen and Cannella, 2002b). This method presents several advantages for my research design. It explicitly takes time into account (in my case, tenure as a top manager), and it allows me to include all top managers as right-censored in my analysis who are still in office at the end of the observation period. This reduces survivorship bias (Allison, 1984). Furthermore, in some model specification types, such as the Cox (1972) proportional hazards model, it makes the inclusion of time-varying covariates into an analysis possible (Tuma and Hannan, 1984; Yamaguchi, 1991).

For the model specification, I use Cox's (1972) model for event history analysis. The main advantage of this well-used proportional hazards model is that it does not rely on a previously defined hazard rate (see, for example, Ballinger and Marcel, 2010). I include the control variables as time-varying covariates that are updated yearly.

## **4. Results**

Table 13 presents the results of the Cox (1972) regressions (for the means, standard deviations and correlations of models 1-2 please refer to Appendix 3 and for those of models 3-5 to

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Appendix 4). I test five models: Model 1 includes only the control variables, model 2 analyzes the effects of investor activism (e.g., the presence of either a hedge fund or a private equity fund), model 3 analyzes only the effects of private equity funds, model 4 analyzes only the effects of a hedge funds, and model 5 includes both private equity and hedge fund activism. All models exhibit a strong significance with chi-square values  $> 105$ , and related probabilities  $p < .001$  (see Table 13).

Under the *monitoring hypothesis*, I expect active investors to strongly monitor top management and thus increase top management turnover. This should result in a positive value for the coefficient of the variables representing activism, because a positive sign means an increase in turnover probability.

I note that the coefficient for investor activism in model 2 is significant for  $p < .071$ , but it is also negative, with  $b = -0.4402$ . This implies that, on the contrary, active investors are actually associated here with comparatively longer tenured top managers. In model 3, the coefficient for private equity fund activism is negative, but not statistically significant ( $p < .569$ ). Therefore, the presence of a private equity fund does not appear to influence the tenure of a firm's top managers, which could be regarded as support for my *restraint hypothesis*.

The coefficient for hedge fund activism in model 4 is again negative, with  $b = -0.9553$ , and statistically significant for  $p < .014$ . This indicates that, in the presence of a hedge fund, top managers have comparatively longer tenures. In model 5, I find again that, while private equity funds do not influence top manager tenure, the influence of hedge funds is negative with  $b = -0.9924$ , and statistically significant with  $p < .014$ .

Table 13: Regression Results

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Explanatory Variables</b>					
Active Investor	---	-0.4402 *	---	---	---
		(0.2441)			
Private Equity Fund	---	---	-0.1497	---	0.1012
			(0.2625)		(0.2764)
Hedge Fund	---	---	---	-0.9553 **	-0.9924 **
				(0.3891)	(0.4025)
<b>Control Variables - Manager</b>					
Age	0.0512 ***	0.0474 ***	0.0505 ***	0.0473 ***	0.0477 ***
	(0.0100)	(0.0102)	(0.0101)	(0.0101)	(0.0102)
Dismissal	1.0372 ***	1.0287 ***	1.0374 ***	1.0236 ***	1.0232 ***
	(0.1417)	(0.1417)	(0.1416)	(0.1419)	(0.1420)
CEO	-0.4839 ***	-0.4648 ***	-0.4788 ***	-0.4760 ***	-0.4799 ***
	(0.1343)	(0.1346)	(0.1345)	(0.1347)	(0.1352)
<b>Control Variables - Firm</b>					
Employees	-0.0029 **	-0.0030 *	-0.0029 *	-0.0031 *	-0.0031 *
	(0.0016)	(0.0016)	(0.0016)	(0.0016)	(0.0016)
Company Age	0.0022 **	0.0017	0.0020 *	0.0020 *	0.0021 *
	(0.0012)	(0.0012)	(0.0012)	(0.0012)	(0.0012)
Net Debt	0.0000	0.0000	0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
ROA	-0.0330 ***	-0.0336 ***	-0.0332 ***	-0.0322 ***	-0.0320 ***
	(0.0066)	(0.0066)	(0.0066)	(0.0066)	(0.0066)
Change in ROA	0.0167	0.0204 *	0.0181	0.0159	0.0150
	(0.0109)	(0.0114)	(0.0113)	(0.0106)	(0.0108)
Free Cash Flow	0.0000	0.0000	0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Closely held shares	0.0043	0.0037	0.0042	0.0037	0.0037
	(0.0026)	(0.0027)	(0.0026)	(0.0027)	(0.0027)
Log(Total Assets)	-0.0807 **	-0.0836 *	-0.0835 *	-0.0798 *	-0.0784 *
	(0.0463)	(0.0464)	(0.0466)	(0.0462)	(0.0463)
Capex	-0.0064	-0.0052	-0.0061	-0.0058	-0.0061
	(0.0363)	(0.0362)	(0.0363)	(0.0361)	(0.0361)
EBIT	0.0463	0.0445	0.0473	0.0396	0.0389
	(0.0641)	(0.0659)	(0.0648)	(0.0635)	(0.0629)
ROE	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Sales	0.0077	0.0076	0.0076	0.0084	0.0085
	(0.0097)	(0.0097)	(0.0097)	(0.0097)	(0.0097)
Observations	1879	1879	1879	1879	1879
Log Likelihood	-1333.994	-1332.199	-1333.826	-1329.951	-1329.885
LR $\chi^2$	105.29	108.88	105.63	113.38	113.51
Prob. > $\chi^2$	0.0000 ***	0.0000 ***	0.0000 ***	0.0000 ***	0.0000 ***

standard errors in parentheses

\* indicates statistical significance at the 10% level.

\*\* indicates statistical significance at the 5% level.

\*\*\* indicates statistical significance at the 1% level.



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Therefore, none of my models supports the *monitoring hypothesis*. Private equity funds are not associated with increased management turnover, but hedge funds, on the contrary, are associated with reduced top management turnover. I consider this supports my *restraint hypothesis*, that active investors in Germany tend to refrain from exerting influence on top management turnover.

The age variable in all five models is positive and statistically significant, with  $p < .001$ . This appears logical because, with increasing age, the probability of a routine retirement and of leaving the position increases.

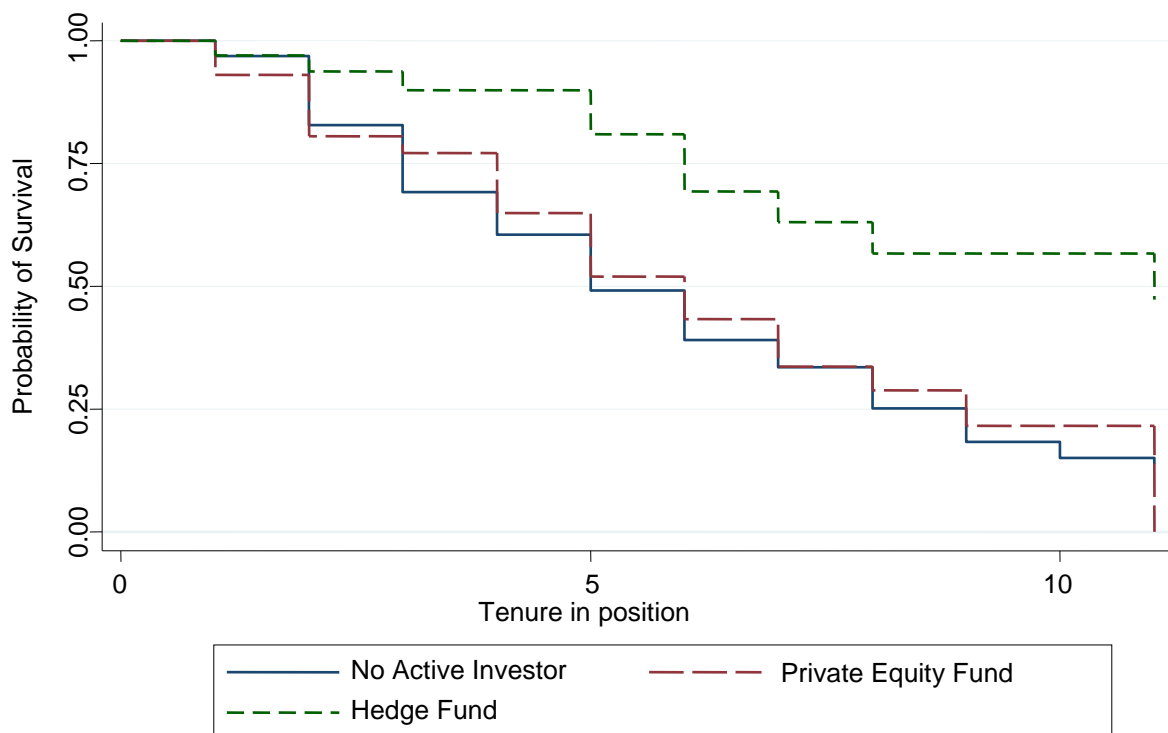
The dismissal coefficient, the variable that represents turnover reason, is positive in all five models, and statistically significant with  $p < .001$ . This indicates that top managers who leave the company in a routine manner, such as a transition into the supervisory board or into retirement, tend to have longer overall tenures than top managers who are dismissed from office. This finding is also logical, because many of the dismissals are premature dissolutions of top managers' contracts, and should thus lead to reduced tenures.

In all five models, the coefficient for the CEO dummy variable is negative, and statistically significant for  $p < .001$ . This indicates that CEOs tend to have longer tenures than CFOs, for two primary reasons. First, CEOs who feel threatened by weak firm performance may use CFOs as scapegoats (Boeker, 1992; Khanna and Poulsen, 1995). Second, CEOs are sometimes directly related to the founding family or are the founders, and so tend to stay in office longer.

ROA has a negative and significant ( $p < .001$ ) coefficient in all five models. This is in line with prior research that finds positive performance leads to comparatively longer tenures for top managers, while negative performance increases their risk of turnover and ultimately reduces their tenure (Coughlan and Schmidt, 1985; Ertugrul and Krishnan, 2011; Fee and Hadlock, 2004; Huson et al., 2004; Kim, 1996; Tuggle et al., 2010b; Warner et al., 1988; Weisbach, 1988).

The coefficient for the number of employees is also statistically significant in all five models for  $p < .10$ , but the coefficients are very close to 0, and therefore not economically significant.  $\text{Log}(\text{Total Assets})$  is significant in all five models for  $p < .10$  and negative. This indicates that larger companies are associated with comparatively shorter top manager tenures, also for two primary reasons. First, smaller companies are often managed by their founders or by members of the founding family. These top managers are obviously more entrenched, and may therefore stay in office longer. Second, in larger companies with more employees, it may take top managers longer to reach the top of an organization. Because these posts are likely to be reached toward the end of a career, little time is often left until retirement.

The age of a company is significant and positive in models 1 and 3-5, with  $p < .10$ . The change in return on assets is only significant in model 2, with  $p < .10$ . All the other control variables are not significant in any of the five models.



**Figure 3: Survivor Functions by Type of Activism**

For a graphic comparison, Figure 3 shows the results of the Kaplan-Meier estimates of the survivor functions, stratified by the activism variable. The survivor functions represent the probability of being in office depending on the tenure already in office. Note that the survivor functions for top managers with no investors and with private equity investors are quite close together, implying that private equity investors do not exhibit much influence on top management turnover. Interestingly, the survivor function for top managers with hedge funds is above the other two survivor functions. This indicates a longer tenure in office for top managers under hedge fund investor influence, and hence a reduced probability of top management turnover.

## 5. Discussion and Conclusion

Overall, my results are contrary to the *monitoring hypothesis*. Private equity funds appear to have no significant influence on top management turnover in Germany, but hedge funds tend to reduce it. Similarly to findings from the U.S. (Brav et al., 2008; Del Guercio et al., 2008), I would expect the fund managers of active investors to monitor top management intensely, and to exchange top managers more readily. Although I find that private equity investors do not significantly influence top management tenure, it is interesting to note that, in my German sample, hedge funds tend to have a positive relationship with top manager tenure, thus increasing tenure and reducing turnover. I consider this support for the *restraint hypothesis*, under which active investors do not promote top management turnover in Germany for four possible reasons.

First, under the German national system, active investors might be more limited in their ability to promote top management turnover because of the inherent checks and balances. Additionally, the so-called “locust” debate might have increased public scrutiny of active investor actions, thus further limiting the options they have compared to U.S. investors.

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Second, one could argue that individual top managers have less influence on firm performance in Germany than in the U.S. because of the reduced discretion in Germany (Crossland and Hambrick, 2007, 2011). As a result, active investors are less likely to focus their efforts on individual top managers. However, in light of the prolonged tenure of top managers that have hedge funds as active investors, this seems somewhat unlikely. I would certainly expect active investors to have no influence on top management tenure.

Third, it is possible that active investors ex ante actively include top managers into their due diligence process, and emphasize management audits. Contrary to the case studies of Deutsche Börse or Hugo Boss that were discussed earlier, active investors may focus ex ante on selecting companies with the “right” top management (such as, e.g., in the case of Medion). One indication for this explanation is that some of the particularly long tenured top managers that I observed with hedge funds are founders of the companies, who serve as CEOs or belong to the founding families.

Fourth, it may be that active investors, rather than focusing on intense monitoring, are simply able to select companies for investments that are likely to become desirable acquisition targets. The resulting takeover premia will increase investor returns (Greenwood and Schor, 2009). Alternatively, the returns to investor activism could come from tax benefits, as consequences from increased leverage (see, e.g., Guo, Hotchkiss, and Song, (2011)).

### **Theoretical Implications**

My chapter contributes to two areas of research: 1) research on active investors, and 2) upper echelons theory.

While finance research on active investors has focused on the sources of their value creation (Clifford, 2008; Greenwood and Schor, 2009; Renneboog, Simons, and Wright, 2007), management research has recently shifted its focus to the strategic consequences for portfolio companies (Connelly, Tihanyi, Certo, and Hitt, 2010). I con-

concentrate on one important strategic outcome of investor activism, top management turnover, with the aim of increasing knowledge of the strategic outcomes of investor activism. Moreover, I add to the understanding of the consequences for top management of active investors, because little about this phenomenon has previously been studied (Brav et al., 2008; Del Guercio et al., 2008; Gong and Wu, 2011; Helwege et al., 2012).

For upper echelons theory, I make three contributions. First, I set my analysis in a low-discretion country (Crossland and Hambrick, 2007, 2011), and I show that the governance context can have a significant influence on managerial research. Findings for high-discretion countries like the U.S. differ strongly from those for low-discretion countries (Bethel et al., 1998; Brav et al., 2008).

Second, some research exists for the consequences of investor activism in the U.S. (Del Guercio et al., 2008; Gillan and Starks, 2000; Gong and Wu, 2011; Smith, 1996; Wahal, 1996), but German research has been limited (Achleitner et al., 2010; Mietzner et al., 2011). Thus, this article is a response to Wright et al. (2009: 368), who called for future research to analyze the “link between institutional context and the nature of PE governance”.

Third, I incorporate active investors as determinants of managerial discretion into my analysis, thereby shedding light on market-related mechanisms of managerial discretion (Beck and Wiersema, 2011; Wiersema and Zhang, 2011).

### **Research Limitations and Implications for Future Studies**

To the best of my knowledge, this chapter is the first to study how the influence of active investors in a low-discretion environment can impact top managers. However, my study is subject to three limitations.

First, my analyses are conducted in a single governance setting only, which leads to results that differ significantly from those in a U.S. context. While analyses from dif-

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ferent contexts can be enriching, future studies could explore a direct comparison of the influence of active investors on portfolio companies for different governance contexts. This would allow for a direct measurement of governance variables such as CEO duality.

Second, my dataset is quite small compared to U.S. studies, which is a consequence of the German setting. The history of investor activism is much shorter in Germany than it is in other countries, and thus fewer German companies have come under the scrutiny of active investors. Additionally, the “locust” debate has shed a very negative light on the behavior of active investors, and it has led to continuous scrutiny of active investors by the German public. The direct result is the comparatively smaller number of activism cases in large German companies.

Moreover, information on investor activism is more difficult to obtain for Germany than for the U.S. For example, active investors in the U.S. are required by law, with the so-called 13D SEC filings, to explain their investment goals. This information is not available in Germany. And, although the comparatively difficult data and information availability in Germany may limit research on active investors in other governance settings, it appears worthwhile, because the results can differ significantly.

Third, my study only analyzes CEOs and CFOs, because these two individuals are the most directly responsible for a firm’s strategy and finances. Both interact extensively as well with the capital markets, and are therefore often known to investors (Chava and Purnanandam, 2010; Gore et al., 2011; Naranjo-Gil et al., 2009; Zorn, 2004). However, my research could be extended to include either the COO, as the person responsible for improving company operations (Hambrick and Cannella, 2004), or even the entire top management team.



## **D.It's Not What You Say, But How You Say It**

### **Abstract**

Until now, there has been little research on capital market reactions to successor announcements. Research on how stock price reactions relate to managerial characteristics has produced mixed findings. But the characteristics of the process itself have received comparatively little attention. Such an analysis is called for, because, in addition to predecessor and successor characteristics, the process itself is likely to convey new material information to the capital markets about firm quality. Following Spence (1973), this information can be regarded as signaling, and one would expect it to be immediately included in the price of a stock. I thus examine short-term capital market reactions to successor announcements in an event study context depending on several process characteristics, by simultaneously controlling for prior firm performance and managerial characteristics.

By analyzing a sample of 341 succession announcements for large German companies between 1998 and 2008, I find that process characteristics, rather than managerial characteristics, help explain abnormal share price returns around the announcements. Interim successions and the simultaneous announcements of two managerial successions seem to particularly signal disruptive “crisis successions” and negative share price reactions, which are even more negative if they occur under conditions of poor firm performance. I believe this is the first empirical study to take an integrative perspective on the characteristics of succession announcements based on process and managerial characteristics.



## 1. Introduction

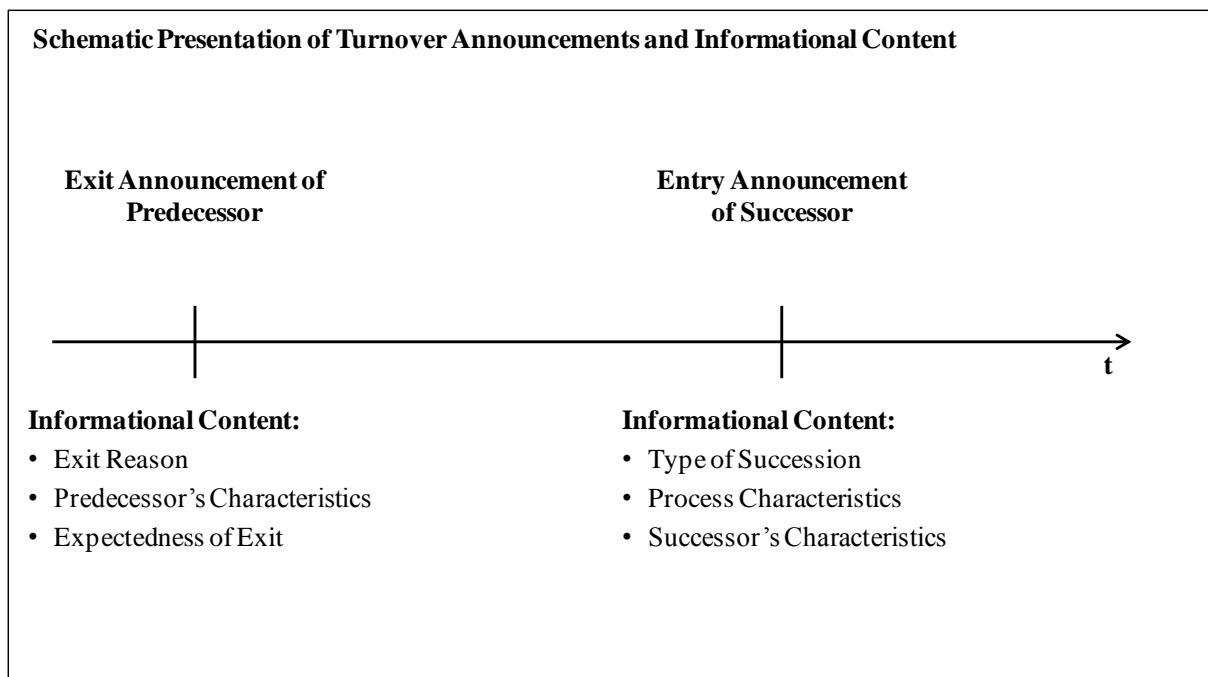
Top management turnover is a critical process within an organization's life, as it sets the course for an organization's future strategy and performance. Because this direction is impacted by top managers via the decisions they make (Hambrick, 2007; Hambrick and Mason, 1984), the individuals involved in the turnover and their influence on it have received a great deal of research attention (for reviews, see Finkelstein et al., 2009; Giambatista et al., 2005; Kesner and Dalton, 1994). Top managers and their characteristics (Campbell, Gallmeyer, Johnson, Rutherford, and Stanley, 2011; Li et al., 2010; Shen and Cannella, 2002b, 2002a), the board of directors and its characteristics (Tian et al., 2011; Tuggle et al., 2010b), as well as the influence of external market participants (Beck and Wiersema, 2011; Gong and Wu, 2011; Huson et al., 2001; Wiersema and Zhang, 2011) have all been the subject of recent research.

Most prior research has focused on managerial characteristics as determinants of firm reaction to succession announcements, but the characteristics of the turnover process have been largely neglected in empirical analyses. As Finkelstein et al. (2009: 179) note, "Unfortunately, little research has been done on succession processes". However, the turnover process and its announcement are expected to contain crucial information for investors as well (Clayton, Hartzell, and Rosenberg, 2005). "Unanticipated and poorly managed successions have a negative impact on shareholder wealth" (Shen and Cannella, 2003: 191). Along this vein, Ballinger and Marcel (2010) analyzed the effects of interim succession, an important characteristic of turnover processes, and found that they are used primarily under duress, and are indeed associated with comparatively lower firm performance. Nevertheless, the process as a whole consists of many elements, so capital market participants are likely to include additional characteristics as signals into their evaluation of the succession announcement.

Therefore, this chapter takes an integrated perspective on the turnover process, and includes other process-related characteristics into the analysis. I thus include events

that culminate in the announcement of a successor (Vancil, 1987) into my exploration of the turnover process.

The turnover process itself should be differentiated analytically into the exit of the predecessor, and the entry of the successor, as has been recognized recently (Finkelstein et al., 2009). From these two events, the successor choice is particularly crucial, “because the successor determines the firm’s future strategic direction and performance” (Shen and Cannella, 2003: 196). While the predecessor has already been known to the public, the successor, his personality and style are in general yet unknown to the public, which is likely to cause uncertainty in capital markets. The announcement of a predecessor’s exit is done either before a succession announcement or on the same day, often in the same announcement. For a schematic presentation of the turnover process and its possible informational content refer to Figure 4.



**Figure 4: Schematic Presentation of Turnover Process**

For graphical reasons both events are separated here, although they may of course coincide. Therefore, with the announcement of a successor, market participants’ expectations about the future performance of the firm are bound to change, which will be

reflected in the firm's stock prices (Fama, 1970; Fama et al., 1969). Market signaling theory (Spence, 1973; Zhang and Wiersema, 2009) states that signals are valuable to the capital markets if they convey material information about a firm's quality that was not known beforehand. A signal is likely to impact stock prices in the short term if its informational content is relevant, for example, if it relates to the state of a firm, or its profitability, etc., and has not been known to capital markets previously. I argue here that characteristics of the turnover process can be regarded as signals for market participants to infer prior unknown information about the quality of a firm, and that therefore these process characteristics should be immediately incorporated into stock prices.

Two examples of succession announcements illustrate the importance of succession process characteristics, with one serving as a model for the disruptive "crisis succession" (Finkelstein et al., 2009: 180) and the other as a model for the smoother "relay succession" (Finkelstein et al., 2009: 179). The succession of Helmut Sihler to Ron Sommer as CEO of Deutsche Telekom AG in July 2002 can serve as illustration for a rather disruptive turnover process. The exit announcement of Ron Sommer was not totally unexpected. Although he had been contracted until 2005, over several weeks public and politic pressure had built up that forced him to resign early. However, the board of Deutsche Telekom did not use the time to search for a successor, instead it settled for an interim succession. The prior chairman of the board of Deutsche Telekom AG, Helmut Sihler, was to step in on an interim-basis. Sihler, a former CEO of Henkel KGaA and member of several boards of large German companies was well connected and possessed a lot of managerial experience; he was already 72 at that time. He himself alluded to his age as a clear signal that he would serve as an interim CEO only (Der Stern, 2002). His chief task, as one newspaper put it, was to make himself redundant, i.e., to find himself a full-time successor (Die Welt, 2002). The cumulative abnormal stock returns (CARs) dropped over the three-day window around the announcement by 3.3%, because investors had hoped for a permanent successor who could address Telekom's issues on a strategic basis and develop a successful vision for the company's future (Frankfurter Allgemeine Zeitung, 2002). Given that telecommu-

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nication is a dynamic and fast-growing industry, an interim succession seemed a “deadly standstill”<sup>21</sup>(Frankfurter Allgemeine Zeitung, 2002).

On the contrary, the announcement of Karl-Ludwig Kley as successor to Michael Römer as CEO of Merck Pharma KGaA in 2007 may illustrate a comparatively well managed succession process (Frankfurter Allgemeine Zeitung, 2007; Manager Magazin, 2006), which had long been planned and anticipated by shareholders. Here, Vancil and McDonald’s (1987: 13) description of a “healthy” succession is particularly apt, where “the process of selecting the new CEO has apparently been managed to minimize its significance”. By 2006, Kley had left his position as CFO of Deutsche Lufthansa AG, and had joined the board of Merck as the designated heir apparent. Rumors quickly spread that he was to become the future CEO. The frictionless succession process, as well as Kley’s reputation and prior success, were viewed favorably by the markets. Thus, prior to the announcement, CARs were very positive (22% on the day before), and they corrected only slightly after the announcement. Overall, for the three-day window around the announcement, CARs were slightly positive at 0.2%.

I thus propose an analysis of the explanatory power of process characteristics while controlling for managerial characteristics. Because CFOs have become increasingly important in recent years to the capital markets (Zorn, 2004), I include them in my analysis. Hence, I empirically analyze the reaction to successions in the CEO and CFO positions in 157 large German corporations (DAX and MDAX) from January 1998 to December 2008, resulting in 341 succession cases.

I find that abnormal returns around succession announcements can be better explained by the characteristics of the turnover process than by those of the top managers involved. This is analogous to findings from capital market research that uncertainty caused by badly managed processes and poor information quality is contrary to inves-

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<sup>21</sup> Translation by the author.

tor interests (Epstein and Schneider, 2008). However, in my study, managerial characteristics are ultimately not significant in explaining capital market reactions.

This is an interesting finding. From upper echelons research, I would expect reactions to managerial characteristics, because they can be a source of information about the decision preferences of top managers (such as, e.g., risk aversions) that are likely to influence firm performance. However, I posit that this is a consequence of my research setting. Germany provides comparatively little discretion to top managers. In other words, it limits their ability to influence firm performance directly (Crossland and Hambrick, 2007, 2011). And, as much research has found, top managers can only influence firm performance to the extent that they possess discretion, or have the latitude to make decisions (Finkelstein and Peteraf, 2007; Hambrick and Finkelstein, 1987; Shen and Cho, 2005).

As Crossland and Hambrick (2007, 2011) show, the characteristics of the German “national system”<sup>22</sup> severely limit managers’ discretion, and their potential influence on firm performance. In such a context, I hypothesize that the capital markets will react very little to individual characteristics (Crossland and Hambrick, 2011). Instead, I posit that the capital markets will react more to the impressions obtained from the overall process of the top management succession. These impressions will be interpreted as signals about the state of the company.

The remainder of the chapter proceeds as follows. I develop the theoretical background and hypotheses in section 2. Section 3 presents my sample and the method I use, while section 4 presents the results. Section 5 discusses the results of the analyses, and concludes.

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<sup>22</sup> Crossland and Hambrick (2011: 771) use the term “national system” to “collectively describe the complex milieu of interrelated social and economic factors, or institutions, that characterize the nation state within which a firm is principally located, or headquartered.”

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## 2. Theoretical Background

Based on upper echelons theory, the question of when and under what circumstances top managers matter has received a great deal of research attention, both theoretically and empirically. In this vein, the link between individual top managers and firm performance has been of particular interest. The performance consequences of top management turnover have been one popular research strand (see Finkelstein et al., 2009, for a review).

For long-term performance assessments, prior research has used both accounting-based and capital market-oriented measures. Accounting-based analyses have found mixed results. While most (U.S.-based) studies have found evidence that CEO turnover leads to positive accounting-based performance effects (Denis and Denis, 1995; Hotchkiss, 1995; Huson et al., 2004; Karaevli, 2007; Shen and Cannella, 2002a), for the German context no significant returns have been reported (Bresser et al., 2005). For CFO turnover, mixed evidence has been reported in the U.S. For example, Mian (2001) documented positive accounting-based performance for CFO turnover, but Geiger and North (2006) described a reduction in discretionary accruals.

Findings for short-term capital market reactions have also been mixed, although most have been conducted in a similar (U.S.) context. Some studies have documented positive abnormal returns to CEO turnovers (Bonnier and Bruner, 1989; Furtado and Rozeff, 1987; Huson et al., 2004; Weisbach, 1988), while others show no significant abnormal returns (Reinganum, 1985; Warner et al., 1988). Some have even found negative abnormal returns (Khanna and Poulsen, 1995). One study focusing on the performance consequences of CFO turnover also found no significant abnormal returns (Mian, 2001). Altogether, it is difficult to obtain a clear direction of the performance consequences to top management turnover.

Additionally, the process of the turnover announcement itself has received increasing attention. The starting point for this research was an examination of the perfor-

mance consequences of unexpected deaths of top executives (Worrell et al., 1986), because “unexpected deaths are surprising events that cannot be anticipated” (Combs, Ketchen Jr, Perryman, and Donahue, 2007: 1309). Later, the management of the process itself came into focus, as the management of the process can reveal important information to investors about the state of a company.

For example, a well managed process with a routine predecessor exit, followed by the synchronous announcement of the promotion of an heir apparent into the top management position can convey a signal that a company is well managed (Zhang and Rajagopalan, 2004) and that the board works well and has the company’s processes fully under control (Tian et al., 2011). The opposite may be true for a “crisis succession,” where no clear heir apparent is designated (Finkelstein et al., 2009: 180). This includes “cases of illness or death or, more commonly, the abrupt dismissal of the incumbent” (Finkelstein et al., 2009: 180).

The abruptness of a predecessor’s exit can be a challenge for the management of the overall succession process, and specifically the identification of an adequate successor. In this vein, Ballinger and Marcel (2010) have shown theoretically and empirically that interim succession can be harmful to firm performance, as it can be considered a sign of turbulence and of out-of-control processes. It is often considered as a way to “buy time” for a firm to regain control over the succession process.

Clayton, Hartzell, and Rosenberg (2005) note that increased volatility around turnover is perceived by capital market participants as a sign of general and persistent uncertainty in a firm. And uncertainty and increased volatility may translate into stock price discounts (Epstein and Schneider, 2008), so a careful management of the turnover process and especially stock market participants’ perceptions is important for everyone’s interests (Graffin et al., 2011). However, until now, there has been little empirical research on the reactions that the process characteristics actually evoke on the capital markets, because it has not been tested so far. This study is the first to integrate

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several prior aspects of turnover processes in order to obtain a more holistic picture of stock price reactions to process characteristics from a market signaling perspective.

As the examples in the introduction show, investors tend to react to succession announcements according to the signals they perceive from the process characteristics, from which they infer information about a firm's situation. For example, investor uncertainty may arise if a firm announces the exit of a top manager but does not simultaneously announce a successor. If an interim successor is then named, investors will remain uneasy about the long-term future of the firm. And the situation could be worsened if several top managers leave simultaneously, which may indicate a poorly managed handover process to the successors.

Moreover, if the successor remains in office for only a short period, this may be another negative signal to investors, who may perceive weaknesses in the board's ability to identify adequate top managers. On the other hand, a well-managed turnover process, as described in the introduction, would be characterized by the timely announcement of a permanent successor.

Another important driver of stock market reactions to the announcement of top management succession is prior firm performance (Friedman and Singh, 1989; Kesner and Dalton, 1994). Turnovers are already noisy and disruptive situations for firms (Grusky, 1960), so any signals that indicate more disruption will tend to greatly increase uncertainty, and result in larger stock price discounts.

For example, Shen and Cannella (2003) find that investor reaction to the promotion of heirs apparent differs depending on prior firm performance. Investors tend to welcome them under conditions of good firm performance, because they signal a stable, well controlled process and continuity. However, investors tend to prefer that heirs apparent exit under conditions of poor firm performance, because it can offer a new start and a strategic reorientation with the successor, who in this case often comes from outside the firm.



Similar findings have been reported for interim successions, where Ballinger and Marcel (2010) also find that they tend to be used by more poorly-performing firms. Therefore, I include prior firm performance as an important moderator of capital market reactions to successor announcements into my analysis. I test four characteristics of the turnover process: 1) whether the succession is interim, 2) whether two or more managers have simultaneously announced their exits, 3) whether the predecessor's exit and the successor's entry are announced on different days, and 4) whether the predecessor was dismissed early.<sup>23</sup> In the next section, I develop hypotheses for the process characteristics and their respective interaction effects with prior firm performance.

## **2.1. Development of Hypotheses**

Prior research often excluded interim successions from succession analyses as a disturbing factor (Farrell and Whidbee, 2000; Shen and Cannella, 2002b, 2002a), or they controlled for it (Ocasio, 1994). However, a more recent analysis by Ballinger and Marcel (2010) finds that interim succession is often used by firms under duress, and that it is associated with unexpected predecessor exits. Interim succession is then used to cope with the situation, and, as noted earlier, to “buy time” for the board to engage in the search for a permanent successor. However, because succession planning is one of the most important tasks of the board of directors (Finkelstein et al., 2009; Vancil, 1987), the announcement of an interim successor may be viewed as a sign that the board has been derelict in its duties and will be a negative sign to the capital markets.

Furthermore, interim successors do not normally have an explicit mandate to engage in change and initiate strategic actions on a large scale. Rather, they “focus primarily on making and implementing tactical decisions that address immediate threats to the firm's operational performance” (Ballinger and Marcel, 2010: 266). This is an

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<sup>23</sup> I follow Zhang (2008), and define an early dismissal as one that occurs within the first three years of tenure in a position.

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other reason that the markets will view the interim succession negatively, because important and value-enhancing decisions will usually need to be postponed until a permanent successor is found (Ballinger and Marcel, 2010). Capital market participants are able to anticipate this, so the announcement of an interim succession is usually followed by negative stock price reactions. Therefore, I propose my first hypothesis:

*Hypothesis 1a: The announcement of an interim succession will lead to negative stock price reactions.*

Investor reactions to successor announcements depend on a firm's current situation. For example, Shen and Cannella (2003) have shown that investor reactions to the announcement of an heir apparent exit depend on prior firm performance, because the same exit can signal different things under different conditions. If a firm is experiencing good performance, the exit of an heir apparent will represent a departure from the ordinary planned succession process, and a severe loss of human capital (Cannella and Shen, 2001). Because the firm is in a sound and successful state, any deviation from its plan may appear harmful to firm performance, and thus I would expect stock market prices to decrease.

On the other hand, I would expect the opposite to happen if the designated successor exits under a firm's poor-performing circumstances. In this case, he may be connected closely to the incumbent CEO, and likely to follow the same strategic route. But if the route appears unsuccessful, as inferred from prior bad company performance, the exit may open the possibility for a different successor, likely from outside the firm, and a comparatively better chance of strategic renewal. Therefore, Shen and Cannella (2003) show theoretically and empirically that stock prices are likely to rise on the announcement of an heir apparent exit under poor firm performance.

In this study, I argue also that investor reactions to an interim succession announcement will depend strongly on a firm's situation. I note that, in a poorly performing situation, investors are likely to already be nervous and uncertain about the course

taken by the prior top manager. The announcement of an interim succession may then indicate that no clear long-term strategic course can be established yet, because no long-term successor has been found (Ballinger and Marcel, 2010). Strategic projects and longer-term turnarounds are not normally within the mandate and focus of an interim successor, so investor uncertainty is bound to increase (Ballinger and Marcel, 2010).

Moreover, if the firm is already performing poorly, an interim succession may not be able to solve the problem. The interim successor's attention and actions will be focused on "fire fighting," i.e., identifying and solving imminent sources of poor performance. This is harmful to firm performance over the long run. Therefore, I expect investors' reactions to be more negative if an interim succession is announced under conditions of poor firm performance. I thus propose my next hypothesis:

*Hypothesis 1b: Reactions to the announcement of an interim succession will be more negative under conditions of poor firm performance prior to the announcement.*

The announcement of a turnover in both the CEO and CFO positions on the same day is also a sign of turbulence at a firm. This would be expected to increase capital market uncertainty about a firm's situation, because the greater loss of human capital will mean that greater resources will be needed to identify two successors rather than one. Future uncertainty will also be greater if the two most important top managers for a firm's strategy and financial performance both exit (Chava and Purnanandam, 2010; Gore et al., 2011; Jiang et al., 2010). Thus, the capital markets may expect that the new top managers will face a much more difficult task if they must define their roles and gather firm-relevant knowledge at the same time to form an effective team. Hence, capital markets can be expected to react negatively as a result of the increased uncertainty. Therefore, I propose the following hypothesis:

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*Hypothesis 2a: The simultaneous announcement of a CEO and CFO succession will lead to negative stock price reactions.*

The capital market uncertainty caused by simultaneous CEO and CFO turnover announcements will also be more pronounced if the firm is facing conditions of poor performance. In this case, it can be harder to find new managers (Ward, Amason, Lee, and Graffin, 2011), as their fate may be linked to a change in firm performance. Managers are often held responsible for performance, and run the risk of becoming scapegoats (Boeker, 1992; Khanna and Poulsen, 1995; Rowe, Cannella Jr, Rankin, and Gorman, 2005). Moreover, managers joining a poorly performing firm may demand higher wages to cover their increased risk of dismissal (Ward et al., 2011).

However, under comparatively poor firm performance, boards may find it more difficult to pay comparatively higher wages (than higher-performing firms), and thus it may be more difficult to find adequate successors. This situation is obviously worsened if replacements for two managers have to be found at the same time. And, because the capital markets participants will anticipate this difficulty, the uncertainty surrounding a firm's future performance will be increased, resulting in increased risk premia and reduced stock prices. Therefore, I propose my next hypothesis:

*Hypothesis 2b: Reactions to the announcement of a simultaneous CEO and CFO succession will be more negative if the firm is performing poorly.*

Investors clearly desire that turnover processes be as smooth and well managed as possible. One important element of such a transition process is the ability to link the announcement of a top manager's exit with the announcement of a successor, as, for

example, the relay successions<sup>24</sup> described in Shen and Cannella (2003), Zhang and Rajagopalan (2004), and Finkelstein et al. (2009).

This is important for two reasons: First, it signals that the exit announcement is not unexpected by the firm, and that, on the contrary, the firm has spent adequate time searching for a successor. Firms caught without a prepared turnover process are likely to leave investors unclear about governance, and evoke negative capital market reactions. Second, a simultaneous announcement avoids the image of an important position being left vacant, with the attendant implications of an organization being somewhat paralyzed and hamstrung. Particularly for CEO turnovers, the image of a “headless” company is harmful to firm performance. Furthermore, if a successor is announced at a later time, the capital markets are likely to be unsure about his ability, and may believe that his selection has occurred in a disorderly fashion. Thus, my next hypothesis is:

*Hypothesis 3a: Announcing the exit of the predecessor and the entry of the successor on different days will lead to negative stock price reactions.*

Note that poor firm performance will have already put investors on alert. In such a situation, if the board fails to provide an adequate successor upon the announcement of a top management exit, investors will perceive that as a bad signal about the company’s state as well as the board’s ability to manage the process properly. It may even signal that the firm is in an even worse state, and will increase capital market uncertainty on the capital markets. Thus, my next hypothesis is:

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<sup>24</sup> Following Vancil and McDonald (1987), Shen and Cannella (2003: 192) classify a relay succession as a planned succession, and describe it in the following way: “In a relay succession, the successor to the incumbent CEO—called the heir apparent—is identified in advance of the actual succession event and takes the president and/or chief operating officer (COO) position. Thus in a complete relay succession there are two crucial events: the appointment of the heir apparent and the promotion of the heir apparent to the CEO position”.

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*Hypothesis 3b: Reactions to the announcement of the exit of the predecessor and the entry of the successor on different days will be even more negative if the firm is performing poorly.*

Capital market reactions to a successor announcement will clearly reflect their assessment of how the turnover process has been managed, and how the successor compares to the predecessor. A turnover process perceived as turbulent or poorly managed will reflect negatively on the firm and on the board.

One sign of possible turbulence is whether the predecessor was dismissed early, i.e., within the first three years of his tenure (Finkelstein et al., 2009; Shen and Cannella, 2002a; Zhang, 2008; Zhang and Rajagopalan, 2004). Although longer-tenured top managers may seem somewhat “stale in the saddle” (Miller, 1991), and longer tenure is not necessarily connected with better firm performance (Hambrick, 1991), dismissing a CEO too early “can result in organizational disruption that can lead to lost opportunities” (Zhang, 2008: 859). It may be looked at as a sign of instability at the company, and a possible failure of the board to properly manage the succession the first time. The capital markets will be even more unsure about the informational content of the successor announcement, as well as about the board’s general abilities. This can easily lead to a “vicious cycle in the firm’s successions” (Wiersema, 2002; Zhang, 2008: 860). It will be questionable whether the board has exhibited more diligence in choosing the new successor.

Thus, the early dismissal of a predecessor is expected to reflect negatively on the perceived ability of the successor. The capital markets are expected to be very critical and uncertain about the second successor. Therefore, I propose my next hypothesis:

*Hypothesis 4a: If a predecessor is dismissed “early” (within the first three years of his tenure) the capital markets will react negatively to the announcement of a successor.*

Similarly to the arguments above, poor prior firm performance will have already made investors nervous. A combination of poor firm performance and an early dismissal of a manager will only increase uncertainty. Any expectations or hopes about a strategic renewal or possible turnaround that were associated with the newly dismissed predecessor will now appear unlikely. Thus, the new successor will certainly encounter more difficulties as he starts his position. This will lead to increased capital market uncertainty, which is likely to result in higher risk premia and thus reduced stock prices.

*Hypothesis 4b: Reactions to the announcement of a successor to a manager dismissed early will be more negative if the firm is performing poorly prior to the announcement.*

The top managers I analyze here are generally CEOs and CFOs of large publicly listed companies in Germany (DAX and MDAX). I thus follow Finkelstein et al.'s (2009) proposal to extend the scope of analysis beyond the CEO by selectively including other top managers. I chose to include CFOs because they are, along with the CEO, most directly responsible for a firm's strategy (Arthaud-Day et al., 2006), and are particularly responsible for financial decisions (Chava and Purnanandam, 2010; Gore et al., 2011; Jiang et al., 2010; Li et al., 2010). Furthermore, over the last several years, their importance has increased in concert with that of the capital markets (Zorn, 2004).

CFOs also interact directly with capital market participants, for example, on investor road shows. They are thus highly visible to the capital markets and their turnover can evoke reactions there (Mian, 2001), similarly to the announcement of a CEO turnover. To control for managerial characteristics, I include five variables in my analysis: 1) the age of the successor, 2) the origin of the successor, 3) whether he is the CEO or the CFO, 4) the reason for the exit of the predecessor, and 5) how expected the exit was.

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### 3. Data and Method

#### 3.1. Data and Sample

To obtain my sample, I began by identifying all companies listed on the German DAX and MDAX indices<sup>25</sup> for at least one year between January 1998 and December 2008. I conducted the analysis for the largest companies in Germany because information asymmetry tends to be lower for larger companies, and I had to rely on newspaper information to classify some variables. Hence, newspaper coverage and data availability will also be better, and larger companies tend to have well-organized turnover processes in place.<sup>26</sup>

I collected data only until the end of 2008, because I needed information on post-turnover performance. From 2008, I went back to the beginning of 1998, which I chose as my base year because of its large availability of newspaper articles and financial information. The companies were included in the analysis for the entire time they were part of one of the two indices. My final sample contained 157 companies for which successions were identified and analyzed; I excluded seven companies because they were on the indices for less than one year.

Because there is no database available in Germany that contains data on top management successions, I hand-collected the succession sample. My first source to identify top management changes was the *Hoppenstedt Aktienführer*.<sup>27</sup> I also used companies' annual reports to identify the names of the CEO and CFO at every year-end. If I could not clearly identify one of the positions, I used newspaper articles from *Lex-*

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<sup>25</sup> The DAX is a German stock index comprised of the thirty largest listed companies on the Frankfurt Stock Exchange by market capitalization. MDAX is comprised of the next fifty largest companies (until March 24, 2003, it was the next seventy largest companies).

<sup>26</sup> To avoid a possible bias from firm size, firm size was included as a control variable into the analysis; however, it was not significant in the regressions.

<sup>27</sup> The *Hoppenstedt Aktienführer* is a database that contains company profiles for all publicly listed companies in Germany, including the composition of the management boards. The website is: <http://www.hoppenstedt-aktienfuehrer.de>.



*isNexis* to find the name of the executive board member with the corresponding functional responsibility of either CEO or CFO at year-end.

For all consecutive years in which the name pairs at year-end did not match, I took the further step of searching *LexisNexis* to check whether more than one change occurred during the year. I also conducted an in-depth press analysis for all turnovers of one to two years prior to the date of the top management change, in order to obtain more detailed information on the circumstances of the change and identify reasons that led to the change.

To find the exact dates of succession announcements, I again used *LexisNexis* to obtain the date of the ad hoc notification. In Germany, every stock corporation is required by § 15 *Wertpapierhandelsgesetz* to immediately disclose any facts that can significantly influence a company's stock price. CEO or CFO changes are generally considered to fall within this category.

I made the following adjustments to the data set. First, I excluded nine top management successions because they occurred due to mergers or acquisitions or because no clear information was available. I further excluded seven cases where a CFO exited a firm, but no successor was announced. In a number of CFO successions, I found that the CEO had assumed the CFO responsibilities. In these cases I eliminated the turnover case for the CFO position (twenty-one cases), and only included it as a CEO position, because that is normally the stronger role (Zander et al., 2009).

Finally, I also excluded six cases in which the turnover announcement itself was within the sample period, but for which no calculations could be made due to an insufficient time period between the starting point of trading at the stock exchange and the announcement date.

**Table 14: Sample Composition**

<b>I. Companies in DAX/MDAX</b>		
Total number of companies in DAX/MDAX	164	
Companies with less than 1 year in indices	7	
<b>Total number of relevant companies</b>	<b>157</b>	
<b>II. CEO and CFO Succession Cases</b>		
	<b>CEO</b>	<b>CFO</b>
Total number of relevant companies	157	157
Firms without succession cases in relevant time frame <sup>d</sup>	44	42
<b>Firms with succession cases</b>	<b>113</b>	<b>115</b>
Total succession cases	187	197
Mergers and acquisitions	2	7
No successor announced (position left open)	--	7
CEO assumes additional responsibility as CFO	--	21
Insufficient time for calculation	5	1
<b>Total relevant succession cases</b>	<b>180</b>	<b>161</b>
Firms with relevant turnover cases	109	107

\*either due to period of analysis or due to time of company listing

I ultimately obtained 180 CEO changes in 109 companies, and 161 CFO changes in 107 companies. As Table 14 shows, 44 companies had no CEO change, and 42 had no CFO change during the sample period.

In addition to the succession-related information, however, I also collected financial data, i.e., daily closing prices for all firms in the sample and for the German CDAX index, using *Thomson Financial DataStream*. I used the CDAX index for the event study based on Brown and Warner's (1985) market model. For the regression analysis, I also obtained accounting data from the *Thomson Financial Worldscope* database for the entire time of the analysis for the regressions.

### 3.2. Empirical Analysis

I measure capital market reactions as the abnormal returns around the succession announcement of a CEO or CFO (Mian, 2001). The event date was defined as the date of the issuance of the ad hoc announcement. Following Brown and Warner (1985) and Fuller, Netter, and Stegemoller (2002), I focus my analysis on abnormal returns, using

standard event study methodology and applying the market model as the basis for the abnormal returns.<sup>28</sup>

For the benchmark index, I used the German CDAX, which includes all publicly listed German companies. This can help to eliminate single market movements (McWilliams and Siegel, 1997; McWilliams and McWilliams, 2000), and I was thus able to isolate effects attributable solely to the turnover event.

I calculate the abnormal returns as the difference between the market and the predicted returns for each company. Predicted returns were calculated using ordinary least squares regression over a 250-day estimation period, ending 11 days before the event date. I then summed the abnormal returns over the length of the event window to obtain the cumulative abnormal returns (CARs):

$$CAR_{i,[t_0-\tau_1,t_0+\tau_2]} = \sum_{t_0-\tau_1}^{t_0+\tau_2} (R_{i,t} - \hat{\alpha}_i - \hat{\beta}_i \times R_{CDAX,t})$$

In this case,  $R_{i,t}$  is the return of company  $i$  on day  $t$ ,  $\hat{\alpha}_i$  and  $\hat{\beta}_i$  are estimates from the ordinary least squares regression over the 250-day window,  $\tau_1$  and  $\tau_2$  are the trading days prior to and after the announcement date, respectively, that are included in the calculation, and  $R_{CDAX,t}$  is the return of the market on day  $t$ . To test my empirical results, I applied standard t-tests to the CARs for the different event windows. I also used Boehmer, Musumeci, and Poulsen's (1991) test for event-induced increased variance, Lyon et al.'s (1999) test for skewness bias, and the Wilcoxon (1945) rank sum z-score test. I calculate CARs as well as the other test statistics for different event windows prior to the event, on the event date itself, after the event, and for time frames including both the day prior to and after the announcement.<sup>29</sup>

<sup>28</sup> The results remain quantitatively and qualitatively similar when I use the Fama-French-three-factor model (1993) or the Carhart-four-factor model (1997). Tables are available from the author upon request.

<sup>29</sup> In particular, I tested the [-5, 0], [-4, 0], [-3, 0], [-2, 0], and [-1, 0] windows prior to the event [0, 0], and the [0, +1], [0, +2], [0, +3], [0, +4], and [0, +5] windows after the event. Windows [-5, +5], [-4, +4], [-3, +3], [-2, +2], and [-1, +1] were also tested.

As a next step, I performed regression analyses using least squares estimation with the White (1980) correction for heteroscedasticity (the means, standard deviations and correlations of the variables are presented in Appendix 5). I found that the variance inflation factors were all comparatively small (please see Appendix 6), and therefore exhibited no sign of multicollinearity. The regressions allow me to examine the effects of several process characteristics while simultaneously controlling for other important factors and introducing performance moderation.

This leads to the following regression equation, where the CARs are explained by the block of process variables  $\sum \beta_{PV} * PV$  and interaction effects  $\sum \beta_{IE} * IE$ . Control variables on a managerial level  $\sum \beta_{MC} * MC$ , as well as on a company level  $\sum \beta_{CC} * CC$ , are also included.

$$CAR = \beta_0 + \sum_{j=1}^{j=J} \beta_{PV} * PV_j + \sum_{k=1}^{k=K} \beta_{IE} * IE_k + \sum_{l=1}^{l=L} \beta_{MC} * MC_l + \sum_{m=1}^{m=M} \beta_{CC} * CC + \epsilon$$

### **Dependent variable**

*Cumulative abnormal returns.* The dependent variables in the regressions are the cumulative abnormal returns around top management successions. Note that prior event studies for abnormal returns on top management turnover announcements have not established any clear event windows, but varying window sizes have been used prior to and after the announcement date.

In a recent literature review, Zhang and Wiersema (2009) note that management research mainly uses the [-1,+1] window, but particularly short windows around the announcement date have also been used in order to avoid confounding events (Gorton and Schmid, 2000; McWilliams and Siegel, 1997; Shen and Cannella, 2003).

I follow current research (Zhang and Wiersema, 2009) and use a [-1,+1] window for the regression analysis, because it captures reactions before as well as after the an-

nouncement, but avoids confounding events due to its brevity. In order to identify confounding events, I further checked *LexisNexis* for any information on such events around the successor announcement.

### **Process variables**

*Interim Succession.* I included interim succession in my study as a way to analyze capital market reactions to it (Ballinger and Marcel, 2010). I include a dummy variable equal to 1 if the successor was announced as an interim and 0 otherwise.

*Joint turnover.* I posit that stock markets will react more strongly if more than one manager's exit is announced on the same day, because this will be seen as a much more dramatic event. I therefore include a dummy variable equal to 1 for the joint announcement of a CEO and a CFO exit, and 0 otherwise.

*Different day announcement.* Combining the exit announcement of a top manager with the announcement of a successor is a sign of a well managed process. On the other hand, if the position is left vacant, and no successor is available, it will appear that the exit is unexpected and that the board may have been taken by surprise. A delay in the announcement of a successor (i.e., days after the predecessor's exit announcement) will shed a negative light on the successor. Therefore, I include a different day announcement variable in the analysis, equal to 1 if the predecessor's exit and the successor's entry are announced on different days, and 0 otherwise.<sup>30</sup>

*New dismissal.* If the predecessor was dismissed early (within the first three years of his tenure), this may imply that the board was previously unable to find an adequate successor. This may further reflect on its current selection ability. The perception can weaken trust in the announced successor, and drive capital market reactions. There-

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<sup>30</sup> As a robustness check, I conducted the regressions alternatively with a different definition of the variable, the numeric value of the number of days between the exit announcement of the predecessor and the entry announcement of the successor. This did not alter my results and is therefore not reported here. But the results are available from the author upon request.

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fore, I include an early dismissal as a dummy variable in my analysis, equal to 1 if the predecessor is dismissed within the first three years, and 0 otherwise (Zhang, 2008)<sup>31</sup>.

### **Control variables – Manager Controls**

*Expectedness of turnover.* To determine whether the succession announcement of a top manager was expected by the capital markets, I include the expectedness of the event (Finkelstein et al., 2009) as a dummy variable. Expectedness here refers only to the predecessor's exit announcement, however, because this is the (publicly visible) starting point of the turnover process and a succession can only occur if a position has been vacated. Moreover, because the majority of exits and entries are announced on the same day, it would be analytically difficult to differentiate the expectedness of the two events. The expectedness dummy variable is equal to 1 if the predecessor's exit was unexpected, and 0 if the exit was expected.<sup>32</sup>

*Turnover type.* The market may react differently to the announcement of a CEO turnover than to other top management turnover announcements. Therefore, I include a dummy variable equal to 1 if the announced turnover refers to a CEO, and 0 if it refers to a CFO.

*Turnover reason.* Following prior research, I include the reason for the turnover into my analysis, because prior research has found it is an important explanatory factor of reactions to turnover announcements. Overall, the performance implications will be decidedly worse if the predecessor's exit was forced, for example, due to poor firm performance, instead of routine, for example, due to retirement. I thus use a dummy

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<sup>31</sup> In unreported robustness checks, all regressions were performed with shorter definitions of early dismissal, using one or two years of tenure. This also did not alter my results. Therefore, in this chapter, I use the definition from prior literature. The results of the robustness checks are available from the author upon request.

<sup>32</sup> Two researchers independently coded the exit announcement cases as "expected" or "unexpected" at the turnover announcement date based on articles from *LexisNexis*. If the press indicated a possible turnover had been discussed for a period of time, or that general rumors existed in the market, the turnover was classified as "expected." If the turnover appeared unexpected to the press and to market participants, it was classified as "unexpected." The press articles generally contained words such as "unexpected" or "surprising," so announcements were easily to categorize.

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variable equal to 1 if the turnover was forced, and 0 if it was routine (Adams and Mansi, 2009; Bresser and Thiele, 2008; Bresser et al., 2005; Parrino, 1997; Zander et al., 2009).<sup>33</sup>

*Successor origin.* Outsiders tend to be associated more with strategic change, but they are usually less well connected within the company (Huson et al., 2001). I posit that the capital markets may react differently to the announcement of an outsider successor. Therefore, I include a dummy variable to control for successor origin that is equal to 1 if the successor is an outsider, and 0 if the successor was promoted from within.

*Age incoming manager.* The age of the successor can be a sign of the turnover strategy: A younger manager can signal more innovative strategies, while an older manager can signal increased risk aversion (Hambrick and Mason, 1984: 198). I measured age as the age of the successor in years at the date of the announcement.

### **Control variables – Company Controls**

*Prior firm performance.* Research has found prior firm performance is linked to top management turnover (Shen and Cannella, 2002b). I thus include this into the analysis, measured as prior company stock performance against the CDAX over the same 250 days used in the market model, to calculate the abnormal returns around the event windows.

*Herfindahl-Hirschman Index.* I include the Herfindahl-Hirschman index based on sales (Datta and Rajagopalan, 1998), defined as follows:

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<sup>33</sup> Two researchers also independently classified turnovers as “forced” or “routine” based on articles from *LexisNexis*. If the articles indicated that the turnover was forced by the supervisory board, for clearly stated reasons, no reason, or because of explicit mistakes committed by the manager, it was classified as “forced.” If the articles indicated that a manager was promoted, either within the same firm or elsewhere, the company underwent a reorganization, or if a manager left the firm for personal reasons, an illness, or retired, the turnover was classified as “routine”.

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$$\text{HHI}_{j,t} = \sum_{i=1}^{N_j} s_{ijt}^2$$

where  $s_{ijt}$  is the market share of firm  $i$  (based on sales) in industry  $j$  at turnover day  $t$ , and  $N$  is the number of firms in the industry.<sup>34</sup> The industry classification is based on the four-digit SIC code from *Thompson Worldscope*.

*Firm size.* I measure firm size as the natural logarithm of total assets in € millions (Clayton et al., 2005; Epstein and Schneider, 2008).

*Return on assets.* To control for profitability, I include the return on assets of the fiscal year of the turnover, measured in percent.

*Current ratio.* To control for liquidity, I include the current ratio, defined as current assets over current liabilities.

*Market-to-book value.* I include market-to-book ratio of equity, defined as the firm's market value of equity divided by the book value of equity.

*Investment.* I define investment as the amount of capital expenditures divided by net property, plant, and equipment at the end of the previous year, in order to measure a company's investment policy.

*Price/earnings ratio.* I define the price/earnings ratio as the ratio of price per share at year-end, divided by earnings per share.

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<sup>34</sup> In my regressions, market share is calculated on the basis of sales. I also use a measure based on total assets, which did not alter my results. It is not included here, but is available upon request.



*Closely held shares.* To control for ownership structure, I include the percentage of shares held by insiders, defined as the number of closely held shares over shares outstanding.

## 4. Results

Appendix 5 gives the means, standard deviations, and correlations of the variables included in the OLS regressions. The Breusch and Pagan (1979) tests indicate the presence of heteroscedasticity. I thus use the White (1980) estimator in all the regression analyses because it provides a heteroscedasticity-robust covariance estimator. Furthermore, to check for multicollinearity, I calculate the variance inflation factors for all variables (see Appendix 6). With a maximum value of 1.68 for the turnover reason dummy, all variables are well below the critical value of 5, and thus exhibit no sign of multicollinearity (Kutner, Nachtsheim, Neter, and Li, 2005).

To control for contemporaneous correlation, I include year dummies (Certo and Semadeni, 2006) for all years except 1998, the base year. The year dummies do not alter the results and were not significant, but they are highly correlated with VIFs up to 6.24. Hence, I do not include them further into the regressions so as to avoid multicollinearity.<sup>35</sup> Table 15 gives the results of the regression.

Model 1 includes only the control variables. Interestingly, the variables that relate to turnover and successor characteristics are not significant. The expectedness of a predecessor's exit and the reason for the turnover are especially insignificant in explaining capital market reactions. These results differ from those obtained in a U.S.-based research setting (Adams and Mansi, 2009; Denis and Denis, 1995; Huson et al., 2001).

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<sup>35</sup> Regression results including year dummies are available from the author upon request.

**Table 15: Regression Results**

	Model 1	Model 2	Model 3
Dependent Variable	CAR [-1, +1]	CAR [-1, +1]	CAR [-1, +1]
Constant	0.011 (0.026)	-0.005 (0.024)	-0.005 (0.024)
<b>Process Variables</b>			
Interim succession (dummy)	---	-0.034 ** (0.013)	-0.034 *** (0.011)
Joint turnover (dummy)	---	-0.026 ** (0.013)	-0.024 ** (0.012)
Different day announcement (dummy)	---	0.000 (0.007)	-0.002 (0.008)
New dismissal (dummy)	---	0.003 (0.011)	0.006 (0.011)
<b>Interaction Effects</b>			
Interim succession * firm performance	---	---	0.112 *** (0.030)
Joint turnover * firm performance	---	---	0.119 *** (0.041)
Different day announcement * firm performance	---	---	0.012 (0.026)
New dismissal * firm performance	---	---	-0.035 (0.029)
<b>Control Variables</b>			
<b>Manager Controls</b>			
Expectedness (dummy)	-0.010 (0.010)	-0.007 (0.009)	-0.008 (0.008)
Turnover type (dummy)	-0.002 (0.007)	0.002 (0.007)	-0.001 (0.007)
Turnover reason (dummy)	0.005 (0.010)	-0.004 (0.010)	-0.004 (0.010)
Successor origin (dummy)	-0.005 (0.009)	-0.004 (0.008)	-0.003 (0.008)
Age incoming manager	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
<b>Company Controls</b>			
Prior firm performance	---	0.000 *** (0.000)	-0.001 ** (0.001)
Herfindahl Hirschman index	0.019 (0.017)	0.012 (0.015)	0.016 (0.015)
Firm size	-0.002 (0.002)	0.000 (0.002)	0.001 (0.002)
Return on assets	-0.002 ** (0.001)	-0.001 * (0.001)	-0.001 (0.001)
Current ratio	-0.004 (0.006)	0.000 (0.005)	0.002 (0.005)
Market to book value	0.003 (0.002)	0.004 (0.002)	0.003 (0.002)
Investment	0.017 *** (0.004)	0.018 *** (0.004)	0.017 *** (0.004)
Price earnings ratio	0.000 *** (0.000)	0.000 *** (0.000)	0.000 *** (0.000)
Closely held shares	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Included observations	218	218	218
R-squared	11.29%	20.06%	25.61%
Increase in R-squared	---	8.77%	5.55%
F-statistic	5.530	6.190	7.100
Prob(F-statistic)	0.000	0.000	0.000

standard errors in parentheses

\* indicates statistical significance at the 10% level.

\*\* indicates statistical significance at the 5% level

\*\*\* indicates statistical significance at the 1% level

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Moreover, reactions to successor announcements do not appear to depend on the role of the top manager. Indeed, my findings indicate it is statistically insignificant whether the top manager is a CEO or CFO. I also do not find that the capital markets differentiate in their reactions to insider or outsider successors, which also differs from findings obtained in the U.S. (Huson et al., 2004; Shen and Cannella, 2002a). Age of the successor is also insignificant.

These results are quite interesting, because both outside succession and younger age of a successor are generally regarded as signs of innovativeness, and have been found to be associated with strategic change and firm performance (Henderson et al., 2006; Karaevli, 2007; Kesner and Dalton, 1994; Wiersema and Bantel, 1992), and to evoke shareholder reactions (Huson et al., 2004). However, in my study, capital market reactions to successor announcements seem unaffected by managerial characteristics.

On the other hand, I find that reactions are driven by company variables, such as return on assets (significant at the 5% level), return on investment (the 1% level), and the price/earnings ratio (the 1% level). Other control variables were not significant. The model overall is significant with a probability of  $p < 0.001$ , and an  $R^2$  of 11.29%.

In Model 2, I include the process variables as direct effects only, i.e., no interactions are presented yet. Regarding the process variables, the coefficient for interim succession is negative and significant at the 5% level, in line with Ballinger et al. (2010). This supports Hypothesis 1a, that the announcement of an interim succession leads to uncertainty in the capital markets that will be represented by a higher risk premium and lower stock prices.

The coefficient for the joint turnover announcement is also negative and significant at the 5% level, which is similar to findings by Mian (2001). Hence, the capital markets react negatively to a simultaneous exit announcement of several top managers,

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because it signals turbulence at the firm and may lead to increased uncertainty about future performance. Hypothesis 2a is thus confirmed.

If a top manager's exit and the successor are announced on different days, the capital markets on average do not seem to react. The coefficient for this variable is not significant, so I find that Hypothesis 3a is not supported. Interestingly, if the successor is not announced on the same day as the predecessor's exit, it does not appear to reflect negatively on him. This may be because the uncertainty surrounding the delayed successor announcement has already been included in the capital market reactions to the exit announcement, so it is already fully reflected in the prices.

Hypothesis 4a is also not supported, because the coefficient for the new dismissal variable is not significant. It appears that capital markets reactions to a successor announcement are not driven by an early dismissal. Thus, this does not translate into a higher failure risk for the successor or associated negative consequences for firm performance. One possible explanation for this finding could be that the capital markets assume the board has learned from their past mistake, and will this time be better able to identify a suitable successor.

Prior firm performance has a directly negative effect on capital market reactions, and is significant at the 5% level. This could be a sign of the general disruptiveness of the turnover process. Under good firm performance, the announcement of a successor might be regarded as a sign that the positive course and performance of the firm may be changing; however, under poor firm performance, the announcement of a successor may raise hopes for a new strategic orientation, and a subsequent improvement in firm performance.

The effects of the other control variables are relatively unchanged. Return on investment and the price/earnings ratio remain significant at the 1% level. Only the significance of the return on assets is reduced, from the 5% to the 10% level. The other control variables remain insignificant. Again, the model is highly significant, with a

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probability of  $p < 0.001$ . Overall, the introduction of the independent variables leads to an  $R^2$  of 20.06%, which is an 8.77-percentage point increase in  $R^2$ .

Model 3 consists of the control variables, the independent variables, and the interaction effects. For the independent variables, interim succession is now significant at the 1% level, while joint turnover and prior performance are significant at the 5% level. Again, the announcement of a predecessor's exit and a successor's entry on different days, as well as a short tenure of a predecessor, are not significant and therefore cannot explain capital market reactions.

For the interaction effects, the interaction between interim succession and mean centered prior firm performance is statistically significant at the 1% level. As expected from Hypothesis 1b, the coefficient is positive, indicating a more negative reaction to interim succession under conditions of poor prior firm performance. Apparently, the capital markets perceive interim succession as a sign of increased uncertainty and difficult conditions for the successor. Under conditions of poor firm performance, the successor will also need to devote a great deal of attention and resources to identifying the sources of performance, and developing the means to manage them. Hence, investors may be skeptical about whether an interim manager will possess the resources or the mandate to initiate necessary changes. Moreover, managers hired for only a short time tend to focus more on "fire fighting," or handling and managing short-term issues, than on initiating longer-term projects that would be critical to improve firm performance (Ballinger and Marcel, 2010).

The effects observed for the interaction between a simultaneous exit announcement of several top managers and firm performance are also quite similar. The interaction is positive and significant at the 1% level. I therefore confirm Hypothesis 2b. The capital markets perceive simultaneous turnover announcements of more than one manager as a sign of turbulence, which will be even more harmful under conditions of poor firm performance. The interactions between the announcement of a successor and the exit of a predecessor on different days and firm performance, as well as between the early

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dismissal of a predecessor and firm performance, are both insignificant, which is similar to the direct effects of these variables.

I find no evidence that capital market reactions are driven by delayed successor announcements or by a shorter predecessor tenure. Therefore, Hypotheses 3b and 4b are not supported. Again, the model is highly significant, with a probability of  $p < 0.001$ . Overall, the introduction of the interactions leads to an  $R^2$  of 25.61%, which represents a further 5.55-percentage point increase in  $R^2$  compared to the model with only the direct effects of the independent variables, and a 14.32-percentage point increase compared to the model that includes only the control variables. The effects of the control variables are again relatively unchanged: Return on investment and the price/earnings ratio remain significant at the 1% level. The significance of the return on assets is reduced from the 10% level to insignificance. All other control variables are insignificant.

## 5. Discussion and Conclusion

This chapter analyzes the effects of top management succession from a capital market perspective. Using market signaling theory, this is the first work to show empirically that it is the management of the turnover process itself that drives investor reactions, while simultaneously controlling for prior firm performance and managerial characteristics. With a longitudinal sample of large German corporations, this study analyzes the short-term capital market reactions, calculated as cumulative abnormal returns, to successor announcements for the CEO and CFO positions. I thus take a more holistic approach to the turnover process and its characteristics by integrating factors (interim succession, simultaneous turnover of two top managers, delays between the announcement of an exit and that of a successor, and early dismissal of a predecessor) identified in prior studies (Ballinger and Marcel, 2010; Fee and Hadlock, 2004; Zhang, 2008) to synthesize these findings.

I show that two aspects of the turnover process are especially powerful in explaining capital market reactions: an interim succession, and a simultaneous exit announcement of two or more top managers. These characteristics both imply turbulence, and can convey signals about a less well managed succession process at a firm, which is likely to increase investor uncertainty about a firm's state.

I use prior firm performance as a moderator, and I find that both effects are even more negative under conditions of poor firm performance. Prior research has documented a similar effect (Shen and Cannella, 2003), as poor firm performance will already have made investors nervous about a firm's future. In such a situation, investors' uncertainty may increase if they perceive signals about possibly disruptive processes at a firm. In my study, managerial characteristics have no explanatory power for the capital market reactions.

Admittedly, two characteristics of the process were not significant: 1) An announcement of exit and entry on different days, and 2) whether the predecessor was dismissed early in his tenure. I posit that the first finding is due to the fact that disappointment over the process management by the board has already been included in reactions to the predecessor's exit announcement. However, on the day of the predecessor's exit announcement, it is unknown how many days will pass until a successor is announced. Thus the precise day that it occurs cannot be expected, and it is therefore astounding to find no effect attributable to the successor on the day of his announcement after the position has been vacant for some time.

But the lack of a reaction to a newly dismissed top manager could be interpreted to mean that the capital markets expect some kind of learning on the part of the board. Apparently, investors do not automatically expect a "vicious circle" of successions, so that one inadequate choice does not mean they will conclude that the newly elected successor will also be inadequate choice. Additionally, the dismissal of an early tenured top manager could be a sign of scapegoating (Boeker, 1992; Rowe et al., 2005; Ward et al., 2011), because structural firm changes take longer than just a few years to

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implement. From these dismissals, investors may simply infer signs of strategic change on the firm's side, and therefore they do not react.

Following Shen and Cannella (2003), I show that investor reactions to turnover process characteristics are moderated by prior firm performance. Thus my study also adds to the stream of literature that analyzes the turnover process, and shows how careful management is needed to avoid negative noise in the capital markets (Clayton et al., 2005; Graffin et al., 2011).

My study explicitly controls for the expectedness of the exit announcement, and therefore follows Finkelstein et al.'s (2009) call for research. Interestingly, the expectedness of a predecessor's exit announcement did not influence investor reactions to the successor announcement significantly, although I find that the majority of the ad hoc issuances announced both events simultaneously. Apparently, for the analysis of succession effects, other effects, such as interim succession or simultaneous exits of two or more top managers, are more influential.

The results presented here indicate that German corporations should be particularly diligent in selecting top manager successors, but also carefully manage the process of the succession announcement. The "How" and "Under What Circumstances" of the successor announcement, rather than the "Who," are what drive capital market reactions, and they should thus be taken into consideration for all communications directed toward capital market participants.

Furthermore, although this study controls for managerial characteristics in the analysis of investor reactions, their limited effect on stock prices could result from the comparatively lower discretion of top managers in Germany (Crossland and Hambrick, 2007, 2011). This characteristic leads to less prominence of top managers (Chatterjee and Hambrick, 2007; Hayward and Hambrick, 1997; Hayward et al., 2004), and to lower influence of individuals on firm performance (Hambrick and Finkelstein, 1987). This is likely a consequence of the German "national system,"



which includes several elements that limit the discretion of individual top managers, such as the collective liability of the entire top management team, a civil law context that fosters stakeholder orientation over a shareholder orientation (Johnson et al., 2000; La Porta et al., 1999; Witt and Redding, 2009), the codetermination law that assigns board seats to employees and trade union representatives to ensure their voices are heard (Witt and Redding, 2009), the two-tiered board system that separates top management from the supervisory board and thus precludes CEO duality (Finkelstein and D'Aveni, 1994; Quigley and Hambrick, 2011; Tuggle et al., 2010b; Weir et al., 2005), and the comparatively high banking orientation in Germany, which leads to crossholdings among firms and banks as supervisors on company boards (Becht and Boehmer, 2003; Dittmann et al., 2010; Elsas and Krahn, 2004; Franks and Mayer, 1998, 2001; Gorton and Schmid, 2000; Schmidt, 2004).

But, because this study is conducted in only one single governance setting, I cannot control for the direct effects of the national system and how it impacts top manager characteristics. This limitation could be overcome by designing a study to elaborate on my findings design that would be set in several countries and would control for each national system. However, from U.S. research that highlights the importance of meticulous information management during the turnover process (Graffin et al., 2011), I would expect to find that process characteristics are similarly important in explaining capital market reactions. However, the difference could be that managerial characteristics will be significant, because more prominence is assigned to individual managers in environments such as the U.S. that provide more discretion.

Another avenue for future research might be to include board characteristics into the analysis of the effects of the turnover process on the capital markets. Managing this process efficiently is one of the board's most important tasks. Moreover, the board sets the mandate for new top managers (Westphal and Fredrickson, 2001), so its characteristics will naturally influence the strategic direction and performance of the firm (Wiersema, 2002), which can be anticipated by the capital markets.

## **E. Discussion**

### **1. Purpose of Dissertation**

The overall purpose of this dissertation was to enhance understanding of the complex interrelationships between capital market participants and top management turnover in German corporations. I draw on upper echelons theory, agency theory, and market signaling theory to examine three select aspects of these relationships. In section B, I analyze capital market participants' reactions to the announcement of a top manager vacating his position, with a focus on the surrounding corporate governance system in Germany that limits top managers' influence. In section C, I investigate the influence active investors exert on top management turnover. Finally, in section D, I explore the signals capital market participants perceive from the characteristics of successor announcements. With these analyses, I intend to further integrate capital market findings with upper echelons research. Although I separate the turnover analyses into different parts for methodological reasons, the aggregation of the findings from the different sections allows for a more complete picture of top management turnover in Germany.

In the following chapter, I synthesize my key findings, beginning with an overview of each research question. I then compile my findings and put them collectively into context.

## 2. Synthesis of Key Findings

### 2.1. Overview of Key Findings

In this chapter, I answer the various research questions posed in section A.2 in detail. I then integrate the findings in the next chapter.

*First research question: Do capital markets react to the announcement of top management turnover in Germany?*

The analyses in section B were conducted in order to answer my first research question. Therefore, I conceptualize the German corporate governance system to better understand how it differs from the American system, as well as to understand the resulting limitations of managerial discretion in a German context. In an environment of limited managerial discretion, individual top managers are not as directly able to influence firm performance. Because capital market participants are expected to anticipate this, I posit that they will not assign the same importance to top management turnovers in Germany as they might in the U.S. Based on this analysis, it follows that the resulting comparatively lower discretion may limit individual top managers' influence on firm performance.

To test this notion empirically, I conducted an event study, and observed no significant capital market reactions on average to the announcement of a top management exit. This result differs from results reported for the U.S. (Beatty and Zajac, 1987; Furtado and Karan, 1990). Interestingly, factors that are influential in explaining capital market reactions in U.S. studies, such as turnover reason (Denis and Denis, 1995) or successor origin (Kale, Reis, and Venkateswaran, 2009; Karaevli, 2007), are also not significant in my analysis. Similarly, managerial characteristics such as age (Cannella and Shen, 2001) or tenure did not explain stock price reactions in Germany, although they have been found to be influential in the U.S. (Cannella and Shen, 2001; Hambrick, 1991; Zhang, 2008). Reactions did not differ between CEO or CFO turno-

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ver either. This implies that the two positions may be viewed more similarly in Germany, in contrast to the U.S., where the CEO is normally the higher and more distinguished position (Fanelli and Grasselli, 2006; Hayward and Hambrick, 1997; Hayward et al., 2004). Altogether, the characteristics of individual top managers did not translate into observable stock market reactions in my German research setting, which I argue is a consequence of the comparatively limited discretion of top managers in the German corporate governance setting.

***Second research question:*** *Do active investors influence top management turnover in German corporations?*

Section C is dedicated to my second research question. I contrast two hypotheses: First, the *monitoring hypothesis*, which is based on agency theory. Under this hypothesis, I argue that active investors engage in the monitoring of their portfolio companies' top managers, which may eventually result in top management turnover. Second, the *restraint hypothesis*, under which active investors refrain from promoting top management turnover as a result of the German corporate governance system. This hypothesis draws from the concept of managerial discretion on a national level.

In order to empirically determine the influence active investors exert on top management turnover in Germany, I conduct an event history analysis for top managers of large German corporations. I find no increase in top management turnover under the presence of active investors. On the contrary, while no relationship can be identified between the presence of a private equity fund and top management turnover, I find that hedge funds are actually associated with longer-tenured top managers. A possible explanation for this could be that many hedge funds invest in companies where the founder or members of the founding family serve in top management positions. Thus, it may be difficult or even contrary to investors' interests to replace these managers.

***Third research question:*** *What drives capital market reactions to succession announcements? Do investors react more strongly to process characteristics than to individual successor characteristics?*

The analyses for my third research question are presented in section D. Based on market signaling theory, I investigate which elements of a succession announcement lead to capital market reactions and are regarded as signals for the state of the company. I find no evidence for capital market reactions to managerial characteristics. However, capital market participants react to certain characteristics of the succession process. For example, the announcement of an interim succession, or the joint turnover of two or more top managers, tends to lead to negative stock price reactions. The effect of these characteristics is reinforced by prior firm performance, which I use as a moderator in my analyses. Thus, investors may evaluate the announcement of an interim succession as a signal of the board's inability to identify an adequate (permanent) successor in a timely manner. Similarly, the simultaneous exit of two top managers is apparently regarded as a sign of difficulties at the firm, and can lead to investor uncertainty.

Altogether, my results suggest that capital markets do not attribute much importance to individual top managers. With regard to both the exit and entry announcements, capital markets do not exhibit significant reactions to individual managers' characteristics, indicating a comparatively lower focus on them. Instead, investors appear to react more to the symbolic value of certain information they receive, as it may serve as a signal about the state of a company and its future performance.

## **2.2. Comparison of Key Findings**

All three research questions in my dissertation center on the relationship between capital markets and top managers. While the first research question asks how capital markets react to exit announcements, the second focuses on how a specific group of capital market participants influences top management turnover. The third research question addresses capital market reactions to entry announcements of top managers,

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and the signaling value of the information received. All three research questions decompose the complex relationships between capital markets and top managers into select aspects, as a means to highlight specific characteristics.

To summarize my findings from the three sections, I find first that capital markets tend to attribute comparatively little importance to top managers on average in Germany. They react very little on average to their exit announcements. The differences in reactions cannot be explained by managerial characteristics, which implies that the personality of the individual top manager is not the explanation. Similarly, active investors do not focus on monitoring top managers, or at least do not promote their turnover. In the same vein, capital market reactions to successor announcements are driven by signals of a turbulent process, rather than by managerial characteristics, which I find have no explanatory power. Therefore, I consistently observe that individual top managers in Germany appear to be of limited significance to capital markets.

The effects I observe in my dissertation are quite different from findings reported in a U.S. context. U.S. top managers are under much more scrutiny from the capital markets: Stronger reactions to their turnover are reported, which are often linked to the personality of the top managers (Lubatkin, Chung, Rogers, and Owers, 1989; Shen and Cannella, 2003; Zhang and Rajagopalan, 2004). Furthermore, active investors in the U.S. tend to engage in monitoring, which results in an increased rate of top management turnover in their presence (Brav et al., 2008; Del Guercio et al., 2008; Gong and Wu, 2011; Helwege et al., 2012). The differing results I obtain here are likely a result of the two differing national systems.

Interestingly, capital market participants also do not appear to differentiate much between CEO or CFO turnover. Therefore, my results collectively suggest that, in Germany, the CEO position is not generally considered more important than the CFO, as it is, for example, in the U.S. The collective liability of the entire top management team, as stipulated by German law, apparently prevents the CEO from gaining too much in importance. Germany thus tends to avoid the “CEO superstar” phenomenon

often seen in the U.S. (Fanelli and Grasselli, 2006; Hayward et al., 2004). This situation is likely reinforced by the two-tiered German system, with its separation into an executive and a supervisory board, which mitigates CEO duality (Finkelstein and D'Aveni, 1994; Quigley and Hambrick, 2011; Tuggle et al., 2010b). Therefore, in the German setting my research is conducted in, CEOs do not have such an elevated position as in the U.S., seeing that they are treated similarly to CFOs by capital markets.

If capital market participants are less likely to react to information about individual managers, the state of a firm is likely to be of more import to them. The results obtained in section D highlight this: While managerial characteristics possess no explanatory power, capital market participants do react to turnover-related information. Such information may provide signals about the state of the firm, for example, the quality of board processes like continuous succession planning (Ballinger and Marcel, 2010). Apparently, the entire firm and top management team are regarded as the most relevant for firm performance, rather than a single individual.

Interestingly, I find that prior firm performance is negatively related to top management turnover, which means that, under conditions of poor firm performance, top managers are more likely to leave their firms. Because I find that firm performance is not directly related to individual top managers, it is somewhat astounding that they would still leave their positions. As Shen and Cho (2005) note, in cases where top managers possess only limited discretion to directly influence firm performance, but are still dismissed because of poor firm performance, these dismissals likely represent a mere scapegoating by the board (Shen and Cho, 2005). Similarly, one could argue that performance-related dismissal of top managers is a sign of scapegoating in a German context, because of their comparatively limited discretion. However, as I observe here, if capital market participants see through this maneuver, they are unlikely to react to the exit announcement of a top manager.

Note that this is not meant to imply that the persons at the apex of an organization are irrelevant, or that their qualifications are immaterial. Rather, this may be a sign that

top managers often come from a very narrow talent pool with similar educational credentials, so that individual differences are ultimately quite small (Finkelstein et al., 2009).

### **3. Contributions**

#### **3.1. Theoretical Contributions**

This dissertation aims to shed light on the complex relationships between capital markets and top managers in German corporations. I thus integrate research on managerial discretion (Crossland and Hambrick, 2011; Hambrick and Finkelstein, 1987), top executive succession (Finkelstein et al., 2009; Shen and Cho, 2005), and external governance mechanisms (Beck and Wiersema, 2011; Del Guercio et al., 2008; Wiersema and Zhang, 2011). This dissertation adds to the management turnover and corporate governance literature in at least four primary ways.

First, I extend prior research on antecedents of top management turnover by including the broader, capital market-related governance context as a turnover antecedent in my analysis. Most prior research has focused mainly on internal mechanisms of governance as antecedents of turnover, such as the board of directors (Haleblian and Rajagopalan, 2006; Huson et al., 2001). The inclusion of external mechanisms has recently been proposed (Beck and Wiersema, 2011), and tested empirically for investment analysts (Farrell and Whidbee, 2003; Wiersema and Zhang, 2011). But the influence of active investors has not been analyzed in management research.

In finance research, some early papers hinted at how active investors can influence executive turnover (Brav et al., 2008; Del Guercio and Hawkins, 1999; Del Guercio et al., 2008). This topic has been of more research interest lately (Gong and Wu, 2011; Helwege et al., 2012). However, nothing thus far has attempted to integrate it into upper echelons theory. Moreover, as capital markets become increasingly more important for top managers (Davis, 2009; Zorn et al., 2005), they are likely to become increas-



ingly more important as monitors. Therefore, I integrate this research by including active investors, an example of external, market-related monitoring, as antecedents of top executive turnover into upper echelons research. I thus address Beck and Wiersema's (2011) call for research.

Second, in my dissertation, I conduct a detailed theoretical analysis of the factors in the German national system that cause the comparatively limited discretion. This is a way to integrate the stream of research dedicated to comparative corporate governance (Denis and McConnell, 2003; La Porta et al., 1999; Mintz, 2005; Shleifer and Vishny, 1997) into research on managerial discretion (Hambrick and Abrahamson, 1995; Hambrick and Finkelstein, 1987; Shen and Cho, 2005). While the seminal works of Crossland and Hambrick (2007, 2011) already proceed in this direction, an in-depth theoretical analysis of the detailed elements of a corporate governance system and their effects on managerial discretion has so far not been conducted. I thus extend the research on the distinctive features of the German corporate governance system (Crossland and Hambrick, 2007; Fiss, 2006; Franks and Mayer, 1998; Hackethal et al., 2005; Kaplan, 1995; Schmidt, 2004; Vitols, 2005) by theoretically analyzing their effect on managerial discretion.

The German corporate governance system provides a different understanding of the role and importance of top managers, especially CEOs. In my research context, I find that their individual importance is reduced, which inhibits the "superstar" CEO phenomenon that is sometimes observed in the U.S. (Fanelli and Grasselli, 2006; Hayward et al., 2004). My findings for the German context are very different from those observed in a U.S. context that form the basis for upper echelons theory. Therefore, it might be an interesting avenue for further research to test the generalizability of upper echelons theory in different corporate governance contexts. This may be a way to expand upper echelons theory, and allow for a broader understanding of the role of top managers.

Third, I extend prior research on market signaling regarding new top manager selection by including process characteristics as signals into my analysis. Market signal-

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ing theory (Heil and Robertson, 1991; Spence, 1973) states that market participants use signals to reduce information asymmetry. For market participants to include a signal into stock prices, it must convey new, hitherto unknown information that is relevant for firm performance.

Market signaling theory has been integrated into the succession literature (Zhang, 2008), but has so far focused mainly on signals of top managers' abilities. I extend this literature by including signals sent by process characteristics. As a result of German top managers' comparatively limited discretion, their direct influence on firm strategy and firm performance is also likely to be limited (Crossland and Hambrick, 2007, 2011). In such a setting, signals about top managers might be less directly relevant for firm performance. However, signals about the state of the firm and the quality of board processes might be more relevant for capital market participants. This is highlighted by the impact of prior firm performance on investor reactions, which I introduce as a moderator for stock price reactions to process characteristics. I posit that investor reactions are likely to differ depending on prior firm performance (Shen and Cannella, 2003). Under poor firm performance, for example, investors may already be nervous about a firm's current state and future performance, so they are likely to react more sensitively to any signals that convey information about a possibly disruptive situation at the firm. The inclusion of process-related signals could prove especially valuable in other low-discretion settings such as Japan or China. Thus, the findings in my dissertation extend understanding of signals that relate to top management turnover.

Fourth, I include the CFO in my analyses as an extension of the top management team beyond the CEO (Hambrick, 2007). I therefore extend the stream of research since the introduction of SOX (the Sarbanes-Oxley Act) that has increasingly included CFOs into analysis (Baxter and Chua, 2008; Brochet, Faurel, and McVay, 2011; Collins et al., 2009; Collins et al., 2008; Ge et al., 2011; Hoitash, Hoitash, and Johnstone, 2009; Kaplan, Samuels, and Thorne, 2009; Kim et al., 2011; Li et al., 2010).

Contrary to what has been documented in U.S. studies, in my research I find no evidence for an increased significance of the CEO in comparison to the CFO. In other words, I do not find that capital market reactions differ between CEOs and CFOs. However, I do note, in section C, that CEOs tend to have comparatively longer tenures than CFOs. This might be for three reasons: First, CEOs might be more closely connected to the firm as founders or members of the founding family, and they may therefore remain in their positions longer. Second, CEOs might use CFOs as scapegoats during times of poor firm performance (Boeker, 1992; Khanna and Poulsen, 1995; Rowe et al., 2005; Ward et al., 2011). Third, CFOs might possess less firm-specific and more functional knowledge than CEOs (Baxter and Chua, 2008), which may make it easier for them to change firms. However, as I noted earlier, the collective liability of the entire top management team in German corporations appears to prevent CEOs from attaining overly elevated positions. Therefore, research conducted in a German or comparably low-discretion setting may want to consider including other top managers into the analysis.

### **3.2. Practical Contributions**

My findings here do not only aim for a theoretical contribution; they are additionally important for practitioners, within firms as well as for the broader public. For supervisory boards, it is critical to understand the importance of the turnover process and its signaling value to capital markets. Capital market participants do not only evaluate the direct content of news, but they treat the news as signals as well, from which they infer valuable information about a firm's state. Therefore, boards should avoid creating any impression of instability.

This has two critical implications: First, implementing sufficient processes for succession planning is vitally important. Continuous succession planning will enable a board to appear well-prepared in the event of an unexpected top management exit, and will prevent sending any signals of uncertainty, such as the announcement of an interim successor. Second, boards should use a high amount of due diligence in the com-

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munication of the processes. The insights obtained here for the communication of succession processes may be transferable to the communication of other, similarly important, board or managerial decisions.

Above all, it is important to remember that any investor uncertainty is likely to result in negative stock price reactions. Therefore, communication with the capital markets must be conducted with the utmost care and management, and by a clear consideration of what signaling value may be conveyed. Direct communication with investors should always focus on conveying stability and a sense of organization at a firm. Especially under conditions of poor performance, investors will tend to be more nervous about the state of a company, and may react more negatively to signals perceived from a turnover announcement. Therefore, in these situations, boards should be especially careful about turnover, because it can imply scapegoating and lead to increased investor uncertainty.

Another interesting implication for boards might be to reconsider the question of top manager compensation. If top managers are not as directly influential to firm performance, as perceived from the limited reactions of capital markets to their turnover, it may not be useful to incentivize them on stock price development. Instead, measures should be identified that they can directly influence, and these should be used instead as incentives.

From my work, top managers may realize that the announcement of an active investor acquiring a stake in their companies is not necessarily bad news for them – at least in Germany. Contrary to common arguments in the press, active investors are not as bad as their infamous reputations would suggest, at least as far as their influence on top management turnover. Although top managers may be more inclined to focus on the cases of investor activists who are noisy, disruptive, and potentially harmful to acquired firms, I believe these may actually represent the exception rather than the norm. Ordinary cases tend to receive little public attention, as documented in section C and in Gospel et al. (2011).

Nevertheless, similarly to boards, top managers may also want to consider how important careful management of communication with the capital markets is. The focus should thus not be on direct informational content only, but should also include the signaling value of the information. And it should aim to avoid or reduce any hint of uncertainty. Importantly, top managers should note for their communication that investor reactions tend to be state-dependent, i.e., the reactions may differ depending on the firm's financial situation. Thus, communication under duress or at difficult times should particularly aim to send signals of stable processes and capable top managers.

Regarding the broader public, my dissertation aims to contribute to the public debate on the effects of investor activism. Contrary to the oft-discussed, prominent cases in Germany such as Deutsche Börse or Hugo Boss, I find no evidence that active investors generally promote top management turnover. On the contrary, I find that hedge funds are actually associated with comparatively longer tenure. Thus, the picture of active investors as merciless monitors should be corrected somewhat by the empirical evidence I present here. It may also be worthwhile to supplement other aspects of the more criticized behavior of active investors, such as the extraction of cash, with the increased debt burden taken on in the portfolio companies by similar empirical analysis. This could serve to challenge the public picture of active investors as "locusts."

#### **4. Limitations**

My work is naturally subject to some limitations. First, my dissertation uses upper echelons theory, and is thus subject to any limitations connected with it. Upper echelons theory asserts that top managers shape their firms via the decisions they make, and that these decisions are subject to the managers' cognitive and emotional biases. Therefore, firm performance is regarded as a consequence of managerial decision making. As Hambrick (2007: 334) notes: "If we want to understand why organizations do the things they do, or why they perform the way they do, we must consider the biases and dispositions of their most powerful actors—their top executives".

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As a result, three important potential issues – two theoretical and one empirical – arise: 1) the potential glorification of top managers, 2) whether the importance of top managers is overrated, and 3) whether any problems arise from the use of archival data as proxies for psychological variables.

The first issue appears especially problematic in light of the increasing research on the dark side of leadership, such as narcissism (Chatterjee and Hambrick, 2007) and the destructive influence of hubris (Hayward and Hambrick, 1997; Hayward et al., 2004; Li and Tang, 2010). While management research usually takes a very positive perspective on the influence of top managers, finance research based on agency theory is somewhat more negative. Hence, this emphasizes the need to closely monitor managers in order to avoid the more negative effects. To take a more neutral perspective, I use the concept of managerial discretion developed in Shen and Cho (2005) that integrates both perspectives. However, upper echelons theory might still view top managers too positively and may thus overstate their influence.

Regarding the second issue, the importance of top managers, I follow Hambrick's (2007) call for research to test upper echelons theory in a governance context besides a U.S. one. I find that, in this context, the importance of individual managers is indeed reduced. Hence, upper echelons theory may again be overstating managerial importance, or it may not be directly generalizable to governance contexts that provide less discretion.

Regarding the third issue, in my tests of upper echelons theory, I rely on archival data, which represent a generalization of some indirect, not directly observable factors. For example, the use of top managers' age as a proxy for risk aversion, although widespread and well researched, represents a mere approximation. Hence, I am not able to open the "black box" of upper echelons research, to disentangle the effects of the unobserved mechanisms that are at the heart of managerial decision-making (Hambrick, 2007; Hambrick et al., 1993). As Hambrick (2007: 335) notes, "The use of demo-

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graphic indicators leaves us at a loss as to the real psychological and social processes". While I could have made stronger inferences from richer psychological variables, these variables are not yet widely used because they are difficult to obtain (Finkelstein et al., 2009).

The second primary limitation is that all my analyses are conducted in a single governance setting. Although this is indeed feasible and has commonly been done in prior research (David, O'Brien, Yoshikawa, and Delios, 2010; Firth, Fung, and Rui, 2006; Fiss, 2006; Fiss and Zajac, 2004, 2006; Kang and Shivdasani, 1995; Kaplan, 1995; Li and Tang, 2010), it is not optimal. A study comparing two or more governance contexts may yield better and fuller explanations. Because my results differ significantly from those obtained in a U.S. context, it would also be interesting to conduct the same analyses using U.S. data simultaneously.

Furthermore, as a result of my research setting, I cannot directly measure the effects of the components of the German national system and their moderating role as determinants of managerial discretion. A comparative study would allow for a direct measurement of several variables related to the respective national systems (Crossland and Hambrick, 2011). However, such a study would need to ensure a direct measurement of managerial discretion in order to exclude other, confounding effects. Although Crossland and Hambrick (2011) have recently proceeded in that direction by including expert assessments of managerial discretion, direct measurement could be difficult to obtain.

The third limitation arises because I apply a complex procedure of data classification to some of my variables, such as turnover reason and turnover expectedness, where two coders independently classify all the turnovers. This is again a standard and commonly used procedure (Adams and Mansi, 2009; Bresser and Thiele, 2008; Bresser et al., 2005; Farrell and Whidbee, 2003; Parrino, 1997; Zander et al., 2009), and interrater reliability was reportedly high (see the respective sections). However,

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my results could still be biased, as firms tend to present turnover announcements in the most positive and agreeable light possible (Warner et al., 1988).

Fourth, my analyses focus only on capital market-based measures of firm performance. Although this is in line with the capital market perspective taken in my work, these measures may be potentially biased, because they are subject to speculation and rely heavily on assumptions of efficiency (Fama, 1970, 1991; Fama et al., 1969). Moreover, I focus on short-term performance only and exclude long-term performance effects. This may further bias my results.

Fifth, I include only one external governance mechanism in my work, i.e., active investors. Integrating other external, capital market-based governance mechanisms such as security analysts (Bhushan, 1989; Fanelli and Grasselli, 2006; Farrell and Whidbee, 2003; Westphal and Graebner, 2010; Wiersema and Zhang, 2011) might lead to a more complete picture. However, for such external mechanisms to function, it is important that markets and the people acting on them work efficiently and rationally. I do not test the functioning of capital markets in Germany in this work. Moreover, I do not analyze the influence of internal monitoring mechanisms, such as the supervisory board, in detail, because they are beyond the scope of my dissertation. However, integrating internal and external governance mechanisms into one analysis might provide valuable insights into their relationships and interactions.

Sixth, my sample consists only of large listed companies, i.e., the German DAX and MDAX companies. Although I control for size in my analyses, the effects of capital markets on smaller firms remain unclear, particular because a negative relationship between firm size and information asymmetry has been documented (Helwege, Pirinsky, and Stulz, 2007). Smaller companies are not as frequently traded or intensively covered by the media or analysts as larger companies (Bhushan, 1989). Moreover, the effects of market-based governance mechanisms for non-listed companies might be interesting to investigate.



## 5. Future Research

The research I conducted for my dissertation provides interesting findings about important aspects of the relationships between top managers and capital markets in a German research setting. However, these findings pave the way for promising future avenues of research as well.

As I noted earlier, my findings are quite different from both theoretical expectations and empirical evidence obtained in a U.S. context. This is likely a consequence of the German national system, which tends to limit managerial discretion to a much greater extent than the U.S. national system (Crossland and Hambrick, 2007, 2011). Although a comparison of two or more governance systems is beyond the scope of this work, it might be fruitful for further research to understand in more detail how different governance contexts can influence the relationship between top managers and firm performance.

Some work has focused on other single governance contexts with limited managerial discretion, such as China (Firth et al., 2006; Li and Tang, 2010) or Japan (David et al., 2010; Kang and Shivdasani, 1995), but direct comparisons have been scarce thus far. The seminal studies of Crossland and Hambrick (2007, 2011) are the first step in that direction. In this vein, a direct measurement of managerial discretion might also be helpful for a better understanding of the detailed mode of functioning of this influential factor. Comparative research on the influence of corporate governance systems on managerial discretion could help further understanding of certain elements of the corporate governance system, such as, for example, the two-tiered board system and its implications for CEO power and influence (Kaplan, 1994, 1995; Mintz, 2005). Furthermore, this type of research could be useful for theory-building: Findings derived from European research settings might inform theories built and tested mainly in American contexts and lead to a broader theory base.

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Another promising avenue for future research could be the analysis of external, market-related governance mechanisms and their influence on top management. Most research thus far has focused primarily on internal governance mechanisms such as the board of directors (Brunello et al., 2003; Combs et al., 2007; Dowell et al., 2011; Zajac and Westphal, 1996). The neglect of external mechanisms recently led to a call by Beck and Wiersema (2011) to include the role of a broader governance context into research.

Two specific representatives of external governance mechanisms have been proposed for further investigation: financial analysts and institutional investors. In a recent paper, Wiersema and Zhang (2011) traced the role of analysts in executive dismissals. However, institutional investors have not yet been the subject of any intense management research analysis. Some works in finance research have increasingly focused on the influence of institutional investors (Del Guercio et al., 2008; Helwege et al., 2012), or specific classes such as hedge funds (Brav et al., 2008) and private equity funds (Gong and Wu, 2011). But integration into upper echelons theory has so far been missing.

This work is the first attempt to provide this link in a German research setting, but it might be interesting to conduct similar analyses in a U.S. setting, or to compare the influence of institutional investors in different governance contexts. For example, the comparison of traditionally insider-controlled governance systems (Dittmann et al., 2010; Franks and Mayer, 1990, 2001; Franks, Mayer, and Wagner, 2006) with more market-oriented systems (Jensen and Ruback, 1983; Walsh and Kosnik, 1993; Weir et al., 2005; Wright et al., 2009) could prove especially insightful. The interrelationships among elements of external monitoring mechanisms, such as analyst recommendations, institutional investors, and top management turnover, might also be interesting to investigate. Institutional investors and financial analysts do not act in isolation but in the same arena of the capital markets. Therefore, studying their collective influence might offer useful insights. Additionally, other external governance mechanisms such as media (Bednar, 2012; Farrell and Whidbee, 2002; Hayward et al., 2004; Rindova,

Pollock, and Hayward, 2006) could be included into an analysis to enrich understanding.

As a complement to an analysis of external governance mechanisms, I believe internal governance mechanisms should also receive more attention, especially the board of directors. In my work, I have analyzed the signaling value of succession process characteristics to capital market participants. But the signaling value of board characteristics could also add greatly to knowledge of stock price reactions. Monitoring top managers, and making decisions about dismissals and succession planning, are some of the board's most important tasks (Finkelstein et al., 2009). And, although the board's influence on top management monitoring has received a great deal of research attention (Finkelstein and D'Aveni, 1994; Tuggle et al., 2010b; Westphal and Graebner, 2010), the signaling influence of their characteristics has not thus far (Tian et al., 2011).

This is particularly surprising given that well-informed boards should be better able to identify successful successors (Zhang, 2008), which generally translates into better firm performance. If investors anticipate this, they will infer from board characteristics information about the quality of the successor choice (Tian et al., 2011). Recent research has highlighted that boards sometimes use information purposefully to steer investor reactions during the turnover process (Graffin et al., 2011), but it would be interesting to analyze how they use information about their own quality to guide capital market reactions. Moreover, interactions between board characteristics and managerial characteristics could be promising to investigate, for example, whether experienced boards can compensate for inexperienced top managers, and thus reduce uncertainty for capital market participants.

My research has generally centred on the role and influence of capital markets, and has thus taken a short-term perspective on firm performance. However, because many top manager decisions are of a more strategic nature (Goodstein and Boeker, 1991; Westphal and Fredrickson, 2001), their translation into measurable firm performance

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can take considerable time. A too narrowly defined focus on short-term performance measures could foster the potentially dangerous “short-termism” that might be contrary or even harmful to long-term firm performance (Lavery, 1996). Therefore, future analyses may want to investigate the relationship between short- and long-term performance, and compare long-term capital market- and accounting-based measures of firm performance to obtain a more complete picture of the performance consequences of top management turnover. I would additionally suggest testing the long-term performance effect of the process signals analyzed in my work, in order to identify whether the short-term reactions observed here are related to long-term performance.

Finally, another promising direction for future research could be a more detailed analysis of turnover processes, which has been one of the least researched areas. Although early works have begun in this direction (Cannella and Lubatkin, 1993; Ocasio, 1999; Vancil, 1987), very little has been added to the debate since (Finkelstein et al., 2009). For a more detailed understanding about succession processes, qualitative case studies might shed light on the fine-grained company-level decisions that are at the heart of turnover processes, but that are difficult to analyze with the aggregated data normally used in quantitative empirical research. Such a method could, for example, reveal the informal power active investors exert in talks or letters with the supervisory board on top manager turnover (Solarz, 2010).

## **6. Conclusion**

In conclusion, my dissertation provides insights into the complex set of relationships between capital markets and top managers in Germany. It advances previous work on managerial discretion at a national level and market-related governance mechanisms. Moreover, it analyzes how active investors influence top management turnover in a low discretion country. Finally, it analyzes the reactions of capital markets to process characteristics in succession announcements, and shows how these reactions are moderated by prior firm performance. Hopefully, this dissertation will inspire future research on market-related governance mechanisms and the influence of national systems on managerial discretion.

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## **Appendix**

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## Appendix 1: Mean, Standard Deviations and Correlations

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	16	
1 CAR [-1, +1]	0.01	0.08	1.00																	
2 Turnover type (dummy)	0.48	0.50	0.01	1.00																
3 Turnover reason (dummy)	0.36	0.48	-0.01	0.23	1.00															
4 Successor origin (dummy)	0.48	0.50	0.06	-0.22	0.16	1.00														
5 Joint turnover (dummy)	0.05	0.22	-0.05	0.05	-0.13	-0.04	1.00													
6 Age departing manager	55.35	8.06	-0.06	0.33	-0.22	-0.30	0.15	1.00												
7 Age incoming manager	48.73	6.82	-0.06	0.28	0.25	-0.09	0.08	0.07	1.00											
8 Tenure departing manager	14.24	11.79	-0.02	0.22	-0.23	-0.21	0.05	0.56	0.02	1.00										
9 Prior firm performance	0.00	0.36	-0.21	-0.05	-0.23	-0.11	0.01	0.04	-0.05	0.18	1.00									
10 Herfindahl Hirschman index	0.46	0.26	0.04	-0.05	0.16	0.10	0.06	-0.01	0.05	-0.17	-0.11	1.00								
11 Log (total assets)	8.13	1.78	-0.05	-0.02	0.08	-0.15	-0.01	0.11	0.22	0.18	0.08	-0.03	1.00							
12 Return on assets	4.48	5.03	-0.12	0.02	-0.23	-0.18	0.04	0.14	-0.07	0.21	0.31	-0.09	-0.16	1.00						
13 Current ratio	1.56	0.83	-0.09	0.12	-0.10	-0.02	0.00	0.10	-0.03	0.11	0.25	-0.06	-0.31	0.40	1.00					
14 Market To Book Value	2.79	2.73	0.22	-0.07	-0.08	0.04	0.05	-0.14	-0.11	-0.03	0.11	-0.02	-0.24	0.27	0.15	1.00				
15 Investment	0.30	0.48	0.04	0.01	-0.13	-0.06	0.21	-0.02	-0.15	-0.02	0.04	-0.16	0.03	0.10	0.01	0.05	1.00			
16 Price Earnings Ratio	18.28	41.23	0.13	0.07	-0.15	-0.05	0.15	0.04	-0.03	-0.06	0.02	0.02	-0.10	0.17	0.15	0.17	0.02	1.00		
17 Closely held shares	40.27	22.14	-0.02	0.05	0.00	0.10	0.04	-0.09	-0.12	-0.14	-0.04	0.00	-0.24	0.13	0.10	0.02	0.03	0.08	1.00	

N = 197

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**Appendix 2: Variance Inflation Factors**

<b>Variable</b>	<b>ViF</b>	<b>1/ViF</b>
Turnover type (dummy)	1.47	0.68
Turnover reason (dummy)	1.46	0.68
Successor origin (dummy)	1.23	0.81
Joint turnover (dummy)	1.15	0.87
Age departing manager	1.81	0.55
Age incoming manager	1.26	0.79
Tenure departing manager	1.71	0.58
Prior firm performance	1.24	0.81
Herfindahl Hirschman index	1.11	0.90
Log (total assets)	1.41	0.71
Return on assets	1.48	0.68
Current ratio	1.39	0.72
Market to book value	1.20	0.83
Investment	1.15	0.87
Price earnings ratio	1.13	0.88
Closely held shares	1.13	0.88
Mean ViF	1.33	



Appendix 3: Mean, Standard Deviations and Correlations for Models 1-2

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1 Active Investor	0.13	0.34	1.00																
2 Age	52.71	7.59	-0.17	1.00															
3 Dismissal	0.18	0.39	0.00	-0.04	1.00														
4 CEO	0.52	0.50	0.02	0.32	0.14	1.00													
5 Employees	47.82	90.84	-0.03	0.11	0.17	-0.01	1.00												
6 Company Age	76.44	54.70	-0.22	0.11	-0.01	0.04	-0.06	1.00											
7 Net Debt	7.95	37.97	-0.02	0.07	0.03	0.01	0.19	0.03	1.00										
8 ROA	4.51	6.89	-0.05	0.02	-0.14	0.00	-0.09	0.04	-0.10	1.00									
9 Change in ROA	-0.23	6.74	0.05	-0.01	-0.01	0.00	-0.01	0.05	0.00	0.01	1.00								
10 Free Cash Flow	14.32	55.71	0.01	0.06	0.03	-0.02	0.36	-0.01	0.57	-0.06	0.00	1.00							
11 Closely held shares	44.90	25.21	-0.08	-0.07	0.05	-0.01	-0.26	-0.06	-0.12	-0.04	-0.07	-0.15	1.00						
12 Log(Total Assets)	15.27	1.97	-0.10	0.15	0.10	-0.03	0.59	0.10	0.44	-0.21	0.00	0.40	-0.11	1.00					
13 Capex	1.01	3.30	0.06	0.07	0.06	-0.01	0.63	-0.12	0.22	-0.07	0.00	0.40	-0.22	0.43	1.00				
14 EBIT	0.85	1.96	-0.07	0.12	0.03	0.00	0.55	0.05	0.65	-0.04	0.00	0.56	-0.25	0.59	0.49	1.00			
15 ROE	3.99	378.35	0.01	0.02	0.00	0.02	0.01	0.02	0.00	0.02	0.04	0.01	-0.01	0.03	0.01	0.01	1.00		
16 Sales	12.03	22.93	-0.01	0.12	0.09	-0.01	0.86	-0.03	0.39	-0.11	0.01	0.52	-0.29	0.67	0.81	0.68	0.01	1.00	

N=1,879 Observations

## Appendix 4: Mean, Standard Deviations and Correlations for Models 3-5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
1 Private Equity Fund	Mean	0.08	0.28	1.00															
2 Hedge Fund	S.D.	0.08	0.27	0.30	1.00														
3 Age		52.71	7.59	-0.11	-0.10	1.00													
4 Dismissal		0.18	0.39	0.04	-0.04	-0.04	1.00												
5 CEO		0.52	0.50	0.02	0.00	0.32	0.14	1.00											
6 Employees		47.82	90.84	-0.05	-0.04	0.11	0.17	0.11	1.00										
7 Company Age		76.44	54.70	-0.20	-0.09	0.11	-0.01	0.04	-0.06	1.00									
8 Net Debt		7.95	37.97	-0.01	-0.03	0.07	0.03	0.01	0.19	0.03	1.00								
9 ROA		4.51	6.89	-0.05	0.02	0.02	-0.14	0.00	-0.09	0.04	-0.10	1.00							
10 Change in ROA		-0.23	6.74	0.06	0.01	-0.01	-0.01	0.00	0.05	0.01	0.00	1.00							
11 Free Cash Flow		14.32	55.71	0.01	-0.02	0.06	0.03	0.00	-0.02	0.36	-0.01	0.57	1.00						
12 Closely held shares		44.90	25.21	0.01	-0.07	-0.07	0.05	-0.06	-0.06	-0.26	-0.12	-0.12	-0.15	1.00					
13 Log(Total Assets)		15.27	1.97	-0.14	-0.05	0.15	0.10	0.10	0.59	0.10	0.44	0.40	-0.11	0.40	1.00				
14 Capex		1.01	3.30	0.00	0.05	0.07	0.06	-0.12	-0.12	0.63	0.22	0.00	-0.22	0.43	1.00				
15 EBIT		0.85	1.96	-0.07	-0.05	0.12	0.03	0.00	0.55	0.05	0.65	-0.04	-0.25	0.59	0.49	1.00			
16 ROE		3.99	378.35	0.00	0.01	0.02	0.00	0.02	0.01	0.02	0.00	0.02	0.04	0.01	0.01	0.01	1.00		
16 Sales		12.03	22.93	-0.06	0.00	0.12	0.09	-0.01	0.86	-0.03	0.39	-0.11	0.01	0.52	-0.29	0.67	0.81	0.68	1.00

N=1,879 Observations

## Appendix 5: Mean, Standard Deviations and Correlations

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	CAR [-1,+1]	0.01	0.06	1.00																		
2	Interim succession (dummy)	0.04	0.20	-0.12	1.00																	
3	Joint turnover (dummy)	0.10	0.30	-0.06	-0.07	1.00																
4	Different day announcement (dummy)	0.30	0.46	-0.04	0.16	-0.15	1.00															
5	New dismissal (dummy)	0.29	0.46	0.05	-0.03	0.20	0.06	1.00														
6	Prior firm performance	-0.01	0.36	-0.29	-0.04	-0.08	0.00	-0.21	1.00													
7	Expectedness (dummy)	0.48	0.50	-0.06	0.12	-0.19	0.17	0.13	-0.04	1.00												
8	Turnover type (dummy)	0.50	0.50	-0.01	0.07	0.01	-0.15	-0.01	0.02	-0.01	1.00											
9	Turnover reason (dummy)	0.37	0.48	0.01	0.17	-0.22	0.24	0.17	-0.21	0.41	0.23	1.00										
10	Successor origin (dummy)	0.51	0.50	-0.02	0.02	0.04	0.33	0.17	-0.11	0.13	-0.17	0.17	1.00									
11	Age incoming manager	45.14	14.17	0.05	-0.04	-0.01	0.10	-0.05	-0.03	-0.03	0.07	0.02	-0.05	1.00								
12	Herfindahl Hirschman index	0.45	0.25	0.11	0.01	0.04	0.05	0.06	-0.21	0.05	-0.04	0.14	0.14	0.07	1.00							
13	Firm size	8.07	1.81	-0.04	-0.02	0.01	0.04	-0.14	0.13	-0.11	-0.05	0.01	-0.15	0.14	-0.05	1.00						
14	Return on assets	4.14	5.48	-0.14	-0.06	0.00	-0.16	-0.18	0.32	-0.01	-0.04	-0.28	-0.15	0.00	-0.12	-0.11	1.00					
15	Current ratio	1.56	0.81	-0.08	0.01	-0.02	-0.15	-0.09	0.25	-0.14	0.10	-0.09	-0.03	-0.02	-0.06	-0.27	0.37	1.00				
16	Market to book value	2.66	2.45	0.13	-0.11	-0.02	-0.01	-0.02	0.12	-0.01	-0.06	-0.06	0.01	-0.01	0.05	-0.21	0.28	0.14	1.00			
17	Investment	0.29	0.45	0.11	-0.03	0.12	-0.09	-0.11	0.04	-0.03	-0.01	-0.12	-0.08	-0.03	-0.15	0.05	0.11	0.01	0.06	1.00		
18	Price earnings ratio	17.68	38.75	0.15	-0.01	0.05	-0.16	0.08	0.01	0.01	0.03	-0.14	-0.06	-0.02	0.04	-0.08	0.16	0.09	0.15	0.04	1.00	
19	Closely held shares	39.55	21.64	-0.06	-0.07	0.03	-0.06	0.04	-0.03	0.08	0.12	0.00	0.07	0.01	-0.03	-0.16	0.18	0.10	0.00	0.03	0.07	1.00

N = 218

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**Appendix 6: Variance Inflation Factors**

<b>Variable</b>	<b>ViF</b>	<b>1/ViF</b>
Interim succession (dummy)	1.09	0.91
Joint turnover (dummy)	1.20	0.83
Different day announcement (dummy)	1.33	0.75
New dismissal (dummy)	1.22	0.82
Prior firm performance	1.34	0.75
Expectedness (dummy)	1.36	0.74
Turnover type (dummy)	1.22	0.82
Turnover reason (dummy)	1.68	0.60
Successor origin (dummy)	1.27	0.79
Age incoming manager	1.07	0.94
Herfindahl Hirschman index	1.12	0.90
Firm size	1.33	0.75
Return on assets	1.53	0.65
Current ratio	1.40	0.72
Market to book value	1.19	0.84
Investment	1.08	0.93
Price earnings ratio	1.10	0.91
Closely held shares	1.11	0.90
Mean ViF	1.26	