The CEO succession decision in listed family firms

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This work has not been submitted in substance for any other degree or award at this or any other university or place of learning, nor is being submitted concurrently in candidature for any degree or other award.

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Dedication

This thesis is dedicated to my brother Shaheer Arif Ansari who passed away on 10th January 2006. He taught me that the most valuable kind of knowledge is one which is developed through experience, out of curiosity and in particular learned for its own sake.

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Abstract

This thesis contributes to our understanding of CEO succession decisions in family firms with an incumbent family CEO. The successor choice may be a manifestation of conflicts of interests between the controlling family and the minority shareholders. Previous research has focused on the consequences of the CEO succession on firm performance; it has not studied the factors that determine the choice of the successor, the shareholder reaction to this choice, nor methodological concerns particularly relating to adjusting board independence for links the directors have to the controlling family, thin trading and confounding events. Thus, our objectives are: (i) to highlight key methodological concerns and propose ways of addressing these, (ii) to identify the determinants of the CEO successor choice between a family and a nonfamily CEO and (iii) to examine the stock market reaction to the succession announcement.

Our sample comprises 283 succession announcements in listed family firms from France, Germany and the UK during 2001-2010. We find that reported board independence is overstated compared to our proposed measure of adjusted board independence. Two factors are found to influence the CEO successor choice. First, while reported board independence has no impact on the successor choice, our adjusted measure of *de facto* independence reduces the likelihood of a family successor, implying that the former is a biased measure. Second, cross-listed French firms are less likely to appoint another family CEO, confirming the bonding hypothesis of Coffee (1999).

Our event study presents new evidence on the drivers of the stock market reaction to the succession announcement in family firms. Investors only react to the announcement of a nonfamily CEO successor, which is met by positive cumulative abnormal returns (CARs). Poor past performance elicits more positive CARs to the announcement of a nonfamily CEO. Two other factors, on interaction with past performance, drive the stock market reaction to the latter announcement. Accordingly, in poorly performing firms, the greater the adjusted board independence, the less positive are the CARs when a nonfamily CEO is announced, whereas, more positive CARs are observed for firms that offer greater shareholder protection.

The key policy implication of these results is that definitions for board independence in the codes of best practice must account for directors' links to the controlling shareholders.

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CHAPTER 1

Introduction

1.1 Motivation and objectives

"Family businesses have only three problems: Succession, succession, and succession."
(Aronoff *et al.* 1996:1)

Family firms, i.e. those controlled by their founders or by the founders' families and descendants, represent the most prevalent corporate structure around the world (La Porta *et al.* 1999; Burkart *et al.* 2003). They are not limited to closely-held private firms. In Western Europe, South and East Asia, the Middle East, Africa, and Latin America, the majority of publicly listed firms are family controlled (La Porta *et al.* 1999; Claessens *et al.* 2000; Faccio and Lang 2002; Kets de Vries *et al.* 2007; European Commission 2009). Even in the US and the UK, countries known for having a dispersed ownership structure, some of the largest publicly listed firms such as Ford Motor, Wal-Mart Stores, and Toye & Co are controlled by families. Not only are such firm's prevalent but their founders have a long-term view of their firms and a great interest in their continuity (Bertrand and Schoar 2006). For example Ford Motor, BMW, Hyundai, and l'Oréal are family firms that have stood the test of time and survived for generations. Surprisingly, despite the importance and prevalence of family firms, the finance literature on this particular ownership structure is limited (Chen *et al.* 2013).

An important question that arises is how we define family firms. Empirical studies in finance (focusing on listed firms) have primarily defined family firms using a threshold such as 10% or 25% of the voting or cash-flow rights (Anderson and Reeb 2003b;

Andres 2008), and/or the involvement of family in the management (e.g. Hillier and McColgan 2009). We define a family firm as one in which the founder or their family owns at least 25% of the votes and the CEO is a family member. We use the 25% cut-off point as a voting stake of 25% represents a blocking minority in contrast to lower thresholds (e.g. 10%) and is high enough not only to ensure sufficient incentives to monitor but also to exert control. This is in line with the literature (e.g. Andres 2008; Amore *et al*. 2011), and with the official definition of a family business adopted by the Board of the Family Business Network and the European Group of Owner Managed and Family Enterprises (2013)[1]. In addition, and similar to Hillier and McColgan (2009), we consider that at least one of the following three criteria has to be met: (i) the CEO is explicitly described in the annual report or media as the founder or a descendant of the founder (ii) the CEO shares the same name with the firm and/or (iii) the CEO shares their surname with at least one other member of the firm's board of directors. Hence, our definition of family firms is specific and comprehensive in combining different approaches used in the literature which offers a fruitful avenue to advance this area of research.

Research has not hitherto extensively investigated the impact of powerful families on decision making in their firms. Family firms face a major challenge when it is time to "*pass on the baton*" (Plath 2008:6) as the retiring family CEOs often face the dilemma of choosing between appointing an heir and a nonfamily CEO. Bertrand and Schoar (2006) argue that the founders and/or their families may be subject to 'dynastic thinking', resulting in the top management jobs being filled with members of their family rather than more talented professional managers (Barnett 1960). Family members are not always the best candidates for the job, as they may lack proficiency (Burkart *et al.* 2003), yet they typically have an unfair advantage over nonfamily candidates (Schulze *et al*. 2001). What is more, when family successors are chosen due to family ties rather than merit, the other shareholders are disadvantaged (Pérez-González 2006), and nonfamily shareholders', i.e. minority shareholders', preference for a better qualified, nonfamily CEO will then conflict with the family's desire to extract private benefits of control. This suggests that the decision as to the choice of the

[1] Available at: http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/family-business/index_en.htm (last accessed on 10 April 2014).

CEO successor may be an ideal setting to test the potential conflict of interests between the family and the minority shareholders.

Research into CEO succession is also important because it has significant long-term implications for the firm's investment, operational, and financial activities (Huson *et al.* 2001; Chen *et al.* 2013). Succession also has an influence on the capital structure, especially in family firms in which the families prefer to maintain their control for as long as possible (e.g. Amore *et al*. 2011). Whilst the incumbent founder-CEO may issue more debt because of his/her focus on wealth creation and preservation of control (Amihud *et al*. 1990), descendants have a preference for wealth preservation and therefore try to avoid a highly leveraged capital structure (Miller and Le Breton-Miller 2005). If controlling families are reluctant to issue equity, even nonfamily CEOs may rely more on debt for the expansion of the family firm's investment opportunities (Amore *et al*. 2011). Moreover, the choice of the CEO successor in family firms may be used as a reflection of the quality of corporate governance (Volpin 2002; Gibson 2003; DeFond and Hung 2004). This is because successful governance systems, despite the greater family control, can penalise CEOs of firms with poor stock performance and with low cash flows (Coffee 1999; Volpin 2002). Considering the importance of this decision, we find that hardly any research has examined (in a single study) the impact of family control and other corporate governance mechanisms on the succession decision. Accordingly, studies have also not considered how these factors, i.e. family control and specific governance mechanisms, may influence investor reaction when the successor is announced.

To extend and refine current knowledge on CEO succession this thesis addresses three issues: methodological concerns, key determinants of CEO successor choice and the stock market reaction.

Theory predicts that directors independent of both management and the dominant family shareholder have important functions within the complex environment of a family firm (DeMott 2008), suggesting their influence on the CEO succession decision. However, the definitions of independence in the codes of best practice focus on the directors' ties with the firm's business and senior management, but have ignored other

ties with the controlling family. Hence, directors classified as independent are not always, in fact independent. This may result in these so-called independent directors colluding with the family shareholder to extract private benefits of control (e.g. Maclean *et al.* 2006). To address this methodological issue, we propose to directly test for actual independence vis-à-vis the controlling family unlike previous studies which focus on conventional independence (i.e. the proportion of nonexecutive directors on the board). Thus, our proposed measure of board independence, in contrast to regulation and 'best practice', accounts for additional links that directors may have with the controlling family. Furthermore, there are practical dilemmas related to the use of certain methodologies, such as the event study which are often overlooked. In particular, in this thesis, we address those caused by thin trading and confounding events around the succession announcement.

Previous research on the factors that determine the CEO successor choice in family firms focuses on three aspects: family ownership characteristics, e.g. the percentage of family ownership (e.g. Smith and Amoako-Adu 1999), past performance (Hillier and McColgan 2009; Chen *et al.* 2013), and successor characteristics, i.e. age, education, experience, and/or gender (Pérez-González 2006; Bennedsen *et al.* 2007). Considering that the controlling family may extract private benefits of control by appointing a family heir rather than maximising total shareholder value, it is surprising that the influence of mechanisms such as the independence of the board of directors and the level of investor protection on this decision have been overlooked. While independent directors are in a position to guard the firm's assets against legally problematic extractions by the controlling family (DeMott 2008), minority shareholder expropriation may also be mitigated by a higher level of investor protection (e.g. Coffee 2002). Hence, it is important to identify the factors that increase (reduce) the likelihood of a family CEO successor in family firms and also to analyse the circumstances under which the controlling family's interests may override the interests of the minority shareholders. In this regard, we hypothesize that there are *three* factors each of which increase the likelihood of a family CEO successor i.e. the greater power of the controlling family, the incumbent CEO being the founder (or from that generation) and good past performance, and *two* i.e. greater board independence and the protection of the minority

shareholders which reduce it. Thus, these five factors are postulated to determine the choice of the CEO successor between a family and a nonfamily candidate.

The question that arises is what impact the type of successor announced has on shareholder wealth. Whilst several studies have examined the stock market reaction to succession announcements, none have adjusted for the likelihood of the appointment of a nonfamily CEO. Given high family control investors expect a family successor to be appointed, and hence, would not react to such an announcement. The (unexpected) announcement of a nonfamily CEO, in contrast, is met by a positive stock market reaction (e.g. Lubatkin *et al*. 1986; Huson *et al*. 2004). Furthermore, Weisbach (1988) finds that there is no wealth impact if the CEO succession takes place in a firm with a board dominated by executive directors. However, in firms with more independent boards there is a positive market response to the announcement of an outsider. Similarly, outside CEO announcements in firms with poor pre-succession performance elicit positive cumulative abnormal returns (CARs) (Huson *et al.* 2004). If the latter two factors (i.e. board independence and past performance), argued to influence the CEO successor choice, influence the investors' response to the announcement of a nonfamily CEO, then the other three factors would also have such an impact. Accordingly, we conjecture that the three factors that increase the likelihood of a family successor, i.e. greater family power, the incumbent CEO being the founder, and good past performance, elicit a *more* positive market reaction when a nonfamily CEO is announced. Similarly, the two factors that reduce the likelihood of a family successor, i.e. greater board independence and the protection of minority shareholders, elicit a *less* positive market reaction to the announcement of a nonfamily CEO.

Based on the above discussion this thesis has the following three objectives:

1. To conduct an exploratory study of family firms with CEO successions to highlight key methodological concerns and to propose ways of addressing these.

2. To identify the factors determining the CEO successor choice between a family and a nonfamily candidate.

3. To examine the stock market reaction to the succession announcement, thereby exploring whether the factors that increase (reduce) the likelihood of a family successor also drive the stock market reaction to be more (less) positive around the announcement of the appointment of a nonfamily CEO.

These objectives are achieved using a unique hand collected sample of 283 CEO succession announcements in 231 family firms in France, Germany and the UK over the period of 2001 to 2010: that is, 137 announcements in 115 French firms, 94 announcements in 78 German firms, and 52 announcements in 38 UK firms. The succession announcements, in addition to the change in CEO from the incumbent to another family member or a nonfamily CEO, include 168 re-appointments of the incumbent family CEO. While previous studies on CEO successions in family firms have excluded re-appointments of the incumbent family CEO[2], we include these. This is because most of our hypotheses and conjectures relate to the power of the controlling family relative to the minority shareholders and, as predicted by theory, a powerful family may re-appoint the incumbent or appoint another family member in order to stay in control (Burkart *et al.* 2003; Giménez and Novo 2010).

1.2 Institutional framework: The choice of France, Germany and the UK

Given its focus on France, Germany, and the UK this thesis provides a rich cross-sectional variation of family firms. The majority of the existing research is based on family firms in North America. The investigation of family firms in other countries is needed to fill this gap, however, availability of complete and reliable data can make this difficult (Bennedsen *et al.* 2010). Our choice of France, Germany, and the UK is based on the grounds that these countries have the largest and the most important financial markets in Europe, which together represent the bulk of the European capital market. Hence, data availability in these three countries is of less concern. Furthermore, the protection of shareholders has been associated with the legal system that the firm operates in. The commercial laws of most countries originate in one of the four legal

[2] An empirical study that classifies re-appointments as successions is Smith and Amoako-Adu (1999). They only consider the re-appointment of the founder incumbent CEO and due to the small number of re-appointments, i.e. 4 out of 52 family CEO appointments, they do not distinguish re-appointments from actual successions in their analysis.

families: English (common) law, French civil law, German civil law, and Scandinavian law, which have spread throughout the world through conquest or sometimes voluntary adoption (La Porta *et al*. 2006). Most countries in the world have the French civil law followed by the Common law, German civil law, and lastly the Scandinavian law (observed only in the four Scandinavian countries of Denmark, Finland, Norway, and Sweden). Therefore, the choice of the three countries from which the main legal families originate offers the best representation for other countries under the respective legal family. Lastly, in this thesis we postulate that corporate governance mechanisms, such as board independence, have an influence on the CEO succession decision. Whilst family firms in general may be similar, it is our interest to investigate whether different systems of corporate governance in which these firms operate in would matter as to how governance mechanisms influence the successor choice. In this regard, France, Germany and the UK present an ideal setting being representatives of the different systems of corporate governance. In summary, France, Germany, and the UK are significant in terms of economic indicators; capital market size; worldwide economic influence, and representation of the main legal families and corporate governance systems. What makes the choice of these countries even more interesting is that, despite their similarities and geographical proximity, these countries are significantly different from each other. We identify the following five key differences.

First, as mentioned above, France, Germany and the UK are representatives of three main legal families (La Porta *et al.* 1997, 1998). The enforcement of laws varies significantly across the three legal families. Enforcement of law is measured by four proxies: the efficiency of the judicial system, the rule of law, corruption, and the risk of expropriation[3]. On all four proxies German civil law countries score the highest suggesting the best enforcement of laws, followed by the Common law countries, and lastly the French civil law countries (La Porta *et al.* 1998). Although the German civil law countries have a higher score on law enforcement than the Common law countries, the latter have a stronger set of investor protection regulations. The French civil law countries not only have the lowest score for law enforcement but also have the weakest

[3] For a detailed description of each of these proxies refer to La Porta *et al.* (1998), Table 1. The scale for the scores on each of these proxies range from 0 to 10 (except for corruption, which ranges from 0 to 6) with higher scores suggesting better enforcement of law.

investor protection (La Porta *et al*. 1998, 1999)[4]. Considering shareholder protection as one of our determinants of the CEO successor choice and a driver of the stock market reaction to the announcement, it is important to consider this difference between the three countries.

Second, all three countries have distinct corporate governance systems. In France and Germany, corporate ownership and control are highly concentrated as compared to the UK (Barca and Becht 2001). There is also typically a wedge between the control and ownership held by the large shareholder in the former two countries whereas this is not the case in the UK. Hence, concentration of control combined with weaker investor protection, as highlighted above, may result in controlling shareholders extracting private benefits for themselves without being detected or punished. This extraction of benefits at the expense of the minority shareholders is considered to be severe in firms in the Civil law countries as compared to those in the Common law countries (La Porta *et al.* 1998, 2000). Given the higher levels of control and ownership in the former, family firms are also more prevalent in France and Germany as compared to the UK (Faccio and Lang 2002). Nevertheless, an investigation of family management in medium sized manufacturing family firms suggests that the UK and France have a higher share of family managed firms than Germany, especially those that follow primogeniture practices (Bloom and Van Reenen 2007). Primogeniture is the practice of appointing the eldest son of the retiring (or departing) incumbent CEO (Bloom and Van Reenen 2007). This finding for France and the UK is often related to their Norman heritage, in which the practice of the eldest son succeeding his father was legally enforced to preserve concentrated land-holdings. A more plausible explanation is the generous inheritance tax exemptions in the UK (100% for unlisted family firms and

[4] Investor protection is, therefore, strong under Common law but it is much weaker under French and German civil law. The difference in the level of investor protection has been explained by the way judges carry out their duties in the Common law system as compared to the Civil law systems. Judges serving under the Common law system follow case based law, i.e. they are given the discretion to adjudicate according to precedent set by a previous case. In contrast, judges serving under the Civil law systems follow a set of comprehensive laws to rule on any situation and they are restricted from going beyond these statutes (La Porta *et al.* 2000). This suggests that judges in the Civil law systems have less discretion to interpret laws for specific cases as compared to those in the Common law system. Consequently, the former are less likely to arrive at a judgement if, for instance, the activities of shareholder expropriation by the firm's insiders are designed to bypass the fixed set of laws (e.g. Ergungor 2004).

50% for listed ones) and France (50% for all family firms) as compared to Germany (33% for all family firms) (Franks *et al.* 2012).

The third difference between the countries is in the design of their corporate boards. The UK has a single-tier board where the executive directors, including the CEO[5], and the nonexecutive directors sit. Germany, on the other hand, has a two-tier system with a supervisory board (Aufsichtsrat) of nonexecutives and employee representatives and a management board (Vorstand) of executive directors which is chaired by the CEO (the Vorstandvorsitzender). A distinctive feature of the German corporate governance system is the representation of employees on the supervisory board (German codetermination laws) depending on the size of the firm. Compared to the other two countries, France is in a unique position of offering a choice to its firms between a single-tier board and a two-tier board. For the single-tier board (conseil d'administration), similar to the UK, the chairman of the board (Président-Directeur Général) may also be the CEO. The two-tier board with a supervisory board (conseil de surveillance) and a management board (directoire) is similar to the German board. However, less than 10% of French firms have opted for the two-tier board structure (e.g. Goergen *et al.* 2006).

The fourth difference is primarily between France and Germany. France's corporate governance system has traditionally been characterised by the existence of a 'noyau dur', a system of cross-shareholdings between large quoted firms, some of which are former state-owned banks and insurance companies, that was set up to reduce the influence of foreign ownership on French businesses (see, e.g. Bloch and Kremp 2001). As a result, and contrary to common wisdom, France is the only country in Europe with substantial equity ownership by banks (i.e. on average 15.5% of the equity). While Germany is often considered to be a bank-based corporate governance system, ownership by banks is much lower and their influence is typically derived from proxy

[5] The CEO in this thesis refers to the highest executive position in a firm. Listed firms in France having a single-tier board designate their CEO as Président-Directeur Général. However, the latter designation may also be used for CEOs who are chairman of the board (and the distinction of whether there is duality is not always clear). In French firms with two-tier boards, the CEO is designated as Président du Directoire. In Germany, the highest executive position or the CEO is the chair of the management board, the Vorstandvorsitzender. In the UK, the CEO is designated as CEO or director-general.

voting, i.e. from voting the shares of their customers or depositors, in otherwise widely-held companies (Goergen *et al*. 2008)

Fifth, there are differences in the levels of disclosure in these three countries. Based on the highest disclosure rank of 7.28 for the US and the lowest rank of 2.6 for Switzerland, the respective ranks for France, Germany and the UK are 4.17, 3.81 and 6.02 (Saudagaran and Biddle 1995). Similar to the differences in investor protection, the UK has a considerably higher disclosure level than France and Germany[6]. These differences are important to consider when analysing the release of other news or confounding events surrounding the succession announcement.

In short, we focus on three different corporate governance systems by considering family firms in France, Germany, and the UK. These countries differ in terms of their legal families, control and ownership structure, board structure, bank ownership and bank influence, and disclosure levels. We consider these differences to analyse whether the three countries show differences in the impact of the determinants on the CEO successor choice and the stock market reaction to this announcement.

1.3 Overview of the thesis and contribution

This thesis is organised into six chapters. Chapter 2 discusses the literature on family control, on the CEO succession, and the implications of succession decisions on performance in family firms. From this, we develop five hypotheses relating to each of the five postulated determinants of the CEO successor choice: family power, family generation, board independence, shareholder protection, and past performance. Next, we develop six conjectures the first being on the stock market reaction to the type of the CEO successor announced. The remaining five conjectures are formulated to explore whether the five factors that influence the CEO successor choice also drive the stock

[6] The disclosure ranks reported here are based on pre-International Financial Reporting Standards (IFRS) adoption across the EU countries as of 2005. Nevertheless, studies following the adoption of the IFRS find evidence that despite the mandatory adoption in the EU, whilst comparability across the countries may have improved, cross-country differences in information disclosure still persist (Ball 2006; Kvaal and Nobes 2010; Landsman *et al*. 2012; Yip and Young 2012). In fact, there is also evidence that pre-IFRS national practice continues where this is allowed within IFRS (e.g. Kvaal and Nobes 2010).

market reaction to be more (less) positive when a nonfamily CEO is announced. These hypotheses and conjectures are empirically tested in Chapters 4 and 5, respectively.

Chapter 3 addresses our first objective. We conduct an exploratory study of the family firms in France, Germany, and the UK identifying and proposing ways of addressing three important methodological issues: the accurate measurement of directors' independence in family firms, and the potential problems caused by thin trading and confounding events (i.e. events such as earnings and dividends announced during the event window). While the first issue is relevant across Chapters 4 and 5, the latter two issues are specific to the event study in Chapter 5. To address the first issue, we propose six criteria to measure board independence vis-à-vis the controlling family. Thinly traded firms are identified by observing the free-float and the traded volume for the full sample, and confounding events are identified for the longest event window. Our findings suggest that reported board independence is overstated as compared to our proposed measure of adjusted board independence that accounts for various links that directors may have with the controlling family. Also, the majority of our sample firms are thinly traded and confounding events around the succession announcement are not particularly timed by the controlling family. Accordingly, we control for the latter two issues in Chapter 5.

Chapter 4 addresses our second objective. We explain the type of CEO successor choice between a family and a nonfamily CEO based on the hypotheses developed in Chapter 2. The hypotheses are tested using multivariate logit regressions. This chapter is forthcoming in the Journal of Corporate Finance[7]. Overall, we find that two factors influence the CEO successor choice between a family and a nonfamily CEO, i.e. board independence and shareholder protection. Our corrected measure of board independence reduces the likelihood of a family successor; reported board independence has no such influence, confirming the finding from Chapter 3 that the latter is a biased measure. Shareholder protection, i.e. cross-listed French and German firms on a US or UK stock exchange, also reduces the likelihood of a family successor. The latter finding is primarily observed for French family firms. Both Chapters 3 and 4 emphasize the need

[7] Available at http://www.sciencedirect.com/science/article/pii/S0929119913001314.

for corporate governance regulators to account for directors' links to the controlling shareholders in their future definitions of board independence.

Chapter 5 addresses our third objective and examines the stock market reaction to the succession announcement, with particular emphasis on the announcement of a nonfamily CEO. This takes into account investor expectations regarding the likelihood of a nonfamily successor. The conjectures developed in Chapter 2 are tested using the event study methodology and OLS regressions. The event study suggests that investors only respond to the announcement of the appointment of a nonfamily CEO, which is met with positive CARs over the longer event windows, supporting the finding from Chapter 3 of the sample firms being thinly traded. Poor past performance elicits more positive CARs to the announcement of a nonfamily CEO. The interaction terms between past performance and each of the other four drivers, computed to test whether these four factors only matter when performance is weak, suggest that past performance influences how two factors affect the CARs around the announcement of a nonfamily successor. That is, for poorly performing firms, the greater the adjusted board independence the less positive are the CARs when a nonfamily CEO is announced, whereas more positive CARs are observed for firms that offer greater shareholder protection.

Finally, Chapter 6 concludes this thesis, summarising our findings, highlighting our contributions, acknowledging the limitations and suggesting areas for future research.

Overall this study contributes to the literature on family firms in several important ways. It focuses on listed family firms which are often overlooked as compared to widely-held firms in the CEO succession literature, allowing us to explore the potential conflict of interests between family and nonfamily (minority) shareholders. It considers and compares three very different corporate governance systems; the choice of countries also being well representative of the main legal families. Furthermore, and more substantially this study proposes a measure of *de facto* board independence which, in contrast to regulation and 'best practice' accounts for links with the controlling family. Our study has revealed that the empirical literature has also failed to account for these links when measuring board independence in family firms. Our findings suggest that

indeed our proposed measure offers a substantial improvement over conventional definitions of board independence in family firms, and has a significant influence on reducing the likelihood of a family successor. Lastly, this study employs a novel set of factors to explain the stock market reaction to the announcement of the CEO successor.

CHAPTER 2

Literature review, hypotheses and conjectures

2.1 Introduction

"Families are willing to invest in the long-term and undertake sustainable strategies, because they think in generations and not in short-run profits."

Dr. Ulrich Wacker, CEO of Wacker Construction Equipment AG

"The only reason I was on the payroll is because I was the son of the boss."

John H. Tyson, CEO of Tyson Foods, Inc.

The views on the advantages and disadvantages of family ownership and control of firms, as reflected in the above quotations, are the subject of an ongoing debate (Bertrand *et al*. 2008; Bennedsen *et al*. 2010). Especially when a family promotes one of its members to replace the incumbent family CEO, the debated question is whether the family successor is truly appropriate for the position or simply a reflection of favouritism due to family ties (Pérez-González 2006). The two theses underlying this debate are the security benefits of control and the private benefits of control. These are based on the group of shareholders for whom value of their investment is assumed to be maximised. According to security benefits of control value is maximised for both family and nonfamily shareholders, whereas the private benefits of control thesis advocates that value is maximised only for the family shareholders. The theory advanced on family firms in the finance literature attaches the law perspective, based on the law theory of corporate governance suggested by La Porta *et al.* (1998, 1999), to these theses. That is, whether the controlling family provides a competitive advantage to all shareholders and

to the family members or extracts private benefits of control at the expense of other shareholders depends on the legal environment it operates in. Taking into account the related arguments, the aims of this second chapter are to discuss the two theses on security and private benefits of control, thus providing theoretical grounding; to conduct a literature review of theoretical and empirical work on CEO successions and performance consequences of CEO appointments, and to develop the hypotheses and conjectures that will be tested in the remainder of this thesis. Research on management succession in family firms is still in its early stages meaning that theoretical literature is limited. Nevertheless, the determinants predicted to influence the choice of CEO, including board independence, minority shareholder protection and firm performance, are factors presented in management and corporate governance literature. We therefore draw upon a wide range of literature in order to formulate our hypotheses and conjectures.

The chapter is structured as follows. In Section 2.2 the theories and empirical studies on family ownership and control are reviewed with respect to the security, and private, benefits of control theses. In Section 2.3 we discuss how different theories predict succession decisions in family firms, identify potential determinants of the choice between appointing a family heir and a nonfamily CEO, and review the literature on performance consequences of succession decisions. In Sections 2.4 and 2.5 we develop the hypotheses and conjectures that are tested in Chapters 4 and 5 of this thesis, respectively. Section 2.6 summarises and concludes this chapter.

2.2 Family ownership and control

In this section we review the theoretical and empirical literature on family shareholder control and ownership in family firms. The aim of this section is to emphasize that controlling families may create value for all shareholders, and/or extract their own private benefits of control at the expense of nonfamily minority shareholders. These differing benefits of control influence the decisions taken in family firms and subsequent firm performance.

2.2.1 Theories of family ownership and control

Given the recent advancement of research on family firms there is, as yet, no formal theory for ownership and control in such firms. Established theories of the firm such as the agency theory[8] (Jensen and Meckling 1976) and the resource based view[9] (Barney 1991) have been applied in the context of family firms considering the distinctiveness of family control over their firms (e.g. Burkart *et al*. 2003). These theories underlie the emerging theses of family control used as a basis for this PhD thesis, which fall into two broad categories of 'competitive advantage' or 'security benefits of control', and 'private benefits of control' (Grossman and Hart 1980; Villalonga and Amit 2010). As mentioned in section 2.1 the main difference between the two theses is the group of shareholders for whom firm value is assumed to be maximised. Grossman and Hart (1980) consider the value creation via the monitoring that large shareholders perform, which benefits all of the shareholders, falling under the security benefits of control. According to the private benefits of control thesis value is maximised only for the family, expropriating the nonfamily shareholders (Burkart *et al.* 2003; Villalonga and Amit 2010). Although the family shareholders are in a position to create security benefits of control as well as private benefits of control, nonfamily shareholders would be worse off if the family sought to only maximise value for itself rather than for all shareholders. The remainder of this section reviews the literature on these theses.

Security benefits of control

The resource based view (Barney 1991) guides the theoretical development of the security benefits of control created by family shareholders (in their firms). Two sets of theoretical works can be classified under the security benefits of control category. These are control potential, referring to wealth gain achievable through more effective monitoring of managerial performance (Demsetz and Lehn 1985; Habbershon and Williams 1999), and long-term profit maximisation, whereby the controlling family

[8] According to the agency theory (Jensen and Meckling 1976) the primary agency conflict in corporations (i.e. the principal-agent conflict) occurs between dispersed shareholders (the principals) and professional managers (the agents) who are delegated to operate the day-to-day activities of the firm on behalf of the shareholders (Berle and Means 1932). The lack of monitoring of the managers and the non-alignment of the interests between the shareholders and the managers results in a conflict of interests between the two.

[9] According to the resource based view, the resources a firm possesses are the primary determinants of its performance, and they may contribute to a sustainable competitive advantage for the firm. Accordingly, the concept of resources includes all assets, capabilities, organisational processes, firm attributes, information, and knowledge (among others) controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness (Barney 1991).

wishes to benefit future family generations (Villalonga and Amit 2009). The following paragraphs describe these two theoretical works in more detail.

When management is in the hands of nonfamily managers, control potential refers to the wealth gain achievable through family shareholders conducting effective monitoring of managerial performance (Demsetz and Lehn 1985). It is assumed, as with the classic agency theory, that there is a conflict of interests between family owners and nonfamily managers (Berle and Means 1932; Jensen and Meckling 1976). According to Demsetz and Lehn (1985) families have a substantial proportion of personal wealth invested and, considering no additional layers of agency exist between nonfamily managers and family shareholders, the latter have strong incentives to monitor these managers. Moreover, the authors argue that operating in less regulated industries where the protection of minority investors is low and managers are able to extract personal benefits, family shareholders are likely to intensify monitoring. In these cases the family is assumed to create security benefits of control for all shareholders.

Further to this there is a systematic relationship between family and business which is a potential resource that family firms can use strategically to improve performance (Barney 1991). Habbershon and Williams (1999) build on this prediction and suggest that 'familiness' consists of idiosyncratic internal resources created by family involvement[10]. Familiness can be distinctive, providing valuable, unique, hard-to-imitate resources which serve as the competitive advantage of family firms (Habbershon and Williams 1999; Durand and Vargas 2003; Sirmon and Hitt 2003). In the same vein, collectivistic behaviour can motivate family members to consider family firm objectives higher than their individual objectives (Miller *et al*. 2008).

Similar to the argument of Bertrand and Schoar (2006) that family founders tend to have a long-term view of their firm and have a strong interest in its continuity, Villalonga and Amit (2009) argue that founding families see themselves as stewards of the family business for future generations, prompting a longer profit horizon compared to nonfamily investors. As a result greater control by family shareholders promotes long-

[10] According to Habbershon and Williams (1999) the idiosyncratic internal resources are a unique combination or a bundle of resources relating to beliefs, practices, philosophies and the like specific to a family and their firm.

term profit maximisation strategies that are beneficial for all shareholders. This view is also supported by James (1999) who postulates that families have longer investment horizons leading to greater investment efficiency. Although this perspective is often considered to be a competitive advantage for family firms, it has also been criticised. This is because the long-term view of family founders may be confounded with the family's 'dynastic thinking' whereby it prefers to retain control for as long as possible and fill top management jobs with relatives rather than more talented managers (Barnett 1960).

Private benefits of control

The term 'private benefits of control' was proposed by Grossman and Hart (1980) to refer to benefits that can be appropriated by controlling managers or shareholders at the expense of minority shareholders. Dyck and Zingales (2004) define private benefits of control as "*some value, whatever the source, [that] is not shared among all the shareholders in proportion of the shares owned, but […] enjoyed exclusively by the party in control*" (p. 541). When the controlling family extracts private benefits of control in excess of creating security benefits minority shareholders of family firms are worse off. The private benefits of control category can be classified under two (related) theoretical works, namely minority shareholder expropriation (La Porta *et al.* 1999; Burkart *et al.* 2003), and the use of control enhancing mechanisms (e.g. Wolfenzon 1999). These are discussed in the following paragraphs.

Private benefits of control are likely to exceed security benefits when there is a separation of control and ownership (Becht and Mayer 2001). It is not uncommon for controlling families or shareholders to use mechanisms such as dual-class shares[11], voting pacts[12] and pyramidal ownership[13] to enhance their control rights relative to their

[11] Dual-class shares are those where two different types of share class exist and voting rights are not necessarily equally distributed. This means that a firm may issue a fraction of shares which have all the voting rights and assign these to the controlling shareholders, while the remaining shares could be non-voting shares and sold to outside investors (Bebchuk *et al.* 2000).

[12] Voting pacts, or voting agreements, refer to pacts among shareholders that result in the founder, or family, holding voting power over a larger number of shares than they actually own with investment power (Villalonga and Amit 2009). Whilst such pacts between multiple large shareholders may serve as a commitment device and create security benefits of control, Zwiebel (1995) argues that it is more likely that the *blockholders* in such coalitions extract benefits of control from smaller shareholders, which would reduce firm value.

cash-flow rights (La Porta *et al.* 1999; Claessens *et al.* 2000; Faccio and Lang 2002; Villalonga and Amit 2009). The use of such mechanisms has been argued to reduce firm value and performance and is considered a way for the controlling family to extract private benefits of control (La Porta *et al.* 1999; Claessens *et al.* 2000; Villalonga and Amit 2006). It has also been seen that the use of such mechanisms discourages investments by institutional investors[14] (Li *et al.* 2008). More generally Bebchuk *et al.* (2000) predict that, holding the controlling stake constant, the magnitude of the conflicts of interests between the large and small shareholders rises non-linearly (at a sharply increasing rate) with a decrease in the fraction of cash flow claims held by the large shareholder.

Wolfenzon (1999) predicts the costs and benefits of a pyramidal and a horizontal ownership structures that a large shareholder (an individual or a family) can use to control a number of different firms. He proposes a model for analysing the choice between the two structures. This choice is the result of a payoff maximising decision making by the large shareholder who already controls an established firm, A, and wants to set up a new firm, B, either in a pyramidal structure (as a subsidiary of firm A), or in a horizontal structure (as an independent concern). In the pyramidal structure the large shareholder shares the verifiable value (i.e. revenues minus the cost of set up) of the new firm with the other shareholders of firm A, whilst in the horizontal structure he captures this value entirely. According to Wolfenzon, even if the new firm is profitable, extraction of private benefits might reduce revenue so as to make the verifiable value negative. In such cases, the large shareholder opts for the pyramidal structure in order to allocate part of this value to the minority shareholders of the parent firm (firm A). The

[13] "*In a pyramid of two companies, a controlling minority shareholder holds a controlling stake in a holding company that, in turn, holds a controlling stake in an operating company. In a three tier pyramid, the primary holding company controls a second-tier holding company that in turn controls the operating company.*" (Bebchuk *et al.* 2000:298). A controlling minority shareholder in this definition refers to the controlling shareholder; the term 'minority' is used to emphasize that such shareholders exercise radical control over the firm while retaining only a small fraction of the cash-flow rights.

[14] In economies with high investor protection privately held intermediate entities in pyramids may serve as investment vehicles for institutional investors such as pension funds (Villalonga and Amit 2009). This is because such investors may play a monitoring role with respect to the founding family and are vigilant enough, unlike the public shareholders of listed intermediate entities, to prevent extraction of private benefits.

model predicts that pyramidal structures will be more common in countries with poor investor protection[15].

The use of control enhancing mechanisms, especially when investor protection is poor and when these mechanisms are employed to gain excess control over and above the equity stakes, leads to the expropriation of minority shareholders. According to Shleifer and Vishny (1997) relinquishing control is a greater cost to bear for the controlling shareholders compared to the cost of their lack of diversification. With regards to the pyramid structure, Jensen and Meckling (1976) argue that the tendency of controlling shareholders pursuing their private benefits increases when such shareholders own less equity. In the context of family firms, Burkart *et al.* (2003) put forward the possibility of outside investor expropriation that comes with control in their model of CEO successions (discussed in detail in section 2.3.1). The authors state that, even if the founder considers a nonfamily manager to be of superior ability to their family heir, the founder's choice of the successor is primarily driven by the maximisation of private benefits of control, which may not necessarily benefit nonfamily shareholders.

In summary, theory suggests that controlling families can either create an advantage for all shareholders, or purely family members whereby nonfamily shareholders are worse off. Families may reduce agency costs by monitoring nonfamily managers (Fama and Jensen 1983) with the added benefit of personal satisfaction from the long-term success of their firm (Villalonga and Amit 2009). When controlling families derive private benefits of control at the expense of other shareholders, they misuse their status to expropriate the minority shareholders (Shleifer and Vishny 1997; Claessens *et al.* 2000; Li *et al.* 2008; Gompers *et al*. 2010).

2.2.2 Empirical studies on family ownership and control

Most of the empirical studies have compared the performance of family and widely-held firms to examine the effectiveness of family control (Morck *et al.* 2005; Franks *et al.* 2010; Pindado *et al.* 2013). These comparisons suggest that the relationship between family control and performance depends on how family firms are controlled and the

[15] In line with the model of Wolfenzon (1999), Riyanto and Toolsema (2004) propose a model of tunnelling and propping to justify the pyramidal ownership structure.

level of investor protection. If the family's percentage of equity ownership and voting control are the same (under the one-share one-vote principle) and control-enhancing mechanisms are not in place, evidence suggests that family firms outperform widely-held firms (Anderson and Reeb 2003b; Barontini and Caprio 2006). This effect is more apparent in countries with better minority shareholder protection (Anderson and Reeb 2003a, b; Bennedsen *et al.* 2010). However, where families control firms by employing control mechanisms and investor protection is poor, performance is shown to be worse than for widely-held firms (Morck *et al.* 2000; Claessens *et al.* 2002). In this section we firstly review studies that find evidence in support of the security benefits of family control followed by those that focus on private benefits of control extracted by the family.

Khanna and Palepu (2000) compare the performance of 655 member, or affiliated, firms of Indian business groups[16] with that of 654 unaffiliated firms listed on the Bombay stock exchange for the year 1993. They find that both return on assets (ROA) and Tobin's Q[17] for group affiliates are better than for their unaffiliated peers (especially when business groups span over many distinct industries). Their findings suggest that family controlled firms (i.e. business groups) perform better. However, the authors make a point of explaining that such evidence may be limited to economies with poorly functioning markets and institutions. Specifically, in economies where information asymmetry is severe, and institutional devices signalling trustworthiness are ineffective, external financing is expensive and limited. Hence, a business group can enhance monitoring and overcome liquidity constraints by letting group affiliates pool resources. The group's controlling shareholder (or family) could potentially allocate capital more efficiently than the weak capital market could.

In the same vein, Anderson and Reeb (2003b) compare the firm value (i.e. Tobin's Q) of family and nonfamily firms. They examine large public firms (Standard and Poor's

[16] A business group is defined as a set of firms which, although legally independent, are bound together by a constellation of formal and informal ties, with the individual firms in this group accustomed to taking co-ordinated actions (Khanna and Palepu 2000, Khanna and Rivkin 2001). Firms in Indian groups are tied by common ownership of a significant block of shares in group firms, often by a family.

[17] Tobin's Q is defined as follows: (market value of equity + book value of preferred stock + book value of debt) / (book value of assets), where the market value of equity is calculated using the closing stock prices on the last trading day of the year. Other studies in this literature review using Tobin's Q employ similar definitions; hence, we do not report the definition for each of those studies.

500 firms) from 1992 to 1999, and find that families are a prevalent and important class of shareholders, with firms controlled by such family shareholders outperforming nonfamily firms. Furthermore, whilst firms with founder-CEOs have a positive effect on the ROA, firms with descendant-CEOs show no such effect. Although their findings support the security benefits of family control, it should be noted that results are specific to their sample, which is drawn from a highly regulated and transparent market with strong investor protection.

The positive effect of family ownership and control on performance is also shown in studies by Maury (2006), using firms from 13 Western European countries[18]; Andres (2008), using listed German firms, and Isakov and Weisskopf (2014), who investigate listed Swiss firms. All of these investigations find that family firms perform better than nonfamily firms[19]. The potential benefits of family firms arising from the family shareholders' long-term view, concerns for survival of the firm and the family's reputation have also been employed to explain the superior performance of family firms (Anderson *et al.* 2003; Ali *et al.* 2007; Villalonga and Amit 2009; Chen *et al.* 2010). There is also evidence of higher dividend payments and lower investment-cash flow sensitivities in family firms (Andres 2011; Pindado *et al.* 2012). The latter implies that family firms make more efficient investment decisions and have fewer agency conflicts. Hence, the advantages of family firms in aligning incentives between managers and shareholders, as well as between different types of shareholders, seem to outweigh the possible disadvantages in terms of access to external capital.

In a more recent study Pindado *et al.* (2013), using a sample of family controlled firms in nine Western European countries[20] for the period 1999 to 2006, examine how the value premium (or value discount) attributable to family control depends on country-level investor protection. They find a nonlinear relationship, i.e. an inverted U-shape,

[18] These include Austria (46 firms), Belgium (30), Finland (73), France (209), Germany (259), Ireland (39), Italy (59), Norway (76), Portugal (9), Spain (58), Sweden (104), Switzerland (75), and the UK (635).

[19] Although, Maury (2006) points out that, while active family control (i.e. family involvement in management) increases profitability compared to nonfamily firms even when different judicial settings are considered within Western Europe, such increased profitability does not translate into higher valuations when shareholder protection is low.

[20] These include Finland, France, Germany, Greece, Spain, Sweden, Switzerland, the Netherlands, and the UK.

between family control and firm value[21]. This relation turns from positive to negative when families own approximately 50% of the voting rights. More importantly, the authors find that the shape of this relationship depends on the level of investor protection, and is only observed in countries with stronger investor protection[22], which suggests that expropriation of minority shareholders only takes place when families accumulate enough power. In countries with weak investor protection family influence on firm value is positive regardless of the level of control. Hence, the latter positive effect is stronger as the controlling family's stake in the firm increases. The authors find that, overall, family firms outperform nonfamily firms. Therefore, family control is beneficial to minority shareholders in countries with a moderate to high level of investor protection, such as Western Europe, tending towards minority expropriation when family control exceeds 50%.

In contrast to the above, studies that highlight the potential costs associated with family control question the positive effects of such control. As discussed in the theoretical literature, family control can be harmful to minority shareholders, and to firm performance, when the interests of the controlling family are not as closely aligned with those of the other shareholders. Claessens *et al.* (2002) conduct a study of disentangling incentive and entrenchment effects of large shareholdings, using data collected at the end of 1996, for 1,301 publicly listed firms across eight East Asian economies[23]. They find that there is a negative correlation between the difference in voting rights and cash flow rights for the largest shareholder on one side and firm value on the other side. This correlation is observed primarily for family shareholders, to a lesser extent for the state, and not at all for widely-held corporations. Their findings provide evidence that controlling shareholders with voting rights in excess of their cash flow rights expropriate minority shareholders in East Asian firms. An earlier study (Claessens *et al.*

[21] Firm value in this study is measured in four ways: (i) the ratio of the market value of equity and the replacement value of total assets (i.e. the sum of the replacement value of tangible fixed assets, and the difference between the book value of total assets and the book value of tangible fixed assets); (ii) industry-adjusted value of the first measure (using the most precise SIC level in which there is a minimum of 5 firms); (iii) Tobin's Q; and (iv) industry-adjusted Tobin's Q (Pindado *et al.* 2013, refer to Appendix A in the paper for details).

[22] Strong investor protection is a dummy variable that equals one for family firms in countries with an anti-director rights index (Spamann 2010) above the sample median and zero otherwise. Similarly, firms with weak investor protection are those operating in countries with an anti-director index below the sample median.

[23] These include Hong Kong, Indonesia, South Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand.

2000[24]) by these authors, investigating 2,890 firms across nine East Asian countries employing cross-holding and pyramid structures, suggests similar results (for the same study period in 1996). Similarly, using data on 613 Canadian firms from 1998 to 2005, King and Santor (2008) find that family ownership reduces firm value when the level of family control exceeds its share of the firm's cash flow. These findings are in line with the use of control enhancing mechanisms and the private benefits of control thesis discussed earlier.

Faccio and Lang (2002) ascertain the ultimate controlling shareholder for 5,232 corporations in 13 Western European countries[25] as at the end of 1997. Using a 20% control threshold, they find 37% of these firms are widely-held. This figure is only 14% when a 10% control threshold is used. Not surprisingly the vast majority of these widely-held firms are in the UK (63%) and Ireland (62%). Of the remaining eleven countries the incidence of family control is lowest in Norway (39%) and highest in France and Germany (65%), with the others averaging 46%. In contrast to the evidence on firms with pyramid structures in South and East Asian countries, Faccio and Lang (2002) find that tunnelling is not widespread in Europe. A possible explanation for this is the better legal protection offered in European countries.

In summary, the review of the literature on family control and firm value suggests both positive *and* negative effects. Whilst controlling families have a long-term view of their firms, reduce the agency conflicts by effective monitoring, and are interested in the survival of their firms, they also enjoy exclusive rights of being the controlling shareholders of their firms, sometimes at the expense of other shareholders. That is, if the control from being the major shareholder is practiced excessively through the use of purely control enhancing mechanisms, such as dual-class shares, then minority shareholders may be worse off. Therefore it is important to analyse the conditions under which interests of the controlling family may override those of minority shareholders,

[24] The incidence of family control in Asian countries is as follows. Using a 10% threshold, 65% of Hong Kong firms are family controlled. The comparable figures are 69% in Indonesia, 13% in Japan, 68% in Korea, 58% in Malaysia, 42% in the Philippines, 52% in Singapore, 66% in Taiwan (China), and 57% in Thailand. Using a 20% threshold to infer control, the corresponding figures are 67% in Hong Kong, 72% in Indonesia, 10% in Japan, 48% in Korea, 67% in Malaysia, 45% in the Philippines, 55% in Singapore, 48% in Taiwan (China), and 62% in Thailand (Table 6, p.103).

[25] These include Austria, Belgium, Finland, France, Germany, Ireland, Italy, Norway, Portugal, Spain, Sweden, Switzerland, and the UK.

and identify mechanisms that can mitigate the potential expropriation of minority shareholders. To this end, we use one of the most important corporate decisions, being the choice of the CEO successor, to carry out our analyses.

2.3 Succession in family firms

CEO succession is an important event in the life of any firm, but the choice of the successor in family firms seems to have greater symbolic importance, especially when management is being handed down from the founder (Finkelstein and Hambrick 1996; Burkart *et al*. 2003; Zhang and Rajagopalan 2004). As asserted by Dalton and Kesner (1985), the CEO is the person who is ultimately responsible and accountable for action on, and reaction to, the strategy, design, environment, and performance of the organisation. Given the importance of the CEO succession decision it is not surprising that not only the firms' primary shareholders, but external parties also, view this decision as a signal as to the organisation's future, with the successes and failures of individual CEOs translating into successes and failures of the firm (Beatty and Zajac 1987). The review of the literature on family ownership and control highlights the importance of studying individual corporate decisions in family firms since results from firm valuation analysis may not specify causes for reported firm successes or failures. Moreover, the choice of successor to the incumbent family CEO may be a manifestation of a conflict of interests between family and nonfamily shareholders. Thus, the CEO succession decision presents an ideal setting to analyse the conditions under which interests of the controlling family may override those of the minority shareholders, and how these minority shareholders react to the announcement of the successor choice. For this reason we review the theories on CEO successions in family firms (i.e. successor choice and determinants of this choice) and their impact on performance in the following section.

2.3.1 Theories on management succession in family firms: Determinants and performance consequences

Theory predicts that the CEO successor choice between a family and a nonfamily candidate is a function of several different variables, or determinants. These can be summarised as the following: the level of family control and investor protection

(Burkart *et al*. 2003), the quality of the successor and monitoring ability of the founder (Giménez and Novo 2010), family generation and the family's emotional attachment to their firm (Gomez-Mejia *et al*. 2007), board composition (DeMott 2008), and past performance of the firm (Cannella and Lubatkin 1993; Giménez and Novo 2010).

Burkart *et al*. (2003) theorise that family control and the level of investor protection determine the choice of CEO successor. Accordingly, it is postulated that, the founder chooses one of the following three options: (1) In regimes with the strongest legal protection of minority shareholders, the optimal choice for the founder is to appoint a professional manager rather than a less qualified heir and sell off shares in the market (unless the private benefits of control are huge). This, the authors claim, gives rise to the Anglo-Saxon model of governance (with dispersed ownership), in which law is the primary constraint on managerial discretion and the conflict of interests is between the manager and the shareholders. (2) In the case of intermediate protection of minority shareholders, the founder may still appoint a nonfamily executive, but the law is not stringent enough to limit the manager's discretion. Hence the founder, or his family members, stay on to monitor the manager in their function as large shareholders. This situation gives rise to the dual problems of a conflict of interests between the manager and controlling shareholders, and between the latter two on one side and the minority shareholders. (3) When protection of minority shareholders is at its weakest, agency problems become too severe to allow for separation of ownership and management. The founder considers it necessary that management stays within the family, in which case they may choose to continue to manage the firm. Alternatively, a suitable family heir may be appointed. The objective function, nevertheless, from these options is to maximize the founder's welfare, which is defined by the sum of the value of their retained stake in the firm; the revenues from selling part of that stake to investors, and private benefits of control (should the family maintain control). In summary, although the authors assume a nonfamily manager preferable to a family successor, their model predicts that greater family control, especially when investor protection is moderate to low, increases the likelihood of a family successor.

Giménez and Novo (2010) present a model of family firm succession where the founder, who also manages the firm, considers the possibility of appointing a nonfamily

or a family successor. Unlike Burkart *et al*. their model of succession does not involve the incumbent founder-manager selling off all or part of his stake, however, it is similar in its prediction that the succession decision is based on the founder's welfare maximisation. These authors define the founder's welfare as the sum of the revenues generated depending on the identity of the successor, and the private benefits of control exclusive to the founder (which they refer to as amenity potential). A nonfamily CEO is appointed if they are able to generate revenues in excess of the sum of the costs of hiring them and the private benefits exclusive to the founder. In order to appoint a family heir, it is assumed that the founder would have to train the heir. So, if both the family and nonfamily candidates are equal based on their characteristics (of revenues/salaries and private benefits), the founder chooses a nonfamily successor only if training his heir requires a notably big effort. This suggests that indeed founders retain a higher proportion of private benefits when management remains within the family. In conclusion, the authors present an important extension to their model in which they predict that, when the firm has been performing well (i.e. returns are increasing), the founder always prefers a family heir.

Gomez-Mejia *et al*. (2007) argue that the sense of dynasty has important implications for the decision-making process in family firms. This is based on their socio-emotional wealth thesis of family firms that captures the 'affective endowment' of family owners. This includes, among others, the family's desire to exercise authority, appoint family members to important posts, and continue the family dynasty. Emotional attachment to the firm is much stronger for the founder (and their generation) than their descendants. Meaning that founders view the firm as a long-term family investment to be bequeathed to descendants and prefer the latter's participation in the management as compared to appointing nonfamily candidates (Berrone *et al*. 2010). Overall, the socio-emotional wealth thesis implies that emotions permeate family firms to such an extent that the family is sometimes willing to make decisions that are not driven by economic logic (Baron 2008). Whilst Gomez-Mejia *et al*. (2007) associate the family's sense of dynasty as a competitive advantage of family firms, Caselli and Gennaioli (2013) postulate that the phenomenon of dynastic management, i.e. the inter-generational transmission of

managerial responsibilities, has an average detrimental effect on firm performance. This reduces a firm's total factor productivity (TFP))[26].

Some research identifies board composition as an important corporate governance mechanism that serves to offset the potential extraction of private benefits by the controlling family through the CEO successor choice. DeMott (2008) argues that independent directors are crucial actors at the highest level of firm governance who have sufficient detachment to resolve difficult questions that implicate family ties in the decision of the CEO successor. In her theoretical paper on the influence of directors independent of both the management and the controlling family, DeMott emphasizes the monitoring role of these directors and argues that vigilance practiced by them can help to guard the firm's assets against legally problematic extractions by the controlling family. She also postulates that implications for the controlling family of appointing a nonfamily CEO to replace the incumbent family CEO can be best handled by an independent board. Overall, her arguments suggest that a more independent board is more likely to suggest a nonfamily candidate over a family member to replace the incumbent family CEO[27].

Three theories of management succession suggest the consideration of past performance in determining the successor type (Cannella and Lubatkin 1993). These are the rational adaptive view, the inertial view (scapegoating), and the contingency view[28]. According

[26] Caselli and Gennaioli (2013) predict a growth model where poor enforcement of financial contracts leads to untalented heirs owning and also managing their family's firm. The authors argue that poorly working financial markets cause this productive inefficiency by: (i) stifling the working of the market for corporate control, and (ii) impeding capital mobility across firms. Hence, Caselli and Gennaioli predict that in the presence of poor financial infrastructure, dynastic management can be minimised by the reallocation of existing top management to nonfamily managers (in the market for control), and by promoting credit markets to lend capital to capable family business owners.

[27] Other models that emphasize the monitoring function of the board of directors in predicting the hiring and firing of the top manager include Hermalin and Weisbach (1998) and Raheja (2005). However, since these models focus on the board of directors-CEO bargaining power and the determination of the optimal board structure, respectively, which are not part of this thesis, their discussion is omitted.

[28] These management theories primarily consider insider vs. outsider CEOs. Although family successors may be considered outsiders, not having worked in their family's firm before, family successors are part of a network created by blood ties, marriage, and interactions since childhood. Family relationships also have an influence on inter-organisational relationships, such as strategic alliances and resource acquisition, as family members tend to generate the firm's initial network structure and have external networks joined through family executives (Anderson *et al.* 2005). In this regard, using these management theories, we consider family successors similar to the insiders and, nonfamily successors similar to the outsiders. It is important to note that, whilst we draw on literature on insider-outsider CEOs here and in the ensuing empirical sections, it is not intended to suggest that the insider-outsider distinction

to the rational adaptive view, organisations adapt in response to environmental challenges with executive selection decisions representing an important adaptation mechanism (Pfeffer and Salancik 1978; Friedman and Singh 1989). Thus, when performance is poor, outside managers (unrelated to the firm/management) are perceived to be more capable of changing the objectives and strategy of an organisation than insiders. The inertial view postulates that the management selection process is unadaptive because of the large number of persons and vested interests involved, and the tendency of organisations to resist change (Child 1972; Hannan and Freeman 1984). Thus, even when faced with poor performance, firms are more likely to maintain the out-dated strategies and resist outsider appointments. Lastly, the contingency view, based on a socio-political approach to the CEO succession process, suggests that several socio-political factors, such as the power of the incumbent CEO[29], moderate the relationship between performance and the choice of an outside manager (Goodstein and Boeker 1991). An extension of this view is that past performance is a strong predictor of outside successors, providing the incumbent CEO is dismissed, an heir is not present, and the incumbent CEO is not also the Chairman (Cannella and Lubatkin 1993). Despite the differing views on the influence of past performance on the successor choice, there is sufficient theoretical debate to empirically test whether past performance influences the successor choice in family firms.

When it comes to performance consequences of succession decisions, it is the empirical rather than the theoretical literature that dominates (Shen and Canella 2002). The impact of the successor choice on the stock market reaction to the succession announcement and on operating performance of the firm has been analysed empirically (Smith and Amoako-Adu 1999; Pérez-González 2006). Some studies in management have employed the rational adaptive view discussed above to predict that the appointment of an outsider following poor firm performance is likely to have a positive impact on post-succession performance (e.g. Kesner and Dalton 1994). On the other hand, proponents of the inertial view predict that there is no relationship between succession

is the same as the family-nonfamily distinction, because this is not the case. The use of these references is due to a lack of availability of literature concerning family firms and these are used with caution not to make any direct comparisons.

[29] Examples of other socio-political factors are: director expectations and attributions, and availability of alternative candidates for the CEO position (Fredrickson *et al.* 1988).

announcements and subsequent firm performance and that succession events purely serve as signals to stakeholders about potential changes within the firm (Reinganum 1985; Pfeffer and Blake 1986).

To summarise, theory predicts several factors that influence the choice of the CEO successor between a family and a nonfamily candidate. These are the level of family control, investor protection, attachment between the founder and their firm, quality of the successor, board independence, and past performance. Although theories related to family control predict the different conditions under which the family may choose an heir or a nonfamily CEO, they conclude that there is a greater likelihood that management will be passed on to another family member because of the associated private benefits of control. Of the listed determinants, board independence appears to be an important factor likely to reduce the private benefits of control by reducing the likelihood of a family successor. Finally, because of the lack of relevant theory, in section 2.3.2, we discuss the performance consequences of succession decisions based on the relevant empirical literature.

2.3.2 Empirical studies on CEO successor choice and impacts on firm performance

In this section we review the empirical literature on CEO successions in family firms (i.e. the successor choice and the determinants of this choice), and the impacts of succession announcements on operating performance and cumulative abnormal returns (CARs). Given that our sample of firms used to test our hypotheses and conjectures are based in France, Germany and the UK, particular relevance is given to research from these countries.

Smith and Amoako-Adu (1999) analyse the factors that influence the successor choice, and the immediate and long-term impacts on financial performance of these successions using a sample of 124 Canadian family firms[30] listed on the Toronto stock exchange during 1962 to 1996. They find that family successors are more likely to be appointed in firms with greater family power, where family power is defined as a majority of the management positions being held by the controlling family and the absence of

[30] A family firm includes those where the departing CEO is a family member, i.e. a founder or a descendent (Smith and Amoako-Adu 1999).

nonfamily block-holders. There is some evidence that poor firm performance leads to the appointment of a nonfamily CEO rather than a family member, confirming the rational adaptive view. In terms of performance consequences arising from succession announcements, the authors find that the appointment of a family member replacing the incumbent family CEO hurts operating performance. Specifically, operating return on assets (OROA) of firms appointing nonfamily CEOs is significantly below the industry median over the four years before succession, but improves over the four years after succession. Conversely, firms appointing a family successor experience the opposite effect on OROA[31]. The immediate stock market reaction shows significant CARs (-3.20%, in the [-1; 1] event window) around the announcement of a family successor, compared to no significant CARs when a nonfamily successor is announced. The negative CARs are explained by the young age of the family successor which signals his/her inexperience compared to a nonfamily candidate.

Pérez-González (2006) examines a sample of 335 CEO successions in US family firms[32] in 1994[33]. He finds that firm performance suffers when the successor is related to the incumbent family CEO, in contrast to where the successor is unrelated. In particular, the OROA in the firms experiencing 'inherited control' (a family member successor) falls by 20% within two years of the appointment, whilst for firms appointing nonfamily CEOs there is no change. Cases where inherited control is accompanied by declines in performance (measured using OROA and market-to-book ratio) are largely explained by the poor academic record of the family successor. Academic record is measured by the type of undergraduate institution attended by the successor where attending a selective college[34] provides a valuable signal of ability (Spence 1974). Accordingly, firms appointing family successors who did not attend a selective college (45% of all family successors) experience 25% lower OROA and market-to-book ratios within 3 years of the succession compared to firms appointing

[31] Using 3-year averages of OROA and return on sales (ROS), Cucculelli and Micucci (2008) reach similar conclusions for 229 Italian family firms.
[32] A family firm is defined as one where the retiring CEO is related to the founder (Pérez-González 2006).
[33] Although the study is conducted on data from 1994, the requirement was that the sample firms should be active since at least 1970.
[34] Pérez-González uses the Baron's Profiles of American Colleges (1980) to identify 'selective' colleges. A selective college is an undergraduate institution classified as very competitive or better in Barron's (1980) profiles. In 1980, a total of 189 colleges that primarily considered applicants who ranked in the top 50% of their graduating high school class were classified as very competitive or better.

nonfamily CEOs. There is no significant difference when firms appoint family successors who have attended selective colleges. Consistent with the view emphasizing poorer managerial quality of family successors discussed in section 2.3.1, the findings related to academic record suggest that the efficiency losses are linked to the managerial abilities (or lack thereof) of the family heir. Pérez-González's (2006) event study on succession decisions between a family and a nonfamily successor (for the [0; 2] event window) suggests that there is no market reaction when a family member succeeds the incumbent family CEO whereas external nonfamily CEO appointments are met with positive CARs of 4.8%.

Bennedsen *et al.* (2007) compare family and nonfamily successions in family firms from Denmark during 1994 to 2002, using the gender of the departing CEO's firstborn child as an instrumental variable that overcomes selection bias issues. They find a substantial decline in the OROA around family successor appointments (using both one and three year averages before and after the announcement). Also, family successors are not associated with lower rates of bankruptcy as one would expect if the lower OROA generated were the result of a conservative management style. In fact the authors find that relatively less profitable firms managed by family successors are more likely to file for bankruptcy than firms managed by nonfamily members. This, together with theory, suggests that firms appointing a family successor underperform compared to firms appointing a nonfamily CEO, and the consequences of allocating assets to less talented family heirs can potentially extend beyond family firms, hurting aggregate TFP and economic growth (Burkart *et al.* 2003; Caselli and Gennaioli 2013).

This underperformance is also evidenced in firms managed by family heirs and/or descendants to the founder, i.e. subsequent generations (Morck *et al.* 1988; McConaughy and Phillips 1999; Morck *et al.* 2000, and Villalonga and Amit 2006). In an investigation into a sample of Canadian firms managed by heirs of the founder Morck *et al.* (2000) find that they underperform compared to similar US firms with dispersed ownership. The other three studies also confirm the underperformance of descendants as compared to the founder. Bloom and Van Reenen (2010) survey managerial practices in the US, the UK, France, and Germany. They find substantial cross-country differences in the quality of management, but about half of these

differences disappear when they control for the intensity of product market competition and the greater incidence of family firms managed by the descendants of the founder. That is, descendants in general are less efficient than the founders (and poorly manage their firms).

Not all of the evidence suggests strong support for the argument that family firms appointing nonfamily CEOs perform better than firms with descendants of the founder as CEO. Sraer and Thesmar (2006) document the performance and behaviour of family firms listed on the French stock exchange between 1994 and 2000, wherein about one-third of the firms are widely-held, one-third are founder controlled, and the remaining one-third are descendant controlled. The authors find that descendants do not generally inherit the management of the best firms and descendants whose firms de-list do not systematically underperform. This research shows that both founder and descendant controlled firms perform (measured by ROA, ROE, and market-to-book value) better than nonfamily firms. Although they find evidence that nonfamily CEOs bring financial expertise to the firm and are keener to avoid capital wastage, the descendants are seen to have the managerial horizon necessary to commit to a protective employment policy and are rewarded by a larger labour productivity. Ehrhardt *et al.* (2006) analyse the evolution of ownership, control, and performance in 62 German founding family owned firms from 1903 to 2003. Using a matching sample of 62 nonfamily firms in 2003, they find that family firms outperform nonfamily firms in terms of OROA but not stock performance (buy and hold abnormal returns (BHARs)). Performance of family firms in this sample seems to decrease through the generations, possibly due to the fact that families give up ownership slowly and they maintain strong control of their firms even after several generations.

The study by Hillier and McColgan (2009) presents evidence on CEO succession and firm performance for the third country we examine in this thesis, the UK. The authors use a sample of 683 firms (164 family and 519 nonfamily firms) listed on the London Stock Exchange (LSE) to analyse succession decisions, and the subsequent firm performance, over the period 1992 to 1998. They find that the departure of a family CEO, especially the founder, improves operating performance over the three years post-succession (irrespective of performance for the three years pre-succession). They find

significant and positive mean CARs (3.42% for the [-3; 3] event window) when a family CEO departs. When a nonfamily CEO departs CARs are insignificant. A comparison of founder- and descendant- CEO departures for the family firms in the sample shows that the market reacts more positively to the departure of the founder[35]. Overall, shareholders appear to benefit when family CEOs depart their firm and are replaced by nonfamily CEOs. In terms of governance characteristics, although the authors measure the independence of directors from the CEO, their results do not offer clear insights on the impact of independent directors on CEO turnover and succession decisions. Their findings, however, are consistent with other literature on family firms and corporate governance which generally finds a negative relationship between managerial power and board independence (Young 2000; Anderson and Reeb 2003a).

While theory predicts the influence of independent directors on the choice of the CEO successor, the related empirical literature for family firms is limited. With the exception of the study conducted by Hillier and McColgan (2009) discussed above, other studies that broach the subject of how director or board independence influences CEO successor choice are on widely-held US firms (Dalton and Kesner 1985; Park and Rozeff 1994; Borokhovich *et al.* 1996; Borokhovich *et al.* 2006). Two of these show support for the hypothesis that outsider dominated boards are more likely to choose a CEO from outside the firm (Park and Rozeff 1994; Borokhovich *et al.* 1996).

Dalton and Kesner (1985) use a sample of firms listed on the New York Stock Exchange (NYSE) to investigate the effects of board composition on executive succession. They find no evidence of a significant relationship between outside director representation on boards and the inclination of boards to appoint outsiders as CEO. However, the definition used in this paper for independent, or outside, directors treats relatives of executives, directors doing business with the firm (e.g. suppliers, bankers), and previous employees of the firm as outside directors. This definition of an outside director, although technically correct, is misleading and could go some way to explaining the results.

[35] The finding related to the market reaction is in terms of both short-term announcement CARs as well as three year post-announcement BHARs.

In contrast, Park and Rozeff (1994) find a positive relationship between the percentage of outside directors and the likelihood of an outside CEO appointment. Their study consists of firms listed on the NYSE that appointed a new CEO during the period of 1979 to 1986. Directors who do not hold any management positions in the firm are classified as outside (and independent) directors. They find that when outsiders occupy a minimum of 80% of the board seats, the appointment of an outside CEO is more likely[36]. However, when outsiders occupy less than 80% of the board seats no likelihood of an outside CEO being appointed is shown.

Borokhovich *et al.* (1996) examine a sample of 969 CEO changes between 1970 and 1988 in 588 NYSE listed firms. They use the 'director incentives' hypothesis to understand CEO replacement decisions and state that if director incentives affect the likelihood that a poor CEO is replaced, they are also likely to affect the choice of the new CEO. The authors argue that since the appointment of a strong CEO enhances the reputations of outside directors, these directors will tend to select the best candidate for the position regardless of whether they are an insider or an outsider. They find a positive relationship between the percentage of outside directors on the board and outside CEO appointments. However, this relationship is only significant when at least two-thirds of the board seats are occupied by outsiders. In a later study, Borokhovich *et al.* (2006) examine board quality and executive replacements around the deaths of CEOs. Although they find that boards with greater independence are more likely to appoint an outsider, this finding is more economically and statistically significant when there is no apparent heir, or related successor, and firm performance is poor. Similarly, Weisbach (1988) finds that the stock market reaction to the succession announcement also depends on the independence of the board of directors, and that this relationship is strengthened when pre-succession performance has been poor.

In summary, the majority of empirical research reviewed here provides support for the private benefits of control thesis and finds that firms appointing nonfamily CEOs perform better on average. However, these findings can be explained by the young age and/or inexperience of family successors; their lack of qualifications compared to

[36] This is based on the estimated logit model with piecewise variables for the fraction of outside directors on the board.

nonfamily CEOs; poor past performance of the firm, or the incumbent CEO being forced out of his/her position. Evidence on the influence of board independence on the successor and the subsequent performance is mixed. The same is evident from the cross-country differences with different levels of investor protection. Interestingly, whilst studies based on North American and UK firms find evidence on the under-performance of family successors, those based on French and German family firms find that family successors perform better. This highlights the importance of considering characteristics of family control and past performance in conjunction with governance mechanisms, such as board independence and shareholder protection, to understand CEO succession decisions in family firms. In sections 2.4 and 2.5 we develop the hypotheses and conjectures that we test in Chapters 4 and 5 of this thesis, based on the review of the literature.

2.4 Determinants of the CEO successor choice: Hypotheses

This section refers to the literature reviewed in sections 2.2 and 2.3 to formulate the hypotheses to address the second objective of this thesis to identify the determinants of the CEO successor choice in family firms. In brief, this thesis postulates that there are five determinants of the CEO successor choice between a family and a nonfamily successor. These are family power, family generation, board independence, shareholder protection, and past firm performance. Each is discussed individually in the following sections.

2.4.1 Family power

The review of the literature in section 2.2 suggests that family control can be both beneficial and detrimental to minority shareholders, dependant on the incentives of the controlling family. This raised the question of when private benefits of control are likely to exceed the security benefits, which was found to be likely when there was separation between cash-flow rights and control rights. Some of the research predicts that controlling shareholders resort to complex schemes (e.g. pyramid structures) to circumvent various enforcement devices and/ or to deceive minority shareholders (Zweibel 1995; Wolfenzon 1999; Bebchuk *et al*. 2000; Faccio and Lang 2002). Additionally, Westhead *et al*. (2001) claim that, even if controlling families sell

ownership stakes to outside investors, they still retain a majority stake to ensure that future members of the family have an opportunity to be employed in the business. Bebchuk *et al*. (2000) demonstrate that, for a given level of control, the severity of the conflicts of interests between the large and small shareholders rises nonlinearly (at an increasing rate) with a decrease in the fraction of cash-flow claims of the large shareholder.

More specifically, studies into the use of dual-class shares in Germany carried out by Dittmann and Ulbricht (2008), and pyramids in France conducted by Boubaker (2007) show evidence of detrimental effects on shareholder value when these control mechanisms are employed[37]. While succession theory presumes nonfamily managers are better than family heirs in terms of firm performance, it predicts that the controlling family is more inclined to retain the top management positions within the family due to sizeable private benefits of control (Burkart *et al.* 2003; Giménez and Novo 2010). In summary the above arguments, combined with those from sections 2.2 and 2.3, suggest that the level of family control influences the choice of the CEO successor. Hence, we propose the following hypothesis:

> HYPOTHESIS 1: *The greater the power of the family, the higher is the likelihood that the successor to the incumbent family CEO will be a family member*.

2.4.2 Family generation

McConaughy and Phillips (1999) argue that first generation[38] family managers are entrepreneurs equipped with unique business and technical skills for the creation of the business, but that their successors face different challenges in terms of enhancing and sustaining the business and that these tasks are often much better performed by nonfamily managers. Furthermore, in terms of management style and culture, Dyer (1988) argues that most first generation family firms are likely to have a 'paternalistic' style, but that succeeding generations shift to a 'professional' style. She finds that 80%

[37] Specifically for the UK, with regards to the use of similar control mechanisms, whilst multiple class shares have been outlawed since 1968 preference shares, with preferential dividend rights but limited voting rights, are still permissible (Faccio and Lang 2002).
[38] First generation here, and in the remainder of this thesis, refers to the founder generation and is not limited to the 'founder' only.

of first generation family firms have a paternalistic style[39]. This is evidenced by top management control of power and authority by the family, hierarchical relationships, and distrust of nonfamily managers. Professional management, on the other hand, is characterised by the inclusion of nonfamily managers in the firm. Moreover, according to the socio-emotional wealth thesis discussed in section 2.3, the founder generation may attach emotional wealth to the firm (Gomez-Mejia *et al*. 2007; Berrone *et al.* 2010). Hence, when the succession issue arises, the founder-CEO may either try to be re-appointed or choose a family member as successor. Given the strong emotional ties with the family firm, if there is no suitable successor within the family, the founder-CEO may prefer to appoint a nonfamily CEO rather than risk the demise of the business. The founder may also choose to stay as CEO and train a family heir for the position (Giménez and Novo 2010), or follow a 'seat-warmer' strategy until a qualified family member is ready to take over (Zaudtke and Ammerman 1997).

To sum up, according to the minority expropriation thesis a family CEO is likely to replace the incumbent family CEO. In contrast, the socio-emotional wealth thesis states that the controlling family's choice of CEO successor is unclear in the second and subsequent generations. Previous studies that consider family generation when investigating the impact of founder-CEOs on firm value find that firms in the first-generation of the family outperform nonfamily firms (Morck *et al.* 1988; Anderson and Reeb 2003b; Villalonga and Amit 2006). These studies find, with the exception of Villalonga and Amit (2006), no such positive or a negative effect for firms in subsequent generations[40]. Hence, we expect the generation of the controlling family to influence the choice of the CEO successor, particularly in the first generation, and propose the following hypothesis:

HYPOTHESIS 2: *If the incumbent CEO is the founder or of the founder's generation, it is more likely that the successor will be a family member.*

[39] The author carries out a qualitative study on more than 40 family firms. However, the exact number of the sample firms with regards to this finding is not clearly stated in the paper.
[40] Villalonga and Amit (2006) find that firms in subsequent generations perform worse than those in the founder generation.

2.4.3 Board independence

As discussed in section 2.3, DeMott (2008) argues that directors who are independent of both management and the dominant family shareholders have important functions within the complex environment of a family-influenced public firm. She argues that independent directors are crucial actors at the highest level of firm governance who "*possess the capacity to bring appropriate detachment to bear in resolving difficult questions that implicate family ties as well as business necessity, including management succession and external threats to the firm's position and separate existence*" (p. 824). DeMott postulates that by acting vigilantly independent directors guard the firm's assets against legally problematic extractions by the controlling family. These arguments are in line with Winter (1977) who states that when the issue of intra-family CEO succession arises only independent directors can move the board's focus from whether the family successor will be 'good enough' to the successor representing the 'best available choice'. Overall the theoretical literature suggests that independent directors are likely to influence the choice of the CEO successor in favour of the nonfamily shareholders.

There is empirical evidence to suggest that independent directors have a positive impact on CEO turnover (Weisbach 1988; Borokhovich *et al.* 1996), and reduce the incidence of fraud and opportunistic timing of stock option grants (Beasley 1996; Dechow *et al.* 1996; Beasley *et al.* 2000; Bebchuk *et al.* 2010). Nevertheless, the question as to whether independent directors affect the CEO selection decision remains open to debate. As discussed in section 2.3, we identified five empirical studies that come closest to our investigation on the influence of independent directors on the CEO successor choice: Dalton and Kesner (1985); Park and Rozeff (1994); Borokhovich *et al.* (1996); Borokhovich *et al.* (2006), and Hillier and McColgan (2009). Having said this, these studies (except the latter one) limit themselves to classifying the firm's board members as inside directors (employees of the firm) and outside directors. Two of these studies (as discussed in section 2.3.2) find that outsider dominated boards are more likely to select a CEO from outside of the firm (Park and Rozeff 1994; Borokhovich *et al.* 1996), similar to an earlier study by Weisbach (1988). In summary, we expect independent directors to influence the choice of the CEO successor; therefore we propose the following hypothesis:

HYPOTHESIS 3: *The higher the percentage of board seats occupied by independent directors, the higher is the likelihood that the successor to the incumbent family CEO will be a nonfamily CEO.*

Furthermore, our review of the literature on board independence in section 2.3.3 suggests an important caveat in that there is no consistency in the way board independence is defined. The commonly used definition is that directors not employed with the firm, i.e. outside directors are independent. We argue that this definition, especially in firms with controlling shareholders, requires more attention. That is, outside directors in family firms may include non-executive members of the same family, or others that have links to the controlling family, which none of the studies discussed so far have considered. When we come to test the hypotheses and conjectures formulated in this chapter in Chapters 4 and 5 we use our own measure of director independence which includes links to the controlling family. In Chapter 3 we provide the rationale behind the use of this measure, which we refer to as *de facto* independence, using evidence from the existing literature and the codes of best practice under which the firms investigated operate.

2.4.4 Shareholder protection

The extent of minority expropriation in family firms depends on the level of shareholder rights granted by the country where the firm's headquarters are located. La Porta *et al.* (1997, 1998) suggest that differences in the size and development of capital markets around the world can be partly explained by differences in investor protection, reflected by legal rules and the degree of enforcement. They argue that investor protection is highest in common law countries, including the US and the UK, lowest in French civil law countries and somewhere in between in German and Scandinavian civil law countries. However, recent studies postulate that shareholder protection is determined not only by the corporate law or codes of best corporate governance practice (e.g. legal requirement to comply or explain), but also by listing requirements of the stock exchange where the firm is listed (Bris and Cabolis 2008; Goergen and Renneboog 2008). Cross-listing, whereby a firm that is already listed on its home stock exchange obtains a listing abroad, has recently been suggested as a way for firms to opt into another, better legal system.

Given the more stringent disclosure standards and law in the US, Coffee (2002) argues that foreign firms may cross-list on a US stock exchange to commit themselves to protect their minority shareholders. This is called the bonding hypothesis and can act as a signal to outside shareholders that the firm is committed to consuming less private benefits, thus prompting a favourable outside investor reaction and increasing firm value. This commitment, however, has to be credible and involve an exchange with high shareholder protection such as the US or the UK. Hence, family firms that undertake such a cross-listing subject themselves to follow the generally accepted accounting principles (e.g. the US or the UK GAAP), to comply with requirements associated with that exchange, and to some extent, with the relevant security laws (Reese and Weisbach 2001). In this way cross-listing provides a mechanism whereby family firms can subject themselves to higher levels of shareholder protection.

Overall, the literature provides strong support for the bonding hypothesis (Goergen and Renneboog 2008). Firms that cross-list, especially on a better market, trade at a premium, have a lower cost of capital and a lower voting premium[41]. Hence, considering cross-listing in the US or the UK as a proxy for greater minority shareholder protection[42], we hypothesize that:

> HYPOTHESIS 4: *The greater the minority shareholder protection, the higher is the likelihood that the successor to the incumbent family CEO will be a nonfamily CEO.*

2.4.5 Past firm performance

According to the rational adaptive view, an external successor to the CEO will be appointed following poor corporate performance and an internal one following good performance (Cannella and Lubatkin 1993). Conversely, the contingency view states that the successor is often appointed from inside the firm, and the family, *despite* poor firm performance, suggesting that other factors may moderate the relationship between poor performance and outside succession (Boeker and Goodstein 1993). The authors find that such factors include firm ownership, board composition, and socio-political

[41] Voting premium is defined as the difference in market price between voting shares and non-voting shares.
[42] It must be noted that this proxy does not apply to our UK firms.

factors. However, when the influence of these factors is not strong enough, or when performance is very poor, resistance to change may be weakened in these firms. Hence, a change in the CEO, in particular replacement by an outsider, when pre-succession performance has been weak, can be an important dimension in overcoming resistance to change (Boeker 1997).

As discussed in section 2.3.3, Smith and Amoako-Adu (1999) find that stronger performance does not necessarily lead to the appointment of a family member and poorer performance does not necessarily lead to the appointment of an outsider[43]. Hillier and McColgan (2009) find that family CEOs are less likely to leave when there is poor firm performance than nonfamily CEOs. Similarly, Chen *et al.* (2013)[44] find that both family CEOs in family firms and professional CEOs in nonfamily firms are less likely to step down when firm performance is poor than nonfamily CEOs in family firms[45]. In the context of family firms, the authors explain the lower performance sensitivity to CEO turnover by greater family entrenchment, whereby families are reluctant to replace poorly performing family CEOs to better protect their private benefits. Nevertheless, the authors point out that such firms also face the difficulty of replacing a poorly performing family CEO, especially by an outsider[46].

While most of the literature discussed here suggests that prior performance matters less for the choice of the CEO successor in family firms, the theoretical literature discussed in section 2.3.1, and the study by Chen *et al.* (2013), provides sufficient support to argue for its importance, therefore our fifth and final hypothesis is:

[43] They conclude that, irrespective of prior corporate performance, family members are more likely to be appointed if more of the senior executives of the firm are family members and the firm is controlled by a single family.
[44] These authors examine the CEO turnover-performance sensitivity in 1,865 firms in the S&P 1500 Index during 1996-2005.
[45] Chen *et al.* (2013) distinguish between family firms with a family CEO and family firms with a nonfamily CEO. They find that the CEO turnover performance sensitivity is related to who serves as CEO in family firms, i.e. the sensitivity is lower in firms with a family CEO as compared to those family firms with a nonfamily CEO.
[46] In contrast to family firms with family CEOs, Chen *et al.* (2013) claim that family firms with nonfamily CEOs are in a better position to replace a poorly performing nonfamily CEO by another nonfamily outsider.

HYPOTHESIS 5: *The better the pre-succession performance of the firm, the higher is the likelihood that the successor to the incumbent family CEO will be a family member.*

2.5 Stock market reaction to the succession announcement: Conjectures

In this section we formulate conjectures to address the third objective of this thesis concerning the stock market reaction to the announcement of the CEO successor. Although our arguments to expect a stock market reaction to the announcement of the successor are based on earlier literature (discussed in sections 2.2, 2.3 and 2.4), due to the lack of theory on the expected drivers to influence such a market reaction we formulate conjectures rather than hypotheses. We develop conjectures on the market reaction to the succession announcement and also as to how various factors, which determine the likelihood of a nonfamily successor to the incumbent family CEO, also determine the market reaction to the announcement of the appointment of a nonfamily CEO.

Majority of the literature discussed in section 2.3.2, on the CEO successions in family firms and their consequences on operating performance, suggests that firms appointing nonfamily CEOs perform better than those appointing family CEOs (Smith and Amoako-Adu 1999, Morck *et al*. 2000, Pérez-González 2006, Villalonga and Amit 2006, Bennedsen *et al*. 2007, and Cucculelli and Micucci 2008). In contrast, Anderson and Reeb (2003b) for US family firms, Sraer and Thesmar (2006) for French family firms, and Ehrhardt *et al*. (2006) for German family firms find that family firms outperform nonfamily firms.

Literature on the stock market reaction to the CEO succession announcement (not specific to family firms) also suggests that the appointment of an outsider elicits a strong, positive stock market reaction as compared to the appointment of an insider, which does not necessarily cause a market reaction (Lubatkin *et al*. 1986; Borokhovich

et al. 1996; Huson *et al.* 2004)[47]. Significant and positive CARs, as a reaction to the announcement of the appointment of an outsider, are found by Lubatkin *et al.* 1986 in well performing[48] large US firms[49] with no market reaction to the announcement of an insider, evident irrespective of pre-succession performance. Borokhovich *et al.* (1996) find that the market views the appointment of an outsider more favourably than the appointment of an insider, especially when the incumbent is forced to resign. Huson *et al.* (2004) find similar results in their study on the stock market reaction to succession announcements for outside and inside appointments around forced turnovers. The authors find that the [-1; 0] event window CARs are 2.15% (significant at the 5% level) when an outsider is announced, whilst the -0.83% CARs for an insider announcement are insignificant. Evidence on the stock market reaction in the case of family firms is limited. Smith and Amoako-Adu (1999) do not find significant CARs following the appointment of nonfamily CEOs, but they do find that the appointment of a family successor elicits a negative market response. The authors attribute this to the young age and inexperience of the successor. Pérez-González (2006) finds no significant CARs when a family member succeeds the incumbent family CEO, whereas external nonfamily CEO appointments are met with significant and positive CARs. Hillier and McColgan (2009) find that, the departure of an entrenched founder CEO elicits significant positive CARs. Although the number of studies investigating market reactions to the appointment of a successor to incumbent family CEOs is fairly limited, here we propose the following conjecture based on the above discussion:

> CONJECTURE 1: *The announcement of a family member to succeed the incumbent family CEO elicits no market reaction whereas the announcement of a nonfamily successor elicits a positive market reaction.*

[47] As stated earlier, we refer to these studies here considering the insider and outsider CEOs comparable to the family and nonfamily CEOs, respectively, however, not the same. Please refer to the earlier explanation in section 2.3.

[48] The authors distinguish between well performing and poorly performing firms by comparing each firm's pre-succession 5-year ROE average to its corresponding 4-digit industry ROE average and to an all-industry ROE average computed over the same 5-year interval. If a firm's 5-year ROE average exceeds that of its industry and that of the marketplace over the corresponding period of time, it is considered as performing well.

[49] These refer to firms with an average market capitalisation of $594m.

An important limitation of the above studies is that they fail to adjust for the likelihood of the appointment of a nonfamily CEO. Both existing theory and empirical studies suggest that firm characteristics are likely to influence the choice of the type of CEO successor and, in turn, the market reaction to the announcement of this choice. In terms of theory Giménez and Novo (2010) predict that, given family concerns of possible reduction in their control and private benefits (due to reduced participation in management), and the increase in costs generated by monitoring a nonfamily CEO, the family may still prefer to retain the top management position within the family. This is especially the case when the firm operates in an environment with poor investor protection making it easier to extract private benefits of control (Burkart *et al.* 2003). Furthermore, Giménez and Novo (2010) predict that, despite the training efforts the founder expends on an heir, it is more likely that there will be a family successor if firm performance has been good. Moreover, as predicted by DeMott (2008), it is the directors independent from both the controlling family and the management that are in a position to reduce the likelihood of a family CEO successor. From an empirical point of view, the studies used to develop our hypotheses in section 2.4.1 and 2.4.2 suggest that the greater the power of the controlling family, and if the incumbent CEO is the founder (or from the same generation), the greater the likelihood of a family successor.

We argue that the greater the likelihood that a successor will be a family member, the more positive the market reaction will be to the announcement of a nonfamily CEO. In order to explain this market reaction we use the determinants hypothesized in section 2.4, based on the literature discussed in sections 2.2 and 2.3, to predict the likely type of successor. Thus, in Chapter 5, we test whether greater family power, the incumbent CEO being the founder, and good past performance elicit a more positive market reaction when a nonfamily CEO is announced. Factors suggested to reduce the likelihood of a family successor and to elicit a less positive market reaction when a nonfamily CEO is announced, such as greater board independence and minority shareholder protection, are also investigated. A similar approach is taken by Chen *et al.* (2013)[50]. The authors argue that if investors expect a firm to have difficulty replacing a poorly performing family CEO they will react more positively to the announcement of

[50] Dahya and McConnell (2005) also take a similar approach, but not for family firms. This study is discussed in section 2.5.3 in detail.

the CEO's departure when it occurs. However, the market reacts less positively when the replacement of such CEOs is not difficult. In the next sections we formulate five conjectures that aim to explain the market reaction to the announcement of a nonfamily CEO.

2.5.1 Family power

The controlling family may create security benefits for all shareholders of their firm and/or choose to extract private benefits of control. However, the way minority shareholders perceive the role of family power is unclear. Wong *et al*. (2010) find that family control is an important consideration for investors when reacting to corporate venturing[51] announcements in family firms. Investors generally react negatively to venturing announcements, however, if the CEO is a family member, or there is a greater representation of family members on the board of directors, or if the voting and cash-flow rights of the family deviate (i.e. there is greater family power), this reaction is more negative. Chang *et al*. (2010) explore the impact of family control on innovation (i.e. new product, process and service announcements) by examining the association of family control and stock market reactions to innovation announcements. They find that firms with greater family control experience significantly more negative CARs to innovation announcements. The authors maintain that, due to the conservative strategies followed by controlling families, investors do not anticipate new product announcements. Investors react more negatively to such announcements because family firms do not reveal sufficient and timely information prior to the new product announcement to allow investors to assess the product's impact on future earnings. Thus, investors discount the market valuation due to the lack of timely information, but the impact on CARs is *more* because of the uncertainty related to new product announcements[52]. In general studies on family firms do not explicitly test the impact of family control or power on shareholder response to corporate decisions. However, the evidence on the role of family control in influencing firm decisions, including the CEO succession decision (as discussed in section 2.4.1), leads us to expect that if family

[51] The authors define corporate venturing as acquisitions, joint ventures, and alliances that the family firms invested in.

[52] Both studies suggest that controlling families are more likely to extract private benefits of control at the expense of nonfamily investors, however, it must be noted that the samples for these studies are drawn from Taiwan, an emerging country with weak investor protection.

power is great, the market expects the appointment of a family member as the successor to the incumbent family CEO. Hence, we propose the following conjecture:

> CONJECTURE 2: *The greater the family power, the more positive are the CARs to the announcement of the appointment of a nonfamily successor.*

2.5.2 Founder

The literature provides no clear evidence as to how the market reacts to succession announcements when the incumbent CEO is the founder (Fahlenbrach 2009). Earlier studies examine the market response to the death of founder-CEOs (Johnson *et al.* 1985; Ederington and Salas 2005). Johnson *et al.* (1985), for example, document a positive market reaction to the announcement of the sudden death (plane crashes or heart attacks) of the founder. These results have been interpreted as evidence of the extraction of private benefits of control by these powerful founders (Shleifer and Vishny 1997).

The founder is often considered to be the one who creates the most value for the firm (Anderson and Reeb 2003b; Villalonga and Amit 2006 and 2009), and attaches a greater degree of emotional wealth to the business (Berrone *et al.* 2010). Also, Carroll (1984) argues that founders are harder to replace relative to other CEOs because they "*have higher levels of commitment, enhanced entrepreneurial and technical skills, and stronger personal ties to employees*" (p.97). In support of this, Fahlenbrach (2009) shows that it is the founder-CEO, and not firm characteristics, that improves firm value as measured by Tobin's Q. He finds that Tobin's Q in founder-CEO firms is 25.9% higher than in nonfounder-CEO firms. He also shows that a value-weighted investment strategy had it been invested in founder-CEO firms during 1993-2002 would have earned an abnormal return of 10.7% compared to a passive investment strategy[53].

In summary, the above results show that founder-CEOs create greater value for the firm which suggests that the choice of successor to the founder-CEO is crucial. Cabrera-Suárez *et al.* (2001) claim that there is a danger that the family's culture, which is a result of its history, may make the firm hostile to change. Their argument is backed up

[53] Fahlenbrach (2009) explains this unexpected result by (i) investors' fear of possible expropriation by the founder, (ii) the market being continuously surprised by better-than-expected ROA, and (iii) the active growth strategies pursued by the founder-CEO.

by Villalonga and Amit (2006) who find that family involvement in their firm, apart from founder involvement, destroys rather than creates value. Although in section 2.4.2 we argue that it is the founder generation most likely to influence the appointment of a family successor, the above evidence suggests that the market reacts differently to the founder than to managers from the same generation or descendants. Thus, we consider the market reaction to the succession announcements of the incumbent founder-CEO and disregard the incumbent founder generation CEO. Furthermore, once the firm has passed the founder-CEO stage, its management style moves on from the often paternalistic style of founders to a more professional management style (e.g. Dyer 1988). Thus, while the incumbent founder-CEO is more likely to offer him/herself for a re-appointment or select a family successor, other incumbent family CEOs are more likely to select a nonfamily CEO. Hence, we propose the following conjecture:

> CONJECTURE 3: *If the incumbent CEO is the founder, more positive CARs are observed on the announcement of the appointment of a nonfamily successor.*

2.5.3 Board independence

In his study of CEO turnover announcements Weisbach (1988) argues that the degree of stock market reaction to the announcement also depends on the strength of the internal mechanisms, such as board independence. He finds positive abnormal returns to the announcement of the appointment of an outside CEO if independent directors dominate the board. Davidson *et al.* (2002) argue that investors react to the CEO succession decisions when there is greater board independence because more independent boards are likely to select the most appropriate (outside) successor. As boards become more independent, they are more willing to monitor, which raises the likelihood of external CEO appointments (Hermalin 2005). Furthermore, Dahya and McConnell (2005) find that UK boards, in compliance with the minimum recommended number of outside directors (i.e. at least three) as proposed by the Cadbury report (1992), are more likely to appoint outside CEOs. Borokhovich *et al.* (2006), who study the influence of board independence on the CEO appointment decision in the case of sudden CEO death in US firms, arrive at a similar conclusion.

One shortcoming of most of the above studies is that they do not adjust for the probability of the appointment of an outside CEO stating that inside appointments are well anticipated, whereas external appointments are uncertain. For this reason any stock market reaction to inside appointments, if at all, are likely to be muted. Dahya and McConnell (2005) assume that investors consider outside CEO appointments as good news. In summary, if the market had been expecting an inside appointment but the firm announces an outsider, there will be a more positive stock market reaction[54]. Using the [-1; 0] window they find that, when the probability of an outside CEO is high (67% to 100%), the CAR is 0.43% (p-value = 0.05); when this probability is low (≤ 33%), the CAR is 1.14% (p-value < 0.01)[55]. This suggests that, although the outside CEO announcement elicits a significant positive reaction, the more expected the announcement, the less positive are the CARs. In section 2.4.3 we argue that greater board independence reduces the likelihood of a family CEO successor. Following on from this, together with the evidence presented above, investors expect a nonfamily successor to replace the incumbent family CEO when there are more independent directors on the board suggesting a less pronounced market reaction to the announcement of a nonfamily CEO. Therefore, we arrive at the following conjecture:

> CONJECTURE 4: *The greater the board independence, the less positive are the CARs to the announcement of the appointment of a nonfamily successor.*

2.5.4 Shareholder protection

Since weak shareholder protection is associated with greater private benefits of control Burkart *et al*. (2003) predict that controlling families are likely to retain the CEO position within the family. As discussed in section 2.4.4 the bonding hypothesis put forward by Coffee (1999) states that cross-listing on a US or UK stock exchange is one way for a firm listed elsewhere to opt into a better legal system, thereby protecting minority shareholder rights. Empirical support for this bonding hypothesis is primarily drawn from literature that examines the economic consequences of cross-listing on a US

[54] This is relative to the case in which investors had been expecting an outside appointment and an outside CEO was announced, although the outside CEO announcement is still considered good news. Hence, the arguments of this study are similar to the premise of our conjectures.
[55] With regards to inside CEO appointments, Dahya and McConnell (2005) find that in no category is the announcement period abnormal return significantly different from zero.

exchange, however the evidence in many of these studies is indirect and it is difficult to attribute results specifically to the bonding hypothesis[56] (Doidge *et al.* 2004; Leuz 2006). In order to address this issue Lel and Miller (2008) examine a direct outcome of corporate governance to test the bonding hypothesis by using the propensity to replace a poorly performing CEO. The authors argue that, if cross-listing on a better exchange increases shareholder protection, then specific outcomes consistent with improved corporate governance should be observed. They find that the sensitivity of CEO turnover to firm performance is stronger for cross-listed firms than for those that are not cross-listed. This sensitivity is especially pronounced for firms from countries with weak investor protection[57] that are cross-listed on a major US exchange[58]. In line with these findings, and our earlier argument in section 2.4.4 that cross-listed firms are less likely to appoint a family member as successor to the incumbent family CEO, we now argue that investors expect the incumbent family CEO to be replaced by a nonfamily successor for firms cross-listed on a US or UK stock exchange. Since we use cross-listing on stock exchanges based in the US or UK as a proxy for greater minority shareholder protection, we propose the following conjecture:

> CONJECTURE 5: *The greater the minority shareholder protection, the less positive are the CARs to the announcement of the appointment of a nonfamily successor.*

2.5.5 Past firm performance

Previous studies, which focus on nonfamily firms, suggest that the announcement of the replacement of the incumbent CEO by an outsider typically generates positive CARs when the pre-succession performance has been poor (Bonnier and Bruner 1989; Denis and Denis 1995; Khanna and Poulsen 1995). Indeed, some argue that an insider appointment is only plausible in the light of good firm performance (Cannella and Lubatkin 1993; Lauterbach *et al*. 1999). Firms with poor performance often need to hire outside CEOs for their greater propensity to change existing strategies, evaluate the

[56] This is because many theories of cross-listing have similar economic predictions. For a more detailed discussion refer to Doidge *et al.* (2004).
[57] The study employs three country-level measures of investor protection based on previous literature. These comprise (1) whether the home country has an English legal origin (La Porta *et al*. 1997, 1998), (2) the revised anti-director rights index (Djankov *et al*. 2005) and (3) the anti-self-dealing index (Djankov *et al*. 2005).
[58] These refer to Level II and Level III American Depositary Receipts (ADRs).

current problems, and take decisive action to turn the firm around. This links in with the rational adaptive view on management succession discussed in section 2.3.1. Having said this, Chung *et al*. (1987) find that CEO changes in badly performing firms do not elicit a significant stock market reaction, whatever the type of successor. The authors conclude that investors do not believe that the replacement of the CEO will improve the firm's bad profitability. In contrast, Lauterbach *et al.* (1999) find that, following an inside selection, firm performance deteriorates, whilst outside successors improve performance significantly. A significant difference between the two year pre- and post-succession CARs for firms appointing internal and outside successors is evidenced by the authors, with post-succession performance decreasing by 41%, from 13% to -28% for internal appointments, and increasing by 35%, from -39% to 4%, for outside appointments[59].

Pfeffer and Salancik (1978) suggest that investors are likely to interpret the appointment of a family successor as a signal of stability and continuity of strategy and performance; hence no market reaction is to be expected. When we put this into the context of poor pre-succession performance, this would infer that the poorer the performance, the more likely it is that investors expect the incumbent family CEO to be replaced by a nonfamily CEO and, therefore, the less likely there is to be a strong market reaction. This is in line with our earlier discussion in section 2.4.5. Therefore, we propose the following final conjecture:

> CONJECTURE 6: *The poorer the past performance, the less positive the CARs are to the announcement of the appointment of a nonfamily successor*.

2.6 Conclusion

The two theses of family control, i.e. whether the controlling family creates security benefits of control for all shareholders and/or extracts private benefits of control for itself are subject to debate. They particularly come into play at the time of succession

[59] The contrast between the results of these two studies may be due to their definitions of 'outsiders'. While Chung *et al.* (1987) consider outsiders as those that are already employed by the firm and have less than one year of tenure, Lauterbach *et al.* (1999) define outsiders as those candidates that have had no previous employment with the firm.

when the incumbent family CEO faces the dilemma between appointing a family member and a nonfamily CEO. The common assumption in the theory on management successions in family firms is that a nonfamily successor is better than a family successor. However, the incumbent family CEO would only appoint an outsider if he/she can continue to maximise his/her wealth either by selling off some cash-flow rights or by closely monitoring the new CEO. A further prediction in theory, related to the monitoring of a new CEO, is that the latter and the family may collude and together enjoy the private benefits at the expense of minority shareholders especially when investor protection is not strong. Hence, the CEO succession decision offers an ideal setting to test the theses of family control on corporate decision making, especially when family interests override those of the minority shareholders. In this chapter, we review the literature related to the two these of family control followed by the review of the literature on management succession in family firms (i.e. the successor choice and the determinants of this choice) and its consequences on firm performance. In reviewing this literature, we find that there are inconsistencies in the way independent directors are defined and that the definitions ignore the possible links these directors may have with the controlling family. This methodological issue, related to our first objective, is discussed in the next chapter.

Based on the literature review, we develop hypotheses to address the second objective of this thesis on the determinants of the CEO successor choice. We posit that there are five determinants of the choice of successor between a family member and a nonfamily CEO. Accordingly, we hypothesize that: greater family power, the incumbent CEO being the founder (or from the founder generation), and good past performance increase the likelihood of a family successor; and greater board independence and greater minority shareholder protection increase the likelihood of a nonfamily successor. Using a probabilistic model, these hypotheses are tested in Chapter 4.

To address the third objective concerning the stock market reaction to the succession announcement, we formulate six conjectures. The premise of the first conjecture is that, given the high family control, investors expect the appointment of a family successor and do not react to the announcement of a family member, whereas the announcement of a nonfamily CEO is met with positive CARs. The remaining conjectures explain the

size of this positive reaction to the announcement of a nonfamily CEO based on various factors. Specifically, we suggest that the factors that increase the likelihood of a family successor (i.e. greater family power, the incumbent CEO being the founder, and good past performance) elicit a more positive market reaction when a nonfamily CEO is announced. Factors that reduce the likelihood of a family successor (i.e. greater board independence and minority shareholder protection) elicit a less positive market reaction when a nonfamily CEO is announced. The event study methodology and the cross-sectional regressions explaining the CARs are used to test these conjectures in Chapter 5.

CHAPTER 3

Methodological issues

3.1 Introduction

In Chapter 2 we conducted a literature review and developed hypotheses on the determinants of the CEO successor choice and conjectures on the stock market reaction to the CEO successor announcements. These hypotheses and conjectures are tested in Chapters 4 and 5, respectively. In this third chapter we discuss three methodological issues of particular concern. These include measuring actual board independence, thin trading and confounding events. Whilst the first issue is relevant for both of our analysis chapters, the latter two issues are specific to the event study methodology employed in Chapter 5.

Conventional board independence as reported in annual reports or defined in the literature does not measure independence of directors from controlling shareholders. Indeed the independence of these directors, who are shown on paper as independent, may be compromised by their links to the controlling family. Such dependence is likely to result in minority shareholder expropriation, whereby the controlling shareholder may draw private benefits of control with the support of the so-called independent directors (e.g. Villalonga and Amit 2006). Given the importance of board independence as the key corporate governance mechanism to mitigate minority shareholder expropriation (Anderson and Reeb 2003a); it is crucial that directors reported as independent are truly independent. This issue has received limited attention in the codes of best practice as well as in the literature because the primary focus has been the links that directors may have with the firm and/or its management. Affiliations with the

controlling family are often ignored. Therefore, in this chapter we propose a measure to adjust board independence vis-à-vis the controlling family shareholders. We call this measure *de facto* or adjusted board independence.

In the analysis of the stock market response to the succession announcement in Chapter 5 we use the event study methodology. Although this methodology is well-established in empirical research its implementation, combined with often limited information regarding research design, is still of concern. According to McWilliams and Siegel (1997) readers can be confident that the conclusions from an event study are valid only if they can be assured that the researcher has truly identified abnormal returns associated with the event of interest. Accordingly, the inference of significance relies on the following three key assumptions: (1) the exact date of the announcement was unanticipated, (2) markets are efficient, and (3) there were no confounding effects during the event window. Therefore, it is only appropriate to use this methodology when these assumptions are likely to be valid. Although successions and retirements of incumbent CEOs may be planned ahead, the exact dates for the announcement of the CEO successor are commonly unknown to the market. Hence, in this chapter, we take it that the first assumption concerning the date of the announcement is true in all cases and focus on the issues pertaining to the latter two assumptions of market efficiency and confounding events.

The event study in this thesis is carried out under the assumption of market efficiency. Nevertheless, in family firms, where families have a high level of control and the free-float is low, infrequent or thin trading may be a critical issue. Thin trading may bias the results of the event study and may cause statistical tests to be poorly specified. To address this issue we propose to identify whether firms are indeed thinly traded by analysing the free-float and the trading volume, and to use the appropriate adjustment techniques and test-statistics.

Confounding or other events (e.g. dividend announcements) around a succession, as highlighted by McWilliams and Siegel (1997), are another critical issue. This is because the event study methodology, by definition, attributes abnormal returns to the event of interest only meaning that it may be difficult to isolate the impact of the CEO

succession announcement. In family firms there may also be a concern as to whether the controlling family uses its discretion on disclosure to time the succession announcement or other events around it for their own benefits (Chen *et al.* 2008). Therefore, we propose to identify possible confounding events around the succession announcement and to address this in our analysis accordingly.

In summary, the aim of this chapter is to highlight the magnitude of each of these issues mentioned above and to propose ways to measure and/or identify them in order to have a robust research design and improve the reliability of our results. The following three sections (section 3.2 – 3.4) delve into each of these issues in detail. There is a broad discussion covering the issue drawing on recommendations in the codes of best practice (i.e. for board independence only) and information from the existing literature, followed by proposed methods for the identification and analysis of impacts arising from these issues and techniques to adjust for the same to eliminate or minimise these impacts on our results. The final section in this chapter (section 3.5) provides a summary of our findings.

3.2 Board independence

3.2.1 Independence as defined by legislation and codes of best practice

Despite differences in corporate governance and board practices in France, Germany and the UK (see Chapter 1) the codes of best practice in all three countries recommend the independence of non-executive directors. Having said this, it is interesting to note that none of these codes explicitly consider links between a director and the family shareholder other than being a representative of a significant shareholder or a family member of another director on the same board. This may pose a problem, particularly in France and in Germany, where concentration of control is high (La Porta *et al.* 1999) as the definition of independence used may not necessarily mean independence from the controlling shareholder. In this section, therefore, we argue that if actual board independence from controlling shareholders is to be measured using the recommendations in the codes of best practice, the definition of independence in these recommendations requires adjustment to include links between directors and controlling families.

Duties of non-executive directors as per the respective commercial laws, such as the exercise of care and diligence, are comparable across the three countries (Fauver and Fuerst 2006; Bermig and Frick 2010). Included in these duties there is the duty to exercise independent judgement and to represent the interests of all shareholders (France and the UK), and be bound by the best interests for the company[60] (Germany). As highlighted in section 3.1, the ability to exercise independent judgement considering the interests of all shareholders may be of particular concern when the directors are linked to one particular shareholder. This concern is of greater importance if the interests of the family diverge from those of the nonfamily shareholders. Next, we discuss how board independence is defined in the codes of best practice in each of the three countries[61].

In the UK board independence was first introduced as a recommendation for good corporate governance by the Cadbury Report (1992). The report was based on the assumption of a positive relationship between board independence and the quality of financial reporting and corporate governance. Prior to this report, boards in UK firms were largely populated by executive directors with few non-executives. Following the sudden financial collapses of Colorol Group, Polly Peck, BCCI and Maxwell[62] the focus on the independence of non-executive directors increased (Wearing 2005). The Higgs Report (2003) introduced a revised and more stringent definition of independence which was subsequently incorporated in the UK codes of best practice. According to this definition, "*A non-executive director is considered independent when the board determines that the director is independent in character and judgement, and there are no relationships or circumstances which should affect, or appear to affect, the director's judgement*" (Higgs 2003:37). The Combined Code (2003) elaborates on the relationships and circumstances that are perceived to cause the dependence of the director. These circumstances include the following:

[60] i.e. all stakeholders

[61] Though we list the three countries in the order France, Germany, and the UK in the entire thesis, we start the discussion in this section with the UK followed by France and Germany, i.e. in the order of the introduction of the codes of best practice.

[62] All of these scandals involved foul play by powerful CEOs in their firms with weak boards. For example, the discovery of Robert Maxwell's appropriation of £440m from his company pension funds led to the Maxwell Group filing for bankruptcy in 1992.

The director

- has been an employee of the firm within the last five years;
- has (or has had within the last three years) a material business relationship with the firm;
- sits on other boards with any of the directors from the concerned firm;
- represents a significant shareholder;
- has been a board member for more than nine years;
- has family ties with other directors, or
- receives additional remuneration on top of the director's fee from the firm.

Not all possible links to the family shareholder are covered by this list casting doubt on the actual independence of directors satisfying these criteria. For example, a director with no former employment with the firm within the last five years is considered independent. However, the same director could have been an employee prior to these five years, transferred to a subsidiary of the firm and then promoted to the board of the firm he was first employed with. To emphasise this link, the director may have been placed in the firm and its subsidiary by the family shareholder for his expertise and loyalty to the family. In cases such as this, although the director complies with the recommended definition of independence in the code of best practice, they demonstrate strong affiliation to the controlling family.

Similar to the UK board independence was introduced by the very first corporate governance code in France, the Viénot Report (1995). The later Bouton Report (2002) is considered to have introduced a more stringent definition for independence. In a report published by the working group of MEDEF[63], which was chaired by Daniel Bouton, the authors claim that the definition of independence in the French code of corporate governance is far more demanding than those in the codes of best practice of the US (Principles of Corporate Governance 2002) and the UK (Code of Good Practice 2001). This report also claims that an independent director is to be understood not only as a 'non-executive director', i.e. one not performing management duties in the firm or its group, but also as one lacking particular bonds of interest (as a significant shareholder,

[63] MEDEF is 'Mouvement des Entreprises de France', or the 'Movement of the Enterprises of France'.

employee, or other) with the firm or its group. The definition of independence in the Bouton Report (2002) reads, "*A director is independent when he or she has no relationship of any kind whatsoever with the corporation, its group or the management of either that is such as to colour his or her judgement*" (Provision 8.1). In addition to this definition, the following criteria are perceived to mean that the director is dependent.

The director

- is or has been an employee or director of the firm, its parent or a consolidated subsidiary within the last five years;
- is a corporate officer of another firm in which the concerned firm holds, either directly or indirectly, a directorship;
- has a material business relationship with the firm or its group (i.e. the director is a customer, supplier, or a banker);
- has family ties with other directors;
- has been an auditor of the firm in the previous five years, or
- has been a board member for more than twelve years.

The first criterion may be more stringent compared to the corresponding one in the UK code of best practice in terms of considering employment not only with the parent company, but also its subsidiaries. The remaining criteria are comparable to the ones in the UK code. Also, similar to the UK code, there is no emphasis on links to the controlling family shareholder in the French code. In a country in which concentration of corporate control is the norm rather than the exception[64], it is surprising that the current definition does not account for potential ties to the controlling family. For example, the criterion which states that a director must be a board member for more than twelve years to be considered dependent is not only longer than the nine years stipulated in the UK code, but is unrealistic considering the high incidence of cross-directorships and the preponderance of director networks in France (Yeo *et al.* 2003[65]).

[64] "*French family ownership and control is highest in Europe, with the top five families controlling as much as 22 per cent of stock market capitalisation, and the top 10 families 29 per cent. This compares with just 4.1 per cent and 5.8 per cent respectively in the UK. Altogether the top 15 families control more than one- third (35 per cent) of French stock market capitalisation*" (Maclean *et al.* 2006:182-183).

[65] Yeo *et al.* (2003) find that it is not uncommon for CEOs in French firms to sit on each other's boards as outside (independent) directors. The authors stress that when firms exchange their CEOs, these CEOs

Overall, even after taking into account recent developments (up to 2013), the definition of independence in the French corporate governance codes (2003-2013) is more detailed, but not necessarily more stringent than that in the UK codes (i.e. the Combined Code 2003-2009, and the Corporate Governance Code 2010-2012).

In Germany, given that the supervisory board comprises non-executive directors and employee representatives (see Chapter 1), there was never too much emphasis on board independence or the need for a formal definition of board independence as in France or the UK. The two-tier board which institutionally separates management from supervision was, in general, considered to provide a higher level of independence of its supervisory board in contrast to the one-tier board. A significant milestone in the acknowledgement of director independence on the supervisory board was the 2005 amendment of the German Corporate Governance Code (GCGC), which recommends that the supervisory board should include an adequate number[66] of independent members (section 5.4.2 of GCGC as of 2 June 2005)[67]. Independent supervisory board members are expected to monitor business decisions taken by the management board without conflicts of interests and consistent with the interests of all shareholders.

Section 5.4.2 of the GCGC (2005) states that, "*A supervisory board member is independent if he/she has no business or personal relations with the company or its management board which cause a conflict of interests*". This suggests that representatives of banks, suppliers or customers cannot be considered independent, however, representatives of the controlling shareholder, or family, are not included in this definition. The assumption behind the recommendation in the German code is that all shareholders share similar interests and that the interests of the controlling shareholder are no different from those of the minority shareholders. The possibility that shareholder interests may diverge has been disregarded. Other than being a formal representative of the controlling shareholder a director may have other ties to the latter.

acting as outside directors are not truly independent. The authors name such outsiders on the board as 'grey directors' (p.88).

[66] The code, however, does not specify the percentage of the board members or what it classifies as 'adequate'.

[67] Following the recommendation 2005/162/EC of the European Commission on the role of non-executive or supervisory directors of listed companies and on the committees of the (supervisory) board (as of 15 February 2005); available at: http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:052:0051:0063:EN:PDF (last accessed on 5 February 2014).

Disregarding such potential ties is an issue because many German supervisory boards in family firms are not only populated with members of the controlling family, but also with other nonfamily directors with close ties to the family shareholders (Klein 2000). Although law forbids any one person to sit on both boards in Germany suggesting some stringency in the German code, the definition of independence quoted above still fails to account for ties to the controlling family.

To summarise, the definitions of independence in the codes of best practice in France, Germany and the UK do not account for the potential ties that directors may have with controlling family shareholders leading to the conclusion that these require adjustment to provide a true measure of actual independence. In the next section (section 3.2.2) definitions from the existing literature and problems arising from links between directors and controlling shareholders, or families, are reviewed to further support our conclusion that the various ties to the controlling shareholder, or family, need to be considered when defining director independence. Section 3.2.3 then outlines our proposal for an adjusted measurement of *de facto*, or actual, independence.

3.2.2 The need for adjusting existing definitions of board independence

In this section we argue that it is not board independence per se, but links that the director may have vis-à-vis the controlling shareholder that matters to minority shareholders in family firms. One may ask why these links are of such great importance and especially relevant for family firms. There are two main reasons for this:

- Firstly, directors that have strong business, family, or social ties to the controlling family may attempt to avoid conflict with the dominant shareholder in order to maintain their social capital with the latter.
- Secondly, the family may take advantage of their power and position in the firm to gather support for their own interests from directors that have ties to them.

For instance, so-called independent directors may include those that Maclean *et al.* (2006) call ‘trusted lieutenants’. These are appointed by the family through special rights and are directors on whom the family can rely. An example of this is Sir Lindsay Owen-Jones, a former CEO of l’Oréal (appointed as the Chairman CEO first of the board), and a close friend of the Bettencourt family (the controlling shareholders of l’Oréal). Nominally independent directors demonstrating links to the controlling

families may not be directly appointed by the family, they may, however, sit on boards of other firms controlled by the same family. One such example is Michel Bouissou, an independent director as per the annual reports of Boiron SA, a firm majority owned by the French family of the same name. In addition to his directorship at Boiron, where he has served for over twelve years now, Mr. Bouissou is also a director of Sodeva (also owned by the Boiron family). With reference to German family firms, Klein (2000:169) speaks of supervisory boards with such so-called independent directors as "*follower-boards*" (a board whose members do not question the proposals or decisions of the owner(s) but just follow their wishes).

To limit the family control over firm resources and to protect the interests of nonfamily shareholders scholars emphasise the need for supervision by independent boards that have the formal authority to challenge decisions of the controlling family (Anderson and Reeb 2004; Chen and Hsu 2009; Setia-Atmaja *et al.* 2009). However, the definitions of independence typically focus on associations between directors and the firm's business and/or its senior management, rather than on links with any particular shareholder. In this regard, directors could be classified as independent yet be dependent on the controlling shareholder. As highlighted in the introduction to this chapter, such dependence is likely to result in minority shareholder expropriation whereby the controlling shareholder may draw private benefits of control with the support of the so-called independent directors (e.g. Villalonga and Amit 2006). Considering the importance of board independence in mitigating possible expropriation of minority shareholders by the controlling family, it is crucial that directors reported as independent are in fact independent of all links to the controlling family. In the remainder of this section we strengthen our argument by referring to the existing literature.

Agency theory and the resource dependence view are the most commonly suggested theoretical approaches as a rationale for board independence (Johnson *et al.* 1996; Daily *et al.* 1999). Whilst the agency theory relates mostly to the monitoring role of the independent directors, the resource dependence view relates to the additional resources, connections, reputations and professional expertise that such directors bring to the firm (Daily *et al.* 1999). Board independence has been operationalised in several ways in the

literature based on the two above mentioned theories. These operationalisation can be broadly classified under two approaches, that of outside and non-affiliated directors (Dalton *et al.* 1998). Neither of these approaches, however, considers links between the director and the controlling family in the context of family firms. The lack of measuring actual independence of directors from the controlling shareholders; the various methods of measuring board independence in the literature, and the failure to adjust for endogeneity may explain the lack of consensus regarding the relationship between board independence and corporate decisions and/or firm performance (Hermalin and Weisbach 1998).

The most common approach to measure director independence is to check whether the director is an outsider or a non-executive director (Daily *et al.* 1999), i.e. those directors not currently employed with the firm are considered independent. Having said this, there are no fewer than nine ways whereby outside directors have been defined in the literature[68] (Daily *et al.* 1999). In one study describing outside directors as independent no evidence of the influence of independent directors on the appointment of an outside CEO was found (Dalton and Kesner 1985). This study defined independent directors purely as directors who were not full time employees of the firm, which suggests directors who are relatives of the executives; do business with the firm (e.g. suppliers and bankers), or are former employees are considered independent. Additionally, there are a number of studies that do not specify how an outside director is defined in their study (e.g. Beatty and Zajac 1994; Ocasio 1994).

The next commonly used approach is non-affiliated, or grey, directors. In this approach outside directors who maintain special relationships with the firm are considered to be grey directors and, as such, not independent (Byrd and Hickman 1992; Daily *et al.* 1999). The codes of best practice, as discussed in section 3.2.1 of this chapter, provide some suggestions as to how directors are classified as affiliated. Daily and Dalton (1994) present a detailed classification for affiliated directors used in the US. This is based on the SEC regulation 14A, Item 6(b), whereby directors (or nominees) with the following relationships with the firm are considered not to be independent: (1)

[68] Refer to Daily *et al.* (1999) for a detailed review of the different operationalisation of board composition and proportion of outside directors.

employment by the corporation or an affiliate within the last five years, (2) any family relationship by blood or marriage closer than second cousin, (3) affiliation in the last two years with a concern that has had a customer, supplier, banker, or creditor relationship with the firm, (4) affiliation with an investment banker who has performed services for the firm within two years or will do so within one year, (5) holding control of corporate stock, with control based on the extent of shareholdings, and (6) association with a law firm engaged by the firm. Under this classification directors with close personal or professional ties with the firm are not considered as independent[69]. In the context of listed family firms, Hillier and McColgan (2009) use a similar classification of grey directors (i.e. those with present or potential business relationships with the firm) and independent directors (i.e. those who do not have any business relationships with the firm). Results presented in the latter study do not show any impact of board independence on CEO turnover. Despite the non-affiliated director approach being more detailed than the outside director approach, it still does not take into account possible ties to the controlling shareholder other than former employment within the last five years or relationship by blood or marriage.

According to the Hermalin and Weisbach (1998) model, affiliation is not what matters for independence, but the relative timing of entry, i.e. whether the director was appointed before or after the current CEO took office[70]. The authors postulate that previous studies may have failed to find a significant relationship between board independence and performance because they may not actually be measuring independence. Here we argue that this approach regarding the appointment of a director before the incumbent CEO may not necessarily be possible or suggest independence for the following reason. In family firms there is a high likelihood that the incumbent CEO is the founder. If the CEO is the founder then all the directors would have been appointed to the board after the incumbent CEO took office. Even if the incumbent were

[69] Some other studies that operationalise the non-affiliated director approach include Baysinger and Butler (1985); Cochran *et al.* (1985); MacAvoy and Millstein (1999); Anderson and Reeb (2003a), and Yermack (2004).

[70] One operationalisation of this model can be found in Bøhren and Strøm (2010) in their study that relates the value of the firm (Tobin's Q) to the use of employee directors, board independence, directors with multiple seats, and to gender diversity in listed Norwegian firms. The authors measure board independence as the difference between the average tenure of the board's non-CEO directors and the tenure of the current CEO. The greater this difference, the more independent is the board.

a descendant of the founder the director is still appointed while either the founder or one of their descendants is CEO.

In a recent study, Crespí-Cladera and Pascual-Fuster (2013) analyse the characteristics and performance consequences of firms that declare board directors as independent even though these directors do not match the recommended definition of independence in the Spanish code of corporate governance (2006). The recommended definition, comprising eight criteria[71], is referred to 'strict independence'. The authors find that although only 14.2% of the directors are strictly independent, the firms investigated classify 32.5% of the directors as independent. This latter issue appears to be more to do with compliance to the code rather than measuring actual board independence.

Overall, this review of the existing literature suggests that actual independence of directors is not being measured even when definitions stipulated in codes of best practice are adhered to. This is because links to the controlling shareholders and the consequences of such links are ignored. This leads to the conclusion that the findings presented in these studies need to be viewed with caution, especially when investigating family controlled firms. In the next section we propose a measure of board independence that accounts for links to the controlling family.

3.2.3 Measuring board independence in family firms

In this section we present an adjusted measure of board independence vis-à-vis links to the controlling family shareholder. We begin with an assessment of outsiders or non-executive directors, which most of the existing literature regards as independent, for possible links to the family shareholder that may violate this independence. In section 3.2.1 we discussed the definitions of independence and the criteria required for directors to be considered independent as per the codes of best practice in France, Germany, and the UK. We found that none of these accounted for links to the controlling family. Here

[71] These criteria include the following: (1) Proposed for appointment or renewal by the nomination committee, (2) Tenure as independent director for up to twelve years, (3) Not having a significant business relationship with the company, (4) Not holding a directorship, to be a manager or an employee of significant shareholder or a shareholder with board representation, (5) Not having other relevant relationship with significant shareholder or a shareholder with board representation, (6) Not being a director or executive in subsidiaries, (7) Not to be a company as board director, and (8) Not being executive director of the firm in the previous year.

we start with the criteria for independence outlined in section 3.2.1 and make adjustments and/or add new criteria to include links with the controlling family. In doing so we are able to develop a measure that can be comparable across the different countries and is also empirically testable using information made public by the firms in their annual reports, director profiles, and IPO prospectuses. For Germany, we exclude employee representatives as *de facto* these represent the interests of the employees and not those of the shareholders. We propose the following six criteria that violate *de facto* independence of directors and would classify them as dependent:

(1) the director is related by blood or marriage to the controlling family;

(2) the director has a tenure of at least nine years with the firm;

(3) the director was appointed to the board by the controlling family;

(4) the director is an employee or a director of another firm controlled by the same family;

(5) the director sits on other boards together with the family directors, or

(6) the director is a former employee of the firm.

Table 3.1 summarises these criteria (column 1), the related recommendations in the codes of best practice in France (column 2), Germany (column 3) and the UK (column 4), and the rationale behind each criteria (column 5) discussed in detail in the following sections. It is important to note that prior to 2003 board independence was not defined explicitly in France or the UK. In Germany, prior to 2002, all criteria were already specified in the code with the exception of the sixth criterion concerning prior employment with the firm.

INSERT TABLE 3.1 ABOUT HERE

(1) The director is related by blood or marriage to the controlling family

This is the most obvious link to the family, although some family directors may still be reported as independent as not all family members are involved in the day-to-day running of the business or have been former employees within the firm. Therefore, despite their family relationship, such directors can fulfil the criteria for conventional independence and are accordingly reported as such. For example Klein (2000) shows evidence of such directors on German supervisory boards, and Barontini and Caprio

(2006) present the same findings on the boards of Continental European firms. There has also been a tradition in German firms whereby family CEOs and/or family executive directors retire from their positions to become the non-executive chair (Andres *et al.* 2013). In such cases members of the controlling family, which are reported as independent, are only nominally independent (Daily and Dalton 1997).

(2) The director has a tenure of at least nine years with the firm

In their study into the relationship between family firms, length of tenure of the directors, and firm value using a sample of 1,585 industrial firms, 684 of which being classified as family firms, Li *et al*. (2013) find that directors reported as independent with a tenure of twelve years or more are friends of the controlling family. The authors find that these directors do not increase firm value[72], serving on the board as friendly advisors of the family shareholders. Evidence of this friendship developing between directors with long tenures and the management is also found in a study of widely-held firms (Vafeas 2003). The French code of best practice recommends that a non-executive director with a tenure in excess of twelve years should no longer be considered independent. In the UK the length of tenure is nine years, whereas the German code does not state any fixed period. Here we use the shortest length of tenure of nine years found in the codes of best practice as a distinction between independence and dependence.

(3) The director was appointed to the board by the controlling family

This is a new criterion which we propose to include to account for directors who are appointed (through special voting rights) directly by the controlling family. These special voting rights mean that family representation on the board in the form of family members, friends or trusted colleagues may be formally assured (DeMott 2008)[73]. The nonfamily individuals selected may include consultants, trustees and/or advisors of the family who represent the best interests of the family. The family shareholders would prefer to appoint directors that are unlikely to interfere in family decisions about the

[72] Firm value is measured using Tobin's Q and CAR (to the announcement of mergers and acquisitions by the firm).
[73] Special voting rights in annual reports and/or the prospectuses of the firms are stated as voting rights exclusive to the controlling family to appoint one or more directors without considering the votes of other shareholders.

firm (Chen and Jaggi 2000; Yeh and Woidtke 2005). This same argument demonstrating director dependence also applies to the next criterion discussed below.

(4) The director is an employee or a director of another firm controlled by the same family

This fourth criterion, also a new one, limits independence to those directors who are not employees or directors of another firm controlled by the same family. It is not unusual for families owning (and controlling) more than one firm to nominate nonfamily directors that the family can rely on across the boards of all their firms (Attig and Morck 2006; Maclean *et al.* 2006). This practice is similar to the 'familiarity effect' explained by Bouwman (2011) in his study on overlapping directors of boards in widely-held US firms. This familiarity effect describes how directors are appointed because they work at other firms with similar governance practices[74], meaning that there is a greater likelihood that the views of such a director will be aligned with those of the CEO.

(5) The director sits on other boards together with the family directors (joint board membership)

This criterion relates to cross-directorships or interlocking directorates, i.e. if two firms share one or more directors (Lester and Cannella 2006). This is also a new criterion, which we refer to as joint board membership. The code of best practice in the UK states that a director who sits on other boards with the same directors is not to be considered independent. The comparable criterion in France states that if the director is a corporate officer of another firm in which the concerned firm holds a directorship they should be considered dependent. Nevertheless, in France it is common practice that retired CEOs sit on each other's boards as non-executive directors (Maclean *et al.* 2006). This practice suggests that a non-executive director and a family member can serve on more than one board together, which, by our definition, would demonstrate dependence. Because of this mutual dependency between family directors and the so-called independent directors, the latter are unlikely to criticise the actions of the family. For

[74] Bouwman (2011) uses a set of eight criteria to measure governance practices. They are: (1) board size, measured as the number of directors; (2) the percentage of outside directors; (3) the number of board meetings; (4) director base pay; (5) CEO total pay; (6) the percentage of directors who are active CEOs; (7) the percentage of directors over the age of 70; and (8) CEO duality, i.e., situations in which the CEO is also the chairman of the board.

this reason we suggest that joint board membership should be accounted for in the existing recommendations on cross-directorships.

(6) The director is a former employee of the firm (or its subsidiary)

This final criterion is to prevent classifying former employees of the firm as independent. The codes of best practice in both France and the UK state that directors who have been former employees with the firm in the last five years are not independent. In Germany there is no particular reference to former employees but there is a recommendation that the directors of the supervisory board should not have been members of the management board within the last two years[75]. The appointment of such directors is also limited to a maximum of two. This means that in family firms, especially those in which the founding family still controls the majority of the votes, former executives could be (re)appointed to the firm as non-executive directors any time after the recommended time (two years in Germany; five years in France and the UK) and classified as independent. We argue that, although these directors would satisfy the criteria for independence on paper, they would still be linked to the controlling family through their relationship formed during previous employment. Because of this relationship between the controlling family and former employees we consider all former employees (and executive board directors), regardless of time away from the firm, to demonstrate dependence to the controlling family.

3.2.4 Results from the adjustment of board independence

In this section we present our results obtained from adjusting the reported board independence to our measurement of *de facto* independence based on the six criteria described in the previous section.

Table 3.2 presents the number of directors reported as independent in France (413), Germany (356, excluding employee representatives), and the UK (136), giving us a total sample size of 905 non-executive directors. The two rows below this show how many directors can be removed from this number using our adjusted measurement of

[75]German company law states that a person who has been a member of an executive or management board within the past two years cannot become a member of the same firm's supervisory board. Family firms (having family shareholders with at least 25% votes) are exempted from this ban (Andres *et al.* 2013).

independence with the fourth row providing the total number of directors demonstrating *de facto* independence as defined by our criteria. Firstly (as shown in row 2), directors satisfying the first criterion of a family tie to the controlling family are deducted from the total number of non-executives. France has the highest number of non-executive family directors at 132 with Germany and the UK demonstrating far fewer relationships through blood or marriage at 29 and 6, respectively. Percentages of those removed in relation to the total number of non-executive directors provided in row 1 are also presented to allow for better comparison between the three countries. Due to issues regarding time constraints for the project and the availability of required information[76], the remaining five criteria were checked in conjunction with each other and the director removed from the list if any one of these were met. Again, percentages of those removed are presented. This decision is not thought to have a significant impact on our final results since meeting any one of these criteria would result in removal from our total of independent directors. Admittedly, it would have been desirable to be able to display each of the criteria separately to allow for a fuller discussion, however, we would suggest that this omission could be rectified in future research in which these issues could be addressed. As shown in the third row of this table at least one of the criteria (2) to (6) were met by 134 in France, 126 in Germany, and 40 in the UK. The percentages of directors satisfying these five criteria are comparable across the three countries with 34% in France, 35% in Germany, and 29% in the UK. This strengthens our argument that reported independence needs to be adjusted to account for dependence vis-à-vis the controlling family. Our new measurement of *de facto* independence shows that only 147 non-executive directors are independent from the controlling family in France, 201 in Germany, and 90 in the UK. When compared to the numbers of non-executive directors reported as independent in each country we find a relatively low percentage actually meet our more stringent criteria. The UK comes out best with 66% of those investigated still being classified as independent. Germany is next with 57%, and France comes in last with only 36% of those reported as independent demonstrating *de facto* independence.

[76] Information on each director is hand collected from annual reports, directors' profiles on corporate websites, and/or IPO prospectuses. Many of the annual reports were not detailed enough to gather information on all of the remaining five criteria and in many cases were only available in French or in German.

INSERT TABLE 3.2 ABOUT HERE

As shown in Table 3.2 and discussed in the preceding paragraph we observe the greatest difference between the number of directors reported as independent and those demonstrating *de facto* independence in France. This suggests that French firms have the highest systematic bias in terms of classifying their non-executives as independent, primarily due to family members serving as non-executives in French firms. Overall, we find that the percentages of directors that are incorrectly classified as independent correlate with the levels of family control (and/or power) across the three countries. Using voting rights of the controlling family as a measure of control[77] we find that in France, which has the highest levels of family control, 64% of the non-executives are incorrectly classified as independent, in Germany this is 44%, and in the UK, which has the lowest levels of family control, 34% of directors are seen to be incorrectly classified[78] as independent.

A more detailed distribution of our sample and the other variables used in this thesis are presented in Chapter 4. Briefly, our sample comprises a total of 283 succession announcements in 231 firms across the three countries. Of these announcements, 137 occurred in 115 French firms, 94 in 78 German firms, and 52 in 38 UK firms. Out of this sample of 283 successions 168 are re-appointments of the incumbent family CEO and 115 are actual changes of the CEO. As well as looking at each country individually, we also differentiate between the successions based on the type of CEO successor. If a family successor is appointed we classify the succession type as family-to-family, and if a nonfamily successor is appointed we classify the succession type as family-to-nonfamily. Table 3.3 provides a summary of the descriptive statistics and differences between the reported and adjusted board independence found in each individual country and across the three countries. The sub-samples based on whether the succession type is family-to-family or family-to-nonfamily are presented in Table 3.4. In order to explain

[77] Chapter 4 explains in more detail how family control and power of the controlling family are calculated in this thesis.

[78] The incorrect classification of directors identified here is not (necessarily) due to firms wishing to hide information from minority shareholders. Assuming that these firms comply with the recommendations on independence of directors, it is rather a failing in the existing definitions in the codes of best practice, as discussed in section 3.2.1.

independence in relation to the level of family control we also include the percentage of control calculated for each country[79].

Panel A in Table 3.3 presents the descriptive statistics for family control and board independence (reported and adjusted) for our sample of 283 successions[80]. In Panel B we report the mean and median values across the three countries for family control, reported and adjusted board independence, and the difference between these latter two measures. Panel C presents results from differences in means (t-tests) and medians (z-tests) to allow for comparisons between France and Germany, Germany and the UK, and the UK and France.

INSERT TABLE 3.3 ABOUT HERE

The descriptive statistics in Panel A show that the average family control is approximately 61%. Considering that our definition uses a minimum of 25% voting control to be classified as a family firm, the firms in our sample generally show very high levels of control. The average reported board independence of 55% (median 57%) is more than double that shown for our measure of adjusted board independence at 24% (median 25%)[81]. In Panel B we find that France has the highest level of family control, at 65.28%, followed by Germany at 57.14%, and the UK with the lowest level of family control at 48.46%. All three countries show significantly (at the 1% level) higher average percentages of reported board independence compared to adjusted board independence. France demonstrates the greatest difference at 18.33%, followed by Germany at 14.10% and lastly, the UK at 7.02%. Similar results are obtained in each country for the median values (i.e. France 9.32%, Germany 7.65%, the UK 5.81%). These results again strengthen our argument for the need to make adjustment for links to

[79] As stated earlier, we use the voting rights of the controlling family. Specifically, these are the votes held by the family shareholders plus any additional voting control resulting from pyramidal ownership expressed as a percentage of total votes outstanding. A detailed explanation of our calculation is presented in Chapter 4.

[80] The percentages relating to board independence represented in this table and Table 3.4 are calculated as the number of independent directors (reported or *de facto*) divided by total board size. For the case of Germany, we exclude employee representatives from the supervisory board, then combine the management and supervisory boards to determine the total board size.

[81] It must be noted that although the minimum percentage for both reported and adjusted board independence is zero; in the case of reported board independence the zero percent is observed in only one succession in a French firm, whose board comprises three family members out of the four directors – none of whom are reported as non-executives.

the controlling family as the majority of directors reported as independent, especially in France, are not *de facto* independent. There is a negative correlation shown in our results between the level of family control and adjusted board independence[82]. In addition to the high levels of family control, firms in France also show high levels of cross-directorships and widespread director networks when compared to Germany and the UK (Maclean *et al.* 2006). These links are overlooked when measuring board independence in the conventional way. Thus, France starts with having the largest proportion of non-executives on the board reported as independent, and ends up with having the least proportion seen to be truly independent under our adjusted board independence measure. When looking at the cross-country differences, provided in Panel C of Table 3.3, we note that, while France and Germany have significantly (at the 1% level) higher reported board independence when compared to the UK, after adjusting this measure to *de facto* independence there is no significant difference between the levels observed in Germany and the UK. This leads us to the conclusion that, contrary to common belief, Germany is more akin to the UK than France when it comes to board independence in family firms.

As mentioned previously the sample is then split into two groups, dependent on the type of CEO successor (family or nonfamily), to investigate differences between these two succession types within the measures of board independence. Table 3.4 presents the reported and adjusted board independence for family-to-family successions (Panel A) and family-to-nonfamily successions (Panel B) for France, Germany and the UK. The mean and median differences between the two succession types in each country are also provided (Panel C).

INSERT TABLE 3.4 ABOUT HERE

We find that reported board independence for family-to-family successions in France is significantly (at the 1% level) higher (57.31%) than for the family-to-nonfamily successions (44.4%). For Germany and the UK we find the opposite. Family-to-nonfamily successions in Germany and the UK show greater reported board independence (61.66% and 46.87%, respectively) than family-to-family successions

[82] Although the correlation coefficient is not statistically significant it does not invalidate our inference.

(56.78% and 44.6%, respectively), although the differences between the two groups are less and only significant (at the 5% level) for Germany. For adjusted board independence, we find that the family-to-family successions have significantly (at the 5% level or better) lower board independence in all three countries (13.53% in France, 27.79% in Germany, and 23.75% in the UK) when compared to the family-to-nonfamily successions (30.12%, 38.41%, and 40.04%). The difference between the two succession types within each measure of board independence, as shown in Panel C, is positive and significant (at the 1% level) for both France and the UK. In German firms the difference is still positive, although this is insignificant. Although French firms have a greater level of family control than the UK (as discussed and shown in Table 3.3), both countries demonstrate a high systematic bias in their classification of non-executive directors being independent when in reality they have ties with the controlling family. This is shown in Table 3.4 where the reported board independence of 57.31% for family-to-family successions in France drops to just 13.53% using our measure of *de facto* independence. This is a difference of nearly 43%. The corresponding difference for the successions in the UK is only 21%. It is interesting to note that, on exclusion of the 168 re-appointments from the sample of 283 successions, we find that the difference in board independence is still significant (at the 1% level) for France but not for the UK[83].

3.2.5 Endogeneity concerns

Empirical work in corporate governance is often criticised for endogeneity and omitted variables concerns. In this study endogeneity concerns may be introduced due to simultaneity or reverse causality[84], especially between the successor choice and board independence. While we argue in Chapter 2 (section 2.4.3) that a more independent board increases the likelihood of a nonfamily CEO successor, the opposite may also be argued in that firms that are going to appoint a nonfamily CEO are likely to have more independent directors on the board. Literature suggests that studies of discrete tasks, such as CEO appointments, are less subject to the problems of endogeneity (due to reverse causality) that bias studies of the direct relationship between corporate

[83] Considering that our aim here is to analyse the differences in board independence for the two succession types (for the full sample of successions) for each country as well as across the three countries, we do not separately tabulate results of these differences excluding re-appointments.

[84] Simultaneity bias or reverse causality occurs when the outcome variable (y) and one or more independent variables (x's) are determined in equilibrium, so that it can be argued either that x_k causes y or that y causes x_k (Roberts and Whited 2013).

governance and firm performance (Hermalin and Weisbach 2003; Hillier and McColgan 2009). This is because performance is affected by far more factors that introduce other endogeneity concerns from unobservable factors. This, however, does not suggest that endogeneity concerns are eliminated by the choice of studying the CEO succession decision.

The two approaches often suggested to address reverse causality include: (1) using one or more appropriate instrumental variable for each endogenous variable (e.g. Bennedsen *et al*. 2007) and/or (2) using lagged independent variables (e.g. Buch *et al*. 2013). Corporate governance theory cannot offer a well-defined system of equations with governance variables, such as performance and board mechanisms, as alternative dependent and independent variables. Therefore, accounting for endogeneity by estimating such a system suffers from the lack of valid instruments (Coles *et al*. 2003; Bhagat and Bolton 2008; Larcker and Rusticus 2007 and 2010). Nevertheless, Bennedsen *et al*. (2007) in their study of CEO successions in family firms test whether replacing an outgoing CEO with a family member hurts firm performance using the gender of the incumbent CEO's first born child as an instrumental variable (IV). Although the latter study is widely acknowledged for the identification of a robust instrument, Bennedsen *et al*.'s IV has been questioned on its validity and it has been highlighted that their IV estimator exaggerates the negative effect of the CEO succession on firm performance (see Roberts and Whited (2013) for a detailed review). Considering the above arguments for the purpose of this study we are unable to identify a valid instrument[85] and hence, we use the second approach of lagged variables. Both reported and adjusted board independence are measured in the year before the year of the succession announcement. In fact, as explained in the section 4.2 in the next chapter, all the independent variables in our study are measured in the year before the announcement year and hence, fixed before the dependent variable in calendar time. Thus, we can assume weak endogeneity at the very least which should however, not bias our results in Chapters 4 and 5.

[85] A valid instrument is one that satisfies two condition, i.e. relevance and exclusion conditions (Roberts and Whited 2013). The first condition requires that the partial correlation between the instrument and endogenous variable *not* be zero. The exclusion condition requires that the only role that the instrument plays in influencing the outcome (dependant variable) is through its effect on the endogenous variable (refer to Roberts and Whited (2013) for further details).

To summarise section 3.2, the definitions of director independence published in the codes of best practice for France, Germany and the UK all ignore links that the non-executive directors may have with the controlling family. Here we have proposed six criteria to adjust for these links and have found that reported board independence as stated in annual reports is overstated. Furthermore, our measurement of *de facto* board independence is negatively correlated to the level of family control. Given that France has the highest level of family control out of the three countries investigated we find that it also has the lowest *de facto* board independence. On adjustment we find that Germany is no different than the UK. Finally, in this thesis we try to mitigate endogeneity concerns from reverse causality between successor choice and board independence.

3.3 Thin trading

3.3.1 Thin trading of listed family firms

Thin trading, which refers to the lower trading frequency of a stock, is the second methodological issue discussed in this chapter. This issue is related to firms with concentrated control, a situation normally seen in family firms where single shareholders (or as one family) have controlling blocks in excess of 25%, which increases the likelihood of these firms being thinly traded. Such a concentrated control limits the free-float which can be actively traded. Studies examining the effect of direct ownership stakes on stock liquidity find a positive relationship between greater levels of ownership and poorer stock liquidity suggesting high levels of thin trading (Sarin *et al.* 2000; Heflin and Shaw 2000). Attig *et al.* (2006), who study the effects of large shareholdings on information asymmetry as measured by the bid-ask spread in 610 Canadian firms, find that the greater control large shareholders have in excess of their cash-flow rights, the greater is the likelihood of stocks in these firms being thinly traded. As discussed in Chapter 2 (section 2.2.2), it is not uncommon to observe a deviation between control and cash-flow rights in family firms. The extent of effects of limited free-float when ownership is concentrated, and/or control rights are in excess of cash-flow rights, suggests that it is essential to address the issue of thin trading in order to avoid bias in the results.

When there is no, or infrequent, trading over specific periods the information conveyed by the CEO succession decision may be prevented, or delayed, from being incorporated in the share price. Infrequent trading in some securities results in a relatively high incidence of zero returns in the data (Friedrich *et al.* 2002). Thin trading may bias the estimated beta in the market model (downward bias[86]) and thus the abnormal return measures surrounding an event of interest. This induces autocorrelation (in the market-index returns) which could be a problem when testing the significance of the abnormal returns (Friederich *et al.* 2002). Methods to adjust for the issue of thin trading have been suggested in the literature, discussed in section 3.3.3, however, there is no single way that is agreed upon for determining a cut-off point beyond which stocks are considered thinly traded (Friederich *et al.* 2002). In the following section we propose two ways (using four measures) to identify thinly traded firms.

3.2.2 Identification of thinly traded firms

The existing literature using the event study has often raised the issue of thin trading and its consequences, however, limited attention has been given to identifying and adjusting for this issue. Most studies employing the event study methodology do not control for thin trading (Friedman and Singh 1989; Worrell *et al.* 1993; Denis and Denis 1995; Smith and Amoak-adu 1999). Many studies avoid this issue by focusing only on large, frequently traded firms (Cannella and Lubatkin 1993; Shivdasani and Yermack 1999). Studies that adjust for thin trading (or choose to exclude thinly traded firms) can be divided into those that do not state how they identify thinly traded firms (e.g. Dedman and Lin 2002), and those that use various thresholds for either the number or percentage of zero returns during the event window (Cooper *et al.* 2001; Attig *et al.* 2006; Corrado and Truong 2008; Di Miceli da Silveira and Dias 2010). Because the event window may be relatively short, and also be very close to the event of interest, it may be difficult to draw unbiased inferences on the thinness of a stock. Cowan and Sergeant (1996[87]) introduced a method using the traded volume of the stocks to identify

[86] The downward bias is due to the underestimation of the 'true' covariance between the stocks that are thinly traded and the market portfolio. Since the beta incorporates this covariance in its numerator, downward bias is observed for infrequently traded stocks.

[87] The first study to use daily traded volume data to identify thinly traded firms was Cowan and Sergeant (1996). In their study, the authors conduct simulations of 1000 randomly selected samples of 50 NYSE-AMEX stocks by volume deciles. Stocks in the first decile with the lowest traded volume are considered to be thinly traded.

whether firms are thinly traded or not. Review of the existing literature shows that not only is there a lack of identification or adjustment for this issue in research into family firms, but there is also a lack of consensus across existing approaches as to how to identify thinly traded firms. In this section we propose two ways of identifying thinly traded firms, i.e. by observing the free-float and by using data on the daily traded volume. These observations are made pre-succession at a time unlikely to be influenced by the succession announcement.

Identifying whether our sample firms are indeed thinly traded will facilitate the selection of an appropriate adjustment method and, the formation of an informed decision as to whether the adjustment is to be made for the entire sample or only for those firms that are identified as being thinly traded. For instance, Friederich *et al.* (2002) sort their sample of stocks according to the number of zero returns, and only adjust for thin trading for stocks in the bottom quartile. The identification of thinly traded firms is also important when deciding on the appropriate test statistic to be used. This issue is discussed in the following section.

The first approach we propose for the identification of thinly traded firms is to observe the free-float, which we define as the percentage of total shares outstanding held by nonfamily investors one year before the succession event[88]. The second approach uses a comparison of the volume traded in our sample firms to the volume traded in a highly liquid market, which serves as an indicator for normally (or non-thinly) traded firms. We use three measures of volume. The first is the *total number of shares traded* (Gallant *et al.* 1992; Hiemstra and Jones 1994), the second is *turnover*, i.e. the total number of shares traded divided by the total number of shares outstanding[89] (Campbell *et al.* 1993; Bamber *et al.* 2011), and the third is a dummy variable *thin*, which is explained in the following paragraph. Since the number of shares traded for a stock on a particular day reflects investor activity and the level of liquidity relating to a certain stock (Bamber 1986; Gervais 2001, and Kim and Verrecchia 2002), it follows that a low number of shares traded would suggest that the stock under investigation may be thinly traded. The number of shares traded in the sample is compared to firms listed on the

[88] For firms with dual class shares we consider the total shares of all classes held by nonfamily investors.
[89] For firms with dual class shares, we use the total of both classes of shares.

London Stock Exchange (LSE) as this is considered to be a highly liquid market (Marsh 1979). Given that both France and Germany have a prevalence of strong corporate control when compared to the UK, firms in the former two countries are likely to suffer more from thin trading (e.g. Wulff 1999).

In comparing the volume of the sample with that of the market we follow an approach similar to that used by the market-adjusted model to compute abnormal returns (e.g. MacKinlay 1997). Bamber (1986) adopts a similar approach to calculate the un-expected number of shares traded in her investigation of the information content of annual earnings announcements in terms of the number of shares traded in 1,200 listed US firms[90]. The comparison of each sample firm with the market is done during the pre-succession period to reduce the possibility of any succession induced influence. We leave a gap of 60 days[91] before the announcement and compare the average number of shares traded per firm daily as well as the average turnover, both over the [-310; -60][92] window, with the corresponding averages on the LSE during the same period. We find that all firms in our sample have a lower average number of shares traded when compared to the market (significant at the 10% level or better). Therefore, for this comparison we use the turnover measure of volume. We develop a dummy variable called *thin* which equals one if a firm has significantly (at the 10% level or better) lower average turnover than that on the LSE, and zero otherwise (over the [-310; -60] window).

Table 3.5 presents the descriptive statistics for France, Germany and the UK for the free-float (Panel A); the number of shares traded (Panel B); the turnover (Panel C), and the dummy variable, *thin* (Panel D). Panel A shows that France has the lowest average free-float with 42.63%, followed by Germany with 46.92%, and finally the UK with 54.33%. These percentages are not surprising given that both France and Germany

[90] Some other studies have also conducted an event study of volume. For example, Beaver (1968) and Morse (1981) use trading volume market model similar to the price market model.
[91] The longest event window used in the event study in Chapter 5 is [-40; 20]. The estimation period used for this event window begins with a gap of 20 days before day -40. Hence, to maintain consistency, we leave a 60 day gap in order to examine the traded volume.
[92] With reference to the days in this window, day 0 is the day of the CEO succession announcement. The [-310; -60] window is equivalent to approximately one year, i.e. 250 trading days. We have also performed all calculations over the 6 months preceding the succession announcement, i.e. in the [-185; -60] day window. The results are similar to those for the 12 months period, hence, not tabulated.

generally have a greater concentration of control (and ownership) when compared to the UK (La Porta *et al.* 1998, 1999; Faccio and Lang 2002). In France, where family ownership is particularly high, free-float was calculated as being as low as 0.64%[93]. This is also shown in the frequency distribution where we find that, while 17 of the sample firms in France have free-float of less than 25%, this applies to only four of our sample firms in Germany and one in the UK[94]. These results suggest that it is likely that our sample firms are, on the whole, thinly traded with the highest number of thinly traded firms in France[95].

Panel B of Table 3.5 shows that Germany has the lowest average number of shares traded at 7,190, followed by 34,720 in France, and 126,160 in the UK. Both France and Germany have significantly lower median values for the number of shares traded when compared to the UK. We find that all three countries have similar average values of less than 0.3% turnover, as shown in Panel C. Finally, Panel D reports the thinly traded dummy variable, *thin*, which is based on the average turnover of the firm compared to average turnover reported on the LSE[96]. We find that Germany has a significantly lower turnover than the market with all German firms returning a *thin* value of one. All of the French firms investigated in our sample, with the exception of two, were found to be thinly traded. For the UK, however, five firms have a higher turnover than the average observed for the LSE[97]. We discuss both the number of shares traded and level of

[93] This figure relates to the French firm Jacques Bogart controlled and majority owned by the Konckier family.
[94] These figures are not tabulated separately.
[95] Since the data required for the calculation of the free-float for each firm have to be collected by hand, we are unable to make a comparison to the average country specific market free-float. However, we compare the average size of our firms to that of the country specific stock exchange. We find that while the average market capitalisation of our firms is €284 million that for all firms listed on the stock markets in France, Germany and the UK is €1.42 billion. Clearly, our firms are small in size (i.e. in the 1st percentile of the market capitalization of all the firms listed on the three stock markets) suggesting higher likelihood of them being thinly traded.
[96] For the UK firms in our sample, when comparing them with the LSE, we exclude our sample firms from the LSE market population. For France and Germany, we compared the results obtained from excluding the UK sample firms from the LSE market population to those obtained from including the UK sample firms. The findings were qualitatively the same (and so were the levels of significance where applicable). Nevertheless to ensure consistency in our approach, we exclude the UK sample firms from the LSE market population when analysing thin trading for the French and German firms.
[97] While the numbers of the sample firms that are not thinly traded compared to the market appear to be very small, we can, nevertheless, say that thin trading is less of an issue in the UK as compared to France and Germany. This is because 5 firms (with *thin*=0) out of the total sample of 38 UK firms result in a far greater proportion as compared to 2 of 115 French firms and none of 78 German firms (wherein *thin* is equal to zero).

turnover in further detail when comparing these values to those for the LSE in Table 3.6.

INSERT TABLE 3.5 ABOUT HERE

Table 3.6 presents the volume of shares traded (Panel A) and the turnover (Panel B) in our sample firms and compares these to the same values reported in the LSE[98]. Mean and median values are provided in each case using the [-310; -60] window to cover the year preceding the announcement with a cut-off point at 60 days prior to the announcement. Not surprisingly, we find that the number of shares traded as well as turnover in our sample are significantly (at the 1% level) lower than those on the LSE. As suggested by our observations on free-float in Table 3.5, we find that France has a greater difference between volume traded in the sample and the LSE. This again points to France having the thinnest traded stocks, followed by Germany and then the UK. However, the overall inference is that majority of our sample suffers from thin trading; therefore, we adjust for this issue across the entire sample. The different methods for adjusting our data to mitigate effects from thin trading are briefly discussed in the next section. These adjustments are carried out in Chapter 5, where we present our investigation into stock market reactions to the succession announcements.

INSERT TABLE 3.6 ABOUT HERE

3.3.3 Adjusting for thin trading

Given the level of thin trading identified in section 3.3.2, in this section we propose the use of an appropriate adjustment method, the Dimson (1979) beta method, and statistical tests, the Corrado (1989) rank test and the generalised rank (GRANK) test (Kolari and Pynnonen 2010). These methods are used to address the issue of thin trading in Chapter 5.

[98] We are unable to comment on the average trading period based on days that no shares were traded. This is because Datastream, from where the data on volume were downloaded, denotes both 'no change in volume due to no trades that day' and 'no volume data available for that day' in the same manner, using 'NA'.

Three ways to adjust for thin trading have been suggested by previous research to determine unbiased estimates for the market model. These are the Scholes and Williams method (1977), the Dimson aggregated beta method (1979), and the Fowler and Rorke method (1983). These methods are explained in section 3A.1, in the appendix to this chapter. Although the first and last of these approaches have been employed by previous studies, an investigation into the effectiveness of each of these methods found the Dimson aggregated beta approach to be the best technique to reduce the amount of bias in beta estimation (McInish and Wood 1986)[99]. Moreover, Campbell and Waseley (1993) conclude that adjustment according to the Scholes-Williams method does not improve the Type I error or the power of parametric test statistics. Similarly, Brooks *et al.* (2005) argue that it is inappropriate to apply the Scholes-Williams method in cases of high thin trading for the beta estimation, as observed in our sample. For these reasons we use the Dimson aggregated beta approach. This approach obtains a consistent estimate of beta by aggregating the slope coefficients from the multiple security returns using lagged, contemporary and leading market returns. This method results in smaller abnormal returns for thinly traded stocks. The number of lags and leads of market returns are usually increased in line with the thinness of the stocks. For example, Brown and Warner (1985) use three day lags and leads, whereas Bajo (2010) uses two week lags and leads. Based on the infrequency of trading in our sample we use 5 day lags and leads as suggested by Dimson (1979)[100].

An alternative approach that can be applied to deal with the issue of thin trading is the trade-to-trade method, which was first introduced by Marsh (1979) and later received greater attention following the work of Maynes and Rumsey (1993). According to the trade-to-trade method stock returns are computed between adjacent trades and the market return is measured over the same calendar period to match the stock return. This method, however, encounters a problem of data availability as it cannot be used when the times of recording stock prices within a time interval are unknown (Dimson 1979).

[99] Although McInish and Wood (1986) examine the effectiveness of each of the methods proposed to address thin trading and find that the Dimson betas are the most effective, they conclude that even this technique reduces the bias by only 29% as measured by the spread in OLS beta estimates.

[100] There are no special rules governing the ideal number of lags and leads. Although it is suggested to increase the number based on the infrequency of the trading in the sample, the use of excessive lag and lead estimators can create distortions in the estimation (Berglund *et al.* 1989). In order to avoid losing the potential benefit of using lags and leads to address the issue of thin trading we follow the 5 lags and leads as used in the original paper by Dimson (1979).

As a result, this method cannot be applied in this thesis because detailed transaction information is not available. Whilst zero returns may be used as a proxy for no trading, there is still a possibility for trades to have taken place even if the share prices did not change over two or more consecutive days.

In terms of the appropriate statistical tests, both parametric and non-parametric test statistics for abnormal performance during the event window can be used. Evidence shows that conventional parametric test statistics (e.g. the Student t-test with adjusted standardised abnormal return and the Patell test (1976)) are poorly specified in thinly traded samples when compared to non-parametric test statistics (Maynes and Rumsey 1993; Cowan and Sergeant 1996). Campbell and Wesley (1993) argue that the high frequency of zero returns in thinly traded firms, and corresponding extreme returns, distort the variance estimates required for the Student t-test. The rank test statistic introduced by Corrado (1989), the Corrado rank test, however, consistently proves to be a well specified and a powerful test statistic across various event conditions, especially when attempting to detect abnormal returns in the presence of thin trading (Campbell and Wesley 1993; Cowan and Sergeant 1996). The Corrado rank test is also robust in the presence of non-normality and copes with clustered event dates[101] by using daily, rather than monthly, data. Having said this, the Corrado test was initially proposed to detect abnormal returns on the event day meaning that the efficiency of the test is reduced when extended to CARs (Kolari and Pynnonen 2011). To address the issue of an appropriate test for CARs Kolari and Pynnonen (2010, 2011) propose the use of the GRANK test, which is less sensitive to the length of the event window than the Corrado test. Differences between the GRANK test and the Corrado rank test are discussed in full in section 5.2.2 in Chapter 5.

In summary, section 3.3 emphasises the scale of thin trading identified in our sample of firms and suggests adjustments for reducing bias arising from this in our results. We

[101] The rank statistic takes care of the event clustering as it takes cross-sectional dependence into account through the aggregation of the abnormal returns on an individual stock into time series of portfolio mean ranks. Brown and Warner (1985) conclude that, in general, the use of daily data makes clustering of events on a single day much less severe than the use of monthly data. It should be noted that event clustering is not a problem in this thesis as for most firms we have only one succession event and, in those with more than one event, the successions are at least one year apart (with the majority being three or more years apart). This is further discussed in the descriptive statistics in Chapter 4.

propose the observation of the free-float, the number of shares traded, and the volume turnover to identify thinly traded firms. All of these approaches show the magnitude of the issue of thin trading in our sample firms, especially when compared to firms listed on the LSE. For this reason we expect to observe significant CARs in response to the CEO succession announcement in longer, rather than shorter, event windows. The longer the event window, however, the more likely it will include other events, which is another methodological issue discussed in section 3.4 on confounding events. In Chapter 5 of this thesis we employ the Dimson beta aggregated method and a combination of different statistical tests (the Student t-test, the Corrado rank test, and the GRANK test) to address the issue of thin trading.

3.4 Confounding events

3.4.1 Price-sensitive news influencing reactions to succession announcements

Confounding events are other announcements of price-sensitive information which occur around the event of interest. Such announcements or events may influence the stock market reaction to the event of interest. Confounding events can include regular or unexpected earnings announcements (Brown and Warner 1985), dividend announcements (Watts 1973), announcements of an impending merger, board restructuring, damage suits, joint venture announcements (McConnell and Nantell 1985), and other capital events such as stock splits. Since the event study methodology is based on the assumption that the researcher calculates the returns that result from the event being studied, failing to control for confounding events causes serious doubts about the validity of the results and the conclusions drawn (McWilliams and Siegel 1997). This issue may be of greater concern in family firms owing to the greater level of control held by the controlling family.

The high level of control in family firms held by the family means that the discretion of information disclosure is concentrated in the hands of the family shareholders (Lakhal 2005; Chen *et al.* 2008; Anderson *et al.* 2009; Di Miceli da Silveira and Dias 2010). Even in the case of mandatory disclosures the controlling family may still decide on the precise timing of the information to be disclosed as long as this is within the regulatory

time-frame[102]. In terms of voluntary disclosure, arguments for family shareholders preferring both less and more disclosure have previously been presented (Chau and Gray 2002; Chen *et al.* 2008). According to Chen *et al.* (2008), the unique ownership and control structure of family firms has important implications for their disclosure practices. Family shareholders have a longer investment horizon when compared to nonfamily investors. This implies that the benefits of accelerating timely information, such as trading profits, are of less importance to family shareholders. Additionally, the active involvement of family shareholders in the management of their firms is associated with greater monitoring of nonfamily managers. This reduces demands from nonfamily investors for information required to monitor managers (Bushman *et al.* 2004). For these reasons the controlling family may prefer to disclose less information. On the other hand, a greater concentration of control implies greater costs of non-disclosure in terms of litigation and tarnishing reputation (Ali *et al.* 2007; Chen *et al.* 2008). However, if family firms decide to disclose more information than widely-held firms, it does not necessarily indicate less opportunistic behaviour (Hutton 2007). For example, if the family has incentives to expropriate minority shareholders they may alter disclosures to ease the extraction of private benefits of control[103]. In summary, although it is unclear whether family firms prefer to disclose less or more information than widely-held firms, family shareholders have a powerful say in these decisions. This power may be used to benefit all shareholders, or just the members of the controlling family.

Since the occurrence of confounding events is shown to be an important methodological issue, we identify possible confounding news around the succession announcement in our sample of firms to address this issue.

3.4.2 Identification of confounding events

Identification of confounding events is problematic because of the wide range of possible events, the access, and the availability of the news on such events and the effort required to search for these events for each day of the event window. Many studies

[102] For instance, despite the regulations on the timeliness of mandatory disclosures, such as annual and half-yearly earnings, Ball *et al.* (2000) find that earnings are significantly timelier in common law countries, such as the US and the UK, than in civil law countries, such as Germany, which have concentration of corporate control.
[103] See also Arcot and Bruno (2012) who make a similar argument.

using the event study methodology do not identify or check for confounding events (Lubatkin *et al.* 1989; Davidson *et al.* 1990; Davidson *et al.* 1993). In a number of other studies the identification of confounding events is limited to three days[104] irrespective of the different event windows used (Davidson and Worrell 1992; Meznar *et al.* 1994). For example, Meznar *et al.* (1994) report that they checked for confounding events during the 3-day window immediately surrounding their event of interest, finding confounding events for 37% of the firms in their original sample and eliminating these from their sample. They do not check for confounding events over any other window length because doing so "*would have eliminated so many events from the pool*" (p. 1639). An examination of the results in this research by Meznar *et al.* shows that, there are no significant abnormal returns for the 3-day window when confounding events were controlled for. However, the use of longer windows (13-, 21-, 31-, and 41-day), when confounding events were not identified, provides evidence of significant abnormal returns. Therefore, we use the longest event window employed in our event study in Chapter 5 (i.e. 61 days around the succession announcement) to identify confounding events. Identification of such announcements is done using the LexisNexis financial news.

In Table 3.7 we present the distribution of confounding events across the three countries. Confounding events are classified as one of eight types, i.e. earnings, dividends, release of a new product or contract, board changes, merger or acquisition of major share, death of the CEO, cancellation of contracts, and others (business events containing news items deemed price sensitive, but not falling into any of the other seven categories). A total of 153 confounding events are observed around 92 succession events (out of the total sample of 283 successions) with the following distribution: 68 confounding events related to 41 successions in France (out of 137 successions in French sample firms); 50 events relating to 32 successions in Germany (out of 94), and 35 relating to 19 successions in the UK (out of 52). This suggests that, on average, there is more news (per succession with confounding events) released by UK family firms

[104] These three days refer to the day before the announcement, the announcement day and the following day.

than those in France and Germany. However, this is mainly driven by earnings announcements[105].

The majority of the confounding events in our sample, i.e. 128 out of 153, relate to four types of announcements: earnings, others, release of a new product or contract, and dividends. Earnings, which account for 28.1% of all confounding events, are the most common possibly because these are routine announcements[106]. The next most common events, representing 25.5% of the total, fall under the category of others. This category includes various announcements[107], which are randomly distributed across the three countries. Announcements of a release of a new product or contract (17.6% of the total) are the next most frequently observed event. These are primarily found in France (22.1%) and Germany (20%). In the UK successions in our sample only 6% of the total confounding events fell into this category. This difference is due to different types of industry that the firms in the respective countries belong to[108]. When compared to the UK, both France and Germany have a higher number of firms in the business equipment and software industry which, by the very nature of this industry, leads to more frequent releases of new products. Out of the 15 announcements in France (ten in Germany) related to new products or contracts, six of these are in business equipment firms (five in Germany). Dividend announcements are the next most commonly announced event making up 12.4% of the total. Only one of these dividend announcements is related to an expected omission and this is found in a UK firm. Similar to the negative earnings announcements (losses), this dividend omission news is released prior to succession. It is interesting to note that announcements of board changes (other than the CEO) and the

[105] The UK quarterly announcements were compulsory during our sample period whereas in France and Germany this was semi-annual.

[106] Due to the extensive time required to go through each news announcement (they are not always in English), it was not possible to classify each earnings announcement as being a quarterly, half-yearly, or annual earnings announcement. Only three out of 43 earnings announcements are negative, two of which are in French firms and one in a UK firm. Whilst all three are announced prior to succession, those in the French firms are followed by the appointment of a family CEO whereas the one in the UK is followed by the appointment of a nonfamily CEO.

[107] Primarily, four are announcements of warnings of a drop in volume and weak trading predictions, two are announcements of firms' intentions to go private (completely held by the family) in the future, two are announcements of continuing court cases, two are share buy-back announcements, and two others are news on tender offers. The remaining include news such as award for innovative products, splitting of the key activities of the firm in to two separate firms controlled by the same family and so on. Unless the abnormal returns for each of the confounding event are not examined, it is difficult to say with certainty whether the announcement is good news or bad news.

[108] Industry classification is presented in detail in Chapter 4. We follow the 10 Industry classification of Fama and French.

cancellation of contracts have the least representation across the sample (3.9% and 2.6%, respectively). It is unclear whether news on the cancellation of contracts are less frequent because such events are uncommon in general, or whether such news is withheld considering its potentially negative market response and similar effect on the response to succession.

INSERT TABLE 3.7 ABOUT HERE

Following on from this we also examine whether the confounding events may have been timed around the succession based on the level of family control[109] and the type of successor being appointed (presented in Table 3A.1 in Appendix A). Whilst a detailed analysis is presented in section 3A.2 in Appendix A to this chapter, here we summarise the results. We find that there is more news announced during the [-20, -1] window compared to the [1, 20] window (i.e., 59 announcements compared to only 30). This suggests that the controlling family may time the release of certain types of news to precede the succession announcement. Furthermore, Table 3A.1 also suggests that more news are released around succession announcements made by firms with lower family control than around succession announcements made by firms with concentrated family control (47 compared to 12 announcements). Also, more news appears to be released around family-to-family successions than family-to-nonfamily successions (100 and 53 announcements, respectively). Still, this pattern is driven by our sample distribution as there are a greater proportion of firms appointing a family successor (including re-appointments)[110].

In summary, we find that 32.5% of the succession events in our sample coincide with other news announcements (i.e. 92 out of the 283 succession events in the sample). Most of the news is released prior to succession. Therefore, it is important to identify confounding events and control for this issue. There are three ways whereby researchers have previously dealt with confounding events. The first and most common approach is

[109] Low (high) family control firms are defined as firms in the bottom (top) quintile of family control. The average family control in the bottom quintile is 36.49% and that in the top quintile is 82.24% for the full sample of 283 succession events.

[110] On excluding re-appointments, the number of confounding events in the family-to-family succession group drops from 100 to 26 confounding events.

to eliminate announcements which have one or more confounding events around them (Lambertides 2009). The second is to report results for the full sample as well as results only for announcements with no confounding events (e.g. Hillier and McColgan 2009). The third is to report results for the full sample, irrespective of confounding events, and acknowledge the measures as being noisy (e.g. Offenberg 2009). This thesis takes the second approach, as reported in Chapter 5, because it is a comprehensive approach that allows a comparison of results both including and excluding confounding events.

3.5 Conclusion

The codes of best practice in France, Germany and the UK recommend the independence of non-executive directors. The literature shows various operationalisation of the concept of board independence, in which independent directors are primarily those who are outsiders, not affiliated with the firm. Nevertheless, the codes of best practice, as well as the existing literature, have focused more on the links that directors may have to the firm and/or its management, with little attention given to potential affiliations to the controlling family shareholders. This is of particular concern in firms with concentrated control. Directors that are reported as independent despite having ties to the controlling family are likely to look after the interests of the family, resulting in the minority shareholders being misled on the dependence status of the director. In support of this argument we find that there are significant differences between the reported board independence and our adjusted measure of *de facto* board independence. Adjusting board independence is found to be of great importance because it has an influence on the choice of the CEO successor, whilst reported board independence does not have any such influence (as shown in Chapter 4). Not only is our measure an improvement on the conventional definitions, but also one that allows for cross-country comparability.

In this chapter we also discussed two issues (thin trading and confounding events) related to the use of the event study methodology. Considering the concentration of control in family firms and the limited free-float, family firms are more likely to suffer from infrequent trading when compared to widely-held firms. Controlling families are also more likely to have greater power over the disclosures and news announcements in

their firms than mangers in widely-held firms. Given the importance and scale of both of these issues, we propose ways of identifying and addressing these issues to reduce bias and improve the reliability of our event study results.

We find that the firms in our sample are indeed thinly traded using the percentage of free-float and the data on volume (both the number of shares traded, and the turnover). Therefore, in Chapter 5, we adjust for thin trading using the Dimson beta aggregated method and test the significance of the abnormal returns around the succession announcement using the Corrado and GRANK rank tests (in addition to the Student t-test). We identify confounding events, such as earnings and new product announcements, during 61 days (the length of our longest event window [-40; 20]) around the succession announcement. Results show that 32.5% of the sample successions are surrounded with confounding events, most of which are announced prior to succession. However, we do not find sufficient evidence that suggests that the controlling families time the events in their firms.

Overall we find that there is a negative correlation between the level of family control and our measure of adjusted board independence; volume traded, and announcements of other news around the succession announcement. This highlights the magnitude of the methodological issues discussed in this chapter and their implications for future empirical research in family firms.

TABLES

Table 3.1: Criteria for board independence in family firms: Recommendations in the codes of best practice and our proposed criteria

This table explains the six criteria used to measure board independence in family firms. Colum 1 presents the six criteria in brief. Columns 2, 3 and 4 present the related recommendations in the codes of best practice for France, Germany and the UK, respectively[111]. The last column presents our proposed criteria in more detail.

	France	**Germany**	**UK**	
	(As per the Corporate Governance Code of Listed Corporations, 2003-2013)	**(As per the German Corporate Governance Code, 2002-2013)**	**(As per the Combined Code, 2003-2009; the UK Corporate Governance Code, 2010-2012)**	**Our proposed criteria for each non-executive director**
1. Family relation	The director has no family ties with other directors.	-	The director has no family ties with other directors.	The director is not related to the controlling family through immediate relationships by blood or by marriage.
2. Board tenure	The director has been a member for less than 12 years from the date of his/her first appointment to the board.	-	The director has been a member for less than 9 years from the date of his/her first appointment to the board.	The director has been a member for less than 9 years from the date of his/her first appointment to the board.
3. Appointed by the family	-	-	-	The director that is not appointed directly by special voting rights exclusive to the controlling family.
4. Employee/ director at other related firms	-	-	-	The director is not an employee or a director with another firm that is fully or majority owned (>50%) by the controlling family.
5. Joint board membership	-	-	-	The director does not sit on other boards with a member of the controlling family (during the same period).
6. Former employment	The director has not been an employee or director of the firm, or a consolidated subsidiary within the last 5 years.	The director has not been an executive of the same firm within the last two years[112].	The director has not been an employee of the firm within the last 5 years.	The director is not a former employee (or a former executive director) with the firm (or with a subsidiary of the firm).

[111] Prior to 2003 for France and the UK, board independence was not defined. Prior to 2002 for Germany, all criteria were already specified in the code except for criterion 6.

[112] In 2009 a new law on the 'appropriateness of management board compensation' (VorstAG) was introduced. Among other things, the law stipulates a minimum period for former executive directors intending to become supervisory board members. According to paragraph 100(2) of the Aktiengesetz, a former member of a listed firm's management board within the past two years cannot become a member of the same firm's supervisory board. In the GCGC, from 2009 to present, this is covered in provision 5.4.4. The law, however, also contains an exception from the ban. If the suggestion to elect the former management board member to the supervisory board is due to shareholders (with at least 25% of total votes), a former executive can directly become a member of the supervisory board without abiding by the two-year waiting period.

Table 3.2: Adjusting reported directors' independence

This table presents the process of adjusting reported board independence to show *de facto* independence. N is the number of non-executive directors with the percentage in relation to the total (%) presented alongside in each case. The first row provides the total number of non-executive directors reported as independent. The second row shows how many of these fulfil the first criteria pertaining to family relationships, with the third row covering criteria 2 to 6 inclusive. Finally, the last row provides the total number of non-executive directors demonstrating *de facto* independence. The sample used in this table is based on a total of 905 non-executive directors represented on the boards of the respective 283 succession announcements.

Adjusting directors' independence	**France**		**Germany**		**UK**		**Total**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Total non-executive directors	413	100.0	356	100.0	136	100.0	905	100.0
less directors satisfying criterion 1 (family member)	132	32.0	29	8.1	6	4.4	167	18.5
less directors satisfying at least one criterion from 2 to 6	134	34.4	126	35.4	40	29.4	300	33.1
Total non-executive directors independent of controlling family	147	35.6	201	56.5	90	66.2	438	48.4

Table 3.3: Summary statistics and differences in board independence between the countries

This table presents the summary statistics for the family control (i.e. percentage of total votes held by the family) and board independence measures for the full sample of 283 succession events in Panel A. Panel B presents the mean and median values for family control, reported board independence, adjusted board independence and the different between the latter two for France, Germany and the UK. Panel C presents the mean and median differences (i.e. the respective t- and z-values) in family control, reported board independence and adjusted board independence between the three countries. Differences in means are assessed using a t-test whereas differences in medians are tested using a z-test (Mann-Whitney U). ***, ** denotes significance at the 1%, and 5% level, respectively (two-tailed test).

	Mean	Median	SD	P25	P75	Min	Max
Panel A: Family control & Board independence – full sample descriptives							
Family control, %	60.71	61.01	15.86	50.50	70.87	25.12	99.36
Reported board independence, %	55.07	57.14	15.70	45.45	66.67	0.00	85.71
Adjusted board independence, %	24.01	25.00	20.04	0.00	40.00	0.00	77.79
Difference in board indep., %	30.21	28.54	22.32	12.50	50.00	0.00	83.33

	France		Germany		UK	
	Mean	Median	Mean	Median	Mean	Median
Panel B: Family control & Board independence across countries						
Family control, %	65.28	66.73	57.14	56.28	48.46	49.34
Reported board independence, %	55.19	57.14	58.27	60.00	45.34	44.44
Adjusted board independence, %	16.46	10.00	31.37	28.57	29.07	30.95
Difference in board independence	18.33***	9.32***	14.10***	7.65***	7.02***	5.81***

	France vs Germany		Germany vs UK		UK vs France	
Panel C:Mean and median differences between countries						
Family control, %	4.00***	3.84***	3.34***	3.15***	-7.23***	-6.42***
Reported board independence, %	-1.50	-1.10	5.53***	4.86***	-3.59***	-3.68***
Adjusted board independence, %	-5.59***	-5.40***	0.73	-0.47	4.04***	4.08***

Table 3.4: Differences in board independence between family-to-family and family-to-nonfamily successions for each country

This table reports the mean and median comparison in board independence between firms undergoing a family to family succession and those undergoing a family to nonfamily succession, for each country in the sample. There are 113, 64 and 35 family-to-family successions in France, Germany, and the UK, respectively. And there are 24, 30, and 17 family-to-nonfamily successions in France, Germany, and the UK, respectively. Panel A presents board independence for firms appointing a family successor, and Panel B presents board independence for firms appointing an outsider. Panel C presents the mean and median differences between the two groups of successions. Differences in means are assessed using a t-test whereas differences in medians are tested using a z-test (Mann-Whitney U). ***, **,* denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	France		Germany		UK	
	Mean	Median	Mean	Median	Mean	Median
Panel A: Family-to-family successions						
Reported board independence, %	57.31	60.00	56.78	59.17	44.60	40.00
Adjusted board independence, %	13.53	0.00	27.79	27.27	23.75	25.00
Difference in board independence	42.55	40.00	27.01	22.22	20.86	20.00
Panel B: Family-to-nonfamily successions						
Reported board independence, %	44.40	48.33	61.66	61.25	46.87	50.00
Adjusted board independence, %	30.12	37.50	38.41	40.00	40.04	40.00
Difference in board independence	16.72	11.12	23.17	18.18	6.82	0.00
Panel C: Mean and median differences						
Reported board independence, %	3.08***	2.96***	-2.14**	-1.72*	-0.49	-0.73
Adjusted board independence, %	-3.26***	-3.36***	-2.51**	-2.77***	-3.45***	-2.90***
Difference in board independence	5.82***	4.75***	0.97	1.20	3.58***	2.19**

Table 3.5: Summary statistics for different measures of thin trading

This table reports the summary statistics for the measures used to identify thinly traded firms for the full sample of 283 succession announcements, based on the three countries in the sample. Panel A presents the percent of free-float. Panel B presents the average number of shares traded daily during the 250 days prior to succession using the window [-310, -60], while Panel C presents the average turnover during the same period. The number of shares in Panel B is presented in thousands. Panel D presents the dummy variable thin, which is computed based on turnover. This dummy equals 1 if the turnover of the sample firm is significantly lower than that of the LSE and zero otherwise.

	Mean	Median	SD	Min	P25	P75	Max
Panel A: Free-float, %							
France	42.63	43.36	15.55	0.64	30.62	53.82	74.50
Germany	46.92	45.08	14.58	10.70	37.61	57.08	82.00
UK	54.33	56.40	12.61	18.20	43.67	64.67	78.22
Panel B: No. of shares traded [-310,-60]							
France	34.72	2.61	136.49	0.00	0.99	11.66	1249.14
Germany	7.19	3.85	13.41	0.26	1.37	7.78	108.79
UK	126.16	51.82	188.83	1.26	10.72	169.95	1003.19
Panel C: Turnover [-310,-60]							
France	0.002	0.001	0.00	0.00	0.00	0.001	0.05
Germany	0.001	0.000	0.00	0.00	0.00	0.000	0.01
UK	0.003	0.002	0.00	0.00	0.00	0.001	0.01
Panel D: Thin dummy (based on turnover)							
France	0.99	1.00	0.09	0.00	1.00	1.00	1.00
Germany	1.00	1.00	0.00	1.00	1.00	1.00	1.00
UK	0.90	1.00	0.31	0.00	1.00	1.00	1.00

Table 3.6: Differences in volume between the sample and the market (by country)

This table reports the mean and median comparison in the number of shares traded and turnover between firms in our sample and the London Stock Exchange, for each country in the sample. There are 137, 94 and 52 successions in France, Germany, and the UK, respectively. Panel A presents the average number of shares traded daily during the 250 days prior to succession using the window [-310, -60], while Panel B presents the average turnover during the same period. The number of shares in Panel A is presented in thousands. Differences in means are assessed using a t-test whereas differences in medians are tested using a z-test (Mann-Whitney U). ***, ** denotes significance at the 1%, and 5% level, respectively (two-tailed test).

	France		Germany		UK	
	Mean	Median	Mean	Median	Mean	Median
Panel A: No. of shares traded [-310,-60]						
Sample	34.72	2.61	7.19	3.85	126.16	51.82
Market	1802.76	1791.95	1748.08	1779.90	1762.34	1794.45
Difference in no. of shares traded	-82.92***	-9.89***	-61.18***	-7.57***	-41.01***	-5.97***
Panel B: Turnover [-310,-60]						
Sample	0.002	0.001	0.001	0.000	0.003	0.002
Market	0.040	0.020	0.040	0.020	0.030	0.020
Difference in turnover	-10.60***	-9.69***	-8.33***	-7.57***	-6.63***	-5.62***

Table 3.7: Frequency distribution of the confounding events around succession

This table presents the frequency distribution of the identified confounding events occurring during the [-40, 20] event window for 41, 32, and 19 succession announcements in France, Germany and the UK, respectively. The confounding events are identified using the LexisNexis financial news database. Announcements under 'others' include various announcements. Primarily, four are announcements of warnings of a drop in volume and weak trading predictions, two are announcements of firms' intentions to go private (completely held by the family) in the future, two are announcements of continuing court cases, two are share buy-back announcements, and two others are news on tender offers. The remaining include news such as award for innovative products, splitting of the key activities of the firm in to two separate firms controlled by the same family and similar items.

		France		Germany		UK		Total	
	Event	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
1	Earnings	22	32.4	13	26.0	8	22.9	43	28.1
2	Dividends	10	14.7	5	10.0	4	11.4	19	12.4
3	New product/contract	15	22.1	10	20.0	2	5.7	27	17.6
4	Board changes	1	1.5	3	6.0	2	5.7	6	3.9
5	Acquisition of major share/merge	4	5.9	1	2.0	3	8.6	8	5.2
6	Death of incumbent CEO	3	4.4	1	2.0	3	8.6	7	4.6
7	Cancellation of contracts	1	1.5	3	6.0	0	0.0	4	2.6
8	Other	12	17.6	14	28.0	13	37.1	39	25.5
	Total	**68**	100.0	**50**	100.0	**35**	100.0	**153**	100.0

APPENDIX A

3A.1 Methods to adjust for thin trading

As stated in section 3.3.3, literature suggests that the market model parameters may be biased as a result of thinly traded stocks (Scholes and Williams 1977; Dimson 1979; Cohen *et al*. 1983; Fowler and Rorke 1983). The three more commonly used methods in the literature to reduce the bias in the beta due to thin trading include the Scholes and Williams method (1977), the Dimson aggregated beta method (1979), and the Fowler and Rorke method (1983). These are presented below. The unbiased estimators under each method are presented here which would be used in the market model to estimate the abnormal returns, presented in section 5.2.2 in Chapter 5. Hence, the market model is not presented in this Appendix with the following explanations.

Scholes and Williams method (1977)

In order to determine the true beta, Scholes and Williams (SW) determine that both lag and lead effects must be taken into account. This is done by estimating the lagged, contemporaneous, and leading betas separately in three regressions and then taking a weighted average of these estimates. Thus, the consistent estimator of beta $\hat{\beta}_i$ (after the three separate regressions) can be calculated as follows:

$$\hat{\beta}_i = \frac{\hat{\beta}_i^{-1} + \hat{\beta}_i^{0} + \hat{\beta}_i^{+1}}{1 + 2\hat{\rho}_m}$$

where $\hat{\beta}_i^{-1}$, $\hat{\beta}_i^{0}$, and $\hat{\beta}_i^{+1}$ are estimators of the slope coefficients in the OLS regressions by a one lag, contemporaneous, and one lead of the market return on the return of the stock i, and $\hat{\rho}_m$is an estimate of the first order serial correlation coefficient for the market return. Hence, after summing the beta estimates from the three regressions (lagged, contemporaneous, and leading), the figure is divided by one plus twice the estimated autocorrelation (or serial correlation) coefficient for the market index in order to obtain unbiased beta estimates. However, the assumption for the SW method is that if a particular stock does not trade for any one day, then it also does not trade for the following day. Further, the variance of the estimator following this method is large (Fowler and Rorke 1983). Also, as highlighted earlier, adjustment according to the SW

method does not improve the Type I error or the power of parametric test statistics (Campbell and Waseley 1993). Lastly, for stocks that are more (and/or extremely) thinly traded (over several days/weeks) the SW method is no longer appropriate (Brooks *et al*. 2005). Taking into account these drawbacks, we do not employ the SW method in this thesis.

Dimson aggregated beta method (1979)

This method simplifies (and presents an improvement to) the SW method by only using one regression of the stock return on the market returns and a number of lags and leads of the market returns. The number of lags and leads depends on the thinness of the stocks under investigation. The beta coefficients are then added to obtain the Dimson aggregated beta (or the unbiased beta). Thus, the unbiased beta can be presented as follows:

$$\hat{\beta}_i = \sum_{k=-n}^{n} \hat{\beta}_k$$

The unbiased beta estimate in the above equation is the sum of the coefficients in a multiple regression of the return for stock *i* on day *t* against the market return from day $t - n$ to day $t + n$, where *n* is the number of lag and lead days (assuming the same number of days are considered) used depending on the thinness of the stocks. This method departs from the data intensive procedures of estimating a series of regressions, such as the SW method, and is considered more efficient (Dimson 1979). Fowler and Rorke (1983) argue that Dimson's method cannot generate consistent beta estimates in accordance with the SW method. Nevertheless, the application of the three methods to the same dataset suggests that the Dimson method is the best technique in order to reduce the amount of bias in beta estimation, especially with the increase in the infrequency of trades (McInish and Wood 1986).

Fowler and Rorke method (1983)

This method is a modified version of the Dimson method in accordance with the SW method. As demonstrated by the Fowler and Rorke (FR) method, a consistent beta estimate based on the Dimson's method should be weighted by functions of the

observable serial correlation coefficients for the market index. Thus, using two period lags and leads the unbiased weighted beta can be shown as follows:

$$\hat{\beta}_i = \frac{(1+\rho_1+\rho_2)}{(1+2\rho_1+2\rho_2)}\hat{\beta}_i^{-2} + \frac{(1+2\rho_1+\rho_2)}{(1+2\rho_1+2\rho_2)}\hat{\beta}_i^{-1} + \hat{\beta}_i^{0} + \frac{(1+2\rho_1+\rho_2)}{(1+2\rho_1+2\rho_2)}\hat{\beta}_i^{+1} + \frac{(1+\rho_1+\rho_2)}{(1+2\rho_1+2\rho_2)}\hat{\beta}_i^{+2}$$

where $\hat{\beta}_i^{-2}$, $\hat{\beta}_i^{-1}$, $\hat{\beta}_i^{0}$, $\hat{\beta}_i^{+1}$, and $\hat{\beta}_i^{+2}$ are the parameter estimates obtained from the regression of the return of stock *i* against lag 2, lag 1, contemporaneous, lead 1, and lead 2 of the market return, respectively, and ρ_1, and $\rho_2$are the first and second order serial correlation coefficients of the market return, respectively. The FR method assumes that the first order serial correlation coefficients and the second order serial correlation coefficients are not zero and all other serial correlation coefficients are zero. Thus, a consistent beta estimate can be obtained when a weighted sum of the slope coefficients is calculated.

Fowler and Rorke argue that, from the three methods their technique provides the best compromise between bias and efficiency. However, because it compares with SW method in terms of reducing bias, the Dimson method is still the best specified for this purpose. Further, the extra work involved in the FR method does not seem to further strengthen the event study results (McInish and Wood 1986). While all three methods have been employed in the existing literature, considering the above arguments for and against these methods, in this thesis we employ the Dimson aggregated beta method (1979).

3A.2 Distribution of confounding events

We examine whether the confounding events may have been timed around the succession based on the level of family control in the firm and the type of successor being appointed. In Table 3A.1 we present the distribution of confounding events in the following time periods: [-40,-21], [-20, -11], [-10, -4], [-3, -1], [0], [1, 3], [4, 10] and [11, 20]. These numbers represent the number of days with negative numbers being pre-succession days, zero being the day of the succession announcement, and positive numbers being post-succession days. These specific time-frames are selected based on the event windows that will be used for the event study in Chapter 5. Panel A in Table 3A.1 presents the distribution based on the family control. We focus on successions in the firms with the top and bottom 20% control[113] to check whether news released is relative to control concentration. The first column under each time period relate to successions in firms with the bottom 20% by control (*B*), and the second column to the successions in firms with top 20% by control (*T*). Panel B presents the distribution of confounding events based on the type of CEO successor to check whether news released is relative to the type of successor being appointed. The first column under each time period relates to family-to-family successions (*F*), with the second column relating to family-to-nonfamily successions (*NF*).

INSERT TABLE 3A.1 ABOUT HERE

In Panel A, we find that more news is released prior to the succession announcement than after. We find that firms with lower percentages of family control release more news around succession (47 out of 59 announcements), than firms with concentrated control (12 out of 59 announcements). In terms of the types of announcements, we find that the successions in the bottom 20% have more earnings announcements around the succession announcement than those in the top 20% (i.e. 14 vs 4). A similar pattern is observed for the dividends announcements (i.e. six vs two), announcements of a release of a new product or contract (i.e. five vs one), announcements of board changes (i.e. six vs zero), and other announcements (i.e. 14 vs 3). While such a pattern is observed for five out of the eight types of confounding events, the results pertaining to earnings

[113] These are the top and bottom quintiles when the sample is divided based on the family control. The average family control in the bottom quintile is approximately 37% and that in the top quintile is 82% for the full sample of succession announcements.

announcements are surprising. Considering earnings to be rather routine announcements, we would expect a similar (frequency) distribution across both groups; nevertheless, in terms of the percentage of total confounding events under each group, the percentage of earnings announcements are comparable (i.e. 30% for group *B* and 33% for group *T*). Whilst the firms with low control concentration disclose 70% of their total announcements prior to succession, the comparable percentage in firms with high control concentration is 75%. So, although the number of confounding events around succession announcements is higher when family control is low, the percentage of news released pre-succession is higher when family control is great. This suggests that the controlling family may time certain events or time the succession to follow the release of certain other news. Alternatively, in firms with greater family control, families may not be willing to disclose more news in general. Nevertheless, these results must be viewed with caution because the differences between the two groups in terms of the percentage of news released pre- and post-succession announcement are not statistically significant. Although we are unable to establish whether confounding events are indeed timed around the succession announcement (or vice-versa), these results give us good motivation to analyse our event study and regression results both including as well as excluding successions with confounding events.

In Panel B, we demonstrate that firms with family-to-family successions release more news (100 out of 153 announcements) than those with family-to-nonfamily successions (53 out of 153 announcements). This is driven by our sample distribution, in that we have a greater proportion of firms appointing a family successor (including re-appointments)[114]. We find that more news is released further away from the succession announcement, especially prior to three days before the succession under both groups. Whilst firms with family-to-family successions release 67% of their news prior to succession, those with family-to-nonfamily successions release 81% of their confounding news during the same period. Even if we consider the same number of pre- and post-succession days (i.e. -20 and +20 days), still about 49% of the confounding news in firms with family-to-nonfamily successions is released before the succession announcement, compared to only 15% after (the comparable percentages for family-to-

[114] On excluding re-appointments, the number of confounding events in the family-to-family group drops from 100 to 26 confounding events.

family successions being 33% and 22%, respectively). Nevertheless, the differences in terms of the percentage of confounding news pre- and post-succession announcement between the two groups are not statistically significant. There appears to be no particular pattern in the type of news announced under both succession groups, however, family-to-nonfamily successions seems to have a higher proportion of their total confounding events relating to announcements of a release of a new product or contract, possibly sending a positive signal to the market.

Overall, Table 3A.1 suggests that it is important to identify and if possible analyse the types of confounding events surrounding the event of interest as these may have an influence on the event study results of the event of interest. Also, it is important to identify confounding events for the full length of the longest event window being employed for the study, because as evident in Table 3A.1, confounding events may be announced further away from the succession announcement but may still have the potential to influence the event study results if they fall within the event window being studied.

Table 3A.1: Frequency distribution of the confounding events across time, family control and type of successor

This table reports the frequency distribution of the different confounding events occurring in the [-40, 20] event window of a total of 92 succession events. The eight time periods used are [-40,-21], [-20, -11], [-10, -4], [-3, -1], [0], [1, 3], [4, 10] and [11, 20]. These numbers represent the days, negative numbers being pre-succession days, zero being the day of the succession announcement and positive numbers being post-succession days. These specific time-frames are selected based on the event windows that will be used for the event study in this thesis. Panel A presents the distribution for the successions that represent the bottom (*B*) and top (*T*) quintiles (20%) classified by percentage of family control. Panel B presents the distribution for the successions that appoint a family successor (*F*) and those that appoint a nonfamily CEO (*NF*).

Panel A: Bottom and top quintile (20%) by family control

		-40, -21		**-20, -11**		**-10, -4**		**-3, -1**		**0**		**1, 3**		**4, 10**		**11, 20**		**Total**	
		B	*T*	*B*	*T*	*B*	*T*	*B*	*T*	*B*	*T*	*B*	*T*	*B*	*T*	*B*	*T*	*B*	*T*
1	Earnings	8	1	1	1	1	1	2	0	0	0	1	0	1	1	0	0	**14**	**4**
2	Dividends	0	1	0	1	0	0	2	0	0	0	2	0	1	0	1	0	**6**	**2**
3	New product/contract	1	0	1	1	1	0	0	0	0	0	1	0	0	0	1	0	**5**	**1**
4	Board changes	3	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	**6**	**0**
5	Acquisition of major share/merge	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**	**1**
6	Death of incumbent CEO	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**0**	**1**
7	Cancellation of contracts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**1**	**0**
8	Other	5	0	2	1	2	1	1	0	1	0	1	0	1	1	1	0	**14**	**3**
	Total	**17**	**3**	**5**	**4**	**4**	**2**	**7**	**0**	**2**	**1**	**5**	**0**	**3**	**2**	**4**	**0**	**47**	**12**

Panel B: Family-to-family and family-to-nonfamily successions

		-40, -21		**-20, -11**		**-10, -4**		**-3, -1**		**0**		**1, 3**		**4, 10**		**11, 20**		**Total**	
		F	*NF*	*F*	*NF*	*F*	*NF*	*F*	*NF*	*F*	*NF*	*F*	*NF*	*F*	*NF*	*F*	*NF*	*F*	*NF*
1	Earnings	17	4	3	2	0	3	1	2	1	1	3	1	3	1	1	0	**29**	**14**
2	Dividends	2	1	3	0	1	1	0	2	1	0	3	0	3	1	1	0	**14**	**5**
3	New product/contract	5	2	4	3	4	2	0	2	0	0	0	1	2	0	2	0	**17**	**10**
4	Board changes	1	2	0	1	0	0	2	0	0	0	0	0	0	0	0	0	**3**	**3**
5	Acquisition of major share/merge	3	1	1	0	2	0	0	0	1	0	0	0	0	0	0	0	**7**	**1**
6	Death of incumbent CEO	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	**7**	**0**
7	Cancellation of contracts	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	**3**	**1**
8	Other	6	7	2	5	6	1	1	2	1	1	0	1	2	1	2	1	**20**	**19**
	Total	**34**	**17**	**15**	**11**	**13**	**7**	**5**	**8**	**11**	**2**	**6**	**3**	**10**	**3**	**6**	**2**	**100**	**53**

CHAPTER 4

Determinants of the CEO successor choice[115]

4.1 Introduction

Chapter 3 discussed the methodological issues of measuring board independence, thin trading, and confounding events, which are of particular concern in this thesis. With regards to the first issue, which is relevant to this chapter, we find that reported board independence does not account for links to the controlling family and we propose a measure to adjust it. On adjustment we find that reported board independence of directors in family firms is significantly overstated when compared to our measure of *de facto* independence. The aim of this fourth chapter is to provide evidence on the determinants of CEO successor choice in family firms in different institutional settings, that is, across the countries of France, Germany, and the UK. Using both the reported board independence and adjusted board independence from the previous chapter, this chapter offers new evidence on the role of this corporate governance mechanism in the succession decision of family firms. In terms of minority shareholder protection, this chapter also makes a novel contribution by testing the bonding hypothesis (Coffee 2002) through the succession decision in family controlled firms.

The review of the existing literature in Chapter 2 suggests that the strength of family control influences the choice of CEO successor (e.g. Burkart *et al.* 2003). The founder and his generation are likely to have a paternalistic management style as compared to a

[115] This chapter shows that our measurement of *de facto* independence of directors in family firms is a much more accurate and robust description than the reported board independence. This is important for minority shareholders, potential investors, suppliers and bankers who conduct business with family firms. A more concise version of this chapter, including the related hypotheses in Chapter 2, has been accepted for publication in the Journal of Corporate Finance. Please see Ansari *et al.* (2013). Available at http://www.sciencedirect.com/science/article/pii/S0929119913001314

professional management style observed in later generations (Dyer 1988). This is possibly because of the emotional attachment that the founders have with their firm (Berrone *et al.* 2010). Furthermore, Caselli and Gennaioli (2010) predict that when performance is good the founder tries to maintain the management and control of his firm within the family. Based on this review, we hypothesize that greater family power, the incumbent CEO being the founder or from the same generation as the founder, and good pre-succession performance increase the likelihood of a family CEO successor (see Chapter 2). On the other hand, DeMott (2008) predicts that directors that are truly independent guard the firm's assets against possible extractions by the controlling family. Moreover, listed firms that cross-list abroad can do this as a way for the firm to opt into a better legal system as a result offer greater minority shareholder protection. Whether this approach of greater investor protection (Coffee 2002) may influence corporate decisions, such as CEO succession, has not been explored. Hence, in Chapter 2 we also hypothesize that greater board independence and minority shareholder protection reduce the likelihood of a family CEO successor. In the present chapter, we test these five hypotheses summarised in Table 4.1.

Table 4.1: Hypotheses

This table presents the five hypotheses that are developed in Chapter 2. These hypotheses are used in this chapter to identify the determinants of the CEO successor choice in listed family firms in France, Germany and the UK.

Hypotheses	
Family power	
H1	The greater the power of the family, the higher is the likelihood that the successor to the incumbent family CEO will be a family member.
Family generation	
H2	If the incumbent CEO is the founder or of the founder's generation, it is more likely that the successor will be a family member.
Board independence	
H3	The higher the percentage of board seats occupied by independent directors, the higher is the likelihood that the successor to the incumbent family CEO will be a nonfamily CEO.
Minority shareholder protection	
H4	The greater the minority shareholder protection, the higher is the likelihood that the successor to the incumbent family CEO will be a nonfamily CEO.
Past firm performance	
H5	The better the pre-succession performance of the firm, the higher is the likelihood that the successor to the incumbent family CEO will be a family member.

This chapter is organised as follows. Section 4.2 presents the sample and the methodology. Results of the logistic regression analysis, including the identification of the determinants of the CEO successor choice and cross-country differences between France, Germany, and the UK, are presented in section 4.4. The robustness analysis is performed in section 4.5. Finally, section 4.6 concludes the chapter. All numerical tables for this chapter are presented after the conclusion.

4.2 Sample and methodology

This section presents the sample and methodology employed in this chapter. Section 4.2.1 provides the sample selection used in this chapter and the sources of data. This is followed by section 4.2.2 which presents the logit model employed in this chapter to predict the probability of the type of CEO successor to test our five hypotheses pertaining to family power, family generation, board independence, shareholder protection, and past performance.

4.2.1 Sample selection

The sample covers CEO successions in listed family firms in France, Germany and the UK over the ten-year period from 2001 to 2010[116]. The definition of a family firm in this study comes closest to the one of Hillier and McColgan (2009) whilst fulfilling most of the criteria for defining family firms suggested in Bennedsen *et al*. (2010). As stated in Chapter 1, a family firm is defined as a firm in which the founder, or their family, owns at least 25% of the votes[117], and the CEO is a member of this family[118]. In addition to this, at least one of the following three criteria have to be met: (i) the CEO is

[116] The sample starts in 2001 for two reasons. The first is due to data availability issues. Thomson One Banker is one of our main data sources and prior to 2001, especially for France and Germany; most data were incomplete at the time of the data collected for this thesis (2010-2011). We have referred to company handbooks, especially for Germany and the UK, which were only available through library resources starting 2001. The second reason is that the recommendations of the codes of best practice were more widely adopted by firms 2001 and 2002 onwards, particularly in France and Germany.

[117] As this thesis focuses on ultimate ownership of votes, stakes that are held indirectly are also taken into account. Votes are measured by the voting rights of shares held by the controlling family in the case of a single type of share. In case of dual class of shares (voting and non-voting), the family's total voting rights attached to both share types are considered.

[118] Here the condition of the CEO being a family member refers to the incumbent or departing CEO in the event of a CEO succession. The reason why the incumbent CEO must be a family member is because this is the specific focus of the thesis and in this manner it is possible to have a uniform starting point for all firms in the sample, i.e. successions in family firms with an incumbent family CEO.

explicitly described in the annual report or media as the founder or a descendant of the founder; (ii) the CEO shares the same name with the firm; and/or (iii) the CEO shares their surname with at least one other member of the firm's board of directors.

The final sample of CEO successions in family firms comprises 283 events in 231 firms. This was achieved through the following filtering process. Data collection started with the full population of listed firms in each of the three countries equalling 1,780 French firms, 1,307 German firms, and 2,437 UK firms. At first, financial firms[119] were excluded and the remaining firms checked against the voting threshold of 25%. In cases of pyramidal ownership, the ultimate owner is identified to calculate the total votes held by them. This process resulted in the identification of 227 French, 151 German, and 110 UK family firms. These figures suggest that the French firms have the highest likelihood of being family controlled (12.8% of the firms listed), compared to the UK firms with the lowest likelihood (4.5%). German firms fall slightly below the French in terms of the possibility of being family controlled (11.6%). Firms where the controlling family did not remain the largest shareholder for at least half of the period of study (and those firms whose IPO was after 2007) were excluded. This reduced the country samples to 187, 120, and 88 family firms in France, Germany, and the UK, respectively. Additional criteria were that a family member had to be the incumbent CEO and that there had to be at least one change in the CEO or a re-appointment[120] of the incumbent CEO during the period 2001 and 2010. Applying these two criteria considerably reduced the sample size resulting in 115 French, 78 German, and 38 UK firms. The final sample includes 283 events (i.e. CEO successions as well as re-appointments) in 231 firms, of which 137 events took place in French firms, 94 in German firms and the remaining 52 events in UK firms.

As highlighted in Chapter 1, nearly all studies on CEO successions in family firms have excluded re-appointments of the incumbent family CEO, except for Smith and Amoako-

[119] All firms with SIC codes ranging between 6021-6799 related to commercial banking, insurance, real estate and investment activities are considered as financial firms.

[120] A re-appointment is defined as the appointment of the incumbent family CEO to office for a further period of time. The extended or renewed length of term of the CEO may be one of the following: (1) specifically fixed by the firm (as stated in the IPO prospectus or annual report), or (2) based on the country specific governance regulation on maximum CEO term, which is six years in the case of France, five years for Germany, and three years for the UK.

Adu (1999). The latter study, however, only presents four such cases. The theories of succession discussed in Chapter 2 (Burkart *et al*. 2003; Giménez and Novo 2010) predict that the incumbent family CEO faces the option of retaining his position; appointing a family member as successor, or selecting a nonfamily CEO. This means that a powerful family wanting to retain control can either push for the re-appointment of the incumbent CEO, even in the face of opposition from minority shareholders (in cases where there is (as yet) no suitable successor within the family), or it can appoint another family member as CEO. Given that most of our hypotheses (and the following conjectures) relate to the power of the controlling family relative to the minority shareholders, we consider re-appointments as part of our succession sample. The fact that there are only 28 re-appointments in the UK out of a total of 52 succession events (54%) compared to 140 re-appointments in France and Germany out of a total of 231 succession events (61%) gives some credence to the argument of this thesis as minority shareholder protection is higher in the UK. Still, on excluding re-appointments (as shown in section 4.5.4) the results of this study are upheld[121].

The succession events are classified into two types/groups by the CEO successor. The first group comprises family-to-family successions where the successor is a family member (including re-appointments of the incumbent family CEO), and the second group comprises family-to-nonfamily successions where the successor is not related to the controlling family. For both groups, the incumbent CEO is a family member. The 283 successions in the sample include 212 family-to-family and 71 family-to-nonfamily successions. Of the family-to-family group 168 are re-appointments of the incumbent family CEO and 44 are actual changes of the CEO.

The announcement dates for the CEO successions are obtained from LexisNexis, the Forbes database and other online newspaper databases. Wherever possible, more than one news source is used to confirm the announcement date of the succession decision. For each family firm, biographical information on the incumbent CEO, the CEO successor, and the directors on the board has been obtained from the annual reports, Reuters, Thomson One Banker and corporate websites. This information is

[121] Section 4B.1 in Appendix B to this chapter explains the legal and institutional framework across the three countries pertaining to the re-appointments that are considered part of our successions sample in this thesis.

supplemented with information from country-specific company guides[122] – Hoppenstedt Aktienführer for Germany, and Companies Handbooks for the UK. Financial information is sourced from Datastream, Osiris and the data on industry competition are from EU-KLEMS[123].

4.2.2 Specification of the logit model

To test the five hypotheses about the determinants of the CEO successor choice between a family and a nonfamily candidate, we estimate the following logit model:

$$Successor_i = \beta_0 + \beta_1 Family\ power_i + \beta_2 Family\ generation_i + \beta_3 Board\ independence_i + \beta_4 Shareholder\ protection_i + \sum_{C=5}^{12} \beta_C Control\ variables_{i \in C} + \sum_{J=13}^{14} \beta_J Country_{i \in J} + \sum_{K=15}^{23} \beta_K Industry_{i \in K} + \sum_{T=24}^{32} \beta_T Year_{i \in T} + \varepsilon_i$$

where the dependent variable *Successor* is a dummy that is equal to one if the successor is a family member and zero otherwise, for each firm succession *i*. The hypothesized determinants, *family power*, *family generation*, *board independence*, *shareholder protection*, and *past performance* are measured in the year prior to the year of the succession announcement. *Control variables* is a vector of eight variables, namely, industry-adjusted market-to-book value, long-term debt to (total) equity, assets growth, interest coverage, dividend payout ratio, Herfindahl index, firm size, and the incumbent CEO's age. All control variables, except for the CEOs age, are also measured in the year before the succession announcement year. *Country* is a vector of two distinct dummy variables for succession announcements in France and Germany. *Industry* is a

[122] The country handbooks were referred for the purpose of reliability and completeness of the data collected from databases. Some variables were not available directly from the database and those that were available had sometimes incomplete data on Thomson One Banker. Further two reasons were identified for incomplete data on Thomson One Banker. (1) The ownership section of the database often provides information on the ordinary shares only. Moreover, when firms issue more than one type of shares, they sometimes choose not to list the other type. If the unlisted shares are issued to the general public, for instance either the ordinary or preferred shares, then Thomson One does not disclose information on the unlisted shares. (2) Thomson One Banker database provides information for firms under their current name only disregarding information under the previous name.

[123] Data are available at www.euklems.net (last accessed on 4 November 2012).

vector of nine industry dummies based on the Fama and French 10 industry portfolio classification[124]. *Year* is a set of nine year dummies for 2001 to 2009.

Logit regression provides the conditional probability of an observation belonging to a certain class, given the values of the explanatory variables (covariates) for that observation[125]. The model is based on the cumulative probability function and does not require the multivariate normality of the covariates. The method of estimating the model parameters is called maximum likelihood (Hosmer and Lemeshow 1989; Kleinbaum *et al.* 1998). Given that the coefficients generated by logit regressions are not as informative as those generated by linear regressions[126], marginal effects are reported and used for analysis. Marginal effects provide a good approximation to the amount of change in the dependent variable produced by a one unit change in an independent variable (Long and Freese 2006).

4.2.3 Definitions of the variables

In the estimated model in the previous section, the dependent variable is a dichotomous variable which is equal to one, if the successor is a member of the controlling family or the incumbent CEO is re-appointed, and zero if the new CEO is a nonfamily successor. The five hypothesized determinants of the CEO successor and the control variables are defined as follows.

Family power

Family power is defined using three different measures: family control, family ownership and family wedge. Family control is measured as the votes held by the family shareholders plus any additional voting control resulting from pyramidal ownership (measured by the weakest link in the chain of control as explained below)

[124] Available at http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_10_ind_port.html (last accessed on 5 December 2010).

[125] An alternative to the logit regression would be the probit regression. While logit uses the natural log of the odds ratio of the dependent variable, the probit function is the inverse of the standard normal cumulative distribution function. In practice, however, the probit regressions come to similar conclusions.

[126] The regression coefficients in OLS are interpreted as the change in the expected value of the dependent variable, Y, associated with a one unit increase in an independent variable, with the other independent variables held constant. Whereas in a logit regression, a coefficient assigned to an independent variable is interpreted as the change in the logit (log odds that Y=1), for a one unit increase in the independent variable with the other independent variables held constant (Pohlman and Leitner 2003). Meaning, the logit coefficients measure changes in the log odds that the dependent variable is equal to one. The logit coefficients, hence, are not very informative and instead marginal effects are used.

expressed as a percentage of total votes outstanding. This study follows the methodology used in the existing literature to identify the votes controlled by the family shareholders. The controlling shareholder's cash-flow rights and control rights may differ not only because of dual class shares but also because of indirect ownership through one or more intermediate firms that the shareholder also controls. This is termed as a control chain (La Porta *et al.* 1999; Villalonga and Amit 2009). In such cases, the cash-flow rights are the product of the ownership stakes along the control chain and the voting rights are measured as the 'weakest link' or the lower percentage in the control chain. Villalonga and Amit (2009) provide the following example of a sample firm B controlled by a family through the family's ownership stake in an intermediate firm A. Firm A has one class of shares, but firm B has two classes with different voting rights. The family owns 80% of all shares and votes outstanding in firm A. Firm A owns 40% of all shares outstanding and has 60% of the votes in firm B. The family's cash-flow rights in total are then the product of its ownership in firm A (80%) and firm A's ownership in firm B (40%), i.e. 32%. The family's total control rights are measured by the 'weakest link' in the control chain (i.e. the least of the two voting stakes 80% and 60%), which is 60%.

Family ownership is defined as the number of shares of all classes held by the family as a percentage of total shares outstanding. The numerator includes all shares held by family representatives (including co-trustees of the family). Finally, family wedge is calculated as the difference between family control and family ownership. This variable captures the difference between the control rights and the cash flow rights and measures the family's incentives to extract private benefits of control from their firm at the expense of the minority shareholders.

Family generation

Family generation measures the generation of the family CEO relative to the generation of the founder, the latter being the first generation. It is a dummy variable that equals one if the departing CEO is in the second or higher generation and zero if the incumbent is the founder of the firm or of the founder's generation. An incumbent CEO is considered to be from the founder's generation if he/she is a sibling, cousin or spouse of the founder.

Board independence

Board independence is defined using three different measures: reported board independence, adjusted (or *de facto*) board independence and the difference in board independence. These variables are defined in the same way as in Chapter 3, i.e. reported board independence is the percentage of non-executive directors on the board[127], adjusted board independence is the percentage of directors independent of the controlling family on the board, and the difference in board independence is the difference between the first two measures. Independence of directors from the controlling family is determined using the six criteria proposed in Chapter 3, whereby the independence of a director is violated if he/she (1) is related by blood or marriage to the controlling family; (2) has a tenure of at least nine years with the firm; (3) was appointed to the board by the controlling family; (4) is an employee or a director of another firm controlled by the same family; (5) sits on other boards together with the family directors; or (6) is a former employee of the firm.

Shareholder protection

Shareholder protection equals one, if the firm is listed on a US or UK stock exchange, in addition to its home exchange, and zero otherwise. As this dummy variable measures the improvement in shareholder protection via cross-listing on a US or UK stock exchange, it is always equal to zero for the UK firms.

Past performance

The two measures used for past performance are industry-adjusted return on equity (ROE) and cumulative abnormal returns (CARs). Industry-adjusted ROE is defined as earnings *after* interest and tax divided by total equity, i.e. the sum of the book values of common equity and preferred equity (if applicable) minus the ROE for the same industry and country. This measure has been used in previous succession studies (e.g. Chen *et al.* 2013). As an alternative to the industry-adjusted ROE, CARs are employed for various event windows as a measure of market based performance. The CARs are based on monthly data for the European Fama-French and Carhart (1997) four factor model, where month zero is the month of the succession announcement. Since the

[127] Employee representative are excluded from the German supervisory boards and the sum of the management and supervisory boards is considered the total board size.

purpose of CAR as an independent variable is to have a market measure for performance and not investigate the immediate stock market reaction to the succession announcement, the four factor model is employed instead of the market model (as the monthly data on the factors for the countries studied in this thesis are readily available). A brief explanation of the estimation of CARs using the four-factor model is provided next.

The event study methodology is used to estimate the abnormal returns using the Fama-French and Carhart (1997) four factor model (FFC4F). In the previous version of the model the authors predict that stock returns can be explained by three factors: market, book-to-market ratio, and size. Carhart (1997) adds a factor to the latter model, which improves the previous version by capturing momentum returns. Here we use the FFC4F, which is described as follows:

$$E(R_i) - R_f = \beta_i\left(E(R_m) - R_f\right) + s_i E(SMB) + h_i E(HML) + w_i E(WML)$$

where $E(R_i)$ is the expected stock return; R_f is the risk free rate; $E(R_m)$ is the expected return on the market portfolio; $E(SMB)$ denotes 'small minus big' (i.e. the difference between the returns on diversified portfolios of small and big stocks); $E(HML)$ denotes 'high book-to-market minus low book-to-market' (i.e. the difference between the returns on diversified portfolios of high book-to-market stocks and low book-to-market stocks), and $E(WML)$, the momentum factor proposed by Carhart, denotes 'winners minus losers' (i.e. the difference between the returns on diversified portfolios of the winners and losers of the past year). Factor loadings are denoted by β_i, s_i, h_i, and w_i. Data for the factors are retrieved from the Kenneth-French data library[128]. Given that the factors of the FFC4F are available monthly, monthly abnormal returns are calculated as follows:

$$AR_{i,t} = R_{i,t} - E(R_{i,t})$$

where $R_{i,t}$ is the actual monthly stock return and $E(R_{i,t})$ is the expected stock return for stock i in event period t. The CARs are calculated by summing the ARs over the event window $[t_1; t_2]$ for each succession, where t_1 is the first day of the event window and t_2

[128] http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html (last accessed on 26 June 2012).

is the last day of the same window. The two different windows used include [-12; -1] and [-6; -1], relative to 0, which is the month of the announcement. We use a two-year estimation window [-37; -13] for the four-factor model, calculated leaving a gap of one month between the end of the estimation window and the start of the longer event window. In this way, approximately a three-year observation period is defined (sum of the estimation and event windows). A longer pre-succession period could be chosen. Nevertheless, because a number of firms are in the first generation and some are recent IPOs, missing data are more serious in earlier years; hence, choosing a longer pre-succession period would result in an even smaller sample of firms[129].

Control variables

In line with existing literature on CEO successions several control variables are used to control for industry and firm characteristics. Similar to Anderson and Reeb (2003b), we control for growth opportunities, debt in the capital structure, and firm size for the following reasons. The controlling family may derive greater benefits from pursuing growth opportunities which may in-turn influence their successor choice (Anderson and Reeb 2003b). Assets growth and industry-adjusted market-to-book value are proxies for future growth. Higher assets growth and industry-adjusted market-to-book value suggest the higher likelihood of a family successor. Greater debt as well as dividend and interest payments should mitigate the free cash flow problem (Jensen 1986) and hence, reduce the private benefits the controlling family may extract from the firm. While larger firms are more likely to have a greater pool of executives within the firm to select a successor, such firms also have greater access to a pool of professional candidates outside the firm as well as outside the family. Having said that, given the greater scale and complexity of operations larger firms may be more inclined to look for a professional nonfamily successor (Smith and Amoako-Adu 1999), suggesting the need to control for firm size. Existing studies also finds that industry competition influences CEO turnover in that firms operating in more competitive industries replace incompetent or poorly performing CEOs, based on industry and peer evaluations, with

[129] Additionally, the sample in this study also includes re-appointments and the three-year period takes care of any potential overlap resulting from multiple re-appointments. This means that in order to prevent overlapping of pre-succession periods of two or more succession (or re-appointment) events in the same firm, this study would have to consider the shortest tenure amongst the three countries. As per corporate governance regulations, the UK has a three-year term for directors (as compared to five and six years in Germany and France, respectively) following which the CEO can be re-appointed.

more talented and experienced CEOs (DeFond and Park 1999; Parrino 1997). Similar to Chen *et al*. (2013), we use the Herfindahl index to proxy for the competitiveness of the firm's industry. The lower the Herfindahl index, the greater is the competition in the industry, reducing the likelihood of a family successor as greater competition is also likely to reduce the potential for the extraction of private benefits of control. The variables related to the discussed controls are listed and defined below, all of which are measured in the year prior to the year of the succession announcement.

- *Assets growth* is calculated as the percentage change in total assets from two years before the year of the succession to one year before the year of the succession announcement.
- *Industry-adjusted market-to-book value* is defined as the market value of the voting and non-voting shares divided by their book value minus the market-to-book value for the same industry and country[130].
- *Long-term debt to equity* is defined as the long-term debt measured as a percentage of book values of voting and non-voting shares.
- *Interest coverage* (which determines the firm's ability to generate enough earnings to pay interest on its outstanding debt) is a dummy variable that is equal to one if the interest coverage ratio calculated as earnings before interest and tax divided by interest expense is greater than two, and zero otherwise[131].
- *Dividend payout* is measured as the weighted dividend per share as a percentage of earnings per share, both measured in the year before the succession[132].
- *Firm size* is measured by the log of total assets.
- *Herfindahl index* is the sum of the market shares (EU-KLEMS 2012), i.e. a measure of the size of the firm in relation to the industry. The index is measured in the year before the succession announcement year, except for the years after 2006, where the index is based on the 2006 value. Indeed, the index is not available for the years following 2006. Nevertheless, there is very little variation in the

[130] The industry classification is based on the Fama and French 10 industries classification, which can be found at http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_10_ind_port.html (accessed 5 December 2010).
[131] Interest coverage of less than two is typically considered to be a sign that the firm faces severe financial needs and/or financial constraints (e.g. Goergen and Renneboog 2001).
[132] Weighted dividend per share is calculated as [DPS (on voting shares) * MV (for voting shares) + DPS (on non-voting shares) * MV (for non-voting shares)] / [MV (for voting shares) + MV (for non-voting shares)], where DPS is dividend per share and MV is market value (Data sourced from Datastream).

Herfindahl index across the years, which suggests that the lack of data after 2006 is not a major issue.

Finally, and also in line with earlier studies, this thesis attempts to control for CEO characteristics, in particular age and tenure (Smith and Amoako-Adu 1999; Chen *et al*. 2013). Due to the lack of variability and data availability, characteristics of gender and education have been excluded from the analysis[133]. Tenure of the incumbent CEO is defined as the number of years they have served as the CEO in the firm. If the incumbent CEO is the founder, then the age of the firm is considered to be their tenure at the announcement of the succession. Tenure of the successor is defined as the number of years they have been a director in the firm (wherever applicable). An analysis of the successor tenure is carried out to identify whether the successors, particularly those that are not family members, are indeed outsiders[134]. In cases of family member successors we are unable to accurately determine tenure[135]. Age represents the age of the incumbent CEO at the time of the succession announcement.

4.3 Univariate results

This section presents the univariate results for the determinants of the CEO successor choice based on the five hypotheses provided in Table 4.1. Section 4.3.1 discusses the descriptive statistics of our determinants, firm and CEO characteristics. The differences between the two succession groups (family-to-family and family-to-nonfamily) are discussed in section 4.3.2. Finally, section 4.3.3 presents the country differences for all the hypothesized factors.

[133] Data were collected relating to CEO gender and education. Out of the 283 successions, only four involved a female CEO. The data relating to education (university degree) proved to be difficult to obtain, being available for only 70 successions out of the 283. Hence, both variables have been excluded from the analysis.

[134] The criteria used to identify outsiders are similar to those applied to identify the directors that are independent of the controlling family.

[135] Given that many family members start working with their family's firm very early on they are often promoted to director at a young age. Whilst some continue to serve as directors, others leave the firm to pursue higher education or work experience with a different firm. Such detailed information is not available making it difficult to determine the years the successor has served as a director prior to their succession to CEO in these cases.

4.3.1 Descriptive statistics of the sample firms

Table 4.2 presents the distribution across time in Panel A, industries in Panel B, and countries in Panel C for a total of 283 succession announcements, of which 212 are family-to-family (including 168 re-appointments of the incumbent family CEO), with the remaining 71 being family-to-nonfamily. Panel A shows that the highest number of successions are observed in 2006, with the least in 2001. This trend is mainly driven by the limited data availability before 2002[136;137]. The 283 succession announcements in our sample took place in 231 firms. Of these firms, 82% (190 firms) had one succession announcement during the period of study. However, one firm has had five succession announcements; another, four; six firms had three, and 33 have had two during the period of study (results not tabulated)[138].

Panel B shows that the most represented industry in the sample is *Business Equipment* (computers, software, and electronic equipment). This is not surprising for family firms (Colombo *et al.* 2011), especially considering our definition of family firms[139], since most high-tech firms are initiated as a family firm[133] where the founder has majority control (Andres 2008)[140]. Successions involving a family successor as well as those involving a nonfamily CEO are fairly represented across all industry groups with the exceptions of the *Telephone and Television Transmission* and *Utilities* industries. The vast majority of firms operating in *Other* industries have successions involving family members, whereas the opposite is the case for *Utilities* industry.

[136] The reason why the least number of successions is observed for 2001 is mainly due to limited data availability before 2002 in Thomson One Banker. This is despite our efforts to supplement the data collection using various sources of information (see section 4.2.1). The loss of firm data is driven by France and Germany as the corporate governance codes of these two countries are more recent than those of the UK. The level of detail disclosed in annual reports, in terms of ownership and control data, improved significantly after 2001. For this reason, data availability in Thomson One Banker is limited before 2002.

[137] A twelve year sample period would be ideal considering the maximum tenures of directors in the three countries, with France having the longest period of six years. Using a twelve year sample would be useful to identify if a certain CEO is re-appointed several times (at least 3 times) if they were first appointed/re-appointed at the start of the sample period. Nevertheless, due to data availability and time constraints, we employ a ten year period.

[138] Most of these repeat successions are at least three years apart. However, there are six cases where the successions are two years apart, and one case where the successions are one year apart.

[139] In addition to the 25% control threshold, our definition of family firms is based on the family status of the CEO.

[140] Our sample includes 78 business equipment firms, in 72 of which the incumbent CEO is the founder. The average age of these 72 firms is less than 20 years.

Panel C of Table 4.2 shows that 48.4% of the succession announcements relate to French firms; 33.2% to German firms, and the remaining 18.4% to UK firms. Interestingly the succession announcements in all three countries are predominantly family-to-family rather than family-to-nonfamily. Having said this, there are small differences between the three countries with France having more than 80% as family-to-family successions, whereas both Germany and the UK have fewer such successions at 68%.

INSERT TABLE 4.2 ABOUT HERE

Table 4.3 provides descriptive statistics for our sample firms and incumbent CEO characteristics in Panel A, and the hypothesized determinants of the CEO successor choice in Panel B. The average market capitalisation of the firms is approximately €284 million, which suggests that the firms are relatively large. However, when compared to the average market capitalisation of €1.42 billion for all the firms listed on the three stock exchanges, it is evident that the sample firms in this thesis are actually very small. The high standard deviation of market capitalisation in our sample of firms, with a maximum of €5.3 billion and a minimum of €0.96 million, shows that we have a good representation of all firm sizes. The average assets growth in the year preceding the succession is 9.43% (median of 5.02%). Long-term debt to equity is low with an average of 26.21%. The average Herfindahl index is also low at 0.13, suggesting that the average firm operates in a highly competitive industry. The variability associated with this average value is again high with a maximum value of 0.78, which would suggest a near monopoly[141]. The average tenure with the firm for the incumbent CEO is approximately 20 years (median of exactly 19 years), with an average incumbent CEO age of 57 years (median 58 years). The age of the CEO successor is, on average (and median), about 50 years. The CEO characteristics, especially age of both incumbent and successor, are similar to those observed in Canadian family firms (Smith and Amoako-Adu 1999).

INSERT TABLE 4.3 ABOUT HERE

[141] This value is observed for a German firm, Stratec Biomedical AG.

Descriptive statistics of the five hypothesized determinants are reported in Panel B of Table 4.3. In terms of the three measures of family power, the average family control is 60.71%, which exceeds the average family ownership of 54.93%, resulting in a mean family wedge of 5.63%. The average percentage of adjusted board independence as shown in Chapter 3 is 24.01% (median of 25%, maximum of 77.79%, and minimum of 0%). These descriptive statistics are much lower than those for reported board independence at 55% which shows that, while the average firm reports a majority of independent directors on its board, when one adjusts for links with the controlling family this percentage drops dramatically (about 24%). The majority of firms in our sample are in their first generation and, in most cases (61%), the founder is still the incumbent CEO[142]. Only 11% of the firms are cross-listed in the US or the UK (considering this variable is equal to zero for all UK firms). Finally, the average industry-adjusted ROE and CARs for the year preceding the succession are -5.40% and 0.68%, respectively, with medians of 0.26% and 0.77%.

4.3.2 Comparison of the two succession groups

Table 4.4 compares family-to-family successions with family-to-nonfamily successions. This highlights significant differences between the two succession groups, both in terms of firm and CEO characteristics (Panel A), and hypothesized determinants (Panel B). Specifically, the results presented in Panel A indicate that firms in the family-to-family group have a significantly (at the 5% level) lower average market value (€201 million, compared to €534 million), although this is not the case for the median (€47 million, compared to €69 million). Total assets are also far lower for the family-to-family group for both the mean (€261 million, compared to €886 million) and median values (€69 million, compared to €106 million), significant at the 1% and 10% levels, respectively. In terms of CEO successor age, the nonfamily successors appear to be significantly (at the 10% level) younger than the family successors, however, this is believed to be due to the considerable number of re-appointments included in this study. To investigate this further the comparison was repeated with re-appointments excluded. This still revealed

[142] Assuming that one generation spans approximately 30 years, this finding suggests that many of the firms in our sample are relatively young. While the average firm age (not tabulated in Table 4.3) is 45 years, there are at least 26 firms that are older than 100 years, the oldest one Toye and Co. being 324 years (at the time of the succession announcement).

a significant difference (at the 1% level) in successor age between the two groups; however this was in the opposite direction with the family successors being younger[143]. The results presented in Panel B show that the family-to-nonfamily group is comprised of firms with family generations further removed from the founder, reflecting the fact that these firms are significantly older than firms in the family-to-family group. This finding suggests that older firms may be more willing to adopt a professional management approach. The latter inference is confirmed by the founder dummy in the family-to-family group having a greater percentage of firms with the founder as the incumbent CEO (significant at the 5% level). As observed in Chapter 3, there is no statistically significant difference between the two groups in terms of reported board independence. However, there is such a difference at the 1% level when we consider independence from the controlling family with our own measure of *de facto* board independence. As expected, we find that the family-to-nonfamily succession group has greater protection of shareholders (significant at the 5% level). This suggests that cross-listed French and German firms are more likely to appoint a nonfamily CEO. Overall, the univariate tests of differences in means and medians support Hypotheses 2 (family generation); 3 (board independence), and 4 (shareholder protection) shown in Table 4.1. Contrary to our expectations, there are no significant differences in terms of any of the three measures of family power, or for any of the two measures of past performance, between the family-to-family and family-to-nonfamily successions. This may be the result of pooling successions for the three countries, which we analyse further in the following section. However, so far, the univariate tests fail to support Hypotheses 1 (family power), and 5 (past performance).

INSERT TABLE 4.4 ABOUT HERE

4.3.3 Country differences

Since the univariate tests represented in Table 4.4 do not account for country differences, the sample is divided into French, German, and UK firms to perform a

[143] When re-appointments are excluded, the average successor age in the family-to-family group is 44 and the median age is 43. The t-value of the difference in means between the successor ages of the two groups is 3.03 (significant at the 1% level), and the z-value of the difference in medians is 3.75 (significant at the 1% level). This result is not included in Table 4.4 as we do not report descriptive statistics excluding re-appointments for the other variables. Re-appointments are considered part of the family-to-family successions.

comparison between the three countries for our hypothesized determinants. Table 4.5 reports the results of this country based classification. Panel A reports the values for family-to-family successions and Panel B reports the values for the family-to-nonfamily successions. All significant differences in this table are at the 5% level or better. As noted in Chapter 3, there are significant differences between the three countries in terms of control. Panel A suggests that, on average, France has the highest level of control at 66.55%, followed by Germany, 56.46%, and the UK, 49.17%. A similar pattern is observed in Panel B. These results are consistent with previous country studies (Barca and Becht 2001). Similarly, as already reported in the previous chapter, family-to-family successions in the UK have the lowest reported board independence compared to France and Germany. For family-to-nonfamily successions, both France and the UK have lower percentages of reported board independence than Germany. Different patterns emerge when adjusted board independence is considered. In Panel A we find that the (average and median) adjusted board independence is significantly lower in France than in both Germany and the UK. However, this is only found to be true for family-to-family successions as the respective mean and median differences are insignificant in Panel B.

In terms of shareholder protection, differences are only observed between France and Germany since this dummy variable equals zero for all UK firms. Panel A in Table 4.5 shows no difference between France and Germany, however, it is interesting to note (in Panel B) that the family-to-nonfamily successions in France have a significantly higher percentage of firms cross-listed on a US or UK exchange than their German counterparts. Concerning past performance, Panel A suggests that Germany has lower industry-adjusted ROE than the UK (in terms of both average and median values). Panel B shows that, for family-to-nonfamily successions, Germany has significantly lower industry-adjusted ROE than France (in terms of both average and median values). Overall, in Germany we find weaker performance compared to that in the other two countries. Nevertheless, when past performance is measured using CARs, the results for the family-to-family succession group are very different to those for the industry-adjusted ROE with results in Panel A showing that both the average and median CARs are significantly higher in Germany than in both France and the UK. However, this

seems to be the case only for family-to-family successions as the respective mean and median differences are insignificant in Panel B.

INSERT TABLE 4.5 ABOUT HERE

Overall, Tables 4.4 and 4.5 suggest that there are significant differences between firms represented by the family-to-family and family-to-nonfamily successions. The country of the firm also seems to matter in this context. As a result, in the multivariate analysis in the next section, the effects of country are first controlled for and then country dummies are interacted with the hypothesized determinants to explore cross-country differences amongst the determinants of the CEO successor choice.

4.4 Logistic regression analysis

This section reports the multivariate results. In section 4.4.1 we analyse the results of the logit regressions estimated using the model introduced in section 4.2.2 to test our five hypotheses. In section 4.4.2 we test our hypotheses by examining the country effects on the CEO successor choice.

4.4.1 Determinants of the CEO successor choice

Table 4.6 presents the results for the logit regressions which estimate the likelihood of appointing the CEO successor from the controlling family[144]. The dependent variable is set to one if the CEO successor is a member of the controlling family, or the incumbent family CEO is re-appointed, and is equal to zero otherwise. All of the six regressions in Table 4.6 include the five hypothesized determinants of CEO successor choice of family power (measured using family wedge), family generation, board independence, minority shareholder protection, and past performance[145]. Regressions (1), (2) and (3) in Table 4.6 measure performance by the industry-adjusted ROE whereas regressions (4), (5) and (6) measure it by the CARs in the [-12; -1] window. Board independence in the

[144] This includes re-appointments of the incumbent family CEO which are considered to be family-to-family successions. Logit regressions excluding re-appointments are carried out in the robustness analysis.

[145] It must be noted here that, as presented in section 4.2.2, the regressions in this chapter are not specified as a two-step model where successor origin could be conditioned on succession occurring in the first instance, as highlighted in Borokhovich *et al*. (1996). This is because succession occurring is one of the criterion in the sample filtration process described in section 4.2.1.

regressions is employed as follows: regressions (1) and (4) include reported board independence, regressions (2) and (5) include adjusted board independence, and regressions (3) and (6) include the reduction in board independence due to links with the controlling family (i.e. the difference between reported and adjusted board independence). All regressions in Table 4.6 also include the firm and CEO characteristics, the country dummies for France and Germany, as well as the industry dummies and the year dummies. The firm characteristics include industry-adjusted market-to-book value, long-term debt to equity, assets growth, interest coverage, dividend payout, the Herfindahl index, and firm size. These are measured in the year prior to the year of the succession announcement. The incumbent CEO characteristics include tenure and age. For each regression the coefficients and their standard errors (corrected for firm level clustering) are reported in the first column with their marginal effects reported in the second column. As stated earlier, the coefficients from the logit regressions are difficult to interpret and so marginal effects are calculated. The marginal effect in a logit regression performs a similar role to the slope coefficient in a linear regression (Naveen 2006). Meaning that, for continuous variables, it provides a good approximation to the amount of change in the probability of a family member's appointment that will result by a one-unit change in that variable (holding all other variables at their means). For dummy variables, the marginal effect is calculated for a change in that variable from 0 to 1 (Long and Freese 2006; Cameron and Trivedi 2009).

INSERT TABLE 4.6 ABOUT HERE

Regression (1) in Table 4.6 has a chi-square (χ^2) of 44.84 and is statistically significant at the 5% level. There is, therefore, evidence to reject the null hypothesis that coefficients on the explanatory variables are equal to zero and we conclude that information about the explanatory variables allows the regression to make better predictions of $P(Y=1)$[146]. The χ^2 for regression (2) is 64.32 and significant at the 1% level. The strength of statistical significance in this regression is contributed for by the adjusted board independence variable, which is shown to be a better measure of board independence in family firms as opposed to the conventional measure. The difference is

[146] The diagnostic tests for this regression indicate that the model meets all logistic regression assumptions.

more pronounced in regressions (4) and (5), using the reported and adjusted board independence, respectively, from which only the latter regression (with a χ^2 of 84.56) is statistically significant (at the 1% level). Both regressions (3) and (6) which use the reduction in board independence due to links with the controlling family, are also significant (both at the 1% level). These results reinforce our findings in Chapter 3 on the importance of adjusting board independence to account for links to the controlling family.

In Table 4.6, we find that the coefficient on family wedge is not significant for any of the six regressions. This suggests that family power does not have an impact on the likelihood of a family successor. In other words, a greater difference between the family voting power and share ownership does not necessarily lead to the appointment of a family member as the new CEO. These results do not support Hypothesis 1 in that greater family power increases the likelihood of a family successor. However, Smith and Amoako-Adu (1999) arrive at a similar conclusion with regards to family power[147]. In all six regressions family generation does not have a significant impact on the likelihood of appointing a family CEO either. This finding does not support previous evidence that generations of the family that succeed the founder tend to utilise a more professional form of senior management and that, therefore, the likelihood of appointing a family member drops with an increase in the family generation (Schein 1983; Dyer 1988; McConaughy and Phillips 1999). Hence, there is no support for Hypothesis 2 in that if the incumbent is the founder or from the same generation, it is more likely that the successor will be a family member.

Reported board independence is not significant in regressions (1) and (4). In contrast, the coefficient on the percentage of adjusted board independence in regressions (2) and (5) is significant, at the 1% level, and is negative. This suggests that a family member is less likely to be appointed as the CEO when the board is more independent from the controlling family. Similarly, the difference in board independence (between the latter two measures) is significant and positive, suggesting that directors that are not independent from the controlling family are likely to vote with the latter when it comes to succession decisions. This confirms Hypothesis 3 in that grater board independence

[147] They use the percentage of family members active in management as a proxy for family power.

increases the likelihood of a nonfamily successor. The marginal effect of the adjusted board independence in regression (2) leads to the conclusion that, if the percentage of directors independent from the controlling family increases by one standard deviation (holding all other explanatory variables constant), the likelihood of appointing a family successor decreases by 17.6%.

The corporate governance codes of France and the UK recommend that listed firms have at least one third of independent directors on their board. To investigate how the percentage of independent directors on a board influences the probability of a family member being appointed as CEO we examine our measure of *de facto* independence from its lowest observed value, 0%, and increase this incrementally to one third, 33%. All other variables are fixed at their sample means in each case. Our results show that when board independence is at its lowest value of 0% the probability of appointing a family CEO is 96.65%. When adjusted board independence equals one third the probability of appointing a family member as CEO drops to 73.86%. This is an improvement of approximately 23%. A similar analysis is performed to see the impact of increasing adjusted board independence from one third to the highest observed value of 77.78%. In this case, the probability of appointing a family member as CEO is only 11.3%. This latter result should be viewed with some caution, however, as the adjusted board independence variable ceases to be significant at this high level. This issue is discussed further in the ensuing paragraph. The results obtained at the different percentages of the adjusted board independence show strong evidence to support Hypothesis 3.

As mentioned in the preceding paragraph when adjusted board independence increases from 0 to 33%, there is an increase of 23% in the probability that a family member will not be appointed as CEO when compared to a board with no independent directors. When adjusted board independence is increased to two thirds, 66%, the probability of appointing a family CEO drops to 21%. This shows that increasing *de facto* independence increases the likelihood of a nonfamily member being appointed CEO. As mentioned previously, this holds true only up to a *de facto* independence of 66%, beyond which this value ceases to be significant and no further increase in the probability of appointing a nonfamily CEO is evident. In other words, the marginal

effects of the adjusted board independence variable for values greater than 66% are statistically insignificant (*p*-values > 0.11). These results are in agreement with previous work by Chen *et al.* (2010) who claim that the presence of independent directors is a good disciplinary mechanism in family firms up to a certain threshold of approximately 80%. The authors state that, beyond this level, having more independent directors can be costly and does not add any further value to the decision making quality of the board. In Chapter 3, we recommend the consideration of adjusting existing definitions on director independence to include connections to the controlling family, here we show that it is important to also consider the cost of appointing a greater number of truly independent directors in family firms.

Increased minority shareholder rights, via a cross-listing on a UK or US stock exchange, have a significantly negative impact (at the 10% level or better) in five of the six regressions. This provides support for Hypothesis 4. Regression (4) indicates that the predicted probability of appointing a family CEO for a family firm that is not cross-listed on a US or UK stock exchange is 26.3% greater than the equivalent probability of a family firm that is cross-listed on a US or UK stock exchange. Using cross-listing on a US or UK stock exchange as a proxy our results suggest that minority shareholder protection is a determinant of the choice of CEO successor with firms with better protection less likely to appoint a family CEO. These results support Hypothesis 4, and are in agreement with the findings of Stulz (1999); Reese and Weisbach (2001), and the bonding hypothesis of Coffee (1999). Additionally, cross-listing may also be a measure of these family firms' access to a broader pool of skilled potential successors thereby naturally increasing the quality of nonfamily successor candidates. In contrast to our finding, there is evidence that the Securities and Exchange Commission in the US (during the pre-Sarbanes Oxley Act of 2002) failed to reinforce US securities law for foreign firms cross-listed in the US (Siegel 2005). We argue that not only does the latter evidence apply to the period (primarily) prior to our study period, but our approach in testing the bonding hypothesis uses a direct *outcome* of this corporate governance mechanism: increasing the likelihood of replacing the incumbent family CEO with a nonfamily successor. That is, if cross-listing on a US or UK exchange actually results in increased shareholder protection, we should be able to observe specific outcomes that

are consistent with improved corporate governance, an approach similar to that of Lel and Miller (2008).

There is no support for Hypothesis 5 that past performance, measured by the industry-adjusted ROE or the CARs, has an impact on the likelihood of a family member succeeding the incumbent family CEO[148]. In terms of the control variables, regression (5) alone shows that interest coverage is significant at the 10% level. CEO age is significant at the 5% level or better in the first three regressions. The negative sign on the coefficient of CEO age suggests that firms with younger incumbent CEOs are more likely to appoint a family successor. This result is not surprising given the number of re-appointments. On exclusion of the re-appointments, the CEO age is no longer significant. This is reported in the robustness tests.

To sum up the results from Table 4.6, there is strong support that a family CEO successor is less likely to be appointed when the firm has a higher percentage of directors independent from the controlling family, confirming Hypothesis 3. The conventional reported board independence does not have any such impact, which supports further our argument that links to the controlling family should be accounted for to give a true measure of board independence. There is also support for Hypothesis 4 that greater minority shareholder protection, via a cross-listing on a US or UK stock market, reduces the likelihood of a family successor. However, there is no support for Hypothesis 1 on family power, Hypothesis 2 on family generation, or Hypothesis 5 on past performance. Overall the results support the conclusions drawn from the univariate analysis and those on board independence from the previous chapter. There is some evidence that a family CEO is more likely to be appointed in firms from France and Germany than the UK. A more detailed analysis of differences between the three countries is performed in the next section.

4.4.2 Country effects and interactions

In order to identify whether the five hypothesized determinants have a differential effect across the three countries, we test our hypotheses using interactions of each determinant

[148] Similar results are obtained when using ROE two years prior to the succession as well as when using the average of ROE over the two years prior to the year of the succession announcement.

with the country dummies for France, Germany and the UK. We estimate a total of nine regressions, three for each country, which are reported in Table 4.7. Each of the regressions contains the interaction terms[149] for one individual country in order to avoid multicollinearity. Regressions (1), (2) and (3) contain the interaction terms of the hypothesized determinants with the France country dummy; regressions (4), (5) and (6) contain similar interaction terms with the Germany country dummy, and regressions (7), (8) and (9) are the equivalent regressions using the UK country dummy. In these regressions board independence is employed as follows: regressions (1), (4) and (7) use reported board independence, regressions (2), (5) and (8) use adjusted board independence, and regressions (3), (6) and (9) use the difference between reported and adjusted board independence. Past performance is calculated by the industry-adjusted ROE in the regressions in Table 4.7, with the results for regressions measuring past performance by CARs reported in Table 4B.2 in Appendix B. The majority of the results of the latter regressions are qualitatively similar to the ones employing industry-adjusted ROE. As shareholder protection is a variable equalling to one, if the firm is listed on a US or UK stock exchange in addition to its home exchange, and zero otherwise, the interaction between shareholder protection and the UK country dummy is omitted from regressions (7), (8) and (9). Most of the UK firms in the sample (85%) have a family wedge equal to zero (meaning that family control is equal to family ownership). As a result of this there is not enough variability in the interaction term between family wedge and the UK country dummy (97% of the observations are equal to zero), so this interaction term is dropped from regressions (7), (8) and (9).

INSERT TABLE 4.7 ABOUT HERE

Table 4.7 shows some interesting results. To start with, the regressions in this table, similar to Table 4.6, show strong support for Hypothesis 3 on adjusted board independence. Statistical significance, however, is only observed for the adjusted board independence variable in regressions (2), (5) and (8), and not the interaction term for any of the three countries. This indicates that, while board independence is a significant factor in determining the choice of the CEO successor, there is no differential effect for

[149] These refer to the interactions between each of the five determinants and the respective country dummies, which equal to one if the firm experiencing the succession is established in that country and zero otherwise.

any of the three countries. Having said this, we do, nevertheless, find that the coefficient of the interaction between reported board independence and the UK country dummy is negative and significant at the 10% level. That is, the probability of appointing a family CEO is reduced by 0.6% (i.e. the marginal effect in Panel B) in the presence of conventionally independent directors when the firm is a UK family firm (keeping all other variables at their means). In France and Germany, reported board independence indeed does not have any influence on the CEO successor choice.

Table 4.7 also shows support for Hypothesis 4 regarding shareholder protection. The shareholder protection variable is not statistically significant in regressions (1), (2) and (3), however, the interaction term of shareholder protection with the country dummy France is significant in all three regressions (at the 1% level in regression (1), 5% in regression (2), and 10% in regression (3)). In contrast to this regressions (4), (5) and (6) show strong negative significance for the coefficients of shareholder protection (at the 5% level or better). Additionally, the coefficient of the interaction term between shareholder protection and the country dummy Germany are positive (significant at the 5% and 10% level in regressions (4) and (5), respectively). In regression (4), shareholder protection and the interaction between this variable and the country dummy Germany are opposite, but of approximately the same absolute value (i.e. marginal effects of 0.30 and 0.31) suggesting that shareholder protection does not matter in Germany as the two variables cancel each other out[150]. Overall, these results suggest that, better shareholder protection via cross-listing seems to apply more to French, but not to German, firms and French firms benefit from cross-listing on a US or a UK stock market. This is in line with the assertion by La Porta *et al*. (1997, 1998) that French law provides weaker shareholder protection than German law making cross-listing more beneficial for the French firms to protect the rights of their minority shareholders.

Table 4.7 also shows some significance for the family wedge. The family wedge, i.e. the percentage of control in excess of the percentage of ownership, seems to increase the likelihood of a family member becoming CEO for the French firms (regression (3)), but

[150] Similar inference can be made for regression (5).

it does not seem to matter for the German firms[151]. The explanation as to why the family wedge does not matter for the German firms is similar to the preceding one on the influence of shareholder protection. The coefficients on the interaction terms between family generation and the country dummy Germany in regression (6), and past performance and the country dummy Germany in regression (4), show some statistical significance at the 10% level. These results suggest some support for Hypotheses 2 (family generation) and 5 (past performance) in Germany but not in France or the UK[152].

In summary, while our previous results supporting Hypothesis 3 using adjusted board independence, and Hypothesis 4 on shareholder protection are upheld, the analysis in this section has uncovered differences across the three countries. French firms are the most likely to benefit through shareholder protection via cross-listing. Some new evidence on family power was identified with a greater wedge between family control and ownership increasing the likelihood that a family CEO will be appointed in French family firms, whilst decreasing it in German firms. There is some evidence that reported board independence matters in UK family firms in reducing the likelihood of a family successor. Finally we find some weak evidence in support of Hypothesis 2 on family generation and Hypothesis 5 on past performance in Germany, although the latter is only true using industry-adjusted ROE.

4.5 Robustness analysis

The purpose of this section is to investigate whether the results pertaining to our estimated model in section 4.2.2, presented in Table 4.6, are robust in their support (or lack of support) for the five hypotheses. In section 4.5.1 multinomial logit regression is used as an alternative estimation technique to the binomial regressions used in section

[151] Although Table 4.7 shows significant coefficients for the family wedge as well as for the interaction between family wedge and the country dummy Germany in regressions (4) and (6), analysis of the marginal effects suggests that the two variables cancel each other out (i.e. 0.01 and -0.01, respectively, in both regressions).

[152] Table 4.7 is an extension of Table 4.6, which already includes a country dummy for each country. Hence, after observing the effect of interacting each country dummy with the respective determinant (family power, family generation etc.) it was decided to exclude the country dummies in the regressions in Table 4.7. Nevertheless, as robustness check, regressions including and excluding these dummies were estimated and there was no change to the overall inference drawn from the current Table 4.7.

4.4. We perform an additional analysis of our results considering the reasons for departure of the incumbent CEO in comparison to re-appointments in section 4.5.2. Considering that past performance was not supported in Table 4.6, we perform an analysis of the best and worst performers based on the two past performance measures in section 4.5.3. Lastly, section 4.5.4 presents the results of the multivariate regressions in Table 4.6 only for successions that represent actual changes of the CEO.

4.5.1 Re-appointment of the incumbent CEO versus replacement

The multivariate regressions in sections 4.4 are based on binomial logit regressions whose dependent variable is set to one if the CEO successor is a member of the controlling family and zero otherwise. Since a large number of our sample consists of re-appointments, i.e. 168 out of the 283 succession announcements, here we verify the robustness of our results using a more detailed classification for the dependent variable. The successions are classified into three groups, namely re-appointments of the incumbent CEO (group one); changes in the CEO from one family member to another family member (group two), and changes in the CEO from a family member to a person not related to the family (group three).

The main difference between the multinomial and binomial logit regressions is that in the former the dependent variable has more than two groups, whereas the latter is restricted to two groups (or outcomes). Essentially the multinomial logit regression model estimates a separate binary logit for each pair of outcome categories. This is not the same as estimating a series of binary logits as each binary logit would be based on a different sample. A more detailed explanation of this can be found in Long and Freese (2006). The probability of a change in CEO from one family member to another, as compared to a re-appointment of the incumbent CEO; or the probability of a change in CEO from a family to nonfamily CEO as compared to a re-appointment of the incumbent CEO, is specified as follows:

$$Pr(y = m|x) = \frac{exp(x\beta_{m|b})}{\sum_{j=1}^{J} exp(x\beta_{j|b})} \quad \text{for } m = 1 \text{ to } J \text{ groups}$$

where β is a vector of regression coefficients; *b* is the base group, also referred to as the comparison group. Although the output from the multinomial logit regressions using different base groups appears to be quite different, the predicted probability of a particular outcome will be the same regardless of the base group, *b*, used.

As the groups are in no particular order of preference the unordered multinomial logit regression is used to test the robustness of the results (Aivazian *et al.* 2005). The equivalents of the regressions reported in Table 4.6 are run again, this time, using the multinomial dependent variable as discussed above and multinomial logit estimation technique. The results from estimating these regressions can be found in Table 4.8. Only the regressions measuring past performance by the industry-adjusted ROE are reported here. Regressions using CARs are presented in Table 4B.3 in Appendix B. For the first six regressions the base group is re-appointments of the incumbent CEO. Regressions (1), (2) and (3) compare the odds of a new family CEO being appointed in relation to this base group, and regressions (4), (5) and (6) compare the odds of the appointment of a nonfamily CEO to the base group. Regressions (7), (8) and (9) use the appointment of a new family CEO as the base group comparing the odds of a nonfamily CEO being appointed to the odds of this base group[153].

INSERT TABLE 4.8 ABOUT HERE

Similar to Table 4.6, these regressions show that there is little evidence in support of Hypothesis 1 that family power matters in terms of CEO successor choice. The same is seen to be the case for family generation (Hypothesis 2). In support of all the previous results in this chapter, our measure of adjusted board independence is negative and significant at the 1% level in regression (2) and positive and significant at the 1% level in regression (5). The reduction in board independence in regression (6) is also

[153] In Table 4.8 the coefficients for the firm and CEO characteristics as well as the intercept are not reported for the sake of brevity and to focus on the hypothesized determinants. However, these are included in the calculations.

significant at the 1% level, and negative as expected. These results provide further support for Hypothesis 3 on board independence. This is shown in regressions (5) and (6), which suggest that greater adjusted board independence increases the likelihood of a nonfamily CEO being appointed rather than the re-appointment of the incumbent CEO. In addition to this, the re-appointment of the incumbent CEO is also more likely than the appointment of another family member. Regressions (8) and (9) suggest that it is also more likely that greater adjusted board independence increases the likelihood of a nonfamily CEO rather than a new family successor, providing further support for Hypothesis 3. As found in our earlier results reported board independence has no effect.

There is also support for Hypothesis 4 on shareholder protection. Regressions (7) to (9) show that firms with a US or UK cross-listing are more likely to appoint a nonfamily CEO rather than another family CEO. Regressions (1), (2) and (3), however, suggest that it is more likely for firms to re-appoint the incumbent family CEO than appointing another family member in firms that are cross-listed on a US or UK exchange. There is still no support for Hypothesis 5 on past performance in any of the regressions[154].

4.5.2 The reason for CEO departures

Studies that have considered the impact of past firm performance on CEO appointments have also investigated the link between the origin of the CEO's successor and the reason for the incumbent CEO's departure. For example, Puffer and Weintrop (1995) argue that neither corporate performance, nor the composition of the board of directors, explains successor origin following the voluntary retirement of the incumbent CEO. The authors also suggest that the personal relationship between the retiring CEO and the designated successor may take precedence over organisational performance

[154] Further to this, it must be noted here that although we do not differentiate between inside and outside nonfamily CEOs in this thesis as per previous literature (e.g. Smith and Amoako-Adu 1999), we have carried out a similar robustness test. We find that out of the 71 nonfamily CEO successors, 34 are insiders (i.e. with employment tenure of more than one year with the firm) and 36 are outsiders (i.e. those that have tenure of less than one year or have been appointed for the first time to CEO). One CEOs date of first appointment is not known. Using a multinomial logit (the dependent variable being family CEO (1), inside nonfamily CEO (2), and outside nonfamily CEO (3)), we find that the support for adjusted board independence and shareholder protection is consistent. Nevertheless, for shareholder protection, it is more likely that when firms are cross-listed, there is a greater likelihood of an outsider being appointed as compared to an insider. However, adjusted board independence increases the likelihood of both inside and outside nonfamily CEO appointments (significant at the 1% level) compared to appointing a family CEO.

considerations. When the incumbent CEO is forced to leave, however, the authors find that past performance is likely to be the key determinant of the choice of successor.

The reason for succession is often difficult to ascertain as it is rare that announcements state the exact reason for dismissal (Dherment-Ferere and Renneboog 2000). Past studies have used different ways to address this issue such as by using the age of the incumbent CEO and/or the absence of a reason given for the departure as an indication of a forced dismissal (e.g. Dherment-Ferere and Renneboog 2000; Hillier and McColgan 2009). We follow a similar approach whereby the absence of a reason for departure and/or the age of the incumbent CEO being less than retirement age (in cases that do not state the departure being forced) indicate a forced dismissal. News that clearly states that the CEO was replaced; left due to policy disagreements; left due to differences in opinion, or some other equivalent reason are considered as forced departures as well.

Table 4.9 summarises the different reasons for CEO departure for our sample. The main reason, representing 25% of cases, for the departure of the incumbent family CEO is to take up the chair position of the board or another director position within the firm. Natural departures, which include deaths and retirement, represent approximately 6% of the 283 successions. Based on the retirement age used in the literature (Puffer and Weintrop 1995; Huson *et al.* 2001), and the average retirement age across the three countries in this study, we use 64 years[155] as the cut-off point to distinguish between planned retirement (CEO age of $\geq$ 64 years) and early retirement (CEO age of < 64 years). Forced departures represent more than 9% of the total 283 successions (~23% of the 115 successions, excluding re-appointments). Out of the 26 forced departures, four are family-to-family successions and 22 family-to-nonfamily successions.

INSERT TABLE 4.9 ABOUT HERE

Next, we re-classify our succession sample to distinguish between voluntary and forced departures based on the distribution presented in Table 4.9. A multinomial logit is

[155] Both 64 and 65 years have been used as the retirement age in the literature, however, we chose 64 as it is closest to the average (up to 2012) retirement age of men and women across the three countries.

estimated with the dependent variable equalling one if the incumbent CEO is re-appointed; two if there is a forced departure (regardless of whether the new CEO is a family member or not), and three for all other cases. The regressions (each using one of the three measures of board independence) are presented in Table 4.10. Given the small number of forced departures, these regressions do not include the CEO and firm characteristics.

INSERT TABLE 4.10 ABOUT HERE

Table 4.10 suggests that family power and family generation are contributing factors when forced departures are compared with re-appointments, presenting some support for Hypotheses 1 and 2. Specifically, all three regressions suggest that firms with a greater deviation between family control and ownership are less likely to force the incumbent family CEO to leave. However, the coefficients on family wedge are only significant at the 10% level. Further, we find that firms that are no longer in the first family generation are more likely to force the incumbent CEO to leave. Interestingly, it is also found that adjusted board independence is positive and significant at the 5% level (regression (2)). This suggests that it is more likely for the family CEO to be forced to depart than to be re-appointed when *de facto* independence is high. This further supports Hypothesis 3. However, shareholder protection does not have an impact on forced departures. Regression (2) suggests that it is less likely for the incumbent CEO to be forced to leave than to be re-appointed when past performance is good (in support of Hypothesis 5). However, the coefficient is significant at the 10% level only and we cannot find any such effect when performance is measured by the CARs.

4.5.3 Poor performance and the successor choice

As discussed in Chapter 2, among the factors triggering the succession event and the appointment of an outsider CEO, poor pre-succession performance has probably received the most attention (Helmich and Brown 1972; Boeker and Goodstein 1993; Datta and Guthrie 1994; Dherement-Ferere and Renneboog 2000). However, contrary to this, our results in Table 4.6 show evidence that performance is not a determinant of successor choice. Warner *et al.* (1988) examine the link between the probability of CEO turnover and past performance and find that, unless performance is extremely good or

bad, the logit models have no predictive ability. Therefore, we have carried out a robustness test using dummy variables for firms falling in the bottom 20% of performance, as measured by the industry-adjusted ROE and CARs in the [-12; -1] window, in order to see whether firms with the weakest performance influence the successor choice. The dummy equals one if the firm falls in the lowest 20% performers (for each performance measure) and zero otherwise.

Table 4.11 presents the logit regressions using the performance dummies. All six regressions are similar to those in Table 4.6 with the replacement of the performance measures by the performance dummies. In summary, past performance, even when considering firms with the weakest performance in the sample, does not appear to influence the choice of the CEO successor.

INSERT TABLE 4.11 ABOUT HERE

4.5.4 Actual changes in CEO (excluding re-appointments)

Whilst the sample of successions in this study includes re-appointments of the incumbent family CEO, existing studies on CEO successions typically exclude such observations. Therefore, a robustness test is carried out to exclude re-appointments from the sample and test whether the existing results are upheld. These results are presented in Table 4.12[156], which shows that indeed, greater board independence from the controlling family as well as a UK or US cross-listing reduces the likelihood of the successor being a family member.

INSERT TABLE 4.12 ABOUT HERE

The results in Table 4.12 show that our results which include re-appointments in the sample are robust. Hence, we are able to further justify our decision of retaining re-appointments as one option for powerful family shareholders at the time of the succession decision.

[156] Table 4.12 is similar to Table 4.6, but excludes re-appointments. Due to the drop in observations and issues of multicollinearity, the firm and CEO characteristics of interest coverage, dividend payout, the Herfindahl index, firm size, and CEO tenure are excluded.

4.6 Conclusion

In this chapter we analyse the determinants of the CEO successor choice in family firms in France, Germany and the UK by testing five hypotheses pertaining to: family power (H1), family generation (H2), board independence (H3), shareholder protection (H4), and past performance (H5). Although the univariate results showed differences between firms appointing a family or a nonfamily CEO successor, multivariate results from this fourth chapter consistently support only two of the five hypotheses related to board independence and shareholder protection as explained below.

We find strong support for the hypothesis (H3) that adjusted board independence reduces both the likelihood of the incumbent CEO being re-appointed and the likelihood of a family member being appointed as the new CEO. However, in line with our findings in Chapter 3, this impact of board independence on the succession decision is only evident when using our adjusted measure of *de facto* independence which accounts for links to the controlling family. This leads us to believe that conventionally defined, or reported, board independence is indeed biased and fails to provide minority shareholders with an accurate measure of board strength and quality. This result has important policy implications for regulators and best practice in corporate governance. There is also evidence that French firms that cross-list on a UK or US stock exchange are less likely to replace the incumbent family CEO with another family member (supporting H4). This is further confirmation of the bonding hypothesis advanced by Coffee (1999), whereby firms opt into a better corporate governance system via cross-listing to bond themselves against expropriating their minority shareholders.

We find weak support on family power (H1), i.e. the greater the wedge between family control and ownership, the more likely it is that a family CEO will be appointed in French family firms, but this is less so in German firms. Also, firms with a greater family wedge are less likely to force out their incumbent family CEO. Similarly, there is weak support on family generation (H2), i.e. the firms that are no longer in the first family generation are less likely to appoint a family successor (in Germany only), and more likely to force the incumbent family CEO to depart (as compared to their re-appointment).

This chapter has revealed that family controlled firms are less likely to change their CEOs. This is evidenced by the greater number of re-appointments of the incumbent family CEO, the lower number of forced departures, and past performance having no influence on the CEO successor choice. Based on this finding we presume that investors do not find the appointment of a family successor (or re-appointment of the incumbent CEO) unexpected and, hence, do not react to this news. However, the announcement of a nonfamily member as CEO is unexpected and, considering this to be the preferred choice of the minority shareholders, they react positively to the announcement. The next chapter examines this stock market reaction to the announcement of the CEO successor, with emphasis on the announcement of the appointment of a nonfamily CEO successor.

TABLES

Table 4.2: Distribution of the sample of successions by year, industry and country

This table reports distribution of the sampled 283 successions (137 French; 94 German, and 52 UK) in 231 firms by year (Panel A), industry (Panel B) and country (Panel C). The industry classification is based on the Fama and French 10-industry classification. All panels report the number of family-to-family and family-to-nonfamily successions (N) and the percentage of contribution to the total (%). Seven out of the 54 successions in "Other" industry in Panel B belong to successions in 5 firms providing lodging for the general public (code 7011), four are in the retail of motion picture films (code 7822) and three successions each are in the following industries: furnishing business services (code 7389), manufacturing wood millwork (code 2431) and operators of sports, amusement and recreation services (code 7999). The rest of the successions in the "Other" industry belong to 34 industries with only one or two successions each.

Panel A: Annual distribution of successions

Year	Family-to-family	Family-to-nonfamily	Total	
	N	N	N	%
2001	3	5	8	2.8
2002	17	10	27	9.6
2003	18	3	21	7.4
2004	19	4	23	8.1
2005	33	5	38	13.4
2006	31	9	40	14.1
2007	21	9	30	10.6
2008	33	5	38	13.5
2009	21	13	34	12.0
2010	16	8	24	8.5
Total	212	71	283	100

Panel B: Industry distribution of successions using Fama and French classification

Industry	Family-to-family		Family-to-nonfamily		Total	
	N	%	N	%	N	%
1. Consumer non-durables	23	10.8	12	16.9	35	12.4
2. Consumer durables	10	4.7	2	2.8	12	4.2
3. Manufacturing	31	14.6	14	19.7	45	15.9
4. Oil, gas, coal extraction and products	3	1.4	2	2.8	5	1.8
5. Business equipment	58	27.4	20	28.2	78	27.5
6. Telephone and television transmission	4	1.9	1	1.4	5	1.8
7. Wholesale, retail, and some services	27	12.7	5	7.0	32	11.3
8. Healthcare and medical equipment	8	3.8	3	4.2	11	3.9
9. Utilities	1	0.5	5	7.0	6	2.1
10. Other	47	22.2	7	9.9	54	19.1
Total	212	100	71	100	283	100

Panel C: Country distribution of successions

Country	Family-to-family		Family-to-nonfamily		Total	
	N	%	N	%	N	%
France	113	53.3	24	33.8	137	48.4
Germany	64	30.2	30	42.3	94	33.2
UK	35	16.5	17	23.9	52	18.4
Total	212	100	71	100	283	100

Table 4.3: Summary statistics for the 231 sample firms

This table provides summary statistics for the 231 firms included in the sample using the first succession only. Descriptive statistics on firm and CEO characteristics (Panel A) and on the hypothesized determinants (Panel B) are reported. Due to missing values the actual number of observations for some variables is smaller than 231. All variables except the CEO characteristics are measured in the year before the succession announcement year. The successor tenure is only available for nonfamily CEOs and is, therefore, omitted from this table. All the variables are defined as in Table 4B.1.

	Mean	Median	SD	P25	P75	Min	Max
Panel A: Firm and CEO characteristics							
Market value, million €	283.63	41.86	769.64	12.63	152.98	0.96	5,300
Total assets, million €	424.47	69.53	1,866	22.00	238.91	2.16	26,000
Assets growth, %	9.43	5.02	35.50	-4.97	14.91	-69.65	225.07
Industry-adjusted M/B	0.42	-0.22	0.98	-1.00	-0.28	-8.58	31.01
Long-term debt to equity, %	26.21	13.04	77.23	0.55	43.40	-701.24	434.14
Interest coverage	0.70	1.00	0.46	0.00	1.00	0.00	1.00
Dividend payout, %	25.16	19.38	25.99	0.00	43.86	0.00	97.09
Herfindahl index	0.13	0.10	0.14	0.04	0.13	0.01	0.78
Incumbent CEO characteristics							
Tenure	20.02	19.00	10.29	13.00	25.00	2.00	53.00
Age	56.79	58.00	10.03	49.00	64.00	34.00	80.00
Successor CEO characteristics							
Age	50.56	50.50	9.46	44.00	58.00	29.00	79.00
Panel B: Hypothesized determinants							
Family power							
Family control, %	60.71	61.01	15.86	50.50	70.87	25.12	99.36
Family ownership, %	54.93	55.00	15.21	44.30	65.79	17.67	99.36
Family wedge, %	5.63	0.00	9.15	0.00	10.76	-2.70	52.96
Family generation							
Family generation	0.32	0.00	0.47	0.00	0.00	0.00	1.00
Founder	0.61	1.00	0.49	0.00	0.00	0.00	1.00
Directors' independence							
Reported board independence, %	55.07	57.14	15.70	45.45	66.67	0.00	85.71
Adjusted board independence, %	24.01	25.00	20.04	0.00	40.00	0.00	77.79
Difference in board independence, %	30.21	28.54	22.32	12.50	50.00	0.00	83.33
Shareholder protection	0.11	0.00	0.31	0.00	0.00	0.00	1.00
Past performance							
Industry-adjusted ROE, %	-5.40	0.26	40.61	-8.53	10.10	-301.38	112.02
CAR [-12; -1], %	0.68	0.77	2.36	-1.30	2.68	-4.07	5.03

Table 4.4: Comparison of the characteristics of the 212 family-to-family and 71 family-to-nonfamily successions

This table reports the mean and median comparisons for the 212 family-to-family and 71 family-to-nonfamily successions for France, Germany and the UK. Differences across firm and CEO characteristics (Panel A) and the hypothesized determinants (Panel B) are reported. All variables except the CEO characteristics are measured in the year before the succession announcement year. All the variables are defined as in Table 4B.1. Differences in means are assessed using a *t*-test whereas differences in medians are tested using a *z*-test (Mann-Whitney U). [§] indicates that the variable is a dummy variable and the difference in this case is tested using a binomial test. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	Mean			Median		
	Family -to-family	Family -to-nonfamily	Differ-ences (t-test)	Family -to-family	Family -to-nonfamily	Differ-ences (z-test)
Panel A: Firm and CEO characteristics						
Market value, million €	200.71	534.16	-3.32**	46.89	68.69	-1.19
Total assets, million €	261.16	885.61	-2.68***	69.36	105.52	-1.67*
Assets growth, %	9.96	4.25	0.26	4.87	4.64	1.17
Industry-adjusted M/B	0.45	0.19	0.56	-0.22	-0.44	0.92
Long-term debt to equity, %	26.33	25.47	0.09	13.93	9.75	0.36
Interest coverage[§]	0.71	0.67	0.61			
Dividend payout, %	25.74	26.23	-0.13	21.95	21.16	0.14
Herfindahl index	0.13	0.15	-1.26	0.10	0.10	-0.70
Incumbent CEO characteristics						
Tenure	19.78	20.62	-0.51	19.00	19.50	-0.35
Age	55.55	57.87	-1.56	56.00	59.50	-1.45
Successor CEO characteristics						
Age	51.68	49.14	-1.77*	52.00	48.00	-1.46
Panel B: Hypothesized determinants						
Family power						
Family control, %	60.64	59.58	0.49	60.54	60.35	0.17
Family ownership, %	54.92	53.78	0.55	54.87	55.70	-0.28
Family wedge, %	5.78	5.42	0.29	0.00	0.00	1.00
Family generation						
Family generation[§]	0.31	0.44	-2.00**			
Founder[§]	0.65	0.49	2.36**			
Board independence						
Reported board independence, %	55.04	52.24	1.26	57.14	55.55	0.99
Adjusted board independence, %	19.52	36.16	-6.34***	20.00	38.46	-5.85***
Difference in board independence, %	33.99	16.80	5.92***	33.33	12.50	5.77***
Shareholder protection[§]	8.49	16.90	-1.99**			
Past performance						
Industry-adjusted ROE, %	-1.82	-8.58	-1.29	1.02	0.10	-0.10
CAR[-12;-1]	0.56	1.02	-1.16	0.50	1.77	-1.26

Table 4.5: Cross-country differences in succession characteristics

This table presents the mean and median comparisons between France, Germany and the UK. Panel A reports the results for the family-to-family successions, with Panel B reporting the results for the family-to-nonfamily successions. The table only reports descriptive statistics for the five hypothesized factors, i.e. family power, family generation, board independence, shareholder protection and past performance. All the variables are measured one year prior to the succession year. Differences in means are assessed using a t-test whereas differences in medians are tested using a z-test (Mann-Whitney U). [§] indicates that the variable is a dummy variable and the difference in this case is tested using a binomial test. All the differences are tested at the 5% level of significance and the numbers in superscript (1, 2 or 3) represents the number of the country with which a given country has a significant difference in means/ medians. For example, there is a significant difference at the 5% level in the means of the percentage of family wedge between country 1 (France) on the one side and country 2 (Germany) and country 3 (UK) on the other side, which is shown in the row "Family wedge, %" under country 1 as $8.09^{2,3}$, under country 2 as 3.41^{1} and under country 3 as 2.70^{1}. The descriptive statistics in Panel A are based on 113 observations for France, 64 observations for Germany and 35 observations for the UK; those in Panel B are based on 24 observations for France, 30 observations for Germany and 17 observations for the UK.

	France (1)		Germany (2)		UK (3)	
	Mean	Median	Mean	Median	Mean	Median
Panel A: Family-to-family						
Family power						
Family control, %	$66.55^{2,3}$	$66.73^{2,3}$	$56.46^{1,3}$	$55.63^{1,3}$	$49.17^{1,2}$	$50.43^{1,2}$
Family ownership, %	$58.59^{2,3}$	$57.73^{2,3}$	$53.05^{1,3}$	$54.27^{1,3}$	$46.48^{1,2}$	$44.50^{1,2}$
Family wedge, %	$8.09^{2,3}$	$9.20^{2,3}$	3.41^{1}	0.00^{1}	2.70^{1}	0.00^{1}
Family generation						
Family generation[§]	0.31		0.28		0.34	
Founder[§]	0.63		0.70		0.63	
Board independence						
Reported board independence, %	57.31^{3}	60.00^{3}	56.78^{3}	59.17^{3}	$44.60^{1,2}$	$40.00^{1,2}$
Adjusted board independence, %	$13.53^{2,3}$	$0.00^{2,3}$	27.79^{1}	27.27^{1}	23.75^{1}	25.00^{1}
Difference in board independence, %	$42.55^{2,3}$	$40.00^{2,3}$	$27.01^{1,3}$	22.22^{1}	$20.86^{1,2}$	20.00^{1}
Shareholder protection[§]	0.08		0.14		0.00	
Past performance						
Industry-adjusted ROE, %	5.11	10.24	4.60^{3}	7.56^{3}	18.90^{2}	13.61^{2}
CAR[-12;-1]	0.19^{2}	0.14^{2}	$1.48^{1,3}$	$1.70^{1,3}$	0.42^{2}	0.11^{2}
Panel B: Family-to-nonfamily						
Family power						
Family control, %	65.29^{3}	69.95^{3}	61.17^{3}	64.65^{3}	$48.72^{1,2}$	$50.07^{1,2}$
Family ownership, %	57.07^{3}	57.29^{3}	55.71^{3}	56.10^{3}	$45.75^{1,2}$	$47.62^{1,2}$
Family wedge, %	7.10	$5.59^{2,3}$	5.46	0.00^{1}	2.97	0.00^{1}

Table 4.5 continued

	France (1)		Germany (2)		UK (3)	
	Mean	Median	Mean	Median	Mean	Median
Panel B: Family-to-nonfamily						
Family generation						
Family generation[§]	0.46		0.43		0.41	
Founder[§]	0.50		0.47		0.53	
Board independence						
Reported board independence, %	44.40[2]	48.33[2]	61.66[1,3]	61.25[1,3]	46.87[2]	50.00[2]
Adjusted board independence, %	30.12	37.50	38.41	40.00	40.04	40.00
Difference in board independence, %	16.72[3]	11.12	23.17[3]	18.18[3]	6.82[1,2]	00.00[2]
Shareholder protection[§]	0.42[2]		0.07[1]		0.00	
Past performance						
Industry-adjusted ROE, %	12.50[2]	11.55[2]	-15.54[1]	6.21[1]	2.46	9.33
CAR[-12;-1]	1.41	2.12	1.14	2.00	0.20	-1.09

Table 4.6: Logit regressions of the determinants of the choice of the CEO successor

This table reports the results of the logit regressions for the hypothesized determinants of the CEO successor choice and the control variables. The dependent variable is a dichotomous variable which is one if the new CEO is a member of the controlling family, and zero otherwise. The hypothesized determinants are family wedge, family generation, reported and adjusted board independence, shareholder protection, and past performance (ROE or CAR). In regressions (1) and (4) board independence is measured using the conventional reported board independence whereas regression (2) and (5), (3) and (6) include adjusted board independence and the reduction in board independence. The cumulative abnormal returns CAR [-12;-1] are based on monthly data for the Fama and French (1993) and Carhart (1997) four factor model, where month 0 is the month of the succession announcement. All six models include the hypothesized determinants of the CEO successor choice and controls for both firm-specific and CEO specific characteristics, i.e., assets growth over the last year, industry-adjusted market-to-book value, long-term debt to equity, interest coverage, dividend payout, Herfindahl index, firm size, and incumbent CEO age. CEO tenure is not included in the regressions due to multicollinearity problems. All variables are as defined in Table 4B.1 and, with the exception of CEO characteristics, are measured in the year prior to the year of the succession. For each regression there are two columns with the first column reporting logit regression coefficients and standard errors in parentheses corrected for firm-level clustering, and the second column reporting the average marginal effects. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	(1)		**(2)**		**(3)**		**(4)**		**(5)**		**(6)**	
Independent variables	Coefficient (Std.Error)	Marginal effects	Coefficient (Std.Error)	Marginal effects	Coefficient (Std.Error)	Marginal effects	Coefficient (Std.Error)	Marginal effects	Coefficient (Std.Error)	Marginal effects	Coefficient (Std.Error)	Marginal effects
Family wedge	-0.024	-0.003	-0.021	-0.003	-0.022	-0.003	-0.044	-0.004	-0.036	-0.003	-0.042	-0.004
	(0.029)		(0.032)		(0.029)		(0.031)		(0.039)		(0.031)	
Founder generation	0.238	0.030	-0.026	-0.003	-0.006	-0.001	0.502	0.049	-0.061	-0.004	-0.441	-0.040
	(0.737)		(0.775)		(0.746)		(0.991)		(0.964)		(0.960)	
Reported board independence	0.011	0.001					-0.017	-0.002				
	(0.017)						(0.020)					
Adjusted board independence			-0.070***	-0.009					-0.086***	-0.006		
			(0.023)						(0.033)			
Difference in board independence					0.064***	0.007					0.054*	0.005
					(0.023)						(0.029)	
Shareholder protection	-1.299	-0.166	-1.715*	-0.209	-1.524*	-0.179	-2.706***	-0.263	-2.444**	-0.177	-2.421**	-0.220
	(0.836)		(0.895)		(0.870)		(1.004)		(1.187)		(1.047)	
Industry-adjusted ROE	0.008	0.001	0.012	0.002	0.010	0.001						
	(0.009)		(0.011)		(0.010)							
CAR [-12; -1]							0.263	0.026	0.611	0.044	0.469	0.043
							(0.278)		(0.505)		(0.373)	

Table 4.6 cont.

	(1)		(2)		(3)		(4)		(5)		(6)	
Assets growth	0.017	0.002	0.042	0.005	0.030	0.004	0.009	0.001	0.049	0.004	0.025	0.002
	(0.012)		(0.029)		(0.021)		(0.011)		(0.039)		(0.018)	
Industry-adjusted M/B	-0.001	-0.000	0.036	0.004	-0.045	-0.005	-0.003	-0.000	-0.118	-0.009	-0.182	-0.017
	(0.072)		(0.109)		(0.107)		(0.083)		(0.215)		(0.186)	
Long-term debt to	0.001	0.000	-0.002	-0.000	-0.004	-0.000	0.001	0.000	-0.003	-0.000	-0.006	-0.001
equity	(0.006)		(0.007)		(0.007)		(0.008)		(0.009)		(0.008)	
Interest coverage	-0.271	-0.035	-0.736	-0.090	-0.683	-0.080	-0.788	-0.077	-1.289*	-0.093	-0.953	-0.087
	(0.725)		(0.894)		(0.875)		(0.792)		(0.748)		(0.850)	
Dividend payout	0.005	0.001	0.010	0.001	0.018	0.002	0.004	0.001	0.015	0.001	0.016	0.001
	(0.010)		(0.011)		(0.014)		(0.013)		(0.016)		(0.016)	
Herfindahl index	-3.002	-0.383	-2.507	-0.305	-1.238	-0.145	-1.928	-0.187	-3.564	-0.257	-2.038	-0.185
	(2.571)		(3.072)		(3.641)		(2.292)		(4.654)		(3.830)	
Lnsize	-0.274	-0.035	0.123	0.015	0.006	0.001	0.181	0.018	0.484	0.035	0.379	0.035
	(0.215)		(0.220)		(0.233)		(0.262)		(0.322)		(0.271)	
Incumbent CEO age	-0.085***	-0.011	-0.078**	-0.009	-0.088***	-0.010	-0.045	-0.004	-0.028	-0.002	-0.036	-0.003
	(0.027)		(0.032)		(0.032)		(0.032)		(0.052)		(0.040)	
France	2.223*	0.284	1.539	0.188	1.178	0.138	2.446*	0.238	0.663	0.048	0.691	0.063
	(1.200)		(1.455)		(1.349)		(1.331)		(1.813)		(1.301)	
Germany	1.790*	0.229	1.858	0.226	0.785	0.092	2.058*	0.200	1.069	0.077	0.607	0.055
	(1.067)		(1.257)		(1.113)		(1.199)		(1.581)		(1.159)	
Intercept	8.967***		7.302*		5.661*		2.835		0.652		-1.231	
	(3.188)		(3.937)		(3.306)		(3.704)		(6.166)		(4.246)	
Year & Industry	Yes		Yes		Yes		Yes		Yes		Yes	
Number of Observations	159		139		138		128		119		118	
Wald Chi^2	44.837		64.317		47.853		34.442		84.559		49.459	
McFadden's pseudo R^2	0.307		0.406		0.389		0.316		0.465		0.397	
p-value	0.031		0.000		0.015		0.223		0.000		0.010	

Table 4.7: Logit regressions of the determinants of the choice of the CEO successor with country effects

This table reports the logit regression results for the hypothesized determinants of the CEO successor choice interacted with the country dummies. It highlights potential country differences as to the impact of the hypothesized determinants on the choice of the successor. Panel A reports the coefficients computed using logit regressions, while Panel B reports the marginal effects. We also control for firm and CEO characteristics. The dependent variable is a dichotomous variable which is one if the new CEO is a member of the controlling family, and zero otherwise. The hypothesized determinants are family wedge, family generation, reported and adjusted board independence, shareholder protection, and past performance (using ROE). Board independence is measured using reported board independence (in (1), (4), and (7)), adjusted board independence (in (2), (5), and (8)) and the difference in board independence (in (3), (6), and (9)). Regressions (1)-(3) contain the interaction terms for France whereas regressions (4)-(6) contain the interaction terms for Germany. Finally, regressions (7)-(9) are the equivalent regressions for the UK. As shareholder protection is a variable equal to one, if the firm is listed on a US or UK stock exchange in addition to its home exchange, and zero otherwise, the interaction between shareholder protection and UK country dummy is omitted from regressions (7)-(9). Also, the interaction variable between family power and the UK dummy variable is not included in regressions (7)-(9) as this variable is equal to zero for 85% of the observations. CEO tenure is not included due to multicollinearity problems. Standard errors are presented in parentheses corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: Logit coefficients	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
Family wedge	-0.021	-0.022	-0.052	0.079**	0.066*	0.082**	-0.017	-0.018	-0.014
	(0.030)	(0.032)	(0.037)	(0.039)	(0.040)	(0.039)	(0.030)	(0.030)	(0.026)
Family generation	-0.813	-1.108	-1.198	0.586	-0.052	0.054	0.175	-0.115	0.058
	(1.084)	(1.130)	(1.113)	(0.859)	(1.032)	(1.026)	(0.692)	(0.782)	(0.768)
Reported board independence	0.004			0.019			0.016		
	(0.019)			(0.019)			(0.018)		
Adjusted board independence		-0.068**			-0.069***			-0.067***	
		(0.032)			(0.024)			(0.024)	
Difference in board independence			0.062***			0.067**			0.073***
			(0.022)			(0.031)			(0.028)
Shareholder protection	1.099	0.278	-0.252	-2.244***	-3.203***	-2.832**	-1.179	-1.605*	-1.278
	(1.096)	(1.364)	(1.506)	(0.868)	(1.026)	(1.107)	(0.817)	(0.833)	(0.892)
Industry-adjusted ROE	0.017	0.018	0.020	-0.002	-0.003	-0.001	0.008	0.012	0.011
	(0.014)	(0.031)	(0.028)	(0.008)	(0.012)	(0.012)	(0.011)	(0.011)	(0.013)
Family wedge × France	0.059	0.061	0.113**						
	(0.053)	(0.048)	(0.054)						

Table 4.7 cont.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Family generation × France	1.481	1.249	1.290						
	(1.217)	(1.149)	(1.055)						
Reported board independence × France	0.017								
	(0.019)								
Adjusted board independence× France		0.009							
		(0.025)							
Difference in board independence× France			0.004						
			(0.034)						
Shareholder protection × France	-3.481***	-3.345**	-2.389*						
	(1.292)	(1.373)	(1.412)						
Industry-adjusted ROE × France	-0.030	-0.025	-0.028						
	(0.021)	(0.033)	(0.031)						
Family wedge × Germany				-0.090*	-0.079	-0.110*			
				(0.049)	(0.055)	(0.062)			
Family generation × Germany				-2.264	-1.963	-2.525*			
				(1.472)	(1.768)	(1.495)			
Reported independence × Germany				0.004					
				(0.014)					
Adjusted board independence × Germany					0.015				
					(0.022)				
Difference in board independence × Germany						0.013			
						(0.031)			
Shareholder protection × Germany				2.871*	2.858*	2.985			
				(1.408)	(1.690)	(1.900)			
Industry-adjusted ROE × Germany				0.028*	0.058	0.062			
				(0.016)	(0.040)	(0.042)			
Family generation × UK							0.448	0.200	0.304
							(1.389)	(2.075)	(1.228)
Reported board independence× UK							-0.046*		
							(0.024)		
Adjusted board independence × UK								-0.034	
								(0.044)	
Difference in board independence × UK									-0.053
									(0.050)

Table 4.7 cont.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Industry-adjusted ROE × UK							0.008	-0.004	-0.002
							(0.026)	(0.024)	(0.024)
Assets growth	0.008	0.030	0.022	0.006	0.031	0.017	0.018	0.037	0.031
	(0.010)	(0.019)	(0.016)	(0.008)	(0.022)	(0.014)	(0.011)	(0.025)	(0.021)
Industry-adjusted M/B	-0.088	-0.018	-0.107	-0.037	-0.004	-0.080	-0.000	0.057	-0.010
	(0.106)	(0.195)	(0.192)	(0.079)	(0.166)	(0.170)	(0.086)	(0.125)	(0.144)
Long-term debt to equity	0.003	0.000	-0.003	0.005	-0.002	-0.004	0.003	-0.002	-0.002
	(0.006)	(0.008)	(0.007)	(0.007)	(0.008)	(0.007)	(0.006)	(0.007)	(0.007)
Interest coverage	0.184	-0.160	-0.206	-0.067	-0.425	-0.514	-0.293	-0.595	-0.925
	(0.787)	(0.840)	(0.850)	(0.774)	(0.901)	(0.867)	(0.730)	(0.865)	(0.926)
Dividend payout	0.007	0.014	0.021	0.009	0.016	0.023*	0.005	0.012	0.019
	(0.010)	(0.012)	(0.013)	(0.011)	(0.012)	(0.013)	(0.010)	(0.012)	(0.015)
Herfindahl index	-3.596	-3.120	-1.200	-3.929*	-3.437	-1.893	-3.647	-2.280	-1.690
	(2.265)	(2.941)	(2.883)	(2.019)	(2.750)	(2.679)	(2.453)	(2.443)	(3.541)
Lnsize	-0.256	0.216	0.139	-0.163	0.367	0.185	-0.269	0.143	-0.019
	(0.216)	(0.229)	(0.251)	(0.229)	(0.266)	(0.272)	(0.217)	(0.213)	(0.254)
Incumbent CEO age	-0.090***	-0.088**	-0.089**	-0.095**	-0.081**	-0.091**	-0.083***	-0.080***	-0.079***
	(0.028)	(0.036)	(0.041)	(0.037)	(0.038)	(0.041)	(0.027)	(0.030)	(0.028)
Intercept	10.404***	7.296*	4.576	8.929***	5.304	4.147	10.528***	8.491**	6.360*
	(3.473)	(3.965)	(2.976)	(3.198)	(3.748)	(2.935)	(3.419)	(4.276)	(3.552)
Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	159	139	138	159	139	138	159	139	138
Wald Chi^2	70.345	73.644	80.375	64.205	79.473	84.235	46.483	66.850	46.898
McFadden's pseudo R^2	0.362	0.432	0.434	0.348	0.438	0.447	0.302	0.396	0.389
p-value	0.000	0.000	0.000	0.001	0.000	0.000	0.028	0.000	0.025
Panel B: Marginal effects									
Family wedge	-0.003	-0.003	-0.006	0.011	0.008	0.010	-0.002	-0.002	-0.002
Family generation	-0.104	-0.139	-0.141	0.077	-0.007	0.006	0.023	-0.014	0.007
Reported board independence	0.000			0.002			0.002		

Table 4.7 cont.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Adjusted board independence		-0.008			-0.009			-0.008	
Difference in board independence			0.007			0.008			0.009
Shareholder protection	0.141	0.035	-0.030	-0.297	-0.407	-0.328	-0.153	-0.200	-0.150
Industry-adjusted ROE	0.002	0.002	0.002						
Family wedge × France	0.008	0.008	0.013						
Family generation × France	0.189	0.156	0.152						
Reported board independence × France	0.002								
Adjusted board independence× France		0.001							
Difference in board independence× France			0.000						
Shareholder protection × France	-0.445	-0.419	-0.281						
Industry-adjusted ROE × France	-0.004	-0.003	-0.003						
Family wedge × Germany				-0.012	-0.010	-0.013			
Family generation × Germany				-0.299	-0.249	-0.292			
Reported board independence × Germany				0.001					
Adjusted board independence × Germany					0.002				
Difference in board independence × Germany						0.002			
Shareholder protection × Germany				0.309	0.363	0.345			
Industry-adjusted ROE × Germany				0.004	0.007	0.007			
Family generation × UK							0.058	0.058	0.058
Reported board independence× UK							-0.006		
Adjusted board independence × UK								-0.004	

Table 4.7 cont.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Difference in board independence × UK									-0.006
Industry-adjusted ROE × UK								-0.001	-0.000
Assets growth	0.001	0.004	0.003	0.001	0.004	0.002	0.002	0.005	0.004
Industry-adjusted M/B	-0.011	-0.002	-0.013	-0.005	-0.001	-0.009	-0.000	0.007	-0.001
Long-term debt to equity	0.000	0.000	-0.000	0.001	-0.000	-0.000	0.000	-0.000	-0.000
Interest coverage	0.024	-0.020	-0.024	-0.009	-0.054	-0.060	-0.038	-0.074	-0.109
Dividend payout	0.001	0.002	0.002	0.001	0.002	0.003	0.001	0.001	0.002
Herfindahl index	-0.460	-0.391	-0.141	-0.520	-0.436	-0.219	-0.473	-0.282	-0.199
Lnsize	0.033	0.027	0.016	-0.022	0.047	0.021	-0.035	0.018	-0.002
Incumbent CEO age	-0.011	-0.011	-0.010	-0.013	-0.010	-0.011	-0.011	-0.010	-0.009

Table 4.8: Robustness analysis – Multinomial logits

This table reports the multinomial logit regressions for the hypothesized determinants of the CEO successor choice and control variables using a more detailed classification of the dependent variable of CEO successor choice. Specifically, the dependent variable in regressions (1)-(9) is a categorical variable which is one if the CEO is re-appointed, two if the new CEO is a family member, and three if the new CEO is not related to the controlling family. We compare successions when there is a change in CEO with re-appointments (the base case) in regressions (1)-(6). We also compare changes in CEO from family-to-nonfamily to changes in CEO from family-to-family (the base case) in regressions (7), (8) and (9). The hypothesized determinants are family wedge, family generation, reported and adjusted board independence, shareholder protection, and past performance (measured using industry-adjusted ROE). There are 168 re-appointments in the sample, 44 successions where there is a change in CEO and the new CEO is a family member and 71 successions where the new CEO is not related to the controlling family. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed).

Independent Variables	New family CEO	New family CEO	New family CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO
	Compared to re-appointments						Compared to new family CEO		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Family wedge	0.041	0.116*	0.063	0.034	0.034	0.035	-0.008	-0.082	-0.027
	(0.033)	(0.062)	(0.042)	(0.030)	(0.039)	(0.034)	(0.037)	(0.062)	(0.042)
Family generation	0.110	0.921	0.059	-0.024	0.173	0.194	-0.134	-0.748	0.135
	(1.058)	(1.715)	(1.516)	(0.808)	(0.845)	(0.838)	(1.084)	(1.609)	(1.454)
Reported board independence	-0.018			-0.010			0.008		
	(0.033)			(0.018)			(0.037)		
Adjusted board independence		-0.104***			0.062***			0.166***	
		(0.038)			(0.023)			(0.044)	
Difference in board independence			0.029			-0.061***			-0.090**
			(0.036)			(0.023)			(0.041)
Shareholder protection	-4.391**	-4.705*	-2.856**	0.962	1.289	1.250	5.353***	5.995**	4.107***
	(1.778)	(2.565)	(1.390)	(0.772)	(0.883)	(0.857)	(1.911)	(2.747)	(1.564)
Industry-adjusted ROE	-0.004	-0.010	-0.000	-0.011	-0.012	-0.008	-0.006	-0.002	-0.008
	(0.017)	(0.019)	(0.025)	(0.009)	(0.011)	(0.010)	(0.017)	(0.021)	(0.025)
France	1.588	-0.320	-0.342	-2.105*	-1.418	-1.139	-3.693**	-1.097	-0.797
	(1.344)	(1.698)	(1.321)	(1.221)	(1.453)	(1.391)	(1.621)	(2.014)	(1.688)
Germany	1.664	2.816	1.479	-1.686	-1.623	-0.592	-3.350*	-4.440*	-2.071
	(1.721)	(2.388)	(1.795)	(1.097)	(1.272)	(1.147)	(2.005)	(2.680)	(2.011)

Table 4.8 cont.

	New family CEO	New family CEO	New family CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO
	Compared to re-appointments						Compared to new family CEO		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
Assets growth	0.012	-0.001	0.010	-0.017	-0.039	-0.028	-0.029	-0.038	-0.038
	(0.020)	(0.034)	(0.027)	(0.012)	(0.028)	(0.020)	(0.021)	(0.040)	(0.030)
Industry-adjusted M/B	-0.399**	-0.686	-0.421	-0.010	-0.047	0.027	0.388**	0.638	0.448
	(0.166)	(0.467)	(0.383)	(0.073)	(0.107)	(0.109)	(0.184)	(0.486)	(0.396)
Long-term debt to equity	-0.028***	-0.043***	-0.039**	-0.004	-0.000	0.002	0.024**	0.043***	0.041**
	(0.010)	(0.016)	(0.018)	(0.006)	(0.008)	(0.007)	(0.010)	(0.016)	(0.019)
Interest coverage	-0.856	-0.900	-0.788	0.234	0.650	0.338	1.089	1.550	1.126
	(1.217)	(1.809)	(1.971)	(0.818)	(1.038)	(0.967)	(1.233)	(1.789)	(1.786)
Dividend payout	-0.020	-0.002	-0.015	-0.008	-0.011	-0.019	0.013	-0.010	-0.004
	(0.022)	(0.027)	(0.029)	(0.010)	(0.011)	(0.013)	(0.022)	(0.028)	(0.030)
Herfindahl index	-0.498	-5.675	-2.306	2.650	2.501	1.383	3.148	8.175*	3.690
	(2.056)	(3.557)	(2.397)	(2.446)	(3.255)	(3.629)	(2.696)	(4.651)	(3.850)
Lnsize	0.519	0.786**	0.196	0.291	-0.067	-0.021	-0.229	-0.853**	-0.217
	(0.350)	(0.340)	(0.316)	(0.218)	(0.234)	(0.243)	(0.380)	(0.398)	(0.368)
Incumbent CEO age	0.228***	0.258***	0.261***	0.117***	0.103***	0.120***	-0.111*	-0.154*	-0.141
	(0.063)	(0.079)	(0.101)	(0.030)	(0.034)	(0.037)	(0.062)	(0.079)	(0.095)
Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	174	154	153	174	154	153	174	154	153
McFadden's pseudo R^2	0.433	0.516	0.491	0.433	0.516	0.491	0.433	0.516	0.491

Table 4.9: Robustness analysis – Reasons for the CEO successions

This table reports the number of CEO re-appointments, the number of CEO successions and the different reasons for the latter. The reasons were primarily identified with the help of the financial press covered by the LexisNexis database and corporate websites. The majority of successions in our sample are re-appointments of the incumbent CEO, followed by the appointment of the incumbent family CEO to the supervisory board or the chair position of the board. Natural departures include death of the incumbent CEO; planned retirement, when the CEO is above 64 years of age, and earlier retirement, when the CEO is less than 64 years old. Forced departures in this table are those departures for which we found articles/ news releases that indicate that the CEO was 'replaced', left following 'policy disagreements', left due to 'differences in opinion', or some other equivalent reason. If no reason was found and the incumbent CEO is below retirement age; did not depart naturally; get nominated to Chairman, or get re-appointed, the departure is considered forced. The last column of the table reports the median age of the CEO.

	Family-to-family	Family-to-nonfamily	% of total sample	Median CEO age
Natural departures	18	1	6.7	
Death/suicide	7	0	2.5	48.0
Planned retirement (CEO older than 64 years)	8	1	3.2	68.0
Early retirement (CEO younger than 64 years of age)	3	0	1.1	59.0
CEO becoming a chairman/move to a supervisory board	22	48	24.7	62.0
Forced departures	4	22	9.2	
Refusal to renew contract	1	6	2.5	56.0
Takeovers	0	1	0.4	49.0
Other professional commitments	0	5	1.8	62.0
Personal reasons	3	2	1.8	56.5
No reason	0	8	2.8	62.0
Total successions	44	71	40.6	62.0
Re-appointments	168	0	59.4	54.0
Total successions including re-appointments	212	71	100.0	57.0

Table 4.10: Robustness analysis – Logit regressions based on reason for departure

This table reports the multinomial logit regressions for the hypothesized determinants of the CEO successor choice based on the reason for departure of the incumbent. The dependent variable in the three regressions is a categorical variable which is one if the CEO is re-appointed; two if there is a forced departure (regardless of family links to the CEO), and three for other departures. All successions that did not result in a re-appointment of the incumbent CEO are considered as forced departures with the exclusion of natural departures and CEO becoming a chairman or moving to a supervisory board. Regressions (1)-(3) compare forced departures with re-appointments (the base case) for both family-to-family and family-to-nonfamily successions. The hypothesized determinants are family wedge, family generation, reported and adjusted board independence, shareholder protection, and industry-adjusted ROE. In these regressions we compare 26 forced departures with 168 re-appointments. Control variables are excluded in these regressions due to multicollinearity issues. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed).

	Forced departures compared to re-appointments		
	(1)	**(2)**	**(3)**
Family wedge	-0.071*	-0.088*	-0.096*
	(0.040)	(0.044)	(0.052)
Family generation	2.342***	3.052***	2.718**
	(0.834)	(1.060)	(1.117)
Reported board independence	0.001		
	(0.021)		
Adjusted board independence		0.046**	
		(0.020)	
Difference in board independence			-0.047*
			(0.024)
Shareholder protection	0.080	-1.129	-0.891
	(1.310)	(1.419)	(1.468)
Industry-adjusted ROE	-0.011	-0.016*	-0.013
	(0.008)	(0.008)	(0.009)
France	-1.305	-0.156	0.137
	(0.968)	(0.839)	(1.082)
Germany	-0.488	-0.092	0.690
	(0.747)	(0.811)	(0.937)
Year & Industry	Yes	Yes	Yes
Number of Observations	273	246	244
McFadden's pseudo R^2	0.222	0.258	0.248

Table 4.11: Robustness analysis – Logit regressions based on bottom 20% performers

This table reports the results of the logit regressions for the hypothesized determinants of the CEO successor choice and the control variables based on the bottom 20% performers by industry-adjusted ROE and CARs. This table is similar to Table 4.6 with the exception that it employs a dummy variable for past performance, which is equal to one if the firm belongs to the bottom 20% firms by performance and zero otherwise. The other hypothesized determinants are family wedge, family generation, reported and adjusted board independence, and shareholder protection. Controls for both firm-specific and CEO specific characteristics, i.e., assets growth over the last year, industry-adjusted market-to-book value, long-term debt to equity, interest coverage, dividend payout, Herfindahl index, firm size, and incumbent CEO age are also used. Standard errors are presented in parentheses corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	(1)	(2)	(3)	(4)	(5)	(6)
Family wedge	-0.023	-0.020	-0.021	-0.045	-0.039	-0.043
	(0.030)	(0.032)	(0.030)	(0.030)	(0.038)	(0.030)
Founder generation	0.223	-0.021	0.045	0.689	0.455	-0.101
	(0.759)	(0.780)	(0.779)	(0.957)	(0.821)	(0.869)
Reported board independence	0.011			-0.017		
	(0.017)			(0.020)		
Adjusted board independence		-0.072***			-0.086**	
		(0.022)			(0.035)	
Difference in board independence			0.065***			0.053**
			(0.022)			(0.026)
Shareholder protection	-1.273	-1.677*	-1.476*	-2.549**	-1.745	-1.829*
	(0.843)	(0.915)	(0.887)	(1.058)	(1.103)	(1.101)
Industry-adjusted ROE	-0.723	-0.847	-0.831			
	(1.325)	(1.663)	(1.928)			
CAR [-12; -1]				0.634	2.138	1.381
				(1.713)	(1.797)	(1.394)
Assets growth	0.019	0.046	0.033	0.008	0.059	0.026
	(0.013)	(0.028)	(0.020)	(0.012)	(0.048)	(0.022)
Industry-adjusted M/B	-0.011	0.057	-0.015	0.007	-0.115	-0.162
	(0.066)	(0.122)	(0.131)	(0.104)	(0.193)	(0.169)
Long-term debt to equity	0.000	-0.002	-0.004	0.002	-0.003	-0.004
	(0.006)	(0.007)	(0.008)	(0.008)	(0.008)	(0.009)
Interest coverage	-0.601	-1.078	-1.110	-0.694	-0.992	-0.593
	(1.341)	(1.503)	(1.972)	(0.782)	(0.822)	(0.849)
Dividend payout	0.007	0.013	0.020	0.003	0.021	0.020
	(0.010)	(0.011)	(0.013)	(0.012)	(0.015)	(0.015)
Herfindahl index	-3.283	-2.812	-1.616	-1.377	-2.679	-1.170
	(2.631)	(3.375)	(4.215)	(2.334)	(3.790)	(3.642)
Lnsize	-0.251	0.150	0.026	0.108	0.226	0.201
	(0.217)	(0.255)	(0.275)	(0.279)	(0.365)	(0.332)
Incumbent CEO age	-0.087***	-0.080**	-0.088***	-0.053	-0.067	-0.061
	(0.027)	(0.032)	(0.032)	(0.035)	(0.060)	(0.044)
France	2.160*	1.469	1.077	2.537*	1.412	0.874
	(1.156)	(1.387)	(1.288)	(1.297)	(2.064)	(1.334)
Germany	1.790*	1.843	0.755	2.187*	1.759	0.788
	(1.026)	(1.180)	(1.073)	(1.123)	(1.603)	(1.141)
Intercept	9.318***	7.722**	6.027*	5.115	6.717	3.196
	(3.219)	(3.866)	(3.242)	(3.993)	(6.714)	(4.643)
Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	159	139	138	128	119	118
Wald Chi^2	45.80	65.93	48.07	44.36	103.54	66.73
McFadden's pseudo R^2	0.307	0.405	0.400	0.312	0.464	0.393

Table 4.12: Robustness analysis – Logit regressions based on the actual changes in CEO

This table is similar to Table 4.6, but excludes re-appointments of the incumbent CEO. The dependent variable is a dichotomous variable which is one if the new CEO is a member of the controlling family and zero otherwise. The hypothesized determinants are family wedge, family generation, reported and adjusted board independence, shareholder protection, and past performance (as measured by the industry-adjusted ROE (regressions (1)-(6)) and CARs [-12; -1] (regressions (7)-(12)). Board independence is measured using the reported board independence, adjusted board independence and the difference in board independence. Family generation and shareholder protection are included in separate regressions because of multicollinearity problems. Family generation is included in regressions (1)-(3) and (7)-(9) whereas shareholder protection is included in regressions (4)-(6) and (10)-(12). The CARs are based on monthly data for the Fama and French (1993) and Carhart (1997) four factor model, where month 0 is the month of the succession announcement. The parameters of the four factor model are estimated over months -37 to -13. All twelve regressions include the hypothesized determinants of the CEO successor choice. In addition (these are not reported for the sake of brevity), they include an intercept, country dummies for France and Germany and some firm-specific and CEO specific characteristics, i.e., assets growth over the last year, industry-adjusted market-to-book value, long-term debt to equity and CEO age. Interest coverage, dividend payout, the Herfindahl index, firm size and CEO tenure are excluded from the regressions due to multicollinearity problems. All variables are as defined in Table 4B.1. Standard errors are reported in the parentheses. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
Family wedge	-0.011	-0.002	-0.004	-0.017	-0.009	-0.010	-0.011	0.008	0.001	-0.022	0.001	-0.008
	(0.033)	(0.036)	(0.038)	(0.034)	(0.037)	(0.037)	(0.034)	(0.036)	(0.036)	(0.035)	(0.037)	(0.037)
Family generation	0.220	0.092	0.285				0.444	0.724	0.527			
	(0.716)	(0.801)	(0.784)				(0.732)	(0.878)	(0.841)			
Reported board independence	0.033			0.026			0.033			0.029		
	(0.023)			(0.024)			(0.025)			(0.027)		
Adjusted board independence		-0.078***			-0.070***			-0.093***			-0.082***	
		(0.022)			(0.023)			(0.029)			(0.029)	
Difference in board independence			0.068***			0.061***			0.070***			0.062***
			(0.021)			(0.021)			(0.024)			(0.024)
Shareholder protection				-2.428**	-1.454	-1.488				-2.319**	-1.303	-1.560
				(0.992)	(1.182)	(1.146)				(1.058)	(1.225)	(1.175)
Industry-adjusted ROE	0.014	0.011	0.018	0.019	0.016	0.022						
	(0.021)	(0.025)	(0.025)	(0.023)	(0.025)	(0.025)						
CAR[-12,-1]							0.130	0.228	0.256	0.134	0.191	0.236
							(0.136)	(0.186)	(0.184)	(0.143)	(0.172)	(0.176)
Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	85	80	79	85	80	79	66	64	63	66	64	63
McFadden's pseudo R^2	0.295	0.413	0.407	0.361	0.428	0.424	0.248	0.400	0.367	0.308	0.406	0.385
Wald Chi^2	33.229	43.679	42.294	40.637	45.347	44.060	22.486	35.122	31.601	27.881	35.645	33.137

APPENDIX B

4B.1 Re-appointments: Legal and institutional framework for France, Germany and the UK

This section presents the legal and institutional framework pertaining to re-appointments or re-elections in France, Germany and the UK. The purpose of this section is to highlight the way re-appointments were selected to be part of our sample and that these re-appointments are as close as possible to genuine successions involving a change from the incumbent to a new CEO.

In France, directors are generally appointed for six years and/or their term of office shall be determined in the memorandum and articles of association (not exceeding six years). As per the French Commercial Code (Code de commerce), the directors shall be eligible for re-election unless otherwise specified in the memorandum and articles of association (Article L225-18). Exceptions to the appointment and re-election are permitted only when they are made in accordance with the conditions specified in Article L225-24 of the code.

Based on the above articles, we only consider those re-appointments (or re-elections) of the incumbent CEO which fulfil the legal conditions and have been approved through the formal procedure of appointment of a director, i.e. subject to majority vote at an annual general meeting (AGM). In France, we note that some of the re-appointments are after a period of two years. These re-appointments of the incumbent family CEO were the outcome of a majority vote at the AGM unlike the mandatory six-year renewal of term. An example of one such firm in our sample is Unibel SA. It is likely that incumbent family directors go through this process within the firms controlled by their families as a re-assurance to all shareholders of a fair election process.

In Germany, members of the management board (including the CEO) are generally appointed for five years. They can be removed by the supervisory board, but only for a ‘good reason’ (AktG section 84(3) ein wichtiger Grund). This includes a vote of no confidence by the shareholders. Re-appointment is permissible but requires a proposal from the Supervisory board (AktG section 84(1)) and a process of (re) electing the

director similar to their first appointment to the board. Such a process is not necessary if the re-appointment is before the end of the five-year period.

Based on the above articles from the German Companies Act, we only consider those re-appointments that have gone through the regular appointment process through the supervisory board, i.e. we consider those re-appointments that are genuine re-elections (Wiederwahl) rather than rubber-stamping extensions (Verlängerung) as indicated in the respective annual reports of the firms.

In the UK, all directors (executive and non-executive) are to be subject to re-appointment by the shareholders every three years and in some cases every year depending on the company articles (Companies Act 2006). In some firms, the AGM gives the shareholders the opportunity to vote on the re-appointment of directors. In some others, re-appointment is a renewal of the director's term simply approved by the board based on his/her appraisal. The shareholders may not be privy to the detail of the board's appraisal of individual directors but the Code does require the chairman to confirm to them that, following an appraisal, the performance of the director up for re-election 'continues to be effective and to demonstrate commitment to the role'. In fact, the board is required to tell shareholders why it believes an individual director should be re-elected, particularly in the case of the CEO (see the UK Corporate Governance Code 2010-2012).

Hence, similar to France and Germany, for the UK, we only consider those re-appointments as genuine successions which go through the formal voting process at an AGM and are explicitly stated as such in the respective annual report.

In addition to considering those re-appointments that are voted for at an AGM, for all three countries, we also take into account publication of the related re-appointment in a reliable news source as well as the AGM agenda presented in the annual report of the firms. The stringency observed in considering only re-appointments that genuinely represent succession events is reflected in our results. We find that although the maximum office term for directors in the UK is half that for French directors, there are a

greater number of re-appointments that we classify as succession events in France as compared to the UK.

Table 4B.1: Definitions of variables (used in the tables)

This table presents definitions of the variables used in the tables in this chapter. Year t refers to the year of the succession announcement.

Variable	Definition
Family control	Votes held by the family shareholders plus any additional votes resulting from pyramidal ownership (measured by the weakest link in the chain of control) expressed as a percentage of votes outstanding in year t-1, i.e. the year before the year of the succession announcement. (Source: Osiris, Thomson One Banker, Hoppenstedt Aktienführer Guides, Annual reports and own calculations)
Family ownership	The number of shares of all classes held by the family as a percentage of total shares outstanding in year t-1. The numerator includes all shares held by family representatives (e.g., co-trustees, and family designated directors). (Source: Osiris; Thomson One Banker, Hoppenstedt Aktienführer Guides and Annual reports)
Family wedge	Excess of family control over family ownership in year t-1. This variable captures the difference between the control rights and the cash flow rights and measures the family's incentives to extract private benefits of control from their firm, at the expense of the minority shareholders. (Sources: own calculations)
Family generation	Generation of the incumbent family CEO relative to the generation of the founder, the latter being the first generation. It is a dummy variable that equals one if the firm is in the second or a higher generation in year t-1, and zero otherwise. (Sources: Annual Reports, own calculation)
Founder	Refers to the person that founded and/or established the firm. It is a dummy variable that equals one if the founder is the incumbent CEO, and zero otherwise. Unlike the family generation variable, the founder, when equal to one, does not include a sibling or spouse of the founder who are from the same generation (Sources: Annual Reports)
Board size	Total number of directors on the board(s) of the firm in year t-1. The number includes all executive and non-executive directors for single-tier boards and all the member of both the management and supervisory boards for two-tier boards. Employee representatives of German firms are excluded. (Source: Annual reports and own calculation)
Reported board independence	The percentage of total non-executive directors on the board. (Sources: Annual reports, Firm Prospectus, Thomson One Banker and own calculations)
Adjusted board independence	A director is classified as being independent vis-à-vis the controlling family if he/ she does not meet any of the following six criteria: (1) the director is related by blood or marriage to the controlling family; (2) the director has a tenure of at least nine years with the firm; (3) the director is an employee or a director of another firm controlled by the same family; (4) the director was appointed to the board by the controlling family; (5) the director sits on other boards together with the family directors; and (6) the director is a former employee of the firm (and/or a subsidiary). Adjusted board independence is thus, the percentage of total *de facto* independent directors on the board. (Sources: Annual reports, Firm Prospectus, Thomson One Banker and own calculations)
Difference in board independence	The difference between reported and adjusted board independence (Sources: Own calculations)
Shareholder protection	A dummy variable that equals one, if the firm is listed on a US or UK stock exchange, in addition to its home exchange in year t-1, and zero otherwise. (Sources: Osiris)
Industry-adjusted return on equity (ROE)	Earnings after interest and tax as a percentage of equity (voting and non-voting shares) adjusted by respective industry return on equity value by country in the year t-1. (Sources: Datastream and own calculations)

Cumulative abnormal returns (CARs)	The cumulative abnormal returns are based on monthly data for the European Fama and French (1997) four factor model, where month 0 is the month of the succession announcement. The parameters of the four factor model are estimated over month -37 to month -13. (Sources: Datastream and own calculations)
Assets growth	The percentage change in total assets from year t-2 to year t-1. (Source: Datastream and own calculation)
Industry-adjusted M/B	Market value of voting and non-voting shares divided by the book value of these shares adjusted by respective industry market-to-book value by country in the year t-1. (Source: Datastream and own calculation)
Long-term debt to equity	Long-term debt measured as a percentage of voting and non-voting shares in year t-1. (Source: Datastream and own calculation)
Interest coverage	This is a dummy variable that is equal to one if interest coverage, calculated as earnings before interest and tax divided by interest expense, is greater than two in year t-1, and zero otherwise. (Source: Datastream and own calculation)
Dividend payout	Weighted dividend per share as a percentage of earnings per share, both measured in year t-1. Weighted dividend per share is calculated as [DPS (on voting shares) * MV (for voting shares) + DPS (on non-voting shares) * MV (for non-voting shares)] / [MV (for voting shares) + MV (for non-voting shares)], where DPS is dividend per share and MV stands for market value. (Source: Datastream and own calculation)
Herfindahl index	It is measured as $H = \sum_{i=1}^{N} S_i^2$, where S_i is the market share of firm i in industry sales (turnover) and N is the number of firms in the industry. H ranges from 1/N to one. A low index value indicates a competitive industry with no dominant players. The closer this is to one, the more concentrated the industry. H is measured in year t-1, except for successions in years 2007 to 2010 as the index is only available until the year 2006. (Source: EU-KLEMS)
Tenure	The number of years the individual has been a CEO in year t. (Source: Annual reports, Thomson One Banker and own calculation)
Incumbent CEO age	The age of the incumbent CEO in years, measured in year t. (Source: Annual reports, Thomson One Banker)
Successor age	The age of the CEO successor in years, measured in year t. (Source: Annual reports, Thomson One Banker)
Lnsize	The natural logarithm of total assets, measured in year t-1. (Source: Datastream)
Total assets	Total assets of the firm in year t-1. (Source: Datastream)
Market capitalization	Year-end market price multiplied by the number of total shares outstanding in year t-1. (Source: Datastream and own calculations)
France	Country dummy that is equal to one if the succession takes place in a French firm (i.e. the home/base country for this firm is France), and zero otherwise. (Source: Own calculations)
Germany	Country dummy that is equal to one if the succession takes place in a German firm (i.e. the home/base country for this firm is Germany), and zero otherwise. (Source: Own calculations)
UK	Country dummy that is equal to one if the succession takes place in a UK firm (i.e. the home/base country for this firm is the UK), and zero otherwise. (Source: Own calculations)
Industry dummies	These are based on the Fama and French 10 industry portfolio classification. The 10 industries are Consumer non-durables; Consumer durables; Manufacturing; Oil, gas and coal extraction and products; Business equipment; Telephone and television transmission; Wholesale, retail, and some services; Healthcare, medical equipment, and drugs; Utilities; and Other. See http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_10_ind_port.html for details on the SIC codes in each industry.

Table 4B.2: Logit regressions of the determinants of the choice of the CEO successor with country effects (using CARs)

This table reports the logit regression results for the hypothesized determinants of the CEO successor choice interacted with the country dummies. It highlights potential country differences as to the impact of the hypothesized determinants on the choice of the successor. Panel A reports the coefficients computed using logit regressions, while Panel B reports the marginal effects. We also control for firm and CEO characteristics. The dependent variable is a dichotomous variable which is one if the new CEO is a member of the controlling family, and zero otherwise. The hypothesized determinants are family wedge, family generation, reported and adjusted board independence, shareholder protection, and past performance (using CARs). Board independence is measured using reported board independence (in (1), (4), and (7)), adjusted board independence (in (2), (5), and (8)) and the difference in board independence (in (3), (6), and (9)). Regressions (1)-(3) contain the interaction terms for France whereas regressions (4)-(6) contain the interaction terms for Germany. Finally, regressions (7)-(9) are the equivalent regressions for the UK. As shareholder protection is a variable equal to one, if the firm is listed on a US or UK stock exchange in addition to its home exchange, and zero otherwise, the interaction between shareholder protection and UK country dummy is omitted from regressions (7)-(9). Also, the interaction variable between family power and the UK dummy variable is not included in regressions (7)-(9) as this variable is equal to zero for 85% of the observations. CEO tenure is not included due to multicollinearity problems. Standard errors are presented in parentheses corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: Logit coefficients	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
Family wedge	-0.038	-0.103	-0.091*	0.084	0.077	0.056	-0.037	-0.025	-0.042
	(0.037)	(0.066)	(0.051)	(0.060)	(0.060)	(0.068)	(0.030)	(0.044)	(0.028)
Family generation	-0.691	-1.972	-1.326	1.039	0.701	-0.072	0.571	1.041	-0.228
	(1.367)	(1.464)	(1.126)	(1.131)	(0.993)	(1.365)	(0.878)	(0.952)	(0.987)
Reported board independence	-0.025			-0.012			-0.010		
	(0.024)			(0.019)			(0.021)		
Adjusted board independence		-0.061			-0.106**			-0.108**	
		(0.046)			(0.052)			(0.044)	
Difference in board independence			0.066**			0.063			0.055
			(0.027)			(0.054)			(0.037)
Shareholder protection	0.122	-2.395	-1.470	-4.035***	-4.274**	-4.287***	-2.335**	-2.165*	-2.429**
	(1.433)	(1.741)	(2.504)	(1.377)	(1.673)	(1.663)	(0.983)	(1.228)	(1.046)
CAR [-12; -1]	0.407	0.983	0.614	0.219	0.431	0.496	0.275	0.862	0.492
	(0.319)	(0.668)	(0.424)	(0.355)	(0.372)	(0.338)	(0.269)	(0.556)	(0.417)
Family wedge × France	0.112	0.208**	0.166						
	(0.089)	(0.090)	(0.125)						

Table 4B.2 cont.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Family generation × France	3.588**	3.304**	2.368						
	(1.513)	(1.515)	(2.388)						
Reported board independence × France	-0.002								
	(0.022)								
Adjusted board independence× France		-0.068							
		(0.057)							
Difference in board independence× France			-0.022						
			(0.065)						
Shareholder protection × France	-5.074***	-2.425	-4.087**						
	(1.632)	(1.848)	(1.723)						
CAR [-12; -1] × France	-0.164	-0.437	-0.002						
	(0.317)	(0.457)	(0.341)						
Family wedge × Germany				-0.115	-0.106	-0.107			
				(0.075)	(0.094)	(0.083)			
Family generation × Germany				-2.130	-1.493	-1.118			
				(1.677)	(1.831)	(1.656)			
Reported independence × Germany				0.005					
				(0.022)					
Adjusted board independence × Germany					0.027				
					(0.046)				
Difference in board independence × Germany						-0.002			
						(0.053)			
Shareholder protection × Germany				3.919**	2.492	3.474**			
				(1.568)	(1.658)	(1.540)			
CAR [-12; -1] × Germany				0.170	0.364	0.126			
				(0.321)	(0.315)	(0.328)			
Family generation × UK							-0.970	-3.401	-0.930
							(1.904)	(2.229)	(1.654)
Reported board independence× UK							-0.019		
							(0.039)		
Adjusted board independence × UK								0.082	
								(0.052)	
Difference in board independence × UK									0.011
									(0.066)

Table 4B.2 cont.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CAR [-12; -1] × UK							-0.052	-0.019	-0.148
							(0.367)	(0.473)	(0.357)
Assets growth	0.009	0.060	0.021	0.006	0.055	0.018	0.009	0.057	0.026
	(0.011)	(0.054)	(0.017)	(0.009)	(0.047)	(0.012)	(0.010)	(0.044)	(0.021)
Industry-adjusted M/B	0.042	-0.095	-0.148	0.031	0.031	-0.132	-0.009	-0.051	-0.194
	(0.088)	(0.381)	(0.258)	(0.098)	(0.424)	(0.315)	(0.085)	(0.312)	(0.155)
Long-term debt to equity	0.002	-0.011	-0.013	0.003	-0.009	-0.010	0.003	0.004	-0.005
	(0.009)	(0.012)	(0.012)	(0.010)	(0.013)	(0.010)	(0.008)	(0.008)	(0.007)
Interest coverage	-0.598	-1.956	-0.794	-0.663	-1.639	-0.816	-0.686	-1.677**	-0.935
	(0.886)	(1.301)	(1.036)	(0.858)	(1.033)	(1.065)	(0.799)	(0.838)	(0.931)
Dividend payout	0.010	0.028	0.018	0.011	0.022	0.021	0.005	0.020	0.015
	(0.013)	(0.017)	(0.017)	(0.014)	(0.016)	(0.017)	(0.012)	(0.018)	(0.017)
Herfindahl index	-1.440	-1.059	-1.212	-1.771	0.594	-0.643	-3.106	-4.428	-2.506
	(2.647)	(5.984)	(3.655)	(2.440)	(5.821)	(3.910)	(2.412)	(3.698)	(3.389)
Lnsize	0.170	0.915**	0.598	0.269	0.704	0.476	0.160	0.396	0.373
	(0.258)	(0.448)	(0.476)	(0.302)	(0.454)	(0.343)	(0.258)	(0.353)	(0.267)
Incumbent CEO age	-0.091*	-0.023	-0.079	-0.061	-0.034	-0.045	-0.041	-0.026	-0.037
	(0.051)	(0.097)	(0.080)	(0.054)	(0.064)	(0.060)	(0.032)	(0.055)	(0.040)
Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	128	119	118	128	119	118	128	119	118
Wald Chi^2	81.465	104.05	84.744	74.556	131.44	91.604	37.351	91.905	72.681
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000
Panel B: Marginal effects									
Family wedge	-0.003	-0.005	-0.007	0.009	0.005	0.005	-0.004	-0.001	-0.004
Family generation	-0.055	-0.092	-0.099	0.107	0.042	-0.006	0.059	0.062	-0.020
Reported board independence	-0.002			-0.001			-0.001		

Table 4B.2 cont.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Adjusted board independence		-0.003			-0.006			-0.006	
Difference in board independence			0.005			0.005			0.005
Shareholder protection	0.010	-0.112	-0.109	-0.415	-0.259	-0.367	-0.241	-0.129	-0.212
CAR [-12; -1]	0.032	0.046	0.046	0.022	0.026	0.042	0.028	0.051	0.043
Family wedge × France	0.009	0.010	0.012						
Family generation × France	0.285	0.155	0.176						
Reported board independence × France	-0.000								
Adjusted board independence× France		-0.003							
Difference in board independence× France			-0.002						
Shareholder protection × France	-0.402	-0.113	-0.304						
CAR [-12; -1] × France	-0.013	-0.020	-0.000						
Family wedge × Germany				-0.012	-0.011	-0.012			
Family generation × Germany				-0.219	-0.090	-0.096			
Reported board independence × Germany				0.001					
Adjusted board independence × Germany					0.002				
Difference in board independence × Germany						-0.000			
Shareholder protection × Germany				0.403	0.151	0.297			
CAR [-12; -1] × Germany				0.017	0.022	0.011			
Family generation × UK							-0.100	-0.202	-0.081
Reported board independence× UK							-0.002		

Table 4B.2 cont.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Adjusted board independence × UK								0.005	
Difference in board independence × UK									0.001
CAR [-12; -1] × UK							-0.005	-0.001	-0.013
Assets growth	0.001	0.003	0.002	0.001	0.003	0.002	0.001	0.003	0.002
Industry-adjusted M/B	0.003	-0.004	-0.011	0.003	0.002	-0.011	-0.001	-0.003	-0.017
Long-term debt to equity	0.000	-0.001	-0.001	0.000	-0.001	-0.001	0.000	0.000	-0.000
Interest coverage	-0.047	-0.092	-0.059	-0.068	-0.099	-0.070	-0.071	-0.100	-0.082
Dividend payout	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001
Herfindahl index	-0.114	-0.050	-0.090	-0.182	0.036	-0.055	-0.320	-0.263	-0.219
Lnsize	0.014	0.043	0.045	0.028	0.043	0.041	0.017	0.024	0.033
Incumbent CEO age	-0.007	-0.001	-0.006	-0.006	-0.002	-0.004	-0.004	-0.002	-0.003

Table 4B.3: Robustness analysis – Multinomial logits (using CARs)

This table reports the multinomial logit regressions for the hypothesized determinants of the CEO successor choice and control variables using a more detailed classification of the dependent variable of CEO successor choice. Specifically, the dependent variable in regressions (1)-(9) is a categorical variable which is one if the CEO is re-appointed, two if the new CEO is a family member, and three if the new CEO is not related to the controlling family. We compare successions when there is a change in CEO with re-appointments (the base case) in regressions (1)-(6). We also compare changes in CEO from family-to-nonfamily to changes in CEO from family-to-family (the base case) in regressions (7), (8) and (9). The hypothesized determinants are family wedge, family generation, reported and adjusted board independence, shareholder protection, and past performance (measured using CARs in the [-12; -1] window). There are 168 re-appointments in the sample, 44 successions where there is a change in CEO and the new CEO is a family member and 71 successions where the new CEO is not related to the controlling family. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed).

Independent Variables	New family CEO	New family CEO	New family CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO
	Compared to re-appointments						Compared to new family CEO		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Family wedge	0.021	0.057	0.037	0.033	0.030	0.028	0.012	-0.027	-0.009
	(0.031)	(0.045)	(0.037)	(0.032)	(0.044)	(0.033)	(0.035)	(0.053)	(0.039)
Family generation	1.388	2.243**	1.796*	-0.600	-0.954	-0.375	-1.988*	-3.197**	-2.171**
	(0.924)	(1.142)	(1.046)	(0.953)	(0.886)	(0.797)	(1.116)	(1.298)	(1.077)
Reported board independence	-0.006			0.007			0.014		
	(0.021)			(0.020)			(0.027)		
Adjusted board independence		-0.046**			0.081**			0.127***	
		(0.023)			(0.032)			(0.037)	
Difference in board independence			0.017			-0.062**			-0.079**
			(0.017)			(0.028)			(0.032)
Shareholder protection	-1.561	-1.342	-1.110	1.184	0.523	0.630	2.745	1.865	1.739
	(1.627)	(1.988)	(1.738)	(1.054)	(1.134)	(0.933)	(1.770)	(2.076)	(1.707)
CAR [-12; -1]	0.412	0.519	0.625	0.062	-0.107	-0.033	-0.350	-0.626	-0.657
	(0.502)	(0.438)	(0.446)	(0.260)	(0.391)	(0.318)	(0.511)	(0.558)	(0.511)
France	1.858	0.842	0.788	-2.102	-0.955	-0.585	-3.960**	-1.797	-1.373
	(1.321)	(1.168)	(1.108)	(1.335)	(1.527)	(1.324)	(1.722)	(1.840)	(1.595)
Germany	2.143	1.776	1.667	-0.903	-0.009	0.675	-3.046*	-1.785	-0.993
	(1.372)	(1.280)	(1.192)	(1.112)	(1.166)	(0.999)	(1.656)	(1.660)	(1.432)

Table 4B.3 cont.

	New family CEO	New family CEO	New family CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO
	Compared to re-appointments						Compared to new family CEO		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
Assets growth	-0.004	0.004	0.001	-0.004	-0.041	-0.016	-0.000	-0.044	-0.017
	(0.019)	(0.023)	(0.022)	(0.009)	(0.035)	(0.017)	(0.018)	(0.038)	(0.025)
Industry-adjusted M/B	-0.324	-0.223	-0.206	-0.054	-0.119	-0.012	0.269	0.104	0.194
	(0.273)	(0.223)	(0.216)	(0.083)	(0.223)	(0.137)	(0.278)	(0.303)	(0.242)
Long-term debt to equity	-0.004	-0.006	-0.004	-0.001	0.000	0.003	0.003	0.006	0.007
	(0.009)	(0.009)	(0.010)	(0.003)	(0.004)	(0.004)	(0.009)	(0.010)	(0.010)
Interest coverage	0.269	-0.505	-0.319	0.220	0.621	-0.108	-0.048	1.126	0.211
	(0.983)	(1.064)	(1.039)	(0.616)	(0.819)	(0.759)	(0.997)	(1.138)	(1.020)
Dividend payout	-0.011	0.009	0.004	-0.008	-0.015	-0.018	0.003	-0.024	-0.023
	(0.018)	(0.017)	(0.019)	(0.012)	(0.015)	(0.015)	(0.018)	(0.020)	(0.023)
Lnsize	-0.103	0.072	-0.066	0.169	0.137	0.144	0.273	0.065	0.210
	(0.299)	(0.273)	(0.263)	(0.343)	(0.473)	(0.378)	(0.446)	(0.533)	(0.419)
Incumbent CEO age	0.193***	0.164***	0.176***	0.115***	0.125**	0.124***	-0.078	-0.039	-0.052
	(0.047)	(0.053)	(0.049)	(0.038)	(0.058)	(0.041)	(0.054)	(0.068)	(0.054)
Year & Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	174	154	153	167	157	156	167	157	156
McFadden's pseudo R^2	0.408	0.487	0.453	0.408	0.487	0.453	0.408	0.487	0.453

Table 4B.4: Pearson correlation matrix

This table reports the Pearson correlation coefficients for the independent variables, with p-values reported in parentheses. The variables are as described in Table 4B.1.

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Family control	**(1)**	1.000																				
Family ownership	**(2)**	0.83	1.000																			
		(0.000)																				
Family wedge	**(3)**	0.372	-0.208	1.000																		
		(0.000)	(0.000)																			
Family generation	**(4)**	0.153	0.006	0.259	1.000																	
		(0.010)	(0.922)	(0.000)																		
Reported board Indep.	**(5)**	0.072	0.066	0.017	-0.058	1.000																
		(0.232)	(0.276)	(0.775)	(0.333)																	
Adjusted board Indep.	**(6)**	-0.151	-0.117	-0.068	0.027	0.277	1.000															
		(0.017)	(0.064)	(0.284)	(0.673)	(0.000)																
Diff. in board Indep.	**(7)**	0.211	0.163	0.097	-0.069	0.475	-0.714	1.000														
		(0.001)	(0.010)	(0.129)	(0.281)	(0.000)	(0.000)															
Shareholder protection	**(8)**	0.009	0.019	-0.015	0.141	-0.075	0.109	-0.092	1.000													
		(0.875)	(0.753)	(0.805)	(0.017)	(0.210)	(0.084)	(0.149)														
Ind.-adj ROE	**(9)**	-0.001	-0.03	0.049	0.033	0.059	0.115	-0.037	0.082	1.000												
		(0.992)	(0.625)	(0.413)	(0.581)	(0.332)	(0.074)	(0.566)	(0.176)													
CAR [-12; -1]	**(10)**	-0.039	-0.014	-0.043	-0.003	-0.024	0.000	-0.026	0.089	0.032	1.000											
		(0.572)	(0.835)	(0.530)	(0.966)	(0.728)	(0.997)	(0.718)	(0.196)	(0.642)												
Assets growth	**(11)**	0.03	0.031	0.001	-0.084	0.082	-0.003	0.115	0.057	0.347	-0.056	1.000										
		(0.615)	(0.603)	(0.989)	(0.164)	(0.181)	(0.961)	(0.073)	(0.344)	(0.000)	(0.416)											
Industry-adjusted M/B	**(12)**	-0.058	-0.065	0.010	-0.120	0.091	0.041	0.039	0.047	-0.36	-0.116	0.014	1.000									
		(0.334)	(0.280)	(0.871)	(0.046)	(0.134)	(0.519)	(0.549)	(0.437)	(0.000)	(0.093)	(0.816)										
Long-term debt to eq.	**(13)**	0.124	0.134	-0.011	0.08	0.069	0.047	0.012	0.059	0.368	0.038	0.105	-0.269	1.000								
		(0.040)	(0.026)	(0.859)	(0.186)	(0.257)	(0.464)	(0.849)	(0.327)	(0.000)	(0.585)	(0.083)	(0.000)									
Interest coverage	**(14)**	0.088	0.024	0.116	0.138	-0.024	0.041	-0.012	0.128	0.474	-0.05	0.315	-0.009	-0.029	1.000							
		(0.153)	(0.698)	(0.059)	(0.024)	(0.702)	(0.533)	(0.857)	(0.036)	(0.000)	(0.467)	(0.000)	(0.883)	(0.637)								
Dividend payout	**(15)**	0.032	0.051	-0.031	0.074	-0.028	0.059	-0.07	0.037	0.284	-0.11	0.101	0.001	0.082	0.376	1.000						
		(0.607)	(0.416)	(0.625)	(0.235)	(0.657)	(0.374)	(0.297)	(0.557)	(0.000)	(0.124)	(0.110)	(0.990)	(0.193)	(0.000)							
Herfindahl index	**(16)**	-0.086	-0.102	0.016	0.13	-0.033	0.186	-0.210	0.133	0.054	0.074	-0.072	-0.042	0.005	0.019	0.018	1.000					
		(0.187)	(0.118)	(0.810)	(0.046)	(0.621)	(0.008)	(0.002)	(0.042)	(0.415)	(0.321)	(0.277)	(0.529)	(0.946)	(0.782)	(0.797)						
Lnsize	**(17)**	0.177	0.06	0.211	0.367	0.03	0.065	0.003	0.509	0.141	0.024	0.038	-0.009	0.187	0.297	0.162	0.085	1.000				
		(0.003)	(0.315)	(0.000)	(0.000)	(0.619)	(0.303)	(0.967)	(0.000)	(0.019)	(0.731)	(0.530)	(0.878)	(0.002)	(0.000)	(0.009)	(0.194)					
Incumbent CEO age	**(18)**	0.101	0.009	0.167	0.239	-0.041	-0.061	0.051	0.081	0.000	-0.052	-0.123	-0.034	0.041	0.141	0.158	0.123	0.193	1.000			
		(0.114)	(0.892)	(0.009)	(0.000)	(0.525)	(0.366)	(0.452)	(0.205)	(0.999)	(0.480)	(0.057)	(0.603)	(0.528)	(0.032)	(0.018)	(0.079)	(0.002)				
GER	**(19)**	-0.103	-0.033	-0.126	-0.014	0.173	0.264	-0.125	0.025	-0.068	0.182	-0.241	-0.019	-0.004	-0.129	0.019	0.329	-0.029	-0.073	1.000		
		(0.085)	(0.582)	(0.035)	(0.814)	(0.004)	(0.000)	(0.049)	(0.673)	(0.261)	(0.007)	(0.000)	(0.748)	(0.948)	(0.035)	(0.763)	(0.000)	(0.623)	(0.255)			
FRA	**(20)**	0.349	0.227	0.235	-0.007	0.05	-0.358	0.378	0.103	-0.024	-0.117	0.206	0.088	0.043	0.082	-0.045	-0.333	0.22	0.125	-0.683	1.000	
		(0.000)	(0.000)	(0.000)	(0.906)	(0.406)	(0.000)	(0.000)	(0.084)	(0.695)	(0.088)	(0.001)	(0.147)	(0.473)	(0.183)	(0.469)	(0.000)	(0.000)	(0.051)	(0.000)		
UK	**(21)**	-0.325	-0.252	-0.151	0.026	-0.272	0.137	-0.321	-0.163	0.113	-0.061	0.028	-0.089	-0.051	0.053	0.037	0.031	-0.248	-0.078	-0.335	-0.46	1.000
		(0.000)	(0.000)	(0.011)	(0.661)	(0.000)	(0.030)	(0.000)	(0.006)	(0.061)	(0.377)	(0.649)	(0.141)	(0.401)	(0.387)	(0.554)	(0.633)	(0.000)	(0.223)	(0.000)	(0.000)	

CHAPTER 5

Market reaction to the announcement of the CEO successor

5.1 Introduction

The aim of this fifth chapter is to examine the stock market reaction to the announcement of the CEO successor. The likelihood of the type of the CEO successor is determined in Chapter 4. The results presented in this previous chapter suggest that the appointment of a nonfamily successor is generally unexpected when compared to the appointment of a family successor. We find that greater family control increases the likelihood of a family successor. Similarly, when the incumbent CEO is the founder (or from the founder's generation), there is greater likelihood that the successor will be a family member. On the other hand, greater board independence and shareholder protection reduce the likelihood of a family successor's appointment. Also, as noted in Chapter 2, whilst the appointment of a family CEO may be beneficial for all shareholders as the family creates security benefits of control, these benefits can be overridden by the family's desire to extract private benefits of control resulting in expropriation of the minority shareholders. Based on the severity of the latter issue, we argue that investors react positively to the replacement of the incumbent family CEO by a nonfamily successor. Thus, our first conjecture to be tested in this chapter is that investors are not surprised by the appointment of a family member and hence, do not react to the news, whereas the appointment of a nonfamily CEO is met with a positive market reaction to the announcement.

The literature review in Chapter 2 suggests that earlier findings on the stock market reaction to CEO succession decisions are mixed (Lubatkin *et al.* 1986; Furtado and Rozeff 1987; Borokhovich *et al.* 1996; Huson *et al.* 2004). However, very few studies have examined the stock market reaction to CEO successions in family firms (Smith and Amoako-Adu 1999; Pérez-González 2006). Studies on family firms are primarily drawn from North America, with the focus limited to CEO characteristics. For example, Smith and Amoako-Adu (1999) consider the age of the successor, whereas Pérez-González (2006) considers their educational background. Limiting the examination of investor responses to the origin and basic characteristics of the CEO successor ignores other factors that could matter to investors. Weisbach (1988), for example, claims that the degree of price reaction also depends on the presence of internal monitoring mechanisms. The author finds that, in widely-held firms with more independent boards, there is a positive market response to the appointment of an outsider. Similarly, Huson *et al.* (2004) find that the appointment of an outsider in firms with poor pre-succession performance results in positive Cumulative Abnormal Returns (CARs). These latter two studies demonstrate that factors other than CEO characteristics, such as board independence and past performance, influence the stock market reaction to the announcement of an outsider. Our review in Chapter 2 also indicates that previous studies do not adjust for the likelihood of a nonfamily successor's appointment. Hence, from the above discussion and the findings from our previous chapter, we argue that those factors that increase (reduce) the likelihood of a family successor also elicit more (less) positive CARs when a nonfamily CEO is appointed.

The remaining five conjectures pertaining to five drivers, which we formulate in Chapter 2, are listed in Table 5.1 and are as follows: we argue that, if greater family power; the incumbent CEO being the founder, and better past performance increase the likelihood of a family successor, then it follows that each of these factors would elicit a more positive reaction to the announcement of a nonfamily successor. On the other hand, if greater board independence and shareholder protection (via cross-listing on a more stringent stock exchange) reduce the likelihood of a family successor, these factors elicit a less positive market reaction to the announcement of a nonfamily CEO. In this chapter we test the six conjectures summarised in Table 5.1 using the event study methodology and cross-sectional regressions of the CARs.

Table 5.1: Conjectures

This table presents the six conjectures developed in Chapter 2 pertaining to the market reaction to succession announcements (C1), family power (C2), founder (C3), board independence (C4), minority shareholder protection (C5), and past firm performance (C6). These conjectures are used to test the stock market reaction to the announcement of the CEO successor and explain the size of the CARs around the announcement of the appointment of a nonfamily CEO in listed family firms in France, Germany and the UK.

	Conjecture
	Market reaction to the succession announcement
C1	The announcement of a family member to succeed the incumbent family CEO elicits no market reaction, whereas the announcement of a nonfamily successor elicits a positive market reaction.
	Family power
C2	The greater the family power, the more positive are the CARs to the announcement of the appointment of a nonfamily successor.
	Founder
C3	If the incumbent CEO is the founder, more positive CARs are observed to the announcement of the appointment of a nonfamily successor.
	Board independence
C4	The greater the board independence, the less positive are the CARs to the announcement of the appointment of a nonfamily successor.
	Minority shareholder protection
C5	The greater the minority shareholder protection, the less positive are the CARs to the announcement of the appointment of a nonfamily successor.
	Past firm performance
C6	The poorer the past performance, the less positive the CARs are to the announcement of the appointment of a nonfamily successor.

Since family firms generally display highly concentrated control and limited free-float, here we control for the issues of thin trading and confounding events, identified in Chapter 3 as products of these firm characteristics, to provide new evidence using the event study methodology for the successor's announcement. To adjust for thin trading we employ the Dimson aggregated beta method. The significance of the CARs is tested using both parametric and non-parametric tests, including the Corrado (1989) rank test and the Generalised rank test (GRANK). The GRANK test is a more powerful instrument for longer event windows compared to the Corrado test, which was originally proposed for a single-day event window (Kolari and Pynnonen 2011). In order to address confounding events, we perform comparative univariate and multivariate analyses between the full sample and the sub-sample excluding successions with confounding events.

This chapter is structured as follows. Section 5.2 presents the sample and the methodology. Section 5.3 reports the univariate results (descriptive statistics and event study results). Section 5.4 presents the multivariate results as follows: the influence of the five postulated drivers on the CARs, the impact on the CARs of the interactions between the four drivers and past performance, and the impact on the CARs of interactions between the drivers and the country dummies, for France, Germany and the UK. The robustness analysis is performed in section 5.5, finally, with section 5.6 concluding the chapter.

5.2 Sample and methodology

This section presents the sample and methodology employed in this chapter. Section 5.2.1 presents the sample of firms used in this chapter and the sources of data. This is followed by section 5.2.2 which presents the estimation of the abnormal returns around the succession announcement, thereby explaining our event study methodology. In section 5.2.3 we present the model employed to explain the CARs in response to the succession announcement to test Conjectures 2 to 6 pertaining to family power, founder, board independence, shareholder protection, and past performance.

5.2.1 Sample

The sample used in this chapter is identical to that used in Chapter 4. Our sample consists of 283 succession announcements in 231 firms during the period 2001 to 2010. Of these announcements, 212 are family-to-family (44 appointments of another family member; 168 re-appointments of the incumbent family CEO), and 71 are family-to-nonfamily successions. The announcements are distributed, by country, to give 137 in 115 French firms, 94 in 78 German firms, and 52 in 38 UK firms. The announcement dates for the appointment of the CEO successor are determined via LexisNexis, Forbes and other online newspapers[157]. Wherever possible, more than one news source is used to confirm the announcement date of the successor appointment. Details of the sample selection, sources of data and definitions of the variables are presented in section 4.2 in Chapter 4. In brief, financial information, such as the returns, is sourced from

[157] It shall be noted that in all but one succession announcement, the departure and announcement dates are the same.

Datastream and Osiris. Other information such as control and ownership data, and biographical information on the CEOs and directors is obtained from the annual reports, Reuters, Thomson One Banker or corporate websites.

5.2.2 Estimating the abnormal returns surrounding the succession announcement

We employ the event study methodology to compute the CARs. The market model is used to estimate normal returns (Dedman and Lin 2002; Hillier and McColgan 2009). Using the ordinary least squares (OLS) based market model, we estimate the abnormal returns (AR) and then compute the CARs as follows:

$$\widehat{AR}_i(t) = R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{mt}$$

and

$$CAR_i(t_1, t_2) = \sum_{t=t_1}^{t_2} \left(R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{mt}\right)$$

where R_{it} and R_{mt} are the actual and market returns in event period t (using daily data) for security i (MacKinlay 1997). The coefficients $\hat{\alpha}_i$ and $\hat{\beta}_i$ are the estimates of the intercept and slope coefficients in the OLS market model, when R_{it} is regressed on R_{mt} in an estimation window before the event window. The CARs are calculated by summing up the ARs over the event window (t_1, t_2) for each succession, where t_1 is the first day of the event window and t_2 is the last day of the same window.

The actual returns are measured using the Datastream total Return Index (RI) and the STOXX Europe600 index is used as the proxy for the returns on the market portfolio. The RI is adjusted for dividends (Antoniou *et al.* 2007)[158]. The STOXX Europe600 is believed to provide a fair representation of the market as a whole as it is a comprehensive, yet liquid, index representing large, medium and small capitalisation companies across 18 European countries (Betzer *et al.* 2013)[159]. Using the STOXX Europe600, as compared to home country indices, allows the use of a consistent as well as representative index across the three countries.

[158] RI incorporates an annualised dividend yield to adjust the index for a dividend payment that could influence the abnormal return calculation. In light of the adjustment for dividends, using RI is believed to ensure that no significant bias will be introduced to the analysis in this thesis.

[159] These include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

The first date of the official public announcement[160] of the CEO succession is taken as the announcement date of the event[161]. We employ seven event windows in line with earlier succession studies on family firms (Smith and Amoako-Adu 1999). These include [-40; 0], [-10; 0], [0; 1], [0; 10], [-1; 1], [-3; 3], and [-40; 20] where 0 is the day of the CEO succession announcement. Due to the issue of thin trading identified in Chapter 3 the use of longer windows, particularly [-40; 0] and [-40; 20], is more appropriate for our analysis. Having identified the event windows, the estimation period over which the market model parameters would be estimated require definition. Typical lengths of the estimation windows range from 100 to 300 days (Peterson 1989). We chose to estimate the model parameters over a 250 day estimation window since this period is approximately equal to one trading year, calculated leaving a gap of 20 days between the end of the estimation window and the start of the event window (e.g. Chang *et al*. 2007). Owing to the fact that most of our firms are thinly traded, we use the Dimson beta method to adjust for thin trading. Unlike the single day market return used in the OLS regressions for the market model, in the Dimson method we use five lags, five leads, and the announcement day market returns, as suggested by Dimson (1979). Since most of our sample firms are thinly traded, the Dimson CARs are used as the dependent variable in the cross-sectional regressions to control for the issue of thin trading.

Tests of significance

To test whether the CARs (unadjusted and Dimson-adjusted) are statistically different from zero, we employ parametric and non-parametric tests of significance. The parametric test used is the Student t-test in line with earlier studies (Brown *et al*. 1980). However, as discussed in Chapter 3, the non-parametric tests are better specified and more powerful in thinly traded firms (Cowan 1992; Corrado 1989). The most commonly used non-parametric tests are the Corrado (1989) rank test and the generalised signed test (GSIGN). Although these are both useful tools, they also have limitations. The Corrado (1989) test was proposed for detecting an AR on the event day,

[160] Official public announcement is the day of the public announcement of the CEO successor. For example, if the succession announcement was made on a Friday afternoon and the news was published on Saturday or the following Monday, the announcement day for our sample would be Friday.

[161] The announcement dates are obtained from LexisNexis, corporate websites, annual reports, and shareholder meeting agendas. Out of 283 succession announcements, press releases are identified for 149 announcements. The remaining dates are retrieved from the annual reports as well as corporate websites.

hence, the efficiency of the test is reduced when extended to CARs (Kolari and Pynnonen 2011). The GSIGN, on the other hand, has specifications suited to buy-and-hold AR, which does not apply to short-term market reactions. To address these issues, Kolari and Pynnonen (2010 and 2011) propose a generalised rank test (GRANK). The GRANK is different from the Corrado test as follows. In the GRANK, in order to derive the rank test, the time indexing is redefined such that the CAR window length, say 41 days, is squeezed into one observation with time index t=0. This is referred to as the cumulative event day. As a result, the GRANK is far less sensitive to the event window. In the Corrado test the magnitudes of the returns themselves are not captured since all returns are transformed to ranks in the event window, thus providing the rank alone. This means that if one large return is randomly given to any one day (independently for each stock) there is only one randomly distributed outstanding rank for each stock within the event window. It is very likely that this outstanding rank averages out in the cumulative rank sum, resulting in poor power properties (Kolari and Pynnonen 2010; Cowan 1992). Therefore, we test the significance of the succession related CARs using the GRANK test. We also report the test-statistics based on the Corrado test for comparison.

5.2.3 Specification of the model

To test the validity of Conjectures 2 to 6 concerning stock market reaction to the announcement of a nonfamily successor, we estimate the following OLS model.

$$
\begin{aligned}
CAR_i(t_1, t_2) = {} & \alpha_i + \beta_1 Family\ power_i * Family\ successor_i + \beta_2 Family\ power_i \\
& * Nonfamily\ successor_i + \beta_3 Founder_i * Family\ successor_i + \beta_4 Founder_i \\
& * Nonfamily\ successor_i + \beta_5 Board\ independence_i * Family\ successor_i \\
& + \beta_6 Board\ independence_i * Nonfamily\ successor_i \\
& + \beta_7 Shareholder\ protection_i * Family\ successor_i \\
& + \beta_8 Shareholder\ protection_i * Nonfamily\ successor_i \\
& + \beta_9 Past\ performance_i * Family\ successor_i + \beta_{10} Past\ performance_i \\
& * Nonfamily\ successor_i + \sum_{C=11}^{16} \beta_C Control\ variables_{i \in C} \\
& + \sum_{J=17}^{19} \beta_J Country_{i \in J} + \sum_{K=20}^{28} \beta_K Industry_{i \in K} + \sum_{T=29}^{37} \beta_T Year_{i \in T} + \varepsilon_i
\end{aligned}
$$

where the dependent variable is the CAR, estimated using the event study methodology for a succession announcement i, and t_1 and t_2 denote the start and end dates of the event window over which the CARs are computed. Our conjectures focus on the market reaction to the announcement of the appointment of a nonfamily successor. To test the validity of these conjectures for the full sample, we interact each of the five drivers with the *Family successor* and also the *Nonfamily successor* dummy variables[162]. This allows us to test the conjectures using the full sample of observations and examine the differential effect of each driver on the CARs for each succession type within the same regression. The postulated drivers of *family power*, *founder*, *board independence*, *shareholder protection*, and *past performance* are measured in the year before the year of the succession announcement. *Control variables* is a vector of six variables, namely industry-adjusted market-to-book value, long-term debt to (total) equity, assets growth, firm size, successor's age and a dummy for forced departure of the incumbent CEO (the first four being measured in the year before the announcement year). *Country* is a vector of three distinct dummy variables for succession announcements in France, Germany and the UK. *Industry* is a vector of nine industry dummies based on the Fama and

[162] The regressions were estimated using sub-samples for the different succession groups. However, the total number of observations drops to 48 when we run regressions for successions in which a nonfamily successor is appointed. Family successor dummy equals one if the new CEO is a member of the controlling family or if the incumbent CEO is re-appointed, and zero if the new CEO is not a family member. The nonfamily successor dummy equals to one if the new CEO is a nonfamily successor, and zero otherwise.

French 10 industry portfolio classification. *Year* is a set of nine year dummies for 2001 to 2009.

Our postulated drivers of *family power*, *board independence* and *shareholder protection* are the same as defined in Chapter 4[163]. Based on our results in the previous chapter, we use the family wedge as the proxy for family power in this chapter. In place of the family generation used in Chapter 4, here we employ the founder, a dummy variable. This is because, as discussed in Chapter 2, we are interested in the stock market reaction specific to the replacement of the founder CEO (in line with earlier studies that exclusively study the effect of the founder's departure (Adams *et al*. 2009; Hillier and McColgan 2009). Furthermore, as noted in the previous chapter, the family generation did not seem to have a consistent influence on the CEO successor choice across all estimated regressions; hence, we exclusively focus on the founder here. *Founder* equals one, if the incumbent CEO is the founder, and zero otherwise. For *Past performance*, in addition to the industry-adjusted ROE used in the previous chapter, here we also use the industry-adjusted return on assets (ROA). We use the ROA in line with earlier studies on the stock market reaction to CEO turnover announcements (Weisbach 1988; Dedman and Lin 2002; Adams *et al*. 2009; Hillier and McColgan 2009). ROA is defined as earnings before interest and taxes divided by the book value of total assets. Industry-adjusted ROA is measured as the sample firm ROA minus the ROA of the median firm listed on the respective country stock exchange in the same industry group (based on the Fama and French 10 industry portfolio). Because the focus of this chapter is purely on the market reaction to CEO successor announcements, control variables are used for the successor's age and the forced departure of the CEO. Since the literature shows a strong relationship between forced dismissal of the incumbent CEO and stock market reaction (Dedman and Lin 2002; Dherment-Ferere and Renneboog 2000), it is important to

[163] Family power is measured in three-ways: family control (the votes held directly by the family plus any additional votes resulting from indirect or pyramidal ownership as a percentage of total votes outstanding), family ownership (the number of shares of all classes held by the family as a percentage of total shares outstanding), and family wedge (the difference between the control rights and the cash-flow rights held by the family). Board independence is measured in two ways: reported board independence (the number of directors that are reported as being independent in the annual reports as a percentage of board size. For Germany, board size is the sum of the size of the management board and the size of the supervisory board minus the number of employee representatives), and adjusted board independence (the number of directors that are independent as per our proposed measure of *de facto* independence from the controlling family as a percentage of board size). Shareholder protection equals one, if the firm is cross-listed on a US or UK stock exchange, and zero otherwise. This variable is zero for the UK firms.

control for forced departure in explaining the succession CARs. Based on our discussion on the reasons for departure in Chapter 4, here we use a dummy variable for forced departure which equals one, if the incumbent CEO was forced out of his position and zero otherwise[164].

Interactions between past performance and the other four drivers

Our model tests Conjectures 2 to 6 in that the postulated drivers have a direct impact on the CARs. However, earlier studies such as Weisbach (1988) find evidence that CEO turnover preceded by negative CARs (measured over the four pre-announcement quarters) in firms with outsider dominated boards results in positive ARs on the day of the announcement of an outside successor. Furthermore, Salas (2010) finds evidence that appointments of outside CEOs following the death of poorly performing founders results in positive CARs. These findings suggest that past performance has an impact on the CARs, not necessarily directly, but in conjunction with other drivers. Therefore, we also examine whether family power, founder, board independence and shareholder protection only matter when past performance is low. We do this by interacting past performance with each of the remaining four drivers as a second step to our model described above. To do this we introduce four more terms in the above model. Each of these include one of the four drivers interacted with past performance and with the *Nonfamily successor* dummy[165].

[164] Please refer to section 4.3 and Table 4.9 in Chapter 4 for a detailed explanation of how we measure forced dismissal. Briefly, the reason for succession is often difficult to ascertain as it is rare that announcements state the exact reason for dismissal (Dherment-Ferere and Renneboog 2000). Hence, in line with earlier studies (Dherment-Ferere and Renneboog 2000; Hillier and McColgan 2009), we consider the departure of the incumbent as forced if it is clearly stated as such or if the reason for departure is not stated, and/or the age of the incumbent CEO is less than the retirement age of 64 years.

[165] Therefore, our model with the interactions between past performance and the other four drivers is as follows:

$$
\begin{aligned}
CAR_i(t_1,t_2) = {} & \alpha_i + \beta_1 Family\ power_i * Family\ successor_i + \beta_2 Family\ power_i * Nonfamily\ successor_i \\
& + \beta_3 Founder_i * Family\ successor_i + \beta_4 Founder_i * Nonfamily\ successor_i \\
& + \beta_5 Board\ independence_i * Family\ successor_i + \beta_6 Board\ independence_i \\
& * Nonfamily\ successor_i + \beta_7 Shareholder\ protection_i * Family\ successor_i \\
& + \beta_8 Shareholder\ protection_i * Nonfamily\ successor_i + \beta_9 Past\ performance_i \\
& * Family\ successor_i + \beta_{10} Past\ performance_i * Nonfamily\ successor_i \\
& + \beta_{11} Family\ power_i * Nonfamily\ successor_i * Past\ Performance_i + \beta_{12} Founder_i \\
& * Nonfamily\ successor_i * Past\ Performance_i + \beta_{13} Board\ Independence_i \\
& * Nonfamily\ successor_i * Past\ Performance_i + \beta_{14} Shareholder\ Protection_i \\
& * Nonfamily\ successor_i * Past\ Performance_i + \sum_{C=15}^{20} \beta_C Control\ variables_{i \in C} \\
& + \sum_{J=21}^{23} \beta_J Country_{i \in J} + \sum_{K=24}^{32} \beta_K Industry_{i \in K} + \sum_{T=33}^{41} \beta_T Year_{i \in T} + \varepsilon_i
\end{aligned}
$$

5.3 Descriptive statistics and event study results

In this section we report the descriptive statistics and the event study results. Section 5.3.1 discusses the descriptive statistics of our postulated drivers and firms, and CEO and succession characteristics. We also carry out mean and median tests of differences for the drivers between the two succession groups of family-to-family and family-to-nonfamily. In section 5.3.2, we present the event study results, i.e. the CARs, of the market reaction to the announcement of the CEO.

5.3.1 Descriptive statistics

Table 5.2 presents the descriptive statistics for the firm, CEO (incumbent and successor) and succession characteristics in Panel A, and the postulated drivers of the stock market reaction to the succession announcement in Panel B. This table is similar to Table 4.3 in Chapter 4, except that Table 5.2 includes the forced departure dummy as an additional control variable in Panel A, and the industry-adjusted ROA as a measure for past performance in Panel B. Overall, from the high standard deviations of market capitalisation and total assets in Panel A, we find that our sample firms show great variability in firm size. The average age of the incumbent CEO is approximately 57 years with average tenure of 20 years. Average (and median) successor age is 51 years. In terms of the conjectured drivers in Panel B of Table 5.2, our findings are as follows. The family wedge, i.e. the difference between the family's voting control and ownership, is, on average, 5.63%. About 61% of the incumbent CEOs of our sample firms are founder-CEOs. The average reported board independence is 55%, compared to 24% for the adjusted board independence. Only 11% of the French and German firms are cross-listed in the US or the UK, which is not surprising given that our sample firms are relatively small in size. Finally, the average industry-adjusted ROA and ROE are 0.39% and -5.40%, respectively. The median industry-adjusted ROA and ROE are positive at 1.39% and 0.26%, indicating that our sample firms perform better than the industry average[166]. The standard deviation for the industry-adjusted ROA (12.90) is much lower than that for the industry-adjusted ROE (40.61).

[166] After excluding firms where the CEO is not the founder of the firm, the median industry-adjusted ROA and ROE is 1.53% and 0.21%, respectively. This suggests that the better performance of the sample firms compared to the industry average is not due to the founder effect.

INSERT TABLE 5.2 ABOUT HERE

Next, we compare the two succession groups of family-to-family and family-to-nonfamily. Table 5.3 is the same as Table 4.4 presented in Chapter 4[167] to remind the reader of our results. The mean and median differences between the two succession groups for the firm and CEO characteristics are provided in Panel A, with the postulated drivers in Panel B. To summarise, the family-to-family successions have lower market capitalisation and total assets (significant at the 5% and 1% levels, respectively). There is a significant (at the 10% level) difference in the successor age between the two succession groups with the family-to-nonfamily successions involving younger successors at 49 years of age, compared to 52 years for family successors. On excluding re-appointments it is, as one would expect, the family-to-family successors that are significantly (at the 1% level) younger at 44 years[168]. In Panel B of Table 5.3 we find that there is a significant (at the 5% level or better) difference between the two types of successions for the founder, adjusted board independence, and shareholder protection. Nonfamily successors are appointed by firms with greater adjusted board independence and better shareholder protection, and are less likely if the incumbent is the founder[169]. Successions involving a family successor have the same median performance, represented by the industry-adjusted ROA, as those involving a nonfamily successor. The average value for the same measure, however, shows performance for the family-to-family successions (1.29%) is economically significant and higher than that for the family-to-nonfamily successions (-0.77%)[170].

INSERT TABLE 5.3 ABOUT HERE

Table 5.4 investigates whether there is any differential country effect for the past performance measures[171]. For ease of comparison, this table includes both the industry-adjusted ROA and ROE. Table 5.4 presents the mean and median past performance

[167] A full discussion of this table can be found in section 4.3.2 in Chapter 4.
[168] The figures excluding re-appointments are not tabulated separately.
[169] This analysis has also been carried out in section 4.2 in Chapter 4 in greater detail.
[170] Tables 5.2 and 5.3 are reproduced in the present chapter from Chapter 4. This is because some of the average values of our postulated drivers are used to interpret the interaction terms between past performance and the other four drivers in the regression analysis performed in this chapter.
[171] A similar analysis is carried out for the other variables in section 4.2 in Chapter 4, and the results are tabulated in Table 4.5. Since the results in Table 4.5 are not used in the interpretation of our multivariate regression results in Chapter 5, we do not report this table again.

percentages for the two succession groups in France, Germany and the UK in Panel A. Panel B reports the test statistics (t-tests and z-tests) relating to cross-country mean and median differences for the two succession groups. As per our earlier results in Chapters 3 and 4, there are significant differences between the three countries. In Panel A, we find that family-to-family successions in the UK have, on average, industry-adjusted ROA and ROE of 6.26% and 10.39%. The equivalent percentages in France being 0.23% and -6.23%, and 0.37% and -0.72% in Germany. The differences between the three countries highlighted in Panel B suggest that family-to-family successions in the UK have the highest (mean and median) levels of pre-succession performance, significant at the 5% level or better. Furthermore, in Panel A, we find that family-to-nonfamily successions in Germany have average industry-adjusted ROA and ROE of -5.86% and -21.61%, respectively; the equivalent percentages being 3.51% and 3.84% for France, and 2.19% and -4.56% for the UK. According to the differences shown in Panel B, family-to-nonfamily successions in Germany appear to have the lowest pre-succession performance of the three countries (significant at the 10% level or better). Furthermore, when the two types of successions are compared for a given country, then differences between ROA and ROE are only observed for Germany, not for France or for the UK (results not tabulated). Our findings that successions in the family-to-nonfamily group have significantly weaker pre-succession performance than the family-to-family group in Germany are in line with the rational adaptive view discussed in Chapter 2[172].

INSERT TABLE 5.4 ABOUT HERE

In summary, Table 5.3 shows that there are significant differences between the two succession groups for three of our postulated drivers of founder, adjusted board independence, and shareholder protection. Whilst Table 5.3 does not report any significant differences for past performance between the two succession groups,

[172] Regarding the effect of IFRS adoption on the financial ratios (ROA and ROE), we find that the ratios are comparable across the three countries and that there is no significant difference between the period before and after 2005 across the three countries. Having said this, it must be noted that, although unlikely (as per the univariate analysis), there may still be an effect of the adoption of IFRS on the ROA and ROE ratios that we were unable to find. For instance, Germany GAAP permits firms to set up a provision even without an obligation, but IFRS does not permit this. This would result in different profits in the same firm between pre- and post- IFRS adoption.

differences between the countries are identified in Table 5.4. That is, family-to-family successions in the UK have higher performance compared to those in France and Germany, whereas family-to-nonfamily successions in Germany have weaker performance compared to France and the UK.

5.3.2 The market reaction to the CEO succession announcement

In this section we present the event study results (the univariate analysis of the CARs) to understand the distribution of CARs in the sample and across the two succession groups. Identification of the methodological issues in Chapter 3 suggests that our sample firms are thinly traded because of the low free-float and volume traded. Of the sample successions, 92 have 153 confounding events around the announcement. Thus, we also present the descriptive statistics of the CARs after adjusting for thin trading (using the Dimson beta method) and excluding successions with confounding events. We use the Student t-test, the non-parametric Corrado rank test, and GRANK to test the statistical significance of the average CARs.

Table 5.5 presents descriptive statistics of the unadjusted CARs for the 264 succession announcements with complete return data for the seven event windows employed in our event study[173]. We find that the average CARs are positive for five out of the seven windows. Based on the GRANK only the CARs in the two longest windows, [-40; 0] and [-40; 20], are positive and significant at the 5% level[174]. The standard deviation increases with the length of the event windows, with the highest values evident in the 41- and 61-day windows. The minimum values of extremely negative CARs of -352% and -516% relate to a single firm which experienced the sudden death of its incumbent family CEO[175]. The sample shows that, in most cases of death of the family CEOs, the subsequent succession announcement triggers a negative market reaction, although these are not statistically significant[176]. A negative market reaction is more likely to

[173] As mentioned in section 5.2.2 these windows include [-40; 0], [-10; 0], [0; 1], [0; 10], [-1; 1], [-3; 3], and [-40; 20].
[174] The GRANK test-statistics are 2.61 and 2.06 for the [-40; 0] and the [-40; 20] windows, respectively.
[175] This is a German firm, Nucletron Electronic AG.
[176] There are only seven cases of death of the incumbent family CEO and since the results are not significant (i.e. the unadjusted as well as Dimson-adjusted CARs are not significantly different from zero on a case-by-case basis), these are not tabulated.

follow the loss of the founder-CEO than the appointment of a new family CEO[177]. In summary, the average CARs are positive and significant only in the longest event windows, which is in support of our findings in Chapter 3 that our sample firms are thinly traded leading to market reaction to succession announcements being observed in longer windows surrounding the announcement. Due to these findings the remaining analysis is focussed on the two longest event windows.

INSERT TABLE 5.5 ABOUT HERE

Table 5.6 presents the summary statistics for the CARs by succession group. The test-statistics in this table are calculated by testing the null hypothesis that the CAR around the CEO succession announcement is equal to zero using the Student t-test, t_{CAR}; the Corrado (1989) rank test, $t_{Corrado}$, and the GRANK, t_{GRANK}. Panel A presents the univariate results for unadjusted CARs, Panel B presents the same for Dimson-adjusted CARs, and Panel C presents results for Dimson-adjusted CARs for succession announcements excluding confounding events.

Except for t_{GRANK} for the [-40; 0] window, the unadjusted mean CARs for the family-to-family successions are not significantly different from zero. In contrast, both t_{CAR} and t_{GRANK} for the [-40; 0] window and t_{CAR} for the [-40; 20] window for the family-to-nonfamily successions suggest that the mean CARs are significantly different from zero (at the 10% level or better). For the Dimson-adjusted CARs (Panel B) and for CARs relating to successions without confounding events (Panel C), both t_{CAR} and t_{GRANK} for the two event windows for the family-to-nonfamily successions suggest that the mean CARs are significantly different from zero (at the 10% level or better). This provides support for Conjecture 1, whereby there is no market reaction to the appointment of a family successor, whereas the announcement of a nonfamily successor elicits significant and positive CARs. Furthermore, we perform t-tests of differences in means between the two succession groups for each event window in Panels A, B and C, respectively

[177] The negative abnormal returns following the death of a founder CEO are observed when the CEO is seen as a strong leader, compared to one that is entrenched; extracting private benefits (in the firms where the founder is also the controlling shareholder), or inhibiting a sale of the firm (Johnson *et al.* 1985). In this regard, positive abnormal returns imply poor corporate governance; whilst negative abnormal returns would imply good governance (Salas 2010).

(results not tabulated). We find that there is no difference between the mean CARs of the two succession groups in Panels A and B, however, there is a significant difference (at the 10% level) between the two succession groups in Panel C[178]. Again, as per Conjecture 1, this suggests that the type of CEO successor appointed does indeed matter to investors, and the latter respond positively to the announcement of a nonfamily CEO. Furthermore, the four firms experiencing the most negative CARs (CARs ≥ -32% in both event windows in the sample) have seven confounding events, which suggest that the CARs surrounding the succession announcement may be negatively influenced by other news announcements. These findings in Panel C reiterate the importance of addressing the issues of thin trading and confounding events. Support for this positive reaction to the nonfamily successor is demonstrated by Smith and Amoako-Adu (1999) using the [-40; 20] event window, which shows that firms appointing nonfamily outsiders experience significant CARs of 9% versus CARs of approximately -1.6% (not significant) for firms that appoint family members. Positive reaction to the nonfamily successor is also reported in the study by Pérez-González (2006).

INSERT TABLE 5.6 ABOUT HERE

We also test whether the CARs adjusted for thin trading or obtained by dropping successions with confounding events are different from the unadjusted CARs reported in Table 5.6. We find that there are no significant differences between the CARs after adjustment or dropping successions with confounding events and the unadjusted CARs (hence, we do not include these in the table). This finding is in line with the claim of MacKinlay (1997), in that there is a minimal difference between CARs adjusted for thin trading and un-adjusted CARs. Nevertheless, based on our arguments presented in section 3.3.3 (and section 3A.1) in support for using the Dimson method and the level of thin trading identified in our sample, we use the Dimson-adjusted CARs in our cross-sectional regression analysis in the next section.

[178] Results are not tabulated separately. For the t-tests in Panel C we find that the t-value of the difference between the two succession groups (family-to-family – family-to-nonfamily) in the [-40; 0] window is -1.89 (*p*-value = 0.06), and in the [-40; 20] window is -1.65 (*p*-value = 0.1).

To summarise, as shown in Table 5.5, the full sample displays significant positive CARs for the longest event windows. The sub-sample analysis in Table 5.6 indicates that the significant and positive CARs are for successions that announce a nonfamily CEO successor. These results support Conjecture 1 that investors respond to the unexpected announcement of the appointment of a nonfamily CEO in family firms, whilst they do not respond to an expected family successor's announcement. These results are upheld when adjusting for thin trading and robust when the announcements with confounding events are excluded.

5.4 Cross-sectional regression analysis

In this section we present the multivariate analysis. In section 5.4.1 we analyse the results of the cross-sectional regressions estimated to test the validity of our remaining conjectures (2 to 6). In section 5.4.2 we analyse the results to identify whether past performance interacts with the other four postulated drivers to influence the CARs around the succession announcement. Lastly, in section 5.4.3 we test our conjectures by examining the differential effect of France, Germany and the UK on the CARs.

5.4.1 Drivers of the market reaction to the announcement of a nonfamily CEO

The aim of this section is to test whether those factors that determine the type of CEO successor also influence the stock market reaction to the announcement of the appointment of the successor (Conjectures 2 – 6). Based on our model specified in section 5.2.2 we estimate four regressions which are presented in Table 5.7. The dependent variable in all four regressions is the Dimson-adjusted CAR for the [-40; 0] window. Results using the other event window, [-40; 20], are included in the robustness analysis. The independent variables include our five postulated drivers, which are family wedge, founder, board independence, shareholder protection, and past performance. Each of these drivers are interacted with the family successor dummy as well as with the nonfamily successor dummy in order to allow for a differential effect of the drivers across the two succession groups. The other independent variables are the firm, CEO, and succession characteristics; country; industry, and year dummies. Board independence in the four regressions is measured as follows: regressions (1) and (3) use the reported board independence, whereas regressions (2) and (4) use our measure of

adjusted board independence. In terms of past firm performance, regressions (1) and (2) employ the industry-adjusted ROA, whereas regressions (3) and (4) employ the industry-adjusted ROE[179]. The firm characteristics employed in all regressions include industry-adjusted market to book value, long-term debt to equity, assets growth and firm size. The other characteristics, also used in Chapter 4, namely, interest coverage, dividend payout and the Herfindahl index, are excluded from the regressions due to multicollinearity[180]. Only the CEO successor's age is used as a control for successor characteristics owing to difficulties in collecting data on education and tenure (especially for family members), and insufficient variability in gender with only four successions involving a female successor[181]. We also include forced departure dummy to control for the effect of the incumbent CEO's forced departure. Lastly, country dummies for each of the three countries are used[182]. For each regression the coefficients

[179] We find that the two most negative values for industry-adjusted ROE are for a German firm and a French firm, both of which are in financial difficulty. Having faced financial difficulties for a few years the German firm, Sedlbauer AG, was speculated to file for bankruptcy. Although this firm did not eventually file for bankruptcy, it underwent major restructuring, with the appointment of a nonfamily CEO to replace the poorly performing incumbent family CEO as part of this restructuring. Retaining this firm in the sample for the analysis induces bias as the extreme ROE value is a result of the financial difficulty leading to the change of CEO. This is not the case for the French firm; hence, we exclude the German firm from the regressions in this chapter.

[180] Interest coverage and dividend payout are correlated with a Pearson correlation coefficient (PCC) of 0.4 which is significant at the 0.1% level, and each of these variables are also significantly correlated to the performance measures as follows. The PCC for industry-adjusted ROA and interest coverage is 0.50 significant at the 0.1% level, and the PCC for industry-adjusted ROA and dividend payout is 0.28 significant at the 0.1% level. The equivalent PCCs when using industry-adjusted ROE are 0.28 and 0.47, respectively, significant at the 0.1% level. Hence, the inter-variable correlations cause problems that are not necessarily reflected in the Variance Inflation Factor (VIF), which is around 2.4 for the regressions in Table 5.7. The condition number from the collinearity diagnostics, for instance, is always above 50 (i.e. about 52.3 and 51 for regressions using the reported board independence and adjusted board independence) on including interest coverage and dividend payout (note that the collinearity diagnostics do not run in Stata when the Herfindahl index is included in the regressions). Additionally, the issue with including the Herfindahl index is that we lose more than 30 observations, and the Stata output does not provide the F-value or the p-value for the F-test. The software also deletes an industry dummy because of multicollinearity. Given these issues, we consider it appropriate to run the regressions in Chapter 5 excluding these three control variables.

[181] Due to a lack of variability and poor data availability, characteristics of gender, education, and tenure have been excluded from this analysis. In our sample of 283 successions there are only four involving a female successor. Three out of the four are changes in CEO (one family-to-nonfamily and two family-to-family successions) and one is the re-appointment of the incumbent founder CEO. In terms of education, we were able to gather information regarding university degrees for only 70 successions. It was only possible to collect successor tenure for nonfamily successors owing to difficulties in pinning down exactly when family members were first employed with the firm and/or on the board.

[182] In doing so, we omit the constant. This is only because including the constant would require the omission of one of the country dummies to avoid perfect multicollinearity (as we do with the year and industry dummies). Our results are robust even when we exclude the UK country dummy (as done in Chapter 4 logit regressions) and retain the constant.

and, in parentheses, their standard errors (corrected for firm-level clustering[183]) are reported.

INSERT TABLE 5.7 ABOUT HERE

In Table 5.7, for all four regressions, we find that the coefficients on family wedge, founder, reported and adjusted board independence, and shareholder protection are not significant when interacted with the nonfamily successor dummy. This suggests that these four postulated drivers do not influence the stock market reaction to the announcement of a nonfamily CEO being appointed. This shows that there is no support for Conjectures 2, 3, 4 and 5 (see Table 5.1). However, using the interaction between reported board independence and the family successor dummy in regressions (1) and (3) results in a positive and significant (at the 10% level) coefficient. This suggests that the greater the reported board independence, the more positive the CARs are to the appointment of a family member (or the re-appointment of the incumbent family CEO). A possible reason for this diversion from our premise is provided by Lee *et al*. (2003) and Sharma and Irving (2005). The authors argue that a qualified and trained family member[184] is possibly better suited to take up the top management position compared to an outsider, which is an argument supported by Giménez and Novo's (2010) prediction regarding the appointment of the 'good kid'. This is also in line with our discussion in Chapter 2, section 2.3.2, which suggests that the academic standing of a family heir or successor may have a bearing on the market reaction to their appointment, although the information to confirm this is not readily available. Nonetheless, this result is only significant at the 10% level and we do not find any significance when adjusted board independence is used. Whilst we conjecture a less positive market response to the announcement of a nonfamily CEO when board independence is high, it can be difficult to clearly disentangle this from the extent to which the market would react positively

[183] This is done to make standard errors unbiased. A fixed effect regression model for panel data is used to cope with the unobserved firm effect; which is not applicable to this thesis. However, literature suggests that there is no great difference on the parameters from the fixed effect model and the clustered robust standard errors when the number of firms is large and time period is fixed (Kezdi 2003) and the sample size of time period equals to ten and number of clusters is less than 500 (Stock and Watson 2008). In our thesis, we have ten time periods, 2001-2010, and the number of firm-level clusters is less than 500 (i.e. 170, 157, 168, and 155 firm-level clusters in regressions (1), (2), (3), and (4), respectively).

[184] It is, however, not possible for us to quantify this argument. Moreover, we are unable to identify exactly how many family successors are reported as outsiders (i.e. appointed first time to their family's firm as the CEO).

because independent boards make better CEO replacement decisions (e.g. Hermalin 2005). We explore this alternative explanation in testing Conjecture 4 in the ensuing sections[185].

Lastly, Table 5.7 shows that past performance (using both industry-adjusted ROA and ROE) is the only postulated driver that is consistently significant (at the 1% level) across all four regressions when interacted with the nonfamily successor dummy. However, contrary to Conjecture 6, we find that the poorer the past performance, the *more* positive are the CARs to the announcement of the appointment of a nonfamily CEO. A possible explanation for this is as follows. All our sample firms have high family control (> 25%) with the average voting control being approximately 60% for family-to-nonfamily successions (see Table 5.3). Considering this dominance of the family shareholders, investors may underestimate the probability of the incumbent family CEO's replacement (despite the poor performance). This is likely the case even when public information strongly indicates that poor performance is directly attributable to the CEO and a possible replacement nonfamily CEO could perform better (Weisbach 1988). Moreover, weak governance mechanisms, such as low levels of board independence, may also contribute to investors' underestimation of a nonfamily CEO's appointment. Hence, investor response to the news of the replacement of a poorly performing family CEO by a nonfamily candidate elicits *more* positive CARs. In section 5.4.2 we find that, indeed when board independence is at or above average levels (reducing the likelihood of a family member appointment), poorer past performance leads to less positive CARs in reaction to the announcement of a nonfamily successor. In terms of the country effects, we find no statistical significance in Table 5.7[186]. The firm, successor and succession characteristics in all the four regressions are also insignificant.

[185] Though our arguments are grounded in the findings from the previous chapter, it may be useful to consider the alternative explanation of a stronger positive market response that would factor into investors' valuation of a more independent board making a higher quality successor announcement.

[186] For ease of presentation and readability we do not report the coefficients for the country, year, and industry dummies, however, these are included in the four regressions in Table 5.7. Also, because we use two interactions for each postulated driver, we have included all three country dummies and estimated the regressions without the constant (to avoid perfect collinearity).

In summary, from the regressions in Table 5.7, we do not find any support for Conjectures 2 (family power); 3 (founder); 4 (board independence), and 5 (shareholder protection). In terms of Conjecture 6, instead of the expected less positive CARs, we find that the poorer the past performance, the *more* positive are the CARs to the announcement of a nonfamily CEO. In general, our results on the appointment of a nonfamily CEO are in line with earlier studies. That is, considering the appointment of a nonfamily successor to be similar to an outsider (keeping everything else equal), appointments of this kind are associated with producing greater improvements in managerial quality and larger than expected performance improvements (Huson *et al*., 2001). Similarly, there is evidence that an outsider replacing a poorly performing CEO is viewed as an agent for change (Pfeffer and Salancik 1978; Hambrick and Mason 1984). Although the ability of the new CEO to perform better than the incumbent cannot be fully assessed at the succession announcement, replacement by a nonfamily CEO, on average, prompts a positive anticipation of performance improvements[187].

5.4.2 Impact on the CARs from interactions between past performance and the other four drivers

Based on the above evidence that past performance has a strong influence on the CARs around the announcement of a nonfamily CEO successor, in this section we analyse whether past performance affects how the other four drivers influence the CARs. As shown in Table 5.7, the postulated drivers of family power, founder, board independence and shareholder protection do not have an individual direct effect on the CARs. However, they may have an effect in the face of poor performance. Thus, we interact past performance with each of the four drivers. This approach is in line with earlier studies that find evidence that poor past performance combined with outsider dominated boards elicits positive succession CARs to the appointment of an outsider (Weisbach 1988; Boeker and Goodstein 1993; Zajac and Westphal 1996).

We estimate four regressions which are reported in Table 5.8. These are the OLS regressions of the Dimson-adjusted CARs for the [-40; 0] window on the five postulated

[187] Theoretically our finding suggests that investors in family firms hold a slightly modified version of the rational adaptive view that succession will result in improved performance. Their perception, as evidenced by the CARs around the announcement of a nonfamily successor, appears to be that replacing the family CEO by a nonfamily successor in poorly performing firms may lead to higher future earnings.

drivers (again, with each driver interacted with the family successor dummy and with the nonfamily successor dummy), and the interactions between the drivers, past performance and the nonfamily successor dummy[188]. The measures of board independence in the four regressions are as follows: regressions (1) and (3) use the reported board independence, while regressions (2) and (4) use the adjusted board independence. Regressions (1) and (2) use the industry-adjusted ROA for past performance, whereas regressions (3) and (4) employ the industry-adjusted ROE. The control variables are the same as those in the regressions in Table 5.7, namely industry-adjusted market-to-book value, long-term debt to equity, assets growth, firm size, the forced departure dummy and CEO successor age. The postulated drivers and control variables are measured in the year before the succession announcement year. The country, industry and year dummies are also used in all four regressions.

INSERT TABLE 5.8 ABOUT HERE

Table 5.8 shows that family wedge interacted with the type of successor and the interaction between family wedge, past performance and the nonfamily successor dummy are insignificant across all the four regressions. This suggests that there is no support for Conjecture 2 concerning the influence of family power on the CARs, even when family power is interacted with past performance. Similarly, we find that neither the coefficient on the founder interacted with the type of successor nor the coefficient on the interaction between founder, past performance and the nonfamily successor dummy is significant in any of the four regressions. This is in contrast to previous research, for example Hillier and McColgan (2009) who find a positive market reaction to the replacement of a poorly performing founder-CEO, especially when replaced by a nonfamily successor. Hence, Conjecture 3 is also rejected, even when employing the interaction of the founder with past performance.

Interestingly, the coefficient for reported board independence is positive and significant (at the 5% level), irrespective of the type of successor in regressions (1) and (3). In

[188] Considering our focus on the market reaction to the announcement of a nonfamily CEO, the evidence for Conjecture 1, and the regressions from Table 5.7, the interaction terms between past performance and the other four drivers are only included in the regressions in interaction with the nonfamily successor dummy (This also helps to maintain sufficient degrees of freedom).

contrast, the coefficient for adjusted board independence is insignificant in regressions (2) and (4). Nevertheless, while the interaction term between reported board independence, past performance and the nonfamily successor dummy is positive and significant (at 1% level) in regression (1) alone; the interaction term between adjusted board independence, past performance and the nonfamily successor dummy is positive and significant (at 1% level) in regressions (2) and (4). This suggests that past performance does indeed affect the influence of board independence (both reported and adjusted) on the CARs. This raises the question as to whether poor past performance in conjunction with greater board independence elicits less positive CARs. To answer this question we analyse the effect of board independence on the CARs at three different values of board independence (low, medium, and high), while setting performance to the first quartile of the performance measure[189]. The low, medium, and high values represent one standard deviation below mean board independence, mean board independence, and one standard deviation above mean board independence, respectively (Jaccard and Turrisi 2003). Evaluating regressions (1) and (2) using the first quartile of the industry-adjusted ROA of -2.4% combined with different levels of reported board independence has an effect on the CARs of 13.35% for low, 15.38% for medium, and 17.41% for high levels. Using adjusted board independence provides values of 9.93% for low, 6.80% for medium, and 3.66% for high levels of independence[190]. Similarly in regression (4)[191] we find that using the first quartile of the industry-adjusted ROE of -7.15% combined with low, medium, and high levels of adjusted board independence have an effect on the CARs of 13.81%, 9.73% and 5.66%, respectively. These results suggest that, in the face of poor past performance, the greater the reported board independence, the *more* positive are the CARs. This is demonstrated by the CARs becoming more positive by approximately 2% each time reported board independence increases by one standard deviation. On the other hand, based on regression (2), each time adjusted board independence increases by one standard deviation, the CARs reduce by approximately 3%. Regression (4) shows the equivalent effect on the CARs is

[189] The first quartile of past performance measures is used to denote poor past performance. This has been employed in earlier studies, e.g. Adams *et al*. (2009).
[190] The average reported board independence for all successions is 54.38% and the standard deviation is 15.94. The average adjusted board independence for all successions is 23.92% and the standard deviation is 19.57. These figures are also applicable to regression (4). These figures are calculated excluding the outlier, which was excluded from the regressions.
[191] Of the two regressions employing the industry-adjusted ROE, the interaction term in regression (3) is not significant. Based on this result/ we only report the values relating to regression (4) here.

a drop of about 4%. This evidence on adjusted board independence combined with poor performance supports Conjecture 4 in that the greater the board independence, the *less* positive CARs are observed for the announcement of a nonfamily CEO. The evidence on reported board independence, on the other hand, suggests a more positive market reaction to the latter announcement.

Following from these results we consider even lower levels of past performance to see if Conjecture 4 is supported at the 10th percentile. Using the 10th percentile of the industry-adjusted ROA, -8.34%, the overall effect of low, medium, and high board independence on the CARs is 26.24%, 24.94% and 23.64% for reported board independence; 34.51%, 23.62% and 12.72% for adjusted board independence. This suggests that, when past performance is very poor, an increase in both the reported and adjusted board independence leads to less positive CARs when a nonfamily CEO is announced. These values suggest that each time reported board independence increases by one standard deviation, the CARs are reduced by approximately 1.3%. Using adjusted board independence this reduction in CARs is approximately 11%. Thus we find evidence to support Conjecture 4 using both board independence measures when there is very poor performance[192]. The impact on the CARs is considerably greater using adjusted board independence compared to reported board independence, which re-emphasizes the importance of adjusting the conventional measure of independence to account for links with the controlling family.

Poor past performance may be a concern for investors, especially if it has been low for a period longer than one year. It is, therefore, important to validate Conjecture 4 considering past performance over more than one year. We use the two-year average industry-adjusted ROA and ROE before the year of the succession announcement and re-run the regressions in Table 5.8. These regressions are reported in Table 5C.1 in Appendix C. We find that re-running regression (2) at the first quartile of the two-year

[192] As explained earlier, it can be argued that the positive market response in the presence of a more independent board may also be because investors consider such a board to make higher quality successor announcements. However, we find that the stock market response to the CEO succession announcement when board independence is higher than the country median is not significantly more positive (independent of the choice of CEO) than the market response when the board independence is lower than the country median. Hence, the less positive response, each time board independence is increased, confirms our argument that this (pattern) is driven by investors' expectation of the greater likelihood of a nonfamily CEO in the presence of a more independent board.

average industry-adjusted ROA, -2.24%, the overall effect of low, medium, and high adjusted board independence on the CARs is -0.77%, -4.26%, and -7.74%, respectively. The equivalent percentages for regression (4) using the two-year average industry-adjusted ROE, -7.50%, are -1.45%, -7.99%, and -14.53%. These results show that poor performance over two-years combined with increasing board independence, leads to a reduction in the positivity of the CARs[193]. Using the two-year average performance measures we find that the interactions term between reported board independence, past performance and the nonfamily successor dummy, in regressions (1) and (3), is not significant. In summary, Conjecture 4 is supported in the face of poor performance, for adjusted board independence. The use of the two-year average performance is possibly more realistic in terms of how investors may evaluate past performance.

Next, we find that the interaction between shareholder protection, past performance and the nonfamily successor dummy is negative and significant (at the 1% level) in regression (3). This suggests that past performance affects the influence of shareholder protection on the CARs, although this is only the case in one of the four regressions. The effect on the CARs for firms that are cross-listed on a US or UK stock exchange experiencing poor performance at the first quartile of the performance measure (-7.15% for the industry-adjusted ROE) is 10.25%. The equivalent effect on the CARs at the 10th percentile (-21.19% for industry-adjusted ROE) is 30.39%. This suggests that the weaker the past performance, the *more* positive the market reaction is to the announcement of the appointment of a nonfamily CEO (for French and German firms cross-listed on a US or UK stock exchange). This finding is in agreement with Lel and Miller (2008) who find that CEOs of firms cross-listed on a US stock exchange are more likely to face being replaced when firm performance is poor. Having said this, in the face of weak performance, investors appear to be concerned as to whether the governance mechanism of shareholder protection would actually influence the appointment of a nonfamily successor. Although we find some support that poor past performance qualifies the effect of shareholder protection on the CARs, this evidence diverges from Conjecture 5.

[193] Although the results in this table, compared to Table 5.8, suggest that the less positive CARs are actually negative, the interpretation of *less* or *more* positive is relative to the different levels of board independence.

To sum up, Table 5.8 shows that past performance does indeed affect the influence of two of the other four postulated drivers, board independence and shareholder protection, on the CARs. There is no support for Conjecture 2 relating to family power or for Conjecture 3 relating to the founder. In support of Conjecture 4 we find that, at the first quartile of performance, the greater the adjusted board independence, the less positive are the CARs to the announcement of the appointment of a nonfamily CEO. This result is robust when using the two-year average of past performance. Using reported board independence, Conjecture 4 is supported for very low levels ($\leq 10^{th}$ percentile) of performance, but this support is not shown at the 25^{th} percentile of performance. As to Conjecture 5, which states that firms with greater shareholder protection experience less positive CARs to the announcement of a nonfamily successor, we find that poor performance elicits *more* positive CARs for such firms. This latter result, however, must be viewed with caution as it only holds true for one of the four estimated regressions.

5.4.3 Country effects and interactions

In order to identify whether any of the postulated drivers have a differential effect across the three countries, here we test our five conjectures using interactions of each driver with the country dummies for France, Germany and the UK. We estimate a total of six regressions, two for each country similar to regressions (1) and (2) in Table 5.7, measuring past performance by the industry-adjusted ROA. These six regressions are presented in Table 5.9. Regressions (1) and (2) are for France, regressions (3) and (4) are for Germany and regressions (5) and (6) are for the UK. Thus, we regress the Dimson-adjusted CARs for the [-40; 0] window on the five postulated drivers (again, with each driver interacted with the family successor dummy and with the nonfamily successor dummy), and the interactions between the drivers, type of successor dummy and the country dummy. Each of these regressions contains the interaction terms including the country dummy for only one country at a time in order to avoid multicollinearity. In regressions (1), (3) and (5) reported board independence is used, whereas in regressions (2), (4) and (6) adjusted board independence is used. As noted in the previous chapter, the variable shareholder protection equals zero for all UK firms, hence the interaction terms between this variable, the type of successor dummy and the UK dummy are omitted from regressions (5) and (6). Not enough variation in the interaction term between shareholder protection, the type of successor dummy and the

Germany country dummy is found with 97% and 99% of the observations being equal to zero for family and nonfamily successors, respectively. Therefore, these interactions are excluded from regressions (3) and (4)[194].

INSERT TABLE 5.9 ABOUT HERE

In Table 5.9, for all six regressions, we find that the coefficients for the interactions between family wedge and the successor types; between founder and the successor types, and between shareholder protection and the successor types are all insignificant. Further, the interactions of each of these three postulated drivers with the successor types and the country dummies for France, Germany, and the UK are also insignificant. This suggests that these three factors do not influence the CARs even when interacted with the country specific dummies. Hence, there is no support for Conjectures 2, 3 and 5 for France, Germany, and the UK. Surprisingly, we find that the coefficient for reported board independence interacted with the nonfamily successor dummy is positive and significant (at the 10% level or better) for France and the UK. This suggests that the greater the reported board independence the more positive are the CARs to the announcement of a nonfamily successor, which is in contrast to our fourth conjecture. However, the interaction terms between reported board independence, the nonfamily successor dummy and the country dummy are insignificant for all three countries. We also do not find any significant influence on the CARs in relation to adjusted board independence. In terms of past performance, measured by the industry-adjusted ROA, we find a negative and significant (at the 1% level) coefficient for past performance interacted with the nonfamily successor dummy for all six regressions. This confirms that past performance does indeed affect the announcement CARs. Similar to the results in Table 5.7 (and contrary to our Conjecture 6) we find that the poorer the past performance, the *more* positive are the CARs to the announcement of a nonfamily CEO. As explained in section 5.4.1, when considering the dominance of the family shareholders, investors may underestimate the probability of the incumbent family

[194] The dummies of forced departure and successor age are also omitted from the regressions in Table 5.9 due to the issue of multicollinearity. The VIFs for the regressions for France and Germany are about 3.3 and 2.8, respectively, when these variables are included. The equivalent value for the UK is about 2.3. Despite the low VIF relating to the regressions for the UK, including the forced departure dummy and the successor age, Stata does not report the F-value and the respective p-value for the F-test. Therefore, we exclude the two variables from all six regressions.

CEO's replacement by a nonfamily CEO (despite poor performance). This is likely the case even if information available to the public strongly indicates that relatively poor performance is directly attributable to the CEO, and a possible replacement by a nonfamily CEO could perform better. This is in agreement with Weisbach (1988).

To summarise, Conjectures 2, 3, and 5 relating to the influence of family power, founder, and shareholder protection, respectively, on the stock market reaction to the announcement of a nonfamily CEO successor, are not supported. This is shown by our results in Table 5.9. In the regressions using the reported board independence estimated for the French and the UK firms we find that the greater the reported board independence, the *more* positive are the CARs to the announcement of a nonfamily successor. This is contrary to the expected *less* positive effect as per Conjecture 4. Although past performance is a strong driver of the CARs for all three countries, contrary to Conjecture 6, we find that the poorer the past performance, the *more* positive are the CARs to the announcement of the appointment of a nonfamily CEO. Overall, these results show that all of the above five conjectures (2 to 6) as listed in Table 5.1 are rejected.

5.5 Robustness analysis

The purpose of this section is to analyse if the results pertaining to our model, i.e. regressions estimated in Table 5.7, are robust in their support (or lack of support) for the five conjectures. The robustness analysis is structured as follows. In section 5.5.1 we use a two-stage estimation technique, firstly to estimate the predicted probability of the appointment of a nonfamily CEO, and secondly, to examine whether this probability explains the CARs to the succession announcement. We also examine whether the CARs are more positive following the appointment of a nonfamily successor when the prediction is that a family member will succeed the CEO. Section 5.5.2 uses the average performance from the two years preceding the succession year as alternative performance measure. In section 5.5.3 we focus on the sub-sample of actual CEO changes, excluding re-appointments. Section 5.5.4 presents our results using the [-40; 20] window as an alternative to the [-40; 0] window used in section 5.4. Finally, section

5.5.5 focuses on the sub-sample of successions excluding those with confounding events.

In addition to this, we estimate the regressions in Table 5.7 using CARs adjusted for outliers[195]. Standard procedures for taking the logarithmic values of the CARs (e.g. Hillier and McColgan 2009), winsorizing (e.g. Fan *et al*. 2008), and standardising the CARs are employed. Regressions measuring CARs using these techniques are not tabulated separately. Overall, the results from the regressions in Table 5.7 are upheld.

5.5.1 Predicted probability of the type of CEO successor

In this section we test whether the predicted probability of the appointment of a nonfamily CEO successor, based on the determinants of the successor choice from Chapter 4, explains the CARs. We use a two-stage estimation technique, which involves a first-stage logit regression followed by a second-stage OLS regression (Pindado *et al*. 2012; Schmid 2013). In his analysis of the motives of founders and their families to influence the capital structure decision Schmid (2013) uses the firm's probability of being a family firm as an instrument. The author predicts the probabilities using a logit regression to explain the dependent variable of family firm. The factors he uses to explain family firms are outside block-holders, dummies for the use of a pyramid structure or dual class shares, firm size, standard deviation of the firm's earnings, sales growth and firm age. Based on the first-stage estimation, the author calculates the probability of the firm being a family firm. This probability is then included in a second stage OLS regression (as one of the independent variables). This method is also in line with the Heckman 2-step procedure (1979).

In the same manner, we use a logit regression similar to regression (1) in Table 4.6 in Chapter 4[196], to explain the likelihood of a nonfamily successor being appointed in the first stage. The dependent variable in this logit is a dummy that equals one if the

[195] Outliers are identified using the Cook's distance, i.e. observations with a Cook's D of greater than one are considered outliers. In addition, we use the 'extremes' command in Stata (which identifies the extreme values of numeric variables) to identify outliers. By default, the extremes are the five lowest and the five highest values. Optionally, values may be identified as extremes according to their distance from the nearer quartile.

[196] However, the variable family generation used in regression (1) in Table 4.6 in Chapter 4, is replaced by the founder dummy in the logit regression used in this chapter.

successor is a nonfamily CEO and zero otherwise. The independent variables include family wedge, founder, board independence, shareholder protection, and past performance. From this logit regression we take the estimated probability of there being a nonfamily successor appointment to be used in the second-stage OLS regression. This OLS regression is our estimated model discussed in section 5.2.3 in which the five postulated drivers are replaced by the predicted probability computed in our first-stage logit. Results of the second-stage OLS regressions are presented in Table 5.10. Table 5.10 presents four regressions, which are similar to those presented in Table 5.7, but with the interactions between the postulated drivers and the successor type dummies replaced with the predicted probability from the first-stage logit. The first-stage logits relating to regressions (1) and (3) in Table 5.10 use the reported board independence, whilst those relating to regressions (2) and (4) use the adjusted board independence. Past performance is measured using industry-adjusted ROA in the logits relating to regressions (1) and (2), and using industry-adjusted ROE in the logits relating to regressions (3) and (4). The control variables in all four regressions are the same as those in the regressions in Table 5.7[197].

INSERT TABLE 5.10 ABOUT HERE

Based on our premise, the greater the predicted probability that a nonfamily CEO will be appointed, the less positive would be the CARs if the nonfamily CEO was indeed appointed. We find that the coefficient for the predicted probability is insignificant in all four regressions, suggesting no support for any of the five conjectures, as observed previously.

Similar to the above technique, the logit model from Chapter 4 (using only the five determinants and no control variables) is used to predict the likelihood of one type of successor over another. This is to focus on the unexpected successor type, whereby, for example, a nonfamily CEO is appointed when the model predicts a family successor. A cross-sectional regression of the Dimson-adjusted CARs is then run on the sub-sample resulting from those observations in which the actual successor type (nonfamily) is

[197] These include industry-adjusted market-to-book ratio, long-term debt to equity, assets growth, firm size, forced departure dummy, CEO successor's age, country dummies for France, Germany and the UK, industry and year dummies.

different to the predicted type (family member). This tells us whether the CARs would be more positive in cases where the appointment of a nonfamily CEO could not be predicted. This approach is similar to that used by Jung *et al*. (1996) in the context of equity versus debt offers and market response to expected and unexpected equity issuers. We find that 61 successions[198] (out of 283) have a predicted probability in excess of 0.5 suggesting the (expected) appointment of a family member when, in reality, a nonfamily CEO is appointed[199]. We estimate four OLS regressions, similar to those in Table 5.7[200], for the sub-sample of these 61 successions which experience the unexpected announcement of a nonfamily CEO. Since the sub-sample includes only family-to-nonfamily successions, the regressions do not include the postulated drivers as interactions with the type of successor dummies. The resulting regressions are reported in Table 5.11.

INSERT TABLE 5.11 ABOUT HERE

Table 5.11 shows that past performance (using both industry-adjusted ROA and ROE)is the only postulated driver that is significant (at the 5% level or better) when a nonfamily CEO is appointed. This not only suggests the robustness of our results in Table 5.7 but also supports our explanation that, despite poor performance, more positive CARs are observed because the investors are uncertain as to whether a nonfamily successor would indeed replace the incumbent family CEO. As noted earlier, Conjectures 2, 3, 4 and 5 are not supported[201].

Overall, we conclude that our results presented in section 5.4.1 (and Table 5.7) are robust. Although our results are not statistically significant when using the predicted probability of a nonfamily CEO based on the determinants of the CEO successor choice, in economic terms they support our earlier findings. Moreover, on using the

[198] These 61 successions are based on the use of reported board independence. The equivalent number of successions is 46 when we use adjusted board independence in the logit regressions.
[199] The 0.5 threshold is used instead of a higher one, such as the fourth quartile, in order to have a sufficient number of observations.
[200] All variables used in these regressions are the same as in Table 5.7, except that we exclude the CEO successor's age as this variable has the most missing observations reducing the size of the sub-samples further.
[201] The significant drop in the number of observations in the regressions in Table 5.11 is because we focus particularly on nonfamily successions. Nevertheless, for the purpose of ensuring the robustness of our earlier results, these observations are sufficiently representative.

sub-sample of nonfamily CEO appointments when a family successor was predicted, we find that performance does indeed matter. With regards to Conjecture 6, we find that the weaker the past performance, the *more* positive are the CARs to the nonfamily successor announcement. There is no support for Conjectures 2, 3, 4 and 5 relating to the other four drivers.

5.5.2 Alternative performance measures

In this section we test whether the use of a longer time period (average over two years preceding succession) for our past performance measures would suggest the same relationship with the CARs as demonstrated by the regressions in Table 5.7[202]. The four regressions in Table 5.7, which use performance measures from one year before the year of the succession announcement, are re-estimated using the average industry-adjusted measures of ROA and ROE over the two years preceding the announcement year. The results are reported in Table 5.12.

INSERT TABLE 5.12 ABOUT HERE

We find that the results in Table 5.7 are upheld in that there is no support for Conjectures 2, 3, 4 and 5 relating to family power, founder, board independence, and shareholder protection. In terms of Conjecture 6, we find that weaker past performance results in more positive CARs. The results in Table 5.12 show that our earlier results are robust.

Past performance is also measured using dividend cuts and dividend omissions. Both of these are dummy variables which are equal to one if there is a cut in dividends or an omission in one year in comparison to its previous year, and zero otherwise. Dividend cuts and omissions are observed in one-year and two-year periods prior to the year of the succession announcement. The 'Dividends per Share' from Datastream is used to calculate cuts and omissions (for all listed shares, voting and non-voting). In summary, there are 45 dividend cuts in the one-year time period before the succession (35 for the two-year period), and 19 and 4 dividend omissions over the same time periods respectively. The use of dividend cuts and/or omissions as alternative measures for past

[202] We do a similar test for the regressions in Table 5.8 and find that our results are robust.

performance does not influence the market reaction and the resulting variables are not statistically significant. Therefore, these have not been included in the analyses of market reaction to the succession announcement.

5.5.3 Actual changes in CEO (excluding re-appointments)

In Chapter 4 it was pointed out that, whilst the sample in this thesis includes re-appointments of the incumbent family CEO, previous studies on CEO successions typically exclude such observations. Hence, the logit regressions are re-run excluding re-appointments and, in the same manner as above, the four regressions in Table 5.7 are re-run on the resulting sub-sample. These four regressions are presented in Table 5.13.

INSERT TABLE 5.13 ABOUT HERE

Regressions (1) to (4) still show negative and significant (at the 5% level or better) coefficients on the interaction between the past performance measures and the nonfamily successor dummy, which suggests that the weaker the past performance, the more positive are the CARs to the announcement of a nonfamily successor. This is in line with our earlier finding related to Conjecture 6. From these results it can be concluded that there is still no support for Conjectures 2, 3, 4 and 5 even on the exclusion of re-appointments.

5.5.4 Alternative event window

In this section, we test whether our results presented in Table 5.7 using the [-40; 0] window are robust by using the alternative [-40, 20] window[203]. There is no correlation between the industry-adjusted ROA, measured in the year before the year of the succession announcement, and the CARs calculated in the [-40; 20] window. Therefore, the latter past performance measure is replaced by the average industry-adjusted ROA over two years preceding the succession. Table 5.14 shows the four regressions, similar to those in Table 5.7, using the 61-day Dimson-adjusted CARs as the dependent

[203] The multivariate regression analysis is also carried out for an event window after the announcement to ensure the robustness of the findings on past performance. Even when a [+2; +20] window is used (again, similar to Smith and Amoako-Adu 1999), the result on past performance is upheld. The results using this window are not reported separately. Firstly, because this window was not used in the univariate event study in section 5.3, and secondly, because the results are qualitatively similar to the [-40; 20] window.

variable and the average industry-adjusted ROA over the two years prior to succession used as the performance measure in regressions (1) and (2).

INSERT TABLE 5.14 ABOUT HERE

We find none of the four regressions support Conjectures 2 to 5 relating to family power, founder, board independence and shareholder protection. In line with the results presented in Table 5.7, we find that the results for past performance are only upheld for the industry-adjusted ROE in regressions (3) and (4). Industry-adjusted ROA is only significant when we use its average over the *two* years preceding the succession announcement. In sum, Table 5.14 supports our earlier finding on past performance.

5.5.5 Sub-sample excluding announcements with confounding events

The univariate analysis in section 5.3 suggests that there is no statistical difference between the CARs adjusted for thin trading and those adjusted for thin-trading and excluding announcements with confounding events. In this section, we examine whether we find similar results using multivariate regression analysis. The four regressions in Table 5.7 are re-run on the sub-sample excluding announcements with confounding events, the results of which are presented in Table 5.15.

INSERT TABLE 5.15 ABOUT HERE

We find that none of the four regressions presented in Table 5.15 provide support for our Conjectures that family power (2), founder (3), board independence (4), and shareholder protection (5) have any influence on the CARs. Having said this, the coefficients on the past performance measures interacted with the nonfamily successor dummy are still negative and significant (at the 1% level) in all four regressions. This suggests that the weaker the past performance, the more positive are the CARs to the announcement of a nonfamily successor. Our multivariate results are also in line with our univariate results with regards to excluding announcements with confounding events. Overall, our results are upheld after excluding successions that have confounding events around the announcement date.

5.6 Conclusion

The aim of this fifth chapter is to investigate the stock market reaction to the announcement of the CEO successor in family firms in France, Germany and the UK. Considering the high level of control held by the family in such firms, and the results from our previous chapter, we conjecture that investors would expect a family successor and, hence, do not respond to the appointment of the latter. However, the appointment of a nonfamily successor, which is unexpected in such firms, is met by positive CARs surrounding the announcement. This relates to our first conjecture, which is supported by our results. Earlier studies on the stock market reaction to succession announcements have focused on the CEO characteristics. In contrast, this chapter focuses on the factors that increase or reduce the likelihood of a family successor as they are also likely to drive the stock market reaction to the succession announcement. We conjecture that there is a more positive market reaction to the announcement of the appointment of a nonfamily CEO in cases where family power is greater and when the CEO is the founder of the firm. Furthermore, the greater the board independence and shareholder protection, the less positive are the CARs to the announcement of a nonfamily CEO. Finally, we surmise that, when past performance is poor, the CARs around the announcement of the appointment of a nonfamily CEO are less positive. Hence, we test the five conjectures (2 to 6), listed in Table 5.1, on the potential drivers of the stock market reaction to the announcement of the appointment of a nonfamily CEO successor.

We do not find direct support for any of the five conjectures, particularly those relating to family power (Conjecture (2)), founder (Conjecture (3)), and shareholder protection (Conjecture (5)). However, we do find evidence that board independence (Conjecture (4)) and past performance (Conjecture (6)) influence the CARs. For Conjecture 4, relating to board independence, we find limited evidence (for French and UK firms) that the greater the reported board independence, the more positive are the CARs to the announcement of a nonfamily CEO. This is contrary to our conjecture, which expected a less positive influence on the CARs. As for Conjecture 6 on past performance, instead of the expected less positive CARs, we find that the CARs are more positive to the announcement of the appointment of a nonfamily CEO when past performance is poor. This suggests that, given the high family control in our sample firms, there is still great uncertainty that a nonfamily successor will be appointed despite the poor performance.

Evidence on past performance is strong (significant at the 1% level) and the related coefficients are consistently significant across almost all estimated regressions.

Replacing poorly performing CEOs is argued to be a necessary condition for good corporate governance (Macey 1997). This notion is consistent with Jensen and Ruback (1983) and Shleifer and Vishny (1989, 1997) who contend, although in the context of widely held firms, that an important form of expropriation of shareholder wealth is by poorly performing managers staying in the job. We find that, even on interacting our proposed drivers with past performance, there is no support for our conjectures on family power and on the incumbent CEO being the founder (Conjectures (2) and (3)). When setting past performance equal to the first quartile (i.e. when performance is poor) we find that, the greater the adjusted board independence, the less positive are the CARs to the announcement of a nonfamily CEO, which is in support of Conjecture 4. There is also support for this conjecture when using reported board independence, but only when performance is very poor, i.e. in the 10^{th} percentile (or worse). Finally, when interacting past performance with the shareholder protection dummy, we find some limited evidence that when performance is poor, firms that are cross-listed on a US or a UK stock exchange experience more positive CARs to the announcement of the appointment of a nonfamily CEO. This is contrary to Conjecture (5) which suggested that the opposite would be the case. Overall, there is clear evidence that past performance does indeed affect the influence of board independence on the CARs, and some support that it affects the influence of shareholder protection on the CARs.

To address the event study related issues discussed in Chapter 3, we adjust for thin trading using the Dimson-adjusted CARs for our regression analyses. Our univariate results, based on the non-parametric generalised rank test (GRANK), infer that it is the longer windows, [-40; 0] and [-40; 20], in which the CARs are significant, and hence, the CARs pertaining to these windows are used for our analyses in this chapter. Moreover, on excluding successions with confounding events, we find that there is no significant difference between this sub-sample and the full sample in both univariate and multivariate analyses. Finally, our robustness analysis confirms our earlier results and, overall we find that past performance has the strongest influence on the CARs to the announcement of a nonfamily CEO.

TABLES

Table 5.2: Summary statistics for the 231 sample firms

This table provides summary statistics for the 231 firms included in the sample using the first succession only. Descriptive statistics on firm and CEO characteristics (Panel A) and on the conjectured drivers (Panel B) are reported. Due to missing values the actual number of observations for some variables is smaller than 231. All variables except the forced departure dummy and CEO characteristics are measured in the year before the succession announcement year. The successor tenure is only available for nonfamily CEOs and hence, the former variable is omitted from the table.

	Mean	Median	SD	P25	P75	Min	Max
Panel A: Firm and CEO characteristics							
Market value, million €	283.63	41.86	769.64	12.63	152.98	0.96	5,300
Total assets, million €	424.47	69.53	1,866	22.00	238.91	2.16	26,000
Assets growth, %	9.43	5.02	35.50	-4.97	14.91	-69.65	225.07
Industry-adjusted M/B	0.42	-0.22	0.98	-1.00	-0.28	-8.58	31.01
Long-term debt to equity, %	26.21	13.04	77.23	0.55	43.40	-701.24	434.14
Interest coverage	0.70	1.00	0.46	0.00	1.00	0.00	1.00
Dividend payout, %	25.16	19.38	25.99	0.00	43.86	0.00	97.09
Herfindahl index	0.13	0.10	0.14	0.04	0.13	0.01	0.78
Forced departure	0.11	0.00	0.31	0.00	0.00	0.00	1.00
Incumbent CEO characteristics							
Tenure	20.02	19.00	10.29	13.00	25.00	2.00	53.00
Age	56.79	58.00	10.03	49.00	64.00	34.00	80.00
Successor CEO characteristics							
Age	50.56	50.50	9.46	44.00	58.00	29.00	79.00
Panel B: Conjectured drivers							
Family power							
Family control, %	60.71	61.01	15.86	50.50	70.87	25.12	99.36
Family ownership, %	54.93	55.00	15.21	44.30	65.79	17.67	99.36
Family wedge, %	5.63	0.00	9.15	0.00	10.76	-2.70	52.96
Founder	0.61	1.00	0.49	0.00	0.00	0.00	1.00
Directors' independence							
Reported board independence, %	55.07	57.14	15.70	45.45	66.67	0.00	85.71
Adjusted board independence, %	24.01	25.00	20.04	0.00	40.00	0.00	77.79
Difference in board independence, %	30.21	28.54	22.32	12.50	50.00	0.00	83.33
Shareholder protection	0.11	0.00	0.31	0.00	0.00	0.00	1.00
Past performance							
Industry-adjusted ROA, %	0.39	1.39	12.90	-2.71	4.78	-96.45	56.20
Industry-adjusted ROE, %	-5.40	0.26	40.61	-8.53	10.10	-301.38	112.02

Table 5.3: Comparison of the characteristics of the 212 family-to-family and 71 family-to-nonfamily successions

This table reports the mean and median comparisons for the 212 family-to-family and 71 family-to-nonfamily successions for France, Germany and the UK. Differences across firm and CEO characteristics (Panel A) and the conjectured drivers (Panel B) are reported. Differences in means are assessed using a t-test whereas differences in medians are tested using a z-test (Mann-Whitney U). Differences in the case of dummy variables, denoted by §, are tested using a binomial test (i.e. the difference in proportions). All variables except the forced departure dummy and CEO characteristics are measured in the year before the succession announcement year. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	Mean			Median		
	Family -to-family	Family -to-nonfamily	Differences (t-test)	Family -to-family	Family -to-nonfamily	Differences (z-test)
Panel A: Firm and CEO characteristics						
Market value, million €	200.71	534.16	-3.32**	46.89	68.69	-1.19
Total assets, million €	261.16	885.61	-2.68***	69.36	105.52	-1.67*
Assets growth, %	9.96	4.25	0.26	4.87	4.64	1.17
Industry-adjusted M/B	0.45	0.19	0.56	-0.22	-0.44	0.92
Long-term debt to equity, %	26.33	25.47	0.09	13.93	9.75	0.36
Interest coverage§	0.71	0.67	0.61			
Dividend payout, %	25.74	26.23	-0.13	21.95	21.16	0.14
Herfindahl index	0.13	0.15	-1.26	0.10	0.10	-0.70
Forced departure	0.02	0.31	-8.13***	0.00	0.00	-7.33***
Incumbent CEO characteristics						
Tenure	19.78	20.62	-0.51	19.00	19.50	-0.35
Age	55.55	57.87	-1.56	56.00	59.50	-1.45
Successor CEO characteristics						
Age	51.68	49.14	-1.77*	52.00	48.00	-1.46
Panel B: Conjectured drivers						
Family power						
Family control, %	60.64	59.58	0.49	60.54	60.35	0.17
Family ownership, %	54.92	53.78	0.55	54.87	55.70	-0.28
Family wedge, %	5.78	5.42	0.29	0.00	0.00	1.00
Founder	0.65	0.49	-2.36**			
Directors' independence						
Reported board independence, %	55.04	52.24	1.26	57.14	55.55	0.99
Adjusted board independence, %	19.52	36.16	-6.34***	20.00	38.46	-5.85***
Difference in board independence, %	33.99	16.80	5.92***	33.33	12.50	5.77***
Shareholder protection	8.49	16.90	-1.99**			
Past performance						
Industry-adjusted ROA, %	1.29	-0.77	-1.17	1.54	1.54	-0.10
Industry-adjusted ROE, %	-1.82	-8.58	-1.29	1.02	0.10	-0.78

Table 5.4: Differences in past performance for France, Germany and the UK

This table presents the mean and median comparisons of past performance measures between France, Germany and the UK by the type of CEO successor. Panel A reports the mean and median values for past performance measures for family-to-family and family-to-nonfamily successions. Panel B reports the test statistics relating to the mean and median differences between the three countries for the two succession groups. Differences in means are assessed using a t-test whereas differences in medians are tested using a z-test (Mann-Whitney U). Results in Panel A relating to the family-to-family successions are based on 113 observations for France, 64 observations for Germany and 35 observations for the UK; and those relating to the family-to-nonfamily successions are based on 24 observations for France, 30 observations for Germany and 17 observations for the UK. The performance measures are measured in the year before the succession announcement year. ***, ** denotes significance at the 1%, and 5% level, respectively (two-tailed test).

	France		Germany		UK	
	Mean	Median	Mean	Median	Mean	Median
Panel A: Past performance						
Family-to-family successions						
Industry-adjusted ROA, %	0.23	0.94	0.37	1.63	6.26	3.87
Industry-adjusted ROE, %	-6.23	-0.67	-0.72	3.76	10.39	6.81
Family-to-nonfamily successions						
Industry-adjusted ROA, %	3.51	1.68	-5.86	0.74	2.19	4.10
Industry-adjusted ROE, %	3.84	3.04	-21.61	-2.08	-4.65	0.50
	France vs Germany		Germany vs UK		UK vs France	
Panel B: Mean and Median differences						
Family-to-family successions						
Industry-adjusted ROA, %	-0.07	-0.91	-2.43**	-2.49**	3.13***	3.59***
Industry-adjusted ROE, %	-0.99	-1.13	-2.04**	-1.49	2.33**	2.23**
Family-to-nonfamily successions						
Industry-adjusted ROA, %	2.01**	1.49	-1.40	-1.82*	-0.39	-0.39
Industry-adjusted ROE, %	1.96**	1.73*	-0.99	-1.12	-0.88	-0.40

Table 5.5: Cumulative abnormal returns – Summary statistics for the full sample

This table provides summary statistics for the unadjusted cumulative abnormal returns (CARs) calculated using the market model specified by the event study methodology for the 264 successions for which complete return data are available. Summary statistics are presented for the seven event windows, [-40; 0], [-10; 0], [0; 1], [0; 10], [-1; 1], [-3, 3], and [-40; 20]. ***, ** denotes significance at the 1%, and 5% level, respectively, using the generalised rank test (GRANK).

Time period	Mean	Median	SD	Min	Max
Unadjusted CARs (Full sample)					
CAR [-40; 0], %	1.29**	1.10	30.10	-351.5	126.8
CAR [-10; 0], %	0.91	-0.13	11.81	-95.54	43.82
CAR [0; 1], %	-0.17	-0.08	5.78	-30.83	17.67
CAR [0;10], %	1.13	-0.43	15.56	-49.10	146.5
CAR [-1; 1], %	-0.05	-0.02	6.60	-30.63	32.77
CAR [-3; 3], %	1.30	-0.16	15.48	-36.65	176.8
CAR [-40; 20], %	1.95**	0.31	41.93	-516.2	133.8

Table 5.6: Cumulative abnormal returns – Summary statistics for sub-samples, and test-statistics

This table presents summary statistics for the cumulative abnormal returns (CARs) for the two succession groups (213 family-to-family and 71 family-to-nonfamily). Summary statistics for these samples in two event windows, [-40; 0] and [-40; 20], are presented for the un-adjusted CARs (Panel A), Dimson-adjusted CARs (Panel B), and Dimson-adjusted CARs excluding successions with confounding events (Panel C). The significance of the CARs is tested using the Student t-test, t_{CAR}, the Corrado rank test, $t_{Corrado}$, and the generalised rank test (GRANK), t_{GRANK}. ***, **, and * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	Mean	Mean (test-statistics)			Median	SD	Min	Max
		t_{CAR}	$t_{Corrado}$	t_{GRANK}				
Panel A:Unadjusted CARs								
Family-to-family								
CAR [-40; 0], %	-0.07	-0.11	1.12	1.85*	1.11	32.35	-351.49	126.82
CAR [-40; 20], %	0.46	0.45	1.27	1.56	0.28	45.58	-516.18	120.99
Family-to-nonfamily								
CAR [-40; 0], %	5.31	2.84***	1.41	1.88*	0.75	21.86	-72.22	64.29
CAR [-40; 20], %	6.36	1.88*	1.21	1.29	1.45	28.34	-54.20	133.79
Panel B:Dimson-adjusted CARs								
Family-to-family								
CAR [-40; 0], %	-0.59	-0.93	0.73	1.21	1.59	31.77	-359.92	102.29
CAR [-40; 20], %	-0.12	-0.12	0.99	1.46	0.47	46.94	-552.60	116.38
Family-to-nonfamily								
CAR [-40; 0], %	5.88	2.84***	1.28	1.98*	2.55	23.28	-71.56	70.92
CAR [-40; 20], %	7.21	1.95*	1.57	1.94*	2.19	28.07	-52.46	122.83
Panel C:Dimson-adjusted CARs excluding succession announcements with confounding events								
Family-to-family								
CAR [-40; 0], %	0.86	0.98	0.71	1.11	1.59	14.02	-28.98	64.10
CAR [-40; 20], %	1.99	1.47	0.92	1.12	-0.15	19.38	-42.75	64.64
Family-to-nonfamily								
CAR [-40; 0], %	8.52	1.94*	0.64	1.95*	0.75	22.03	-20.93	70.92
CAR [-40; 20], %	8.10	1.13	0.82	2.29**	2.19	21.49	-24.04	80.51

Table 5.7: Drivers of the market reaction to the CEO succession announcements

This table reports the cross-sectional regressions of the cumulative abnormal returns (CARs) for the [-40; 0] event window on the five conjectured drivers and control variables. The drivers are family power (as measured by family wedge), founder, board independence, shareholder protection and past firm performance. Each driver is interacted with the family successor dummy and also with the nonfamily successor dummy. Regressions (1) and (3) use reported board independence, and regressions (2) and (4) use adjusted board independence. In terms of past performance, regressions (1) and (2) use the industry-adjusted return on assets (ROA), and regressions (3) and (4) use the industry-adjusted return on equity (ROE). Additional control variables in all four regressions include industry-adjusted market-to-book value (M/B), long-term debt to equity, assets growth, and firm size (Lnsize) over the last year. Other controls include successor age and the forced departure dummy. All variables except the successor type dummies, forced departure and successor age are measured in the year before the succession year. The regressions also include country, year, and industry dummies. Standard errors, corrected for firm-level clustering, are reported in parentheses. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

Dimson-adjusted CAR [-40; 0]	(1)	(2)	(3)	(4)
Family wedge × Family successor	-0.092	-0.034	-0.102	-0.034
	(0.253)	(0.233)	(0.268)	(0.264)
Family wedge × Nonfamily successor	0.018	-0.042	-0.021	-0.030
	(0.250)	(0.257)	(0.242)	(0.249)
Founder × Family successor	-0.044	-0.026	-0.047	-0.035
	(0.033)	(0.033)	(0.033)	(0.033)
Founder × Nonfamily successor	0.035	0.014	-0.009	-0.025
	(0.056)	(0.058)	(0.055)	(0.058)
Reported board indep.× Family successor	0.162*		0.157*	
	(0.088)		(0.091)	
Reported board indep.× Nonfamily successor	0.095		0.138	
	(0.086)		(0.096)	
Adjusted board indep.× Family successor		-0.061		-0.059
		(0.088)		(0.085)
Adjusted board indep.× Nonfamily successor		0.017		0.028
		(0.094)		(0.107)
Shareholder protection × Family successor	0.002	-0.015	-0.001	-0.021
	(0.041)	(0.048)	(0.041)	(0.047)
Shareholder protection × Nonfamily successor	0.065	0.031	0.043	0.013
	(0.081)	(0.092)	(0.081)	(0.094)
Industry-adjusted ROA× Family successor	-0.278	-0.432		
	(0.306)	(0.404)		
Industry-adjusted ROA× Nonfamily successor	-1.119***	-1.286***		
	(0.259)	(0.255)		
Industry-adjusted ROE × Family successor			-0.074	-0.096
			(0.080)	(0.103)
Industry-adjusted ROE × Nonfamily successor			-0.557***	-0.581***
			(0.096)	(0.096)
Industry-adjusted M/B	-0.004	0.004	-0.007	0.003
	(0.006)	(0.010)	(0.006)	(0.011)
Long-term debt to equity	-0.008	0.008	0.001	0.024
	(0.018)	(0.031)	(0.025)	(0.046)
Assets growth	0.047	0.063	0.032	0.042
	(0.058)	(0.073)	(0.054)	(0.065)
Lnsize	0.001	0.006	0.001	0.007
	(0.010)	(0.011)	(0.011)	(0.011)
Forced departure	-0.029	-0.008	-0.047	-0.028
	(0.069)	(0.069)	(0.072)	(0.075)

Table 5.7 cont.

	(1)	(2)	(3)	(4)
Successor age	-0.000	-0.001	0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Country dummies	Yes	Yes	Yes	Yes
Industry and Year dummies	Yes	Yes	Yes	Yes
Number of Observations	209	191	207	189
R-Square	0.345	0.367	0.329	0.333
Adjusted R-Square	0.204	0.215	0.183	0.171
F-value	3.720***	4.527***	4.121***	3.746***

Table 5.8: Impact on the CARs of the interactions between past performance and the other four drivers

This table reports the cross-sectional regressions of the cumulative abnormal returns (CARs) for the [-40; 0] event window on the five conjectured drivers, the interactions between four drivers and past performance and control variables. The drivers are family wedge, founder, board independence, shareholder protection and past firm performance. Each driver is interacted with the family successor dummy and also with the nonfamily successor dummy. Additionally, this table includes the interactions between each of the four drivers, past performance and the nonfamily successor dummy. Regressions (1) and (3) use reported board independence, and regressions (2) and (4) use adjusted board independence. In terms of past performance, regressions (1) and (2) use the industry-adjusted return on assets (ROA), and regressions (3) and (4) use the industry-adjusted return on equity (ROE). Additional control variables in all four regressions include industry-adjusted market-to-book value (M/B), long-term debt to equity, assets growth, and firm size (Lnsize) over the last year. Other controls include successor age and the forced departure dummy. All variables except the successor type dummies, forced departure and successor age are measured in the year before the succession year. The regressions also include country, year, and industry dummies. Standard errors, corrected for firm-level clustering, are reported in parentheses. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

Dimson-adjusted CAR [-40; 0]	(1)	(2)	(3)	(4)
Family wedge × Family successor	-0.115	0.012	-0.072	0.052
	(0.256)	(0.237)	(0.265)	(0.263)
Family wedge × Nonfamily successor	0.064	0.005	0.074	0.038
	(0.203)	(0.193)	(0.225)	(0.241)
Founder × Family successor	-0.054	-0.017	-0.052	-0.046
	(0.034)	(0.034)	(0.033)	(0.033)
Founder × Nonfamily successor	-0.023	0.039	-0.019	-0.040
	(0.066)	(0.075)	(0.072)	(0.073)
Reported board indep.× Family successor	0.180**		0.210**	
	(0.090)		(0.087)	
Reported board indep.× Nonfamily successor	0.212**		0.235**	
	(0.104)		(0.110)	
Adjusted board indep.× Family successor		-0.055		-0.070
		(0.087)		(0.085)
Adjusted board indep.× Nonfamily successor		-0.034		0.056
		(0.135)		(0.132)
Shareholder protection × Family successor	0.012	-0.013	-0.004	-0.023
	(0.043)	(0.049)	(0.040)	(0.051)
Shareholder protection × Nonfamily successor	0.062	0.032	0.055	0.001
	(0.085)	(0.111)	(0.085)	(0.096)
Ind-adj.ROA × Family successor	-0.275	-0.387		
	(0.306)	(0.412)		
Ind-adj.ROA × Nonfamily successor	-3.521*	-4.428**		
	(1.804)	(1.903)		
Ind-adj.ROE × Family successor			-0.052	-0.070
			(0.080)	(0.105)
Ind-adj.ROE × Nonfamily successor			-0.470	-2.058*
			(0.793)	(1.086)
Family wedge × Ind-adj.ROA× Nonfamily successor	7.073	8.127		
	(5.948)	(5.855)		
Founder×Ind-adj.ROA× Nonfamily successor	0.391	0.723		
	(1.570)	(1.637)		
Reported board indep.× Ind-adj.ROA × Nonfamily successor	3.515***			
	(1.253)			

Table 5.8 cont.

	(1)	(2)	(3)	(4)
Adjusted board indep.× Ind-adj.ROA × Nonfamily successor		6.673***		
		(1.792)		
Shareholder protection × Ind-adj.ROA × Nonfamily successor	-1.958	-1.479		
	(1.311)	(1.689)		
Family wedge × Ind-adj.ROE × Nonfamily successor			0.539	3.764
			(2.842)	(3.423)
Founder × Ind-adj.ROE × Nonfamily successor			-0.327	0.518
			(0.645)	(0.867)
Reported board indep.× Ind-adj.ROE × Nonfamily successor			0.725	
			(0.758)	
Adjusted board indep.× Ind-adj.ROE × Nonfamily successor				2.913***
				(0.841)
Shareholder protection × Ind-adj.ROE × Nonfamily successor			-1.434***	-0.721
			(0.506)	(0.807)
Industry-adjusted M/B	-0.005	0.006	-0.006	0.006
	(0.006)	(0.011)	(0.005)	(0.011)
Long-term debt to equity	-0.010	0.009	-0.010	0.035
	(0.019)	(0.035)	(0.027)	(0.054)
Assets growth	0.059	0.037	0.019	0.017
	(0.057)	(0.075)	(0.047)	(0.056)
Lnsize	0.002	0.011	0.003	0.008
	(0.011)	(0.011)	(0.012)	(0.012)
Forced departure	-0.055	-0.001	-0.085	-0.019
	(0.058)	(0.068)	(0.080)	(0.074)
Successor age	-0.000	-0.002	0.000	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Country dummies	Yes	Yes	Yes	Yes
Industry and Year dummies	Yes	Yes	Yes	Yes
Number of Observations	209	191	207	189
R-Square	0.376	0.363	0.321	0.354
Adjusted R-Square	0.224	0.204	0.168	0.187
F-value	4.904***	4.374***	5.882***	3.389***

Table 5.9: Drivers of the market response to the CEO succession decision with country effects

This table reports the cross-sectional regressions of the Dimson-adjusted cumulative abnormal returns (CARs) for the [-40; 0] event window on the five conjectured drivers interacted with the country dummies and successor type dummy. The drivers are family wedge, founder, board independence, shareholder protection and past firm performance. Regressions (1) and (2) contain the differential interaction terms for France, regressions (3) and (4) for Germany, and regressions (5) and (6) for the UK. For each of these three groups of country regressions, the first employs the reported board independence whereas the second one includes adjusted board independence from the controlling family. The measure of past performance is industry-adjusted ROA, measured in the year before the succession announcement year. As shareholder protection is a variable equal to one, if the firm is listed on a US or UK stock exchange in addition to its home exchange, and zero otherwise, the interaction between shareholder protection and the UK country dummy is omitted from regressions (5) and (6). Due to lack of variation interactions of the former variable with the Germany country dummy are omitted from regressions (3) and (4). Firm characteristics other than the industry-adjusted market value, long-term debt to equity, assets growth and firm size in 1 year pre-succession period; are excluded from the regressions due to multicollinearity problems. Standard errors are reported in parentheses and are corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	France		Germany		UK	
Dimson-adjusted CAR [-40; 0]	(1)	(2)	(3)	(4)	(5)	(6)
Family wedge× Family successor	0.699	0.390	-0.047	0.013	-0.014	0.029
	(1.143)	(1.029)	(0.234)	(0.251)	(0.265)	(0.222)
Family wedge× Nonfamily successor	-0.197	-0.163	-0.236	-0.322	-0.261	-0.256
	(0.335)	(0.321)	(0.291)	(0.323)	(0.379)	(0.365)
Founder× Family successor	0.155	0.059	-0.026	-0.004	-0.008	0.005
	(0.196)	(0.109)	(0.038)	(0.039)	(0.070)	(0.058)
Founder× Nonfamily successor	-0.076	-0.068	-0.050	-0.084	-0.054	-0.047
	(0.088)	(0.102)	(0.073)	(0.082)	(0.069)	(0.078)
Reported board indep.× Family successor	-0.172		0.104		0.056	
	(0.363)		(0.105)		(0.149)	
Reported board indep.× Nonfamily successor	0.302*		0.160		0.307**	
	(0.168)		(0.131)		(0.145)	
Adjusted board indep.× Family successor		-0.242		-0.139		-0.191
		(0.286)		(0.096)		(0.186)
Adjusted board indep.× Nonfamily successor		0.242		0.144		0.362
		(0.239)		(0.157)		(0.268)
Shareholder protection× Family successor	0.084	0.024	0.025	-0.023	0.043	0.005
	(0.073)	(0.074)	(0.048)	(0.043)	(0.046)	(0.047)
Shareholder protection× Nonfamily successor	-0.025	-0.052	0.089	0.064	0.026	-0.030
	(0.127)	(0.123)	(0.073)	(0.081)	(0.079)	(0.099)
Ind-adj.ROA× Family successor	-0.232	-0.472	-0.662	-0.607	-0.432	-0.612
	(0.257)	(0.376)	(0.486)	(0.467)	(0.361)	(0.445)
Ind-adj.ROA× Nonfamily successor	-1.577***	-1.653***	-1.838***	-1.887***	-1.401***	-1.489***
	(0.368)	(0.360)	(0.590)	(0.611)	(0.374)	(0.362)
Family wedge × Family successor × France	-0.741	-0.277				
	(1.214)	(1.043)				
Family wedge× Nonfamily successor × France	-0.509	-0.598				
	(0.676)	(0.680)				
Founder × Family successor × France	-0.218	-0.086				
	(0.198)	(0.102)				
Founder × Nonfamily successor × France	0.066	0.052				
	(0.109)	(0.127)				

Table 5.9 cont.

	(1)	(2)	(3)	(4)	(5)	(6)
Reported board indep × Family successor × France	0.335 (0.366)					
Reported board indep × Nonfamily successor × France	-0.011 (0.133)					
Adjusted board indep. × Family successor × France		0.088 (0.274)				
Adjusted board indep. × Nonfamily successor × France		0.009 (0.198)				
Shareholder protection × Family successor × France	-0.082 (0.090)	-0.061 (0.081)				
Shareholder protection × Nonfamily successor × France	0.130 (0.166)	0.122 (0.183)				
Ind-adj.ROA × Family successor × France	-0.611 (0.638)	-0.272 (0.677)				
Ind-adj.ROA × Nonfamily successor × France	-0.225 (0.874)	-0.135 (0.845)				
Family wedge × Family successor × Germany			0.907 (1.126)	0.754 (0.773)		
Family wedge × Nonfamily successor × Germany			0.319 (0.457)	0.316 (0.503)		
Founder × Family successor × Germany			0.240 (0.342)	0.121 (0.215)		
Founder × Nonfamily successor × Germany			0.095 (0.112)	0.170 (0.115)		
Reported board indep.× Family successor × Germany			-0.360 (0.574)			
Reported board indep.× Nonfamily successor × Germany			0.114 (0.125)			
Adjusted board indep.× Family successor × Germany				-0.266 (0.573)		
Adjusted board indep. × Nonfamily successor × Germany				0.095 (0.206)		
Ind-adj.ROA × Family successor × Germany			0.363 (0.514)	-0.090 (0.705)		
Ind-adj.ROA× Nonfamily successor × Germany			0.655 (0.530)	0.664 (0.569)		
Family wedge × Family successor × UK					0.218 (1.174)	-0.444 (1.281)
Family wedge × Nonfamily successor × UK					0.177 (0.541)	0.001 (0.628)
Founder × Family successor × UK					0.109 (0.120)	0.032 (0.111)

Table 5.9 cont.

	(1)	(2)	(3)	(4)	(5)	(6)
Founder × Nonfamily successor × UK					-0.030	-0.108
					(0.112)	(0.152)
Reported board indep × Family successor × UK					-0.213	
					(0.146)	
Reported board indep × Nonfamily successor × UK					-0.292	
					(0.206)	
Adjusted board indep. × Family successor × UK						0.045
						(0.257)
Adjusted board indep. × Nonfamily successor × UK						-0.302
						(0.333)
Ind-adj.ROA× Family successor × UK					0.239	0.181
					(0.653)	(0.723)
Ind-adj.ROA× Nonfamily successor × UK					-0.584	-0.716
					(0.456)	(0.451)
Industry-adjusted M/B	-0.009*	-0.004	-0.008*	-0.004	-0.007	-0.004
	(0.005)	(0.010)	(0.005)	(0.010)	(0.006)	(0.012)
Long-term debt to equity	0.016	0.025	0.020	0.026	0.019	0.025
	(0.024)	(0.030)	(0.026)	(0.030)	(0.029)	(0.030)
Assets growth	0.144	0.155	0.149	0.168	0.129	0.144
	(0.110)	(0.123)	(0.112)	(0.132)	(0.111)	(0.120)
Lnsize	0.002	0.011	0.003	0.011	0.003	0.011
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.009)
Industry and Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	236	219	236	219	236	219
R-Square	0.210	0.213	0.208	0.222	0.194	0.220
Adjusted R-Square	0.038	0.027	0.046	0.048	0.029	0.046
F-value	2.758***	2.242***	2.945***	2.459***	3.295***	2.701***

Table 5.10: Robustness analysis: Testing the influence of the predicted probability of a nonfamily CEO appointment on the CARs

This table reports the cross-sectional regressions of the Dimson-adjusted cumulative abnormal returns (CARs) for the [-40; 0] event window on the predicted probability of the five conjectured drivers estimated using a first-stage logit regression. The logit regression uses the type of CEO as the dependent variable where one equals nonfamily successor and zero equals family successor. The independent variables used in the logit are the five postulated drivers, family wedge, founder, board independence, shareholder protection, and past performance. The predicted probabilities in regressions (1) – (4) use the board independence and past performance measures in the first-stage logit as follows: regression (1) uses industry-adjusted ROA and reported board independence, regression (2) uses industry-adjusted ROA and adjusted board independence, regression (3) uses industry-adjusted ROE and reported board independence, and regression (4) uses industry-adjusted ROE and adjusted board independence. Standard errors are reported in parentheses and are corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

Dimson-adjusted CAR [-40; 0]	(1)	(2)	(3)	(4)
Predicted probability_using Ind-adj. ROA & Reported board independence	-0.085			
	(0.236)			
Predicted probability_using Ind-adj. ROA & Adjusted board independence		-0.061		
		(0.086)		
Predicted probability_using Ind-adj. ROE & Reported board independence			-0.115	
			(0.242)	
Predicted probability_using Ind-adj. ROE & Adjusted board independence				-0.052
				(0.090)
Industry-adjusted M/B	-0.565	0.119	-0.470	0.554
	(0.579)	(1.142)	(0.798)	(1.745)
Long-term debt to equity	-0.025	-0.014	-0.038	-0.033
	(0.017)	(0.029)	(0.025)	(0.026)
Assets growth	-0.053	-0.067	-0.051	-0.072
	(0.055)	(0.064)	(0.055)	(0.068)
Lnsize	-0.126	0.002	-0.210	0.009
	(1.059)	(0.985)	(1.065)	(0.974)
Forced departure	-1.008	1.341	-1.590	0.503
	(7.415)	(7.737)	(7.201)	(7.522)
Successor age	-0.058	-0.081	-0.055	-0.077
	(0.122)	(0.133)	(0.121)	(0.131)
Country dummies	Yes	Yes	Yes	Yes
Industry & year dummies	Yes	Yes	Yes	Yes
Number of Observations	209	191	207	189
R-Square	0.194	0.191	0.197	0.197
Adjusted R-Square	0.075	0.058	0.078	0.064
F-value	2.125***	2.156***	2.129***	2.158***

Table 5.11: Robustness analysis: Testing the stock market reaction to the appointment of a nonfamily CEO when a family successor was predicted

This table reports the cross-sectional regressions of the Dimson-adjusted cumulative abnormal returns (CARs) for the [-40; 0] event window on the five conjectured drivers and control variables. The sub-sample used in this table represents those successions in which a family member successor was predicted, however, in reality, a nonfamily CEO is appointed. Hence, the sub-sample only includes family-to-nonfamily successions. The drivers are family wedge, founder, board independence, shareholder protection and past firm performance. Regressions (1) and (3) use reported board independence, and regressions (2) and (4) use adjusted board independence. In terms of past performance, regressions (1) and (2) use the industry-adjusted ROA, and regressions (3) and (4) use the industry-adjusted ROE. Additional control variables in all four regressions include industry-adjusted market-to-book value (M/B), long-term debt to equity, assets growth, and firm size (Lnsize) over the last year. All variables are measured in the year before the succession year. The regressions also include country, year, and industry dummies. Standard errors are reported in parentheses and are corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

Dimson-adjusted CAR [-40; 0]	(1)	(2)	(3)	(4)
Family wedge	0.073	0.011	0.213	0.143
	(0.207)	(0.393)	(0.230)	(0.436)
Founder	0.106	0.110	-0.008	-0.028
	(0.083)	(0.115)	(0.118)	(0.149)
Reported board indep.	0.111		0.130	
	(0.287)		(0.293)	
Adjusted board indep.		-0.162		-0.443
		(0.336)		(0.372)
Shareholder protection	0.050	0.222	0.051	0.276
	(0.111)	(0.336)	(0.105)	(0.349)
Industry-adjusted ROA	-0.943***	-1.381**		
	(0.323)	(0.631)		
Industry-adjusted ROE			-0.504***	-0.837***
			(0.168)	(0.228)
Industry-adjusted M/B	-0.014	-0.054	-0.003	-0.037
	(0.015)	(0.038)	(0.017)	(0.036)
Long-term debt to equity	-0.022	-0.006	-0.001	0.042
	(0.040)	(0.093)	(0.053)	(0.090)
Assets growth	0.251*	0.359*	0.265**	0.453**
	(0.129)	(0.206)	(0.129)	(0.220)
Lnsize	-0.020	-0.031	-0.020	-0.015
	(0.026)	(0.048)	(0.030)	(0.048)
Country dummies	Yes	Yes	Yes	Yes
Industry and Year dummies	Yes	Yes	Yes	Yes
Number of Observations	56	41	53	39
R-Square	0.605	0.711	0.564	0.752
Adjusted R-Square	0.210	0.090	0.075	0.120
F-value	5.718***	2.549**	2.755***	2.454**

Table 5.12: Robustness analysis: Alternative performance measures

This table reports the cross-sectional regressions of the Dimson-adjusted cumulative abnormal returns (CARs) for the [-40; 0] event window on the five conjectured drivers and control variables. The drivers are family wedge, founder, board independence, shareholder protection and past firm performance. Each driver is interacted with the family successor dummy and also with the nonfamily successor dummy. Regressions (1) and (3) use reported board independence, and regressions (2) and (4) use adjusted board independence. In terms of past performance, regressions (1) and (2) use the industry-adjusted ROA, and regressions (3) and (4) use the industry-adjusted ROE. The performance measures are measured as the average of two years prior to the year of the announcement. Additional control variables in all four regressions include industry-adjusted market-to-book value (M/B), long-term debt to equity, assets growth, and firm size (Lnsize). Other controls include successor age and the forced departure dummy. All variables except the successor type dummies, forced departure and successor age are measured in the year before the succession announcement year. The regressions also include country, year, and industry dummies. Standard errors are reported in parentheses and are corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

Dimson-adjusted CAR [-40; 0]	(1)	(2)	(3)	(4)
Family wedge × Family successor	-0.059	0.007	-0.060	0.018
	(0.247)	(0.232)	(0.272)	(0.267)
Family wedge × Nonfamily successor	0.076	0.017	-0.007	-0.054
	(0.241)	(0.253)	(0.254)	(0.266)
Founder × Family successor	-0.028	-0.007	-0.035	-0.020
	(0.034)	(0.036)	(0.034)	(0.035)
Founder × Nonfamily successor	0.080	0.057	0.047	0.019
	(0.071)	(0.074)	(0.067)	(0.069)
Reported board indep.× Family successor	0.157*		0.156	
	(0.093)		(0.094)	
Reported board indep.× Nonfamily successor	0.032		0.081	
	(0.104)		(0.103)	
Adjusted board indep.× Family successor		-0.071		-0.060
		(0.086)		(0.086)
Adjusted board indep.× Nonfamily successor		-0.087		0.003
		(0.124)		(0.120)
Shareholder protection × Family successor	-0.021	-0.040	-0.011	-0.032
	(0.044)	(0.049)	(0.043)	(0.049)
Shareholder protection × Nonfamily successor	0.063	0.042	0.072	0.035
	(0.093)	(0.108)	(0.088)	(0.101)
Ind-adj.ROA (2yr avg.)× Family successor	-0.325	-0.533		
	(0.422)	(0.477)		
Ind-adj.ROA (2yr avg.) × Nonfamily successor	-0.705**	-0.886***		
	(0.274)	(0.274)		
Ind-adj.ROE (2yr avg.) × Family successor			-0.093	-0.118
			(0.110)	(0.118)
Ind-adj.ROE (2yr avg.) × Nonfamily successor			-0.509**	-0.572***
			(0.204)	(0.211)
Industry-adjusted M/B	-0.004	0.005	-0.005	0.005
	(0.006)	(0.010)	(0.006)	(0.011)
Long-term debt to equity	-0.008	0.007	-0.001	0.021
	(0.018)	(0.029)	(0.025)	(0.041)
Assets growth	0.017	0.043	0.012	0.027
	(0.055)	(0.069)	(0.051)	(0.064)
Lnsize	0.007	0.013	0.002	0.008
	(0.011)	(0.011)	(0.012)	(0.012)
Forced departure	-0.042	-0.020	-0.026	-0.008
	(0.080)	(0.079)	(0.081)	(0.084)

Table 5.12 cont.

	(1)	(2)	(3)	(4)
Successor age	-0.001	-0.001	-0.000	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Country dummies	Yes	Yes	Yes	Yes
Industry and Year dummies	Yes	Yes	Yes	Yes
Number of Observations	208	190	204	186
R-Square	0.286	0.301	0.270	0.269
Adjusted R-Square	0.131	0.133	0.108	0.088
F-value	2.243***	2.141***	2.470***	2.044**

Table 5.13: Robustness analysis: Actual changes (excluding re-appointments)

This table reports the cross-sectional regressions of the Dimson-adjusted cumulative abnormal returns (CARs) for the [-40; 0] event window on the five conjectured drivers and control variables. The regressions are estimated using a sub-sample that excludes successions that are actually re-appointments of the incumbent CEO. The drivers are family wedge, founder, board independence, shareholder protection and past firm performance. Each driver is interacted with the family successor dummy and also with the nonfamily successor dummy. Regressions (1) and (3) use reported board independence, and regressions (2) and (4) use adjusted board independence. In terms of past performance, regressions (1) and (2) use the industry-adjusted ROA, and regressions (3) and (4) use the industry-adjusted ROE. Additional control variables in all four regressions include industry-adjusted market-to-book value (M/B) and assets growth. Other control variables are excluded due to multicollinearity. All variables except the successor type dummies are measured in the year before the succession announcement year. The regressions also include country, year, and industry dummies. Standard errors are reported in parentheses and are corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

Dimson-adjusted CAR [-40; 0]	(1)	(2)	(3)	(4)
Family wedge × Family successor	0.935	0.825	0.740	0.671
	(0.931)	(0.735)	(0.832)	(0.723)
Family wedge × Nonfamily successor	0.007	0.088	0.194	0.285
	(0.225)	(0.240)	(0.299)	(0.307)
Founder × Family successor	0.177	0.172	0.203	0.183
	(0.205)	(0.156)	(0.262)	(0.202)
Founder × Nonfamily successor	0.014	0.019	-0.119	-0.114
	(0.112)	(0.144)	(0.131)	(0.165)
Reported board indep.× Family successor	0.001		-0.076	
	(0.319)		(0.352)	
Reported board indep.× Nonfamily successor	0.759		0.659	
	(0.693)		(0.631)	
Adjusted board indep.× Family successor		-0.612		-0.814
		(0.727)		(0.781)
Adjusted board indep.× Nonfamily successor		0.608		0.488
		(0.595)		(0.542)
Shareholder protection× Family successor	0.247	0.250	0.330	0.346
	(0.265)	(0.247)	(0.313)	(0.315)
Shareholder protection× Nonfamily successor	-0.056	-0.076	-0.081	-0.077
	(0.140)	(0.188)	(0.142)	(0.192)
Industry-adjusted ROA× Family successor	0.329	0.146		
	(1.026)	(0.995)		
Industry-adjusted ROA× Nonfamily successor	-1.484**	-1.479***		
	(0.640)	(0.538)		
Industry-adjusted ROE× Family successor			-1.055	-1.098
			(0.981)	(1.079)
Industry-adjusted ROE× Nonfamily successor			-0.702***	-0.646***
			(0.238)	(0.194)
Industry-adjusted M/B	-0.059	-0.060	-0.039	-0.041
	(0.048)	(0.049)	(0.039)	(0.041)
Assets growth	0.381	0.409*	0.444*	0.448*
	(0.249)	(0.238)	(0.265)	(0.255)
Country dummies	Yes	Yes	Yes	Yes
Industry and Year dummies	Yes	Yes	Yes	Yes
Number of Observations	94	90	92	88
R-Square	0.235	0.247	0.253	0.263
F-value	1.659**	1.615**	1.390	1.330

Table 5.14: Robustness analysis: Using an alternative event window [-40; 20]

This table reports the cross-sectional regressions of the cumulative abnormal returns (CARs) for the [-40; 20] event window on the five conjectured drivers and control variables. The drivers are family wedge, founder, board independence, shareholder protection and past firm performance. Each driver is interacted with the family successor dummy and also with the nonfamily successor dummy. This is done to identify the differential effect of each driver by type of CEO successor. Regressions (1) and (3) use reported board independence, and regressions (2) and (4) use adjusted board independence. In terms of past performance, regressions (1) and (2) use the industry-adjusted ROA, and regressions (3) and (4) use the industry-adjusted ROE. Additional control variables in all four regressions include industry-adjusted market-to-book value (M/B), long-term debt to equity, assets growth, and firm size (Lnsize). Other controls include successor age and the forced departure dummy. All variables except the successor type dummies, forced departure and successor age are measured in the year before the succession announcement year. Industry-adjusted ROA is the average of 2 years before the succession year. The regressions also include country, year, and industry dummies. Standard errors are reported in parentheses and are corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

Dimson-adjusted CAR [-40; 20]	(1)	(2)	(3)	(4)
Family wedge × Family successor	0.302	0.328	0.307	0.349
	(0.351)	(0.358)	(0.372)	(0.383)
Family wedge × Nonfamily successor	0.123	0.036	0.109	0.104
	(0.223)	(0.237)	(0.238)	(0.245)
Founder × Family successor	-0.052	-0.018	-0.059	-0.040
	(0.049)	(0.053)	(0.050)	(0.054)
Founder × Nonfamily successor	0.081	0.051	0.053	0.048
	(0.067)	(0.069)	(0.074)	(0.074)
Reported board indep.× Family successor	0.182		0.152	
	(0.118)		(0.119)	
Reported board indep.× Nonfamily successor	0.095		0.103	
	(0.113)		(0.131)	
Adjusted board indep.× Family successor		-0.001		-0.037
		(0.116)		(0.115)
Adjusted board indep.× Nonfamily successor		0.083		-0.009
		(0.135)		(0.144)
Shareholder protection× Family successor	-0.011	-0.033	-0.028	-0.052
	(0.067)	(0.081)	(0.068)	(0.083)
Shareholder protection× Nonfamily successor	0.096	0.031	0.056	0.034
	(0.098)	(0.113)	(0.102)	(0.121)
Ind-adj.ROA (2yr avg.)× Family successor	-0.288	-0.518		
	(0.389)	(0.436)		
Ind-adj.ROA (2yr avg.)× Nonfamily successor	-0.704**	-0.911***		
	(0.319)	(0.311)		
Ind-adj.ROE × Family successor			-0.055	-0.076
			(0.086)	(0.104)
Ind-adj.ROE × Nonfamily successor			-0.263*	-0.285**
			(0.137)	(0.138)
Industry-adjusted M/B	-0.011*	-0.003	-0.013*	-0.005
	(0.006)	(0.009)	(0.006)	(0.010)
Long-term debt to equity	-0.023	-0.009	-0.019	0.001
	(0.019)	(0.027)	(0.024)	(0.040)
Assets growth	-0.007	0.014	-0.008	0.000
	(0.057)	(0.062)	(0.052)	(0.056)
Lnsize	0.005	0.011	0.010	0.015
	(0.017)	(0.019)	(0.017)	(0.018)
Forced departure	-0.050	-0.038	-0.106	-0.093
	(0.084)	(0.085)	(0.088)	(0.092)

Table 5.14 cont.

	(1)	(2)	(3)	(4)
Successor age	0.001	-0.000	0.001	0.000
	(0.002)	(0.002)	(0.002)	(0.002)
Country dummies	Yes	Yes	Yes	Yes
Industry and Year dummies	Yes	Yes	Yes	Yes
Number of Observations	209	191	206	188
R-Square	0.348	0.350	0.273	0.258
Adjusted R-Square	0.208	0.194	0.114	0.077
F- value	2.712***	2.523***	2.327***	2.198***

Table 5.15: Robustness analysis: Sub-sample excluding announcements with confounding events

This table reports the cross-sectional regressions of the Dimson-adjusted cumulative abnormal returns (CARs) for the [-40; 0] event window on the five conjectured drivers and control variables. The drivers are family wedge, founder, board independence, shareholder protection and past firm performance. Each driver is interacted with the family successor dummy and also with the nonfamily successor dummy. This is done to identify the differential effect of each driver by type of CEO successor. Regressions (1) and (3) use reported board independence, and regressions (2) and (4) use adjusted board independence. In terms of past performance, regressions (1) and (2) use the industry-adjusted ROA, and regressions (3) and (4) use the industry-adjusted ROE. Additional control variables in all four regressions include industry-adjusted market-to-book value (M/B), long-term debt to equity, assets growth, and firm size (Lnsize). All variables except the successor type dummies are measured in the year before the succession year. The regressions also include country, year, and industry dummies. Standard errors corrected for firm-level clustering are reported in parentheses. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

Dimson-adjusted CAR [-40; 0]	(1)	(2)	(3)	(4)
Family wedge × Family successor	-0.242	-0.213	-0.184	-0.120
	(0.191)	(0.192)	(0.186)	(0.185)
Family wedge × Nonfamily successor	-0.225	-0.132	-0.083	0.102
	(0.296)	(0.259)	(0.345)	(0.292)
Founder × Family successor	-0.039	-0.027	-0.040	-0.032
	(0.039)	(0.037)	(0.040)	(0.039)
Founder × Nonfamily successor	-0.000	-0.020	0.000	-0.001
	(0.072)	(0.074)	(0.074)	(0.081)
Reported board indep.× Family successor	0.104		0.147	
	(0.091)		(0.094)	
Reported board indep.× Nonfamily successor	0.086		0.137	
	(0.145)		(0.159)	
Adjusted board indep.× Family successor		-0.085		-0.080
		(0.082)		(0.082)
Adjusted board indep.× Nonfamily successor		0.055		-0.013
		(0.167)		(0.173)
Shareholder protection × Family successor	0.018	-0.011	0.031	0.021
	(0.047)	(0.056)	(0.050)	(0.070)
Shareholder protection × Nonfamily successor	0.071	0.045	0.039	0.047
	(0.097)	(0.102)	(0.098)	(0.109)
Ind-adj.ROA × Family successor	-0.016	-0.069		
	(0.141)	(0.216)		
Ind-adj.ROA × Nonfamily successor	-1.323***	-1.614***		
	(0.267)	(0.274)		
Ind-adj.ROE × Family successor			-0.016	-0.037
			(0.058)	(0.068)
Ind-adj.ROE × Nonfamily successor			-0.491***	-0.532***
			(0.128)	(0.136)
Industry-adjusted M/B	-0.006	-0.001	-0.006	-0.001
	(0.005)	(0.005)	(0.006)	(0.005)
Long-term debt to equity	-0.007	-0.020	-0.003	-0.010
	(0.024)	(0.023)	(0.027)	(0.028)
Assets growth	0.057	0.129*	0.016	0.082
	(0.068)	(0.072)	(0.063)	(0.067)
Lnsize	-0.006	0.003	-0.004	0.004
	(0.012)	(0.011)	(0.012)	(0.012)
Country dummies	Yes	Yes	Yes	Yes
Industry and Year dummies	Yes	Yes	Yes	Yes
Number of Observations	156	144	156	144
R-Square	0.422	0.460	0.390	0.389
Adjusted R-Square	0.260	0.293	0.220	0.201
F-value	4.682***	54.853***	5.585***	3.349***

APPENDIX C

Table 5C.1: Impact on the CARs of the interactions between 2-year average past performance and the other four drivers

This table reports the cross-sectional regressions of the cumulative abnormal returns (CARs) for the [-40; 0] event window on the five conjectured drivers, the interactions between four drivers and past performance and control variables. The drivers are family wedge, founder, board independence, shareholder protection and past firm performance. Each driver is interacted with the family successor dummy and also with the nonfamily successor dummy. Additionally, this table includes the interactions between each of the four drivers, 2-year average past performance and the nonfamily successor dummy. Regressions (1) and (3) use reported board independence, while regressions (2) and (4) use adjusted board independence. In terms of past performance, regressions (1) and (2) use the 2-year average industry-adjusted ROA, and regressions (3) and (4) use the 2-year average industry-adjusted ROE. Additional control variables in all four regressions include industry-adjusted market-to-book value (M/B), long-term debt to equity, assets growth, and firm size (Lnsize). Other controls include successor age and the forced departure dummy. All variables except the performance measures, successor type dummies, forced departure and successor age are measured in the year before the succession year. The regressions also include country, year, and industry dummies. Standard errors corrected for firm-level clustering are reported in parentheses. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

Dimson-adjusted CAR [-40; 0]	(1)	(2)	(3)	(4)
Family wedge × Family successor	-0.059	0.090	-0.031	0.119
	(0.250)	(0.240)	(0.266)	(0.268)
Family wedge × Nonfamily successor	0.156	-0.018	0.035	0.037
	(0.265)	(0.231)	(0.323)	(0.341)
Founder × Family successor	-0.028	0.007	-0.037	-0.025
	(0.035)	(0.036)	(0.034)	(0.035)
Founder × Nonfamily successor	0.092	0.076	0.068	0.001
	(0.089)	(0.086)	(0.085)	(0.086)
Reported board indep.× Family successor	0.183*		0.205**	
	(0.096)		(0.092)	
Reported board indep.× Nonfamily successor	0.020		0.099	
	(0.127)		(0.128)	
Adjusted board indep.× Family successor		-0.043		-0.064
		(0.085)		(0.086)
Adjusted board indep.× Nonfamily successor		-0.060		-0.002
		(0.160)		(0.157)
Shareholder protection × Family successor	-0.018	-0.029	-0.018	-0.049
	(0.047)	(0.051)	(0.042)	(0.049)
Shareholder protection × Nonfamily successor	0.110	0.029	0.115	0.022
	(0.119)	(0.129)	(0.107)	(0.119)
Ind-adj.ROA (2yr avg.)× Family successor	-0.326	-0.453		
	(0.428)	(0.487)		
Ind-adj.ROA (2yr avg.)× Nonfamily successor	0.721	-4.192		
	(2.518)	(2.879)		
Ind-adj.ROE (2yr avg.)× Family successor			-0.080	-0.102
			(0.110)	(0.117)
Ind-adj.ROE (2yr avg.)× Nonfamily successor			0.285	-2.358
			(1.151)	(1.532)
Family wedge × Ind-adj.ROA (2yr avg.)× Nonfamily successor	-2.992	7.088		
	(7.782)	(7.667)		
Founder × Ind-adj.ROA (2yr avg.) × Nonfamily successor	-2.085	0.085		
	(1.995)	(1.853)		
Reported board indep.× Ind-adj.ROA(2yr avg.) × Nonfamily successor	1.101			
	(2.309)			

Table 5C.1 cont.

	(1)	(2)	(3)	(4)
Adjusted board indep. × Ind-adj.ROA (2yr avg.) × Nonfamily successor		7.943**		
		(3.484)		
Shareholder protection × Ind-adj.ROA (2yr avg.) × Nonfamily successor	-2.898	-1.392		
	(1.875)	(1.668)		
Family wedge × Ind-adj.ROE (2yr avg.) × Nonfamily successor			-3.386	2.768
			(3.778)	(5.093)
Founder × Ind-adj.ROE (2yr avg.) × Nonfamily successor			-1.072	-0.001
			(0.783)	(1.041)
Reported board indep. × Ind-adj.ROE (2yr avg.) × Nonfamily successor			0.680	
			(1.271)	
Adjusted board indep. × Ind-adj.ROE (2yr avg.) × Nonfamily successor				4.453***
				(1.597)
Shareholder protection × Ind-adj.ROE (2yr avg.) × Nonfamily successor			-1.740**	-1.026
			(0.691)	(0.902)
Industry-adjusted M/B	-0.004	0.006	-0.006	0.007
	(0.006)	(0.010)	(0.005)	(0.012)
Long-term debt to equity	-0.010	0.007	-0.012	0.030
	(0.019)	(0.031)	(0.026)	(0.048)
Assets growth	0.023	-0.004	0.008	-0.000
	(0.055)	(0.065)	(0.047)	(0.058)
Lnsize	0.006	0.014	0.004	0.016
	(0.012)	(0.012)	(0.012)	(0.012)
Forced departure	-0.051	0.035	-0.059	0.008
	(0.078)	(0.078)	(0.088)	(0.082)
Successor age	-0.000	-0.002	-0.000	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Country dummies	Yes	Yes	Yes	Yes
Industry and Year dummies	Yes	Yes	Yes	Yes
Number of Observations	208	190	204	186
R-Square	0.295	0.312	0.262	0.311
Adjusted R-Square	0.122	0.140	0.094	0.129
F-value	2.068***	3.411***	2.620***	2.421***

CHAPTER 6

Conclusion

This thesis contributes to our understanding of the CEO succession decision in listed family firms with an incumbent family CEO for three countries with different corporate governance systems, France, Germany and the UK. While the controlling family has a long-term view of its firm and is interested in its continuity, it may also be driven by dynastic thinking and retain not only control over the firm, but also the top management positions for as long as possible. Accordingly, corporate decisions such as the CEO successor choice may be subject to a conflict of interests between the controlling family and the minority shareholders. Hence, we investigate what factors increase or reduce the likelihood of a family CEO successor (as compared to a nonfamily CEO) and also analyse the conditions under which the controlling families' interests may override those of the minority shareholders. Further, we investigate the stock market reaction around the announcement of the CEO successor, and also adjust for the likelihood of the appointment of a nonfamily CEO. The findings of these investigations would only be reliable once important methodological concerns have been addressed, such as how to accurately measure board independence. Similarly, the use of the event study methodology, for the analysis of the stock market reaction to the succession announcement, would only be meaningful once issues such as thin trading and the influence of other news announced around the succession announcement have been addressed.

The three objectives of this thesis are: (i) to conduct an exploratory study of family firms with CEO successions to highlight key methodological concerns and to propose ways of addressing these (ii) to identify the determinants of the CEO choice between a family and

a nonfamily successor and (iii) to examine the stock market reaction to the succession announcement, thereby exploring whether the factors that increase (reduce) the likelihood of a family successor also drive the stock market reaction to be more (less) positive around the announcement of the appointment of a nonfamily CEO. These objectives form the basis of our three empirical chapters in this thesis, i.e. Chapters 3, 4 and 5.

In Chapter 2, we review the literature on the influence of the ownership and control of families in their firms. Theory predicts that, while controlling families may be beneficial to all shareholders if they create security benefits of control, they may be beneficial only to themselves if they extract private benefits of control at the expense of other shareholders. This conceptual framework is used to study the CEO succession announcement in family firms. Accordingly, we develop five hypotheses on the likelihood of the CEO successor being a family member or a nonfamily CEO which are tested in Chapter 4 and six conjectures to explain the size of the cumulative abnormal returns (CARs) around the announcement of the CEO successor, with emphasis on the nonfamily successor which are tested in Chapter 5. We hypothesize that three factors, i.e. greater family power, the incumbent CEO being the founder or from the founder's generation and good past performance increase the likelihood of a family successor, and that two factors, i.e. greater board independence and shareholder protection reduce the likelihood of a family successor. Given the high family control in family firms, investors do not consider the appointment of a family member as unexpected. Our first conjecture, thus, is that investors do not respond to the announcement of a family successor whereas the announcement of a nonfamily CEO is met with a positive market reaction. Further, we conjecture that the greater the family power, or if the incumbent CEO is the founder, the more positive are the CARs observed around the announcement of a nonfamily successor, whereas the greater the board independence and shareholder protection, or poorer the past performance, the less positive are the CARs around the announcement of a nonfamily successor.

In the third chapter, we address our first objective regarding the methodological issues surrounding the measurement of directors' actual independence and the dilemmas that thin trading and confounding events may present. The latter two issues are specific to the event study in Chapter 5. We provide a descriptive analysis of family firms in France,

Germany and the UK, differentiating between the countries and also between the successions based on the type of CEO succeeding the incumbent family CEO, i.e. family-to-family and family-to-nonfamily successions.

We find that the definitions of independence in the codes of best practice of France, Germany and the UK do not sufficiently account for various ties that non-executive directors may have with the controlling family. Rather, definitions of independence typically focus only on a director's formal association with the firm's business and the senior management. Despite being from the same family, if a family director is not employed by the firm and fulfils the criteria for a non-executive director, they may be classified as independent. Similarly, long tenured directors, though classified as independent, have been shown to become friendly advisors of the family (Li *et al*. 2013). Consultants of the family and their trustees who may be appointed to the board by special voting rights of the family would clearly favour decisions suggested by the family. The same would be the case for directors who are employees/directors at other firms controlled by the same family or if the directors and family members have joint board membership on more than one board. Former employment of the director at the family firm (even if it were prior to the best practice recommended period of five years) is likely to violate actual independence, especially if the same family retains control over the entire period. In sum, directors could be classified as independent yet be dependent on the controlling shareholder. Such dependence may result in minority shareholder expropriation, wherein the controlling shareholder may draw private benefits of control with the support of the so-called independent directors. In order to measure actual independence, existing definitions need to be adjusted. Based on the above arguments, we propose six criteria that violate actual independence of directors: (1) the director is related by blood or marriage to the controlling family; (2) the director has tenure of at least nine years with the firm; (3) the director was appointed to the board by the controlling family; (4) the director is an employee or a director of another firm controlled by the same family; (5) the director sits on other boards together with the family directors; and (6) the director is a former employee of the firm.

The descriptive analysis of the first issue of adjusting board independence reveals the following.

i) The percentages of directors that are reported to be independent correlate with the levels of family control in France, Germany and the UK. Interestingly, instead of observing lower independence when family control is high, we find the opposite. French firms, with an average family control of 65.28%, have reported board independence of 55.19%. German firms, with an average family control of 57.14%, have reported board independence of 58.27%. The UK firms, with the lowest average family control of 48.46%, also have the lowest percentage of reported board independence of 45.34%. This finding supports our call for adjusting board independence in family firms.

ii) We find a significant difference, at the 1% level, between reported and adjusted board independence. When reported board independence is adjusted, the average percentage of independent directors drops to less than a third for the German and the UK boards, and to less than a sixth for the French boards. In sum, board independence as stated in the annual reports is biased upwards and higher than adjusted board independence in each of the three countries.

iii) We also find significant cross-country differences. The reported board independence suggests that France and Germany are significantly different, at the 1% level, from the UK. Nonetheless, after adjusting for links with the controlling family, Germany is no different from the UK (i.e. average adjusted board independence of 31.37% and 29.07%, respectively), but France, with only 16.46% adjusted board independence, is significantly different.

iv) There is a significant difference, at the 1% level, between reported and adjusted director independence between the two succession groups, i.e. family-to-family and family-to-nonfamily for France and the UK, but not for Germany. Hence, the conventional measure of reported board independence is more biased in the former two countries. This suggests that the two-tier board structure has directors that are more likely to be actually independent as compared to those in single-tier boards.

Furthermore, we point out that, in family firms where families have high control concentration and the free-float is low, infrequent or thin trading may be a critical issue. Infrequent trading may bias the results of the event study in Chapter 5 and may cause the statistical tests to be poorly specified. In terms of confounding events, i.e.

announcements of earnings, new products or contracts, and dividends, around the succession announcement, readers can be confident that the conclusions from an event study are valid only if they can be assured that the researcher has truly identified abnormal returns associated with the event of interest. The descriptive analysis of these two issues reveals the following.

v) Observing the free-float, number of shares traded, and the turnover, there is evidence that a majority of our sample firms are thinly traded. Also, the averages of the number of shares traded and the turnover in our sample firms are significantly lower, at the 1% level, than the averages observed for firms on the London Stock Exchange (LSE – both Official List and Alternative Investment Market). To address this issue we use the Dimson aggregated beta method and non-parametric test statistics, as explained in Chapter 3.

vi) In relation to confounding events, there is support for more news released (per firm) by the UK firms than their French and German counterparts. There is evidence that more news is released prior to succession than after. However, the descriptive analysis of the type of confounding events and their timing around the succession does not provide sufficient support to conclude that these events have been timed by the controlling family. Hence, we present our event study results using the full sample of successions as well as the sub-sample excluding announcements with confounding events.

In Chapter 4, we address our second objective and explain the determinants of CEO successor choice between a family and a nonfamily CEO based on the five hypothesized determinants in Chapter 2. The five hypotheses are tested using a probabilistic model. Hypothesis 1 relates to the power of the controlling family, Hypothesis 2 relates to the family generation, Hypothesis 3 relates to board independence, Hypothesis 4 relates to shareholder protection, and Hypothesis 5 relates to the past firm performance. We also examine whether the hypothesized determinants have a differential effect across the three countries. In the robustness analysis we further classify the CEO successor choice as (a) re-appointment of the incumbent, (b) appointment of a nonfamily CEO and (c) appointment of another family CEO, and test the hypotheses using a multinomial logit model. The robustness analysis also considers the impact of the reasons for the

succession (i.e. re-appointment, forced departure, and other reasons) on the successor choice using multinomial logits. Lastly, we also analyse successions excluding re-appointments of the incumbent CEO, i.e. only considering actual changes of the incumbent CEO. We observe the following.

vii) There is limited support for Hypothesis 1, that the greater the power of the family, the higher is the likelihood that the successor to the incumbent family CEO will be a family member. We find support for this hypothesis only for the French family firms for one out of three regressions. Also, this finding only holds when family power is measured as the wedge (difference) between family control and ownership. Furthermore, the analysis of the succession decision based on the reasons for the succession suggests that the greater the power of the family, the higher is the likelihood of the incumbent family CEO being re-appointed as compared to being forced out of his/her position. Hence, even if families resort to separating control from their ownership rights, as suggested by the difference between control and ownership, there seems to be insufficient support for the view that that this leads to the appointment of a family successor aimed at extracting private benefits of control.

viii) We find that Hypothesis 2, stating that if the incumbent CEO is the founder or of the founder's generation it is more likely that the successor will be a family member, is only supported in one of the robustness analyses, i.e. when the reason for the succession is considered. We find that, for successions in firms that are no longer in the founder generation, the incumbent CEO (i.e. a descendant) is more likely to be forced to leave, and more likely to be replaced by a nonfamily CEO. This suggests that, in contrast with the private benefits of control thesis, the interests of the generations other than the founder generation do indeed shift from emotional wealth to financial wealth.

ix) There is strong support for Hypothesis 3, the higher the percentage of board independence, the higher is the likelihood that the successor to the incumbent family CEO will be a nonfamily CEO, across all regressions. While reported board independence has no impact on the CEO successor choice, our measure of adjusted board independence reduces the likelihood of a family successor. This finding not only emphasizes the importance of adjusting board independence highlighted in

Chapter 3, but also supports the results from the previous chapter that reported board independence is a biased measure. Also, higher adjusted board independence reduces the likelihood of both re-appointment of the incumbent family CEO and the appointment of a family successor. The finding on the influence of adjusted board independence on successor choice is also upheld when analysing firms in the first quintile of performance (i.e. the bottom 20%) and also when we exclude re-appointments from the sample (i.e. actual changes of the CEO). Hence, adjusted board independence minimises potential extraction of private benefits by the controlling family.

x) Our results are also consistent with Hypothesis 4, which states that the greater the minority shareholder protection, the higher is the likelihood that the successor to the incumbent family CEO will be a nonfamily CEO. Our proxy for shareholder protection is the cross-listing of the French and German firms on a US or a UK stock exchange. We find that cross-listed French firms are less likely to appoint a family CEO. The robustness analysis suggests that for cross-listed firms there is a reduced likelihood of a family successor if past performance is very weak, i.e. in the bottom 20% (in four out of six regressions) or if re-appointments are excluded from the sample (in two out of six regressions). Thus, our findings present a direct outcome of a test of the bonding hypothesis (Coffee 1999) whereby firms opt into a better corporate governance system via cross-listing to bond themselves against expropriating their minority shareholders. Similar to adjusted board independence, shareholder protection is another mechanism that minimizes potential extraction of private benefits by the controlling family.

xi) We find no evidence that the better the pre-succession performance of the firm, the higher is the likelihood that the successor to the incumbent family CEO will be a family member. While we use ROE, an accounting based measure, and cumulative abnormal returns, a market based measure for performance, Hypothesis 5 is consistently rejected. Hence, there is no support for the rational adaptive view (Cannella and Lubatkin 1993) whereby an external successor to the CEO is appointed following poor corporate performance and an internal one following good performance. Our finding is in line with that of Smith and Amoako-Adu (1999).

In Chapter 5, we address our third objective. We conduct an event study to examine the stock market reaction to the succession announcement and explain the size of the cumulative abnormal returns (CARs) using five explanatory variables in a regression analysis. These five variables pertain to Conjectures 2 to 6 developed in Chapter 2 on family power, the incumbent CEO being the founder, board independence, shareholder protection and past performance. We argue that, while investors expect the appointment of a family successor and do not respond to the announcement of his appointment, the announcement of the appointment of a nonfamily CEO is met with a positive market response. Based on the findings from Chapter 4 and the fact that earlier studies have not adjusted for the likelihood of the appointment of a nonfamily successor, in this chapter we test whether those factors that increase (reduce) the likelihood of a family successor also drive the stock market reaction to be more (less) positive to the announcement of a nonfamily CEO. Further, studies suggest that board independence only when interacted with past performance has a significant influence on the stock market reaction to the succession announcement. Similarly, we use interactions between past performance and each of the other four drivers to investigate whether these interactions have an effect on the announcement CARs. To test the robustness of our previous results, we use the predicted probability of a nonfamily CEO, the sub-sample of actual CEO changes (i.e. excluding re-appointments), an alternative event window, alternative performance measures and the sub-sample of successions excluding confounding events to explain the CARs.

To address the issue of thin trading identified in Chapter 3, in our event study we use market returns computed using the Dimson aggregated beta method, and test the significance of the CARs using non-parametric test statistics, i.e. the Corrado rank test and the generalised rank test (GRANK), in addition to the Student t-test. We find significantly positive CARs (at the 10% level or better) in the [-40; 0] and [-40; 20] event windows surrounding the announcement of a nonfamily successor. Observation of these results in the longer event windows confirms our finding in Chapter 3 that our sample firms are thinly traded. The CARs for family member announcements (or re-appointments of the incumbent) are insignificant. Thus, Conjecture 1, which states that the appointment of a family successor to the family CEO elicits no market reaction whereas the appointment of a nonfamily successor elicits a positive market reaction, is supported. The regression analysis reveals the following.

xii) Conjecture 2, which states that the greater the family power, the more positive are the CARs to the announcement of the appointment of a nonfamily successor, is rejected. This supports the lack of evidence that family control influences the successor choice in Chapter 4.

xiii) Conjecture 3, which states that if the incumbent CEO is the founder, more positive CARs are observed to the announcement of the appointment of a nonfamily successor, is also rejected.

xiv) We find that there is a (weak) positive relation between reported board independence and the CARs when a nonfamily successor is announced. There is such a relation in only 4 out of 17 regressions. However, no such relation is observed when using adjusted board independence. We find support for Conjecture 4 when using the interaction of board independence and past performance. In poorly performing firms (i.e. performance set to the first quartile), we find that the greater the adjusted board independence, the less positive are the CARs to the appointment announcement of a nonfamily CEO. This inference is valid for reported board independence only when very poor performance, i.e. the 10th percentile of the industry-adjusted ROA and ROE, is considered. Although both measures of board independence are significant when interacted with past performance, we find that adjusted board independence has a greater impact[204]. This re-emphasizes the importance of adjusting board independence as highlighted in Chapter 3 and the fact that that adjusted board independence has an impact on the CEO successor choice, as found in Chapter 4. Considering past performance, the monitoring hypothesis (Weisbach 1988), that when performance is poor a more independent board is likely to find the current CEO unacceptable and suggest a change, is supported through our proposed measure of adjusted board independence.

xv) Conjecture 5, which states that if the firm protects its minority shareholders less positive CARs are observed to the announcement of the appointment of a nonfamily successor, is not supported. Our proxy for shareholder protection is the cross-listing

[204] This impact is measured by the difference in the coefficients of reported and adjusted board independence at the mean values of both measures when past performance is set to the first quartile.

of the French and German firms on a US or a UK stock exchange. However, on interacting shareholder protection with past performance we find that when performance is poor, firms that are cross-listed on a US or a UK stock exchange experience more positive CARs to the announcement of a nonfamily CEO. Though this finding extends the argument of Lel and Miller (2008) that poorly performing CEOs of firms cross-listed on a US stock exchange are more likely to be dismissed, investors seem to underestimate that such a mechanism is a sufficient condition to replace a poorly performing family CEO by a nonfamily successor. Hence, they react more positively to the announcement of the latter.

xvi) In terms of Conjecture 6, instead of less positive CARs, we find that the poorer the past performance, the more positive are the CARs to the announcement of the appointment of a nonfamily CEO. This is possibly because of the uncertainty about the appointment of a nonfamily CEO in our sample firms, which have very high levels of family control. The latter explanation is supported by our robustness analysis. While past performance has no influence on the successor choice, and Conjecture 6 as postulated is not supported, it is an important factor that investors take into account when the CEO successor is announced.

This thesis contributes to the literature in several important ways.

- First, existing literature on CEO successions primarily focuses on widely-held firms, which by definition do not have large shareholders, or unlisted family businesses, which typically have no minority shareholders. In contrast, the focus in this thesis is on listed family firms that have both large and small shareholders and may therefore be subject to minority shareholder expropriation, which may manifest itself via the choice of the successor to the incumbent family CEO.

- Second, this thesis studies three very different corporate governance systems (representing three different legal families). Hence, we provide insights into the determinants of CEO succession decisions and the stock market reaction to these decisions across substantially different institutional settings (that are also representative of many other countries with similar settings). Our cross-country

analysis allows for an examination of how country factors affect an important corporate decision.

- The third and very substantial contribution is to propose a more accurate measure of board independence which, in contrast to regulation and 'best practice', accounts for various links with the controlling family (in addition to being related by blood or marriage). In this regard, we make great efforts to assess whether so-called independent directors are in fact independent of the family shareholder. Our results provide evidence that our measure of *de facto* board independence offers a substantial improvement on existing measures.

- Fourth, this thesis goes beyond the insider-outsider distinction of the CEO successor used in earlier studies[205]. We focus on the distinction between a family member, who is related to the controlling family by blood or by marriage, and a nonfamily successor, who is unrelated to the controlling family. We also make efforts to identify whether the nonfamily CEOs are not linked to the controlling family, meaning that these do indeed include outsiders only.
- Fifth, we use an innovative framework to examine the stock market reaction to the announcement of a nonfamily CEO. Instead of limiting the analysis of the stock market reaction to the CEO characteristics as in earlier studies, we propose the identification of possible drivers of the market response, factors that may matter to investors.

- Finally, this thesis considers re-appointments of the incumbent family CEO as part of the succession sample. This choice of re-appointment has been predicted in the theory on management successions in family firms, but this thesis is one of the first to include the re-appointment of the incumbent family CEO in our analyses. Moreover, we carry out robustness tests excluding re-appointments and also run multinomial logits distinguishing re-appointments from the other choices of the CEO successor.

[205] The insider-outsider distinction provides that a successor is distinguished according to whether he/she is an executive with the concerned firm prior to succession (insider) or whether his/her appointment with the firm as CEO is his/her first (outsider).

Our results have important policy implications. In advocating policies on corporate governance in firms with controlling family shareholders it is important to have a firm understanding of how the potential misalignment of interests between the different shareholders can be mitigated. The existing definitions of independence in the codes of best practice typically focus on a director's association with the firm's business and the senior management, but not on links with the controlling shareholder. Hence, directors could be classified as independent yet be dependent on the controlling family. Our proposed measure for board independence is a way forward for policymakers to develop a regulatory framework that addresses the intricacies in different control structures. Regulators should consider the potential ties between non-executive directors and the controlling family shareholders to define more accurately their definitions of independence in the codes of best practice taking into account the following additional criteria: appointment of directors by exclusive family votes, employment or directorship of directors at other firms held by the same family, and joint directorships of directors with family directors on more than one board. Furthermore, our results suggest that corporate governance mechanisms in family firms, i.e. adjusted board independence and shareholder protection, are more important than family firms' characteristics, i.e. family power and family generation, in explaining the choice of the CEO successor and the stock market reaction to the latter choice.

As with any research, this thesis has its limitations, the most important of which relates to possible endogeneity caused by sample selection bias, i.e. the successor choice itself may involve some level of endogeneity and employing the definitional restrictions that we use to identify our sample firms may alleviate the issue. This issue may be mitigated by the use of a matched sample or other procedures such as the Heckman 2-step (1979) estimation technique. Whilst we acknowledge not fully addressing the issue of such endogeneity, in our robustness analysis in Chapter 5 (section 5.5.1) whereby we predict the probability of the appointment of a nonfamily successor, and then use this probability in a second step OLS regression to explain the CARs, we do follow an approach similar to the Heckman 2-step technique. A further source of endogeneity, as with many studies in corporate governance is that of reverse causality, especially between the successor choice and board independence, as explained in section 3.2.5 in Chapter 3. Nevertheless, such endogeneity is addressed in our study with the use of lagged independent variables. Furthermore, Bennedsen *et al*. 2010 highlight that family firms present an attractive

laboratory for addressing several research questions. Whilst causal relationships are difficult to establish, variation in family firm decision making may result from family, not firm, characteristics. These traits can potentially be exogenous to firms' prospects. A related limitation, however, is that we are unable to take advantage of including any family characteristics in our analyses. This is primarily due to the lack of sufficient and reliable qualitative data, which also reduced our quest for a reliable and valid instrumental variable. In this regard, we suggest future investigations into family firm governance to be linked to family governance in order to have richer insights on this unique ownership structure.

Overall, the findings of this thesis suggest little direct evidence that the controlling families do indeed use the CEO succession decision as an opportunity to extract private benefits of control. In fact, the evidence that French family firms that are cross-listed are less likely to appoint a family successor suggests that some families, despite operating in a country with weak investor protection, show their commitment to the minority shareholders by cross-listing on a better stock exchange. This suggests support for the security benefits of control thesis. It would, however, be interesting for future research to examine how investor protection affects the expropriation incentives of the controlling family. In general, identifying proxies other than the cash-flow rights of the controlling family to measure such incentives via the CEO succession decision would be of value. Further, in this thesis we have made great efforts to measure actual board independence and we find that this is a significant factor in the CEO succession announcements in family firms. Hence, it would be useful for future research to use this measure to examine the influence of board independence on other corporate decisions in family firms. Finally, another interesting avenue for future research and an extension of our present work would be to investigate earnings management around CEO successions in family firms. This would be another way forward to investigate the potential conflict of interests between controlling families and minority shareholders. CEO successions, as Choi et al. (2014) point out, present a fertile ground to test the use of both accruals-based earnings management (which consists of insiders manipulating reported earnings via discretionary accruals), as well as real earnings management (which consists of manipulating reported earnings via changing the timing and scale of various real transactions such as research and development (R&D), production, investment and financing).

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