The Determinants of the CEO Successor Choice in Family Firms

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ABSTRACT

This paper studies the factors that influence the CEO succession decision in family firms whose incumbent CEO is a member of the controlling family. The sample includes all such firms from France, Germany and the UK. We propose a new measure of directors' independence, which adjusts for various links with the controlling family. While we find that conventionally defined directors' independence has no impact on the CEO succession decision, our corrected measure reduces the likelihood of the successor being another family member. There is also evidence that firms from France that are cross-listed in the UK or USA are less likely to appoint another family CEO.

Keywords: Family firms, CEO succession, corporate governance, corporate control and ownership

JEL code: G32, G34

Acknowledgements: We would like to thank participants at a workshop at Cardiff Business School as well as participants at the 13th Workshop on Corporate Governance and Investment at Cardiff University and the 2013 ACCGBS at Assumption University of Thailand for helpful comments and suggestions. We are particularly grateful to Øyvind Bøhren. Iram gratefully acknowledges financial support from the College of Economics and Political Science, Sultan Qaboos University, Oman. Finally, we are indebted to an anonymous referee, Luc Renneboog and Stuart Gillan, the Editor.

Highlights

- This paper studies CEO succession and re-appointment decisions in family firms.
- The sample includes French, German and UK family firms.
- Reported board independence does not impact the choice of CEO successor.
- Conversely, board independence adjusted for links with the family shareholder does.
- UK and US cross-listed French firms less likely choose a family member as CEO.

1. Introduction

Bertrand and Schoar (2006) argue that family founders have a long-term view of their firm and have a strong interest in its continuity and survival. In support of this argument, there are many examples of successful and well-known family firms that have stood the test of time and have survived for generations. Such firms include Ford Motor Company, BMW, l'Oréal and Siemens. Conversely, myopia and short-termism are traits frequently associated with widely held firms (see e.g. Franks and Mayer, 1997).

However, family firms face a major challenge when it is time to 'pass on the baton' as the retiring family CEOs often appoint their offspring as successors (Plath, 2008). More specifically, Bertrand and Schoar (2006) argue that the firm's family founders may be subject to 'dynastic thinking', resulting in the top management jobs being filled with their relatives rather than more talented nonfamily managers (Barnett, 1960). Although family members are often not the best candidates for the job, as they may lack proper education and professionalism, they typically have an unfair advantage over outsiders in getting the top jobs in the firm (Schulze et al., 2001). Nonfamily, i.e. minority shareholders' preference for better qualified, nonfamily CEOs may thus clash with the family's desire to extract private benefits of control from their firm.

The literature refers to this conflict of interests as minority shareholder expropriation (see e.g., Maher and Andersson, 2000; La Porta et al., 1997; Denis and McConnell, 2003; Goergen and Renneboog, 2008). This paper attempts to identify the factors that determine the choice of CEO successor in family firms, thereby also identifying the conditions under which the large shareholder's interests may override the interests of the minority shareholders. More specifically, this paper studies this choice in listed family firms in France, Germany and the UK.

Why study these three countries? First, France, Germany and the UK are representatives of the three main legal families (La Porta et al., 1997, 1998), i.e. French civil law, German civil law and

common law, respectively. While investor protection is strong under common law, the law of the UK, it is much weaker under French and German civil law. Second, all three countries have distinct corporate governance systems. In France and Germany, corporate control is highly concentrated whereas in the UK it is dispersed. There is also often a wedge between the control and ownership held by the large shareholder in France and Germany whereas this is not the case in the UK. Further, there are also major differences between France and Germany. In particular, France's corporate governance system has traditionally been characterized by the existence of a 'noyau dur', a system of cross-shareholdings between large quoted companies, some of which are former state-owned banks and insurance companies, that was set up to reduce the influence of foreign ownership on French business (see e.g. Bloch and Kemp, 2001). As a result, and contrary to common wisdom, France is the only country in Europe with substantial equity ownership by banks (15.5% on average 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 voting, i.e. from voting the shares of their depositors, in otherwise widely held companies. The three countries also differ in terms of their corporate boards. While the UK has a single-tier board where the executives, including the CEO, and the non-executives sit, Germany has a two-tier board with a supervisory board (*Aufsichtsrat*) where the non-executives and employee representatives sit and a management board (*Vorstand*) where the executives sit. While France gives its firms the choice between a single-tier board and a two-tier board, most firms have opted for the former (Goergen et al., 2006). Hence, we also analyze whether the three countries show differences in the impact of the hypothesized determinants on the CEO successor choice. Our empirical analysis suggests that there are cross-country differences.

This paper makes three major contributions to the literature. First, existing studies on CEO successions tend to focus on widely held firms, which by definition do not have large shareholders, or unlisted family businesses, which typically have no minority shareholders. In

contrast, this paper focuses 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 CEO successor. Second and as stated above, this paper studies three very different corporate governance systems. Hence, it provides insights into the determinants of CEO succession decisions across substantially different institutional settings. Third, this paper makes a colossal effort to assess whether so called independent directors are *de facto* independent of the family shareholder. Our results suggest that it is important to measure board independence properly as our measure of board independence reduces the likelihood of a family member succeeding the CEO whereas conventionally defined board independence has no such effect.

The remainder of this paper is structured as follows. Section 2 reviews the literature and formulates the hypotheses. Section 3 explains the sample selection process, the variables and the methodology. The empirical analysis is presented in Section 4 while Section 5 focuses on robustness checks. This is followed by conclusions and policy implications.

2. The determinants of the CEO successor choice

Despite the prevalence of family firms in most countries, research has as yet not extensively investigated the impact of family control and ownership on corporate decision making. On the one hand, some theoretical models predict that strong control, including family control, is likely to mitigate the principal-agent problem, thereby creating shareholder value (see e.g. Admati et al. 1994; Kahn and Winton, 1998). There is empirical evidence on the USA and Germany that family control and ownership generates shareholder value. Anderson and Reeb (2003) report that US family firms in the S&P 500 outperform nonfamily firms. Similarly, Andres (2008) finds that German family firms have superior performance. Conversely, Faccio et al. (2001) find that family firms in East Asia expropriate their minority shareholders via dividends that are too low. On the other hand, Burkart et al.'s (1997) model predicts that, while large shareholder monitoring may be beneficial, the large shareholder may interfere too much with the way the firm is managed,

thereby severely reducing executive discretion and destroying firm value. Further, the large shareholder may extract private benefits of control rather than maximize shareholder value.

More generally, the view that strong family ties may impede shareholder value and economic development is not new. Already Weber (1904) argued that strong predictable family values may constrain the development of economic activities, which require more individualistic forms of entrepreneurship and the absence of nepotism. Similarly, Fukuyama (1995) argues that countries whose businesses are dominated by strong family or blood ties, i.e. 'familism', may suffer from reduced economic growth as such ties put limits on the size of firms and the industrial sectors firms operate in.

We posit that there are five determinants of the choice of the CEO successor: family power, family generation, directors' independence, shareholder protection, and past firm performance. These five determinants are discussed in detail below.

2.1 Family power

There are two broad theses on family control: 'competitive advantage' or 'security benefits of control' and 'private benefits of control' (Grossman and Hart, 1980; Villalonga and Amit, 2010). The main difference between the two is the group of shareholders for whom firm value is assumed to be maximized. According to the competitive advantage thesis, value is maximized for all shareholders (Bertrand and Schoar, 2006; Villalonga and Amit, 2010). Grossman and Hart (1980) call this type of value creation via the monitoring the large shareholder performs the security benefits of control. According to the private benefits of control thesis, value is maximized only for the family, who expropriates the nonfamily shareholders (Burkart et al., 2003; Villalonga and Amit, 2010). While the family may create security benefits of control, the private benefits of control it extracts from the firm exceed the latter.

The question arises as to when this is the case. This is likely to be the case when there is a deviation between cash-flow rights and control rights. It is not uncommon for families from all over the world to use mechanisms such as dual-class shares, voting pacts and pyramidal ownership, to enhance their control rights relative to their cash-flow rights (La Porta et al., 1999; Claessens et al., 2000; Faccio and Lang, 2002; Villalonga and Amit, 2009). These mechanisms have been found to reduce firm value and performance, suggesting that controlling shareholders may misuse their status to expropriate minority shareholders (e.g. Bertrand et al. 2002; Claessens et al., 2002; Gompers et al., 2010). Li et al. (2008) also show that these mechanisms discourage investment by outside shareholders, in particular institutional investors. More generally, 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, Dittmann and Ulbricht (2008) for Germany (they study dual-class shares) and Boubaker (2007) for France (he studies the use of pyramids) show evidence of the detrimental effect on shareholder value of these control mechanisms.[1] This suggests that the strength of family control influences the choice of the CEO successor. We propose the following hypothesis:

> HYPOTHESIS 1: *The greater the power of the family, the greater is the likelihood that the new CEO will be a member of the controlling family*.

2.2 Family generation

McConaughy and Phillips (1999) argue that first-generation family managers are entrepreneurs with the technical and business skills necessary for the creation of the business, but that their successors face different challenges in terms of maintaining and enhancing the business and that these tasks are often much better performed by nonfamily managers. Further, Dyer (1988) argues

[1] Although multiple class shares have been outlawed in the UK since 1968 (Faccio and Lang, 2002), preference shares with preferential dividend rights, but limited voting rights, are still permissible.

that most first-generation family firms are likely to have a 'paternalistic' management style, but that succeeding generations shift to a 'professional' management style. Dyer finds that 80% of first-generation family firms have a paternalistic management culture as evidenced by hierarchical relationships, top management control of power and authority by the family, and distrust of outsiders. 'Professional' management on the other hand is characterized by the inclusion of nonfamily managers in the firm.

However, to preserve the family's private benefits of control and to pursue its own financial interests at the expense of nonfamily shareholders, it is likely that a family member will be appointed as the CEO's successor. Further, according to the socio-emotional wealth thesis, the founder generation may also attach emotional wealth to the firm (Berrone et al., 2007). Hence, when the succession issue arises, the founder CEO may either push for being re-appointed or choose a family member as successor. Nevertheless given the strong emotional ties with the firm, if there is no suitable successor within the family, the founder CEO may prefer to appoint a nonfamily CEO rather than risk the firm's demise.

To sum up, according to the minority expropriation thesis a family CEO is likely to replace the incumbent family CEO. However, according to the socio-emotional wealth thesis the family's choice of CEO successor is unclear. The existing literature, that has considered family generation, when studying the impact of family CEOs on firm value include Morck et al. (1988), Anderson and Reeb (2003), Pérez-González (2006), Villalonga and Amit (2006) and Andres (2008). These studies find that the first generation of the family outperforms other nonfamily firms whereas no such positive effect or a negative effect is found for subsequent generations. Hence, we expect the generation of the controlling family to influence the choice of the CEO successor, particularly, in the first generation. We 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 new CEO will be a family member.*

2.3 Directors' independence

DeMott (2008) argues that directors independent of both management and the dominant family shareholder play an important role within the complex environment of a family firm. She posits that, by acting vigilantly, independent directors guard the firm's assets against legally problematic extractions by the controlling family. This suggests the likely influence of independent directors on the choice of the CEO successor in favor of the nonfamily shareholders. The question arises as to the definition of independence. Becht et al. (2003) define a director as 'independent' if he or she is not otherwise employed by the firm, is not engaged in business with the firm, and is not a family member of the founder or any executive hired by the firm.[2]

We have identified five empirical studies that come closest to our investigation on independent directors' influence 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). However, these studies limit themselves to classing the firm's board members as inside directors (i.e. employees of the firm) and outside directors. Three of these studies – Park and Rozeff (1994); Borokhovich et al. (1996); and Hillier and McColgan (2009) – find that outsider dominated boards are more likely to choose a CEO from outside the firm. The latter is the only study on listed family firms in the UK. The other four studies are on listed US firms. We arrive at the following hypothesis:

> HYPOTHESIS 3: *The higher the percentage of directors independent of the controlling family, the greater is the likelihood that the new CEO will not be related to the family.*

[2] A growing body of empirical research suggests that directors' independence is associated with improved outcomes with respect to some specific types of decisions (e.g. Brickley et al, 1994; Cotter et al., 1997; Del Guercio et al., 2003). In particular, directors' independence seems to have an impact on CEO turnover (e.g. Borokhovich et al., 1996), the incidence of fraud (e.g. Dechow et al., 1996; Beasley et al., 2000), executive compensation (e.g. Chhaochharia and Grinstein, 2009), and on the incidence of opportunistic timing of stock option grants (e.g. Bebchuk et al., 2010). However, the definition of independence varies across these studies.

2.4 Shareholder protection

The extent of minority expropriation in family firms likely depends on the level of shareholder rights granted by the country where the firm is located. La Porta et al. (1997, 1998) find that the differences in the size and development of capital markets across countries can be explained in part by the differences in investor protection. They argue that investor protection is highest in common law countries, including the USA 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 the degree of shareholder protection is determined not only by the corporate law applicable to the firm or by the codes of best corporate governance practice (e.g. legal requirement to comply or explain), but also by the listing requirements of the stock exchange where the firm is listed (Goergen and Renneboog, 2008). Cross-listing, whereby a firm that is already listed on its home stock exchange obtains a listing abroad, has been suggested as a way for the firm to opt into another, better legal system. Given the more stringent disclosure standards and law in the USA, Coffee (2002) argues that foreign firms may cross-list in the USA to commit themselves to protect their minority shareholders, the so called bonding hypothesis. Those family firms that cross-list in the USA have to follow the generally accepted accounting principles (US GAAP), to comply with the requirements of the stock exchange, and to comply – at least to some extent – to US securities laws (Reese and Weisbach, 2002). Cross-listing therefore provides a way whereby foreign firms can subject themselves to higher levels of shareholder protection.

Overall, the literature provides strong support for the bonding hypothesis (see Goergen and Renneboog, 2008). In particular, firms that cross-list on a better market trade at a premium, and have a lower cost of capital and a lower voting premium, defined as the difference in market price between the voting shares and non-voting shares. Hence, we hypothesize that:

> HYPOTHESIS 4: *Firms that are cross-listed in the USA or the UK have a greater likelihood of the new CEO not being related to the controlling family.*

2.5 Past firm performance

According to the rational adaptive view (Dalton and Kesner, 1985), an external successor to the CEO will be appointed following poor performance and an internal one following good performance. Conversely, Boeker and Goodstein (1993) hypothesize that the successor is often appointed from inside the firm and inside the family *despite* poor firm performance, suggesting that other factors may moderate the relationship between poor performance and outside succession. They find that such factors include firm ownership, board composition and socio-political factors. Smith and Amoako-Adu (1999) find that, for the case of Canadian family firms, 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.[3] Similarly, Hillier and McColgan (2009), who investigate the determinants of CEO turnover in firms listed on the London Stock Exchange during 1993-1998, find that family CEOs are less likely compared to nonfamily CEOs to leave in the case of poor firm performance. Further, Chen et al. (2013), who examine the CEO turnover-performance sensitivity in 1,865 firms in the S&P 1500 index during 1996-2005, find that both family CEOs in family firms and professional CEOs in nonfamily firms are less likely, as compared to nonfamily CEOs in family firms, to leave in the case of poor firm performance. The above literature suggests that prior performance matters less for the choice of the CEO successor in family firms. Nevertheless, we hypothesize that:

> HYPOTHESIS 5: *The better the pre-succession performance of the firm, the greater is the likelihood that the new CEO will be a member of the controlling family*.

[3] 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.

3. Data and methodology

3.1 Sample selection

The sample covers CEO successions in listed family firms in France, Germany and the UK over the ten-year period of 2001-2010. We define a family firm as a firm in which a family owns at least 25% of the votes, and the CEO is a member of this family. In addition, at least one of the following three criteria has to be met: (i) the CEO is the founder or a descendant of the founder; (ii) the CEO shares their surname with the firm; and/ or (iii) the CEO shares their surname with another member of the firm's board of directors.[4]

Data collection began with the full population of listed firms in each of the three countries (1780 French firms, 1307 German firms, and 2437 UK firms). Next, financial firms were excluded and the remaining firms were checked against the voting threshold of 25%. In case of pyramidal ownership, the ultimate owners were identified to calculate the total votes they hold. This threshold resulted in the identification of 227, 151, and 110 family firms in France, Germany, and the UK, respectively. These figures suggest that the French firms are much more likely to be family controlled (12.8% of the population) when compared to the UK firms (4.5%), but not so when compared to the German firms (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 which 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[5] of the incumbent CEO during 2001 and 2010. These criteria reduced the sample

[4] Our definition of a family firm comes closest to the one used by Hillier and McColgan (2009). However, in addition, our definition includes a 25% voting threshold.

[5] 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.

size considerably, resulting in 115 French, 78 German, and 38 UK firms. We end up with 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. These final numbers imply that French and German family firms are more likely to experience CEO successions than their UK counterparts. While previous studies on CEO successions in family firms (e.g. Hillier and McColgan, 2009) have excluded re-appointments of the incumbent family CEO, we include these in our main analysis given that most of our hypotheses relate to the power of the controlling family relative to the minority shareholders. A powerful family has two options to stay in control. It can either push for re-appointment of the incumbent (in cases where there is (as yet) no suitable successor within the family), even in the face of opposition from minority shareholders, or it can appoint another family member as CEO. The fact that there are only 28 re-appointments in the UK out of a total of 52 succession events (i.e. 54%) compared to a total of 140 re-appointments in France and Germany out of a total of 231 succession events (i.e. 61%) gives some credence to our argument as minority shareholder protection is higher in the UK. Still, when re-appointments are excluded (see Section 5) our results are upheld.

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The succession events are classified into two groups based on the type of successor. The first group comprises family-to-family successions, where the successor is a family member, as well as re-appointments of the incumbent, and the second group comprises family-to-nonfamily successions where the successor is not related to the controlling family. Table I shows that, out of the total of 283 succession events, 44 are family-to-family successions, 168 are re-appointments and 71 are family-to-nonfamily successions.

For each family firm, the biographies of the incumbent CEO as well as the incoming CEO, and the directors on the board(s) are obtained from the annual reports, Reuters, Thomson One Banker or corporate websites. This information is supplemented with information from country-specific

company guides − Hoppenstedt Aktienführer for Germany, and Companies Handbooks for the UK. The announcement dates for the CEO succession events are determined via LexisNexis, the Forbes database and other online newspapers. Wherever possible, more than one news source is used to confirm the announcement date of the succession decision. Financial information is sourced from Datastream, Osiris and the data on industry competition is from EU-KLEMS.[6]

3.2 Definitions of the variables and models

The dependent variable is a dichotomous variable which is equal to one, if the new CEO is a member of the controlling family or the incumbent family CEO is re-appointed, and zero if the new CEO is not a family member. The main independent variables are various measures for the five hypothesized determinants of the CEO successor, namely, family power, family generation, directors' independence, minority shareholder protection and past firm performance. These variables are defined below. Given the practical difficulties of measuring directors' independence and the importance of this variable to our analysis, we start with this variable.

Directors' independence (see Hypothesis 3) focuses on the 'independence' of directors vis-à-vis the controlling family. In other words, while on paper some directors may be independent, they may not be so *de facto*. To assess directors' independence, we check each director against a set of six criteria. Only directors who do not meet any of these criteria are considered to be independent. The six criteria are as follows: (1) the director is related by blood or marriage to the controlling family; (2) the director has tenure of at least nine years[7] 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. We exclude employee

[6] Data are available at www.euklems.net.

[7] This period is specified in the UK Corporate Governance Code (FRC, 2010) as the maximum recommended tenure (B.1.1, p.13). We adopt this maximum as it is more stringent than that for France (12 years) (see AFEP & MEDEF, 2010). The German corporate governance code (see Government Commission, 2010) does not recommend/specify a maximum tenure for directors.

representatives on German supervisory boards. The reason for this is that *de facto* these directors are not independent as they represent employee interests and not those of the shareholders.[8] Our measure of board independence is a much more thorough measure of directors' independence, which goes beyond corporate governance regulation and takes into account the context of family firms. It allows for cross-country comparability, which is crucial for this paper.

Importantly, we also revisit the 71 nonfamily CEOs who succeed the incumbent family CEO by applying the same criteria as above, except for criteria (2) and (6). We cannot apply criterion (6) as this would result in 45 nonfamily CEO successors, i.e. 63%, being classified as family-related CEOs. Further, considering CEOs that have been former employees of the firm as being dependent on the firm would also bias against certain industries and firms, in particular those where industry- or firm-specific training is important. In other words, there are industries where it is crucial that the CEO has moved through the ranks and knows the firm's processes and technologies inside out before being considered for the post of CEO. We also decide not to apply criterion (2) for the following reason. While it seems justified to assume that an independent director is unlikely to be fully independent after serving nine years on the board, it is less clear why such a threshold makes sense for CEOs. Indeed, one can think of some industries where product development takes such a long time that CEOs (or senior management successors) need to stay in place to ensure commercial success. For example, in the pharmaceutical industry it typically takes ten years from the discovery of a new drug to the first sales. In other words, while in some industries a CEO, who has been in place for a couple of years, may know the firm inside out in other industries this may not be enough time for the CEO to have set his/her mark on the firm. Finally, none of the four criteria is met by the nonfamily CEOs. Hence, the nonfamily CEOs are very likely unrelated to the controlling family.

[8] This implies that for Germany total board size, i.e. the sum of the size of the management board and the size of the supervisory board, is reduced by the number of employee representatives on the latter.

Next, we focus on the remaining independent variables, i.e. family power, family generation, shareholder protection and past firm performance. We use three different measures of family power: family control, family ownership and family wedge. First, family control is measured as the votes held directly by the family plus any additional votes resulting from indirect or pyramidal ownership (measured by the weakest link in the chain of control[9]) expressed as a percentage of total votes outstanding. Second, 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 members (including co-trustees of the family). Finally, family wedge is the difference between the control rights and the cash-flow rights held by the family. It measures the family's incentives to extract private benefits of control from their firm.

Family generation measures the generation of the family CEO relative to the generation of the founder. It is a dummy variable that equals one if the departing CEO is the founder of the company or of the founder's generation, and zero otherwise. Shareholder protection equals one, if the firm is cross-listed on a US or UK stock 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 equal to zero for the UK firms. Our two measures of past performance are return on equity and cumulative abnormal returns. Return on equity 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). It is based on the year before the succession.[10] In what follows, we refer to year *t* as the year of the succession and to year *t-1* as the year before the succession. As an alternative, we employ cumulative abnormal returns (CARs) for various event windows. The CARs are based on monthly data for the Fama and French (1993) and Carhart (1997) four

[9] We follow the methodology used in the existing literature to identify the votes controlled by the family shareholder. When there is indirect ownership through one or more intermediate firms that the large shareholder also controls, termed a control chain (see e.g. La Porta et al., 1999; Villalonga and Amit, 2008), 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. See Villalonga and Amit (2008) for details.

[10] As mentioned in the next section, as an alternative measure of performance we also measure return on equity two years before the succession.

factor model, where month 0 is the month of the succession announcement.[11] The parameters of the four factor model are estimated over months -37 to -13.

We control for firm size, assets growth, industry-adjusted market-to-book value, interest coverage, long-term debt to (total) equity, dividend payout ratio and competition within the firm's industry. Assets growth measures the growth of assets in the year prior to succession and is calculated as the difference in total assets between year *t-1* and year *t-2* divided by total assets in year *t-2*. Industry-adjusted market-to-book value is defined as the market value of the ordinary and preferred equity divided by their book values minus the market-to-book value for the same industry and country.[12] Interest coverage determines the firm's ability to generate enough earnings to pay interest on its outstanding debt. It 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.[13] We also use long-term debt to equity. Higher assets growth and industry-adjusted market-to-book value[14] are proxies for firm growth. It is likely that the higher the assets growth and industry-adjusted market-to-book value, the higher is the likelihood that the new CEO will be a member of the controlling family. In contrast, the lower interest coverage, the lower the dividend payout ratio and the lower leverage, the less likely it is that the new CEO will be part of the controlling family. 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 can extract from the firm. The Herfindahl index is used as a measure of competition in the firm's industry; it is the firm's market share in the industry. The lower the Herfindahl index, the greater is the competition in the market, making it less likely for a family CEO to be appointed as greater competition is likely to reduce the potential for the

[11] For this purpose we used the European factors as available at http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.
[12] The industry classification is based on the Fama and French 10 industries classification.
[13] Interest coverage of less than two is typically a sign that the firm faces severe financial needs and/ or financial constraints (Goergen and Renneboog, 2001).
[14] In a previous version of the paper, we used the raw market-to-book value. The results were qualitatively the same.

extraction of private benefits of control.[15] Finally, some of the regressions also control for incumbent CEO characteristics, i.e. tenure and age.[16] Tenure is defined as the number of years the incumbent CEO has served as CEO in the firm. Age represents the age of the incumbent CEO at the announcement of the succession decision.

To test the validity of our five hypotheses about the likelihood of a family member becoming the CEO successor or the incumbent being re-appointed, we estimate the following logistic model:

$$\begin{aligned} Successor_{i,t} = {} & \beta_0 + \beta_1 Family\ Power_{i,t-1} + \beta_2 Directors'\ Independence_{i,t-1} \\ & + \beta_3 Family\ Generation_{i,t-1} + \beta_4 Shareholder\ Protection_{i,t-1} \\ & + \beta_5 Performance_{i,t-1} + \beta_6 Control\ Variables_{i,t-1} + \sum_{J=1}^{2} \beta_J Country_{i\in J,t} \\ & + \sum_{K=1}^{9} \beta_K Industry_{i\in K,t} + \sum_{T=2001}^{2009} \beta_T Year_{i\in T} + \varepsilon_{i,t} \end{aligned} \quad (1)$$

where *t* is the year of the CEO succession for firm *i*. One-year lagged levels are used for the hypothesized determinants and the financial control variables. *Country* is a vector of two distinct dummy variables for CEO successions in France and Germany. *Industry* is a vector of nine industry dummies based on the Fama and French 10 industry portfolio classification. *Year* is a set of nine year dummies for 2001 to 2009. The remaining variables are defined in this section. Table A in the Appendix summarizes the definitions of all the variables.

[15] The index is measured in year *t-1*, except for the years after 2006, where the index is based on the 2006 value as the index is not available for years after 2006. Still, there is very little variation in the Herfindahl index across time, which suggests that the lack of data after 2006 is not a major issue.

[16] We also collected data relating to CEO gender and education. Of the 283 successions, only four involved a female CEO. The data relating to education (university degree) proved to be difficult to obtain and we were able to obtain this information for only 70 successions out of the 283. Hence, both have been excluded from the analysis.

4. Results

4.1 Descriptive statistics and univariate analysis

Table II reports the distribution across time (Panel A), industries (Panel B) as well as across countries (Panel C) for the 283 succession events, of which 212 successions (75%) are family-to-family successions, including 168 re-appointments of the incumbent, and the remaining 71 successions (25%) are family-to-nonfamily successions. Panel A shows that the number of overall successions peaks in 2006 whereas the least number of successions is observed for 2001. This trend is mainly driven by the limited data availability before 2002.[17] The 283 successions in the sample took place in 231 firms.[18]

Panel B shows that the most representative industry in the sample is *Business Equipment* (computers, software, and electronic equipment). This is, however, not surprising for family firms (Colombo et al., 2011), given our definition of family firms.[19] Both types of successions show a fairly good representation across all industry groups with the exceptions of the *Telephone and Television Transmission* and *Utilities* industries. In terms of differences across the two types of succession, the vast majority of firms in *Other* industries have family-to-family successions, including re-appointments, whereas the converse is the case for *Utilities*. Panel C reports that 48.4% of the successions relate to French firms, 33.2% to German firms and the remaining 18.4% to UK firms. Interestingly, for all three countries most successions are family-to-family. Nevertheless, there are differences across the three countries. In particular, for France more than

[17] 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 details in the sample selection section). The loss of firm data is driven by France and Germany. The corporate governance codes of these two countries are more recent than those of the UK, and the level of detail disclosed in the annual reports in terms of ownership and control data improved significantly after 2001, and hence data availability in Thomson One Banker.

[18] Eighty-two percent of these firms (190 firms) have encountered only one succession during the period of study. However, one firm has five successions, another firm has four successions, six have three successions, and 33 have two successions during the period of study (results not tabulated).

[19] In addition to the 25% control threshold, our definition of family firms is based on the family status of the CEO. Most high-tech firms start as a family firm (where family firms are defined in the same way as in this paper) where the founder has majority control. Our sample includes 78 business equipment firms. For 72 of these firms the incumbent CEO is the founder and the average firm age is less than 20 years.

80% of successions are family-to-family whereas for both Germany and the UK the equivalent percentage is only roughly 68%.

INSERT TABLE II ABOUT HERE

Table III provides descriptive statistics for the firm and incumbent CEO characteristics (Panel A) and the hypothesized determinants of CEO successor choice (Panel B). The average market capitalization of the firms is roughly €284 million which at first suggests that our 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 our firms are actually very small (i.e. in the 1st percentile of the market capitalization of all the firms listed on the three stock exchanges). However, the high standard deviation suggests great variability in firm size with a maximum of €5.3 billion and a minimum of €0.96 million. Average assets growth in the year preceding the succession is 9.43%, with a median of 5.02%. Long-term debt to equity is low with an average of 26.21%. The Herfindahl index is also low with an average of 0.13, suggesting that the average firm operates in a highly competitive industry. However again, there is variability and the maximum value for the Herfindahl index is 0.78, suggesting a near monopoly.[20] Incumbent CEO tenure with the firm is on average roughly 19 years, with a median of 18 years. Average CEO age is about 56 years, with a median age of 57 years. Sixty-two percent of incumbent CEOs are the firm's founders (not tabulated).

As to the three measures of family power, Panel B suggests average family control is 60.71% and exceeds average family ownership of 54.93%, resulting in a mean family wedge of 5.63%. The average percentage of directors independent of the controlling family is 24.01%, with a median of 25%, a maximum of 77.79% and a minimum of 0%. These descriptives are much lower than those for conventional, i.e. reported, directors' independence. Indeed, the average percentage of directors that are independent in the conventional sense is much higher with about 55%. Hence, while the average firm reports a majority of independent directors on its board, when one adjusts

[20] This value is observed for Stratec Biomedical AG, one of the German firms in our sample.

for links with the controlling family this percentage drops to about 24%. Thirty-two of the sample firms are in the first generation and only 11% are cross-listed in the USA or the UK. Finally, the average return on equity for the year preceding the succession is 3.17%, with a median of 9.06%.

INSERT TABLE III ABOUT HERE

Table IV compares family-to-family successions with family-to-nonfamily successions. There are significant differences between the two succession groups in terms of firm and CEO characteristics (Panel A) as well as the hypothesized determinants (Panel B). Specifically, the results presented in Panel A indicate that firms in the family-to-family group have a significantly lower market value (the mean, not the median) and significantly lower total assets (both the mean and median). Panel B suggests that the family-to-nonfamily group is more likely to be in the second or later family generation, reflecting the fact that these firms are significantly older than firms in the family-to-family group (results not tabulated). This suggests that older firms are more willing to adopt a professional management approach. Interestingly, there is no statistically significant difference between the two groups in terms of conventionally defined board independence. However, there is such a difference (at the 1% level of significance) when we consider our own measure of directors' independence, i.e. independence from the controlling family. In other words, family-to-family successions are more likely in firms with a lower percentage of directors that are independent of the controlling family. As expected, we find significantly greater protection of shareholders (at the 5% level) for the family-to-nonfamily group. Overall, the univariate tests of differences in means and medians support Hypothesis 2 (generation), Hypothesis 3 (directors' independence) and Hypothesis 4 (shareholder protection). Contrary to our expectations, there are no significant differences in terms of any of the three measures of family power as well as for any of the two measures of past performance between the family-to-family and family-to-nonfamily groups. Hence, the univariate tests fail to support Hypothesis 1 (family power) and Hypothesis 5 (past performance).

INSERT TABLE IV ABOUT HERE

Since the above univariate tests in Table IV do not control for country differences, we divide the sample according to country and check for differences across the three countries in the five hypothesized determinants in Table V. Due to space constraints, the table reports only those variables with significant differences at the 5% level or better across the three countries. As expected, we find significant differences in control and ownership between the three countries. Panel A on the family-to-family successions suggests that France has the highest average level of control (67%), followed by Germany (56%), and then the UK (49%). A similar pattern is observed in Panel B on family-to-nonfamily successions. These results are consistent with previous country studies such as Barca and Becht (2001).

Concerning conventional board independence, Panel A for family-to-family successions suggests that the UK has the lowest proportion of independent directors on paper. Panel B shows that for the case of family-to-nonfamily successions both France and the UK have a lower proportion than Germany. Different patterns emerge when directors' independence from the controlling family is considered. Panel A on family-to-family successions shows that the (average and median) board independence from the controlling family is significantly lower in France than in both Germany and the UK. However, this is the case only for family-to-family successions as the respective differences are insignificant in Panel B. Overall, Tables IV and V suggest that there are significant differences between the family-to-family and family-to-nonfamily groups and that the firm's country also matters. Hence, in the multivariate analysis we also interact the country dummies with the hypothesized determinants to explore country differences in these determinants.

INSERT TABLE V ABOUT HERE

4.2 Determinants of the CEO successor choice: multivariate analysis

Table VI reports the results for the logit regressions which estimate the odds of appointing the new CEO from the controlling family or re-appointing the incumbent compared to the odds of appointing a nonfamily CEO. The dependent variable is set to one if the CEO successor is a member of the controlling family or the incumbent is re-appointed, and is zero otherwise. All six regressions in the table include the five hypothesized determinants of CEO successor choice (i.e., family power, family generation, directors' independence, shareholder protection and past performance).

Regressions (1), (2) and (3) measure performance by the return on equity for year *t-1* whereas regressions (4), (5) and (6) measure it by CAR[-12,-1].[21] Each regression contains a different measure of board independence with regressions (1) and (4) including conventional board independence, regressions (2) and (5) including directors' independence from the controlling family and regressions (3) and (6) including the reduction in directors' independence due to links with the controlling family. The regressions also include the firm and CEO characteristics, the country dummies for France and Germany, as well as industry and year dummies. The firm characteristics are assets growth, industry-adjusted market-to-book value, long-term debt to equity, interest coverage, dividend payout, the Herfindahl index as well as firm size. The incumbent CEO characteristic is age. CEO tenure is not included due to multicollinearity with age. Due to space constraints we only report the regressions with family power measured by the family wedge. However, the equivalent regressions for the other two measures suggest qualitatively similar results.[22] For each regression we report the coefficients and their standard errors as well as their marginal effects in the adjacent column.

[21] The robustness of the results is also verified using dummy variables for the 20th bottom and top percentiles of performance as measured by the return on equity for year *t-1* and CAR[-12;-1]. We also test the results using return on equity for year *t-2* and different event windows, i.e. CAR[-12;-1], CAR[-18;-1] and CAR[-6;-1]. This additional analysis leads to similar results. These regressions are not reported in the paper, but are available upon request.

[22] These regression results are available upon request from the authors.

INSERT TABLE VI ABOUT HERE

Table VI shows that the coefficient on family wedge is not significant in any of the six regressions, suggesting that family power does not impact the likelihood of a family successor. Similarly, neither of the two alternative measures of family power, i.e. family ownership and family control, influence the likelihood of a family member replacing the incumbent family CEO (again, these results are not tabulated due to space constraints). Similar to the univariate analysis, there is no support for Hypothesis 1.[23] This is in line with Smith and Amoako-Adu (1999). Family generation also has no significant impact on the likelihood of the appointment of a family CEO in all six regressions. This finding does not support previous evidence that the generations of the family that succeed the founder tend to utilize 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 (see e.g., Dyer, 1988; and McConaughy and Phillips, 1999). Hence, there is no support for Hypothesis 2.

Interestingly, conventional board independence is not significant in the two regressions (regressions (1) and (4)) that include this variable. In contrast, the percentage of directors independent from the controlling family is significant at the 1% level and is negative. The marginal effect of directors' independence in regression (2) suggests that, if the percentage of directors independent from the controlling family increases by one standard deviation, the likelihood of appointing a family CEO decreases by 17.6%, holding all other explanatory variables constant. Similarly, the reduction in board independence 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. Increased minority shareholder rights via a UK or US cross-listing has a significantly negative impact (at

[23] The lack of support for Hypothesis 1 may be due to the fact that using a threshold of 25% for family control may cause variations in family control to have a marginal effect on the choice of successor. We are grateful to an anonymous referee for alerting us about this possibility.

the 10% level or better) in five of the six regressions. The marginal effect for shareholder protection in regression (2), for example, indicates that firms listed on a US or UK stock exchange are 20.9% less likely to appoint a family CEO. This provides support for Hypothesis 4. However, there is no support for Hypothesis 5 that past performance, whether measured by the return on equity or the CARs, impacts the likelihood of a family member succeeding the incumbent family CEO. Similar results are obtained when using CARs and return on equity two years prior to succession[24] and when focusing on extreme levels of performance (i.e. top and bottom 20th percentiles) as in e.g. Adams et al. (2009).

Apart from interest coverage in regression (5), none of the other firm characteristics is significant in any of the regressions. As to CEO age, this variable is significant in the first three regressions. In terms of the country effects, there is some evidence that French and German family firms are more likely to appoint a family member as compared to UK firms. We perform a more thorough analysis of these country effects on the CEO successor choice in the next section.

To sum up Table VI, there is strong support for Hypothesis 3 as a family CEO is less likely appointed when directors' independence from the controlling family is greater. In contrast, conventional board independence does not have an impact. There is also support for Hypothesis 4 that greater minority shareholder protection via a US or UK cross-listing reduces the likelihood of a family member being appointed. However, there is no support for Hypothesis 1 (family power), Hypothesis 2 (family generation) and Hypothesis 5 (past performance). Overall, the results support the conclusions drawn from the univariate analysis. There is also some evidence that a family CEO is more likely appointed in the French and German firms than in the UK firms.

4.3 Country differences

This section extends the analysis of the country effects in Tables V and VI. The univariate analysis from Table V suggested significant differences between France, Germany, and the UK in

[24] As discussed above, we also use CARs, based on three different event windows, i.e. [-12,-1], [-18;-1] and [-6;-1].

terms of family power and directors' independence. This section discusses nine regressions which are similar to those from Table VI, but include additional interaction terms between each of the five hypothesized determinants and each country dummy. This enables us to identify whether any of the hypothesized determinants have a differential effect across the three countries. Each of the regressions in Table VII contains the interaction terms for only one country to avoid multicollinearity. In detail, regressions (1), (2) and (3) contain the interaction terms for France, regressions (4), (5) and (6) contain the interaction terms for Germany and regressions (7), (8) and (9) contain the interaction terms for the UK. As shareholder protection is a variable equal to one, if the firm is cross-listed on a US or UK stock exchange, and zero otherwise, the interaction between shareholder protection and the UK country dummy is omitted from regressions (7), (8) and (9). Also, most of the UK firms in the sample (85%) have a family wedge equal to zero (i.e. family control is equal to family ownership). As a result, 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). Hence, this interaction term is dropped from regressions (7), (8) and (9). As per Table VI, each regression contains one of the three different measures of board independence. Finally, past performance is measured by the return on equity. The regressions measuring past performance by the CARs are not reported, but are qualitatively similar.[25]

INSERT TABLE VII ABOUT HERE

Table VII strongly supports Hypothesis 3 about directors' independence. Similar to Table VI, our measure of board independence is highly significant whereas conventional board independence does not matter. There is also support for Hypothesis 4 about shareholder protection. In addition, Table VII contains some interesting new findings about the differential effect across countries of family wedge and family generation on the choice of the CEO successor. While neither was significant in the regressions in Table VI, Table VII suggests the following. First, the family

[25] These regressions are available upon request from the authors.

wedge seems to increase the likelihood of a family member becoming CEO for the French firms, but it does not seem to matter for the German firms. Second, regressions (1), (2) and (3) show that shareholder protection is not significant, but the interaction of the latter with the French country dummy is negative and significant at the 10% level. In regressions (4), (5) and (6), the coefficient on the equivalent interaction for the German firms is significant and positive while shareholder protection is also significant, of a similar absolute value, but negative. The marginal effects reported in regressions (1) to (3) suggest that French firms listed on a US or UK stock exchange are between 28 and 44% less likely to appoint a family CEO compared to firms not listed on these exchanges. Interestingly, this likelihood is much lower (up to 8%) for German firms in regressions (4) to (6). This suggests that for the French firms, and less so for the German firms, a US or UK cross-listing reduces the likelihood of a family member being appointed. This is in line with La Porta et al.'s (1997, 1998) characterization of French law providing the weakest shareholder protection.

5. Robustness analysis

5.1 Alternative estimation technique

The regressions in Tables VI and VII are binomial logit regressions, whose dependent variable is set to one if the CEO successor is a member of the controlling family and zero otherwise. However, as a large number of our sample consists of re-appointments, i.e. 168 out of 283 succession decisions (see Table I), it makes sense to verify the robustness of the results using a more granular classification for the dependent variable. We now classify the successions into three groups, namely group one being re-appointments (i.e. no change in the incumbent CEO); group two being CEO changes from one family member to another one; and, finally group three being CEO changes from a family member to a person not related to the family.

As the groups are in no particular order of preference, we use unordered multinomial logits to test the robustness of the results. We run the equivalent regressions to those in Table VI. The regressions are reported in Table VIII, regressions (1) to (9). As per Table VI, we only report the regressions measuring past performance by the return on equity. The regressions with the CARs show qualitatively similar results.[26] For the first six regressions the base case is re-appointments. Regressions (1), (2) and (3) compare the odds of a new family CEO being appointed to the odds of the incumbent family CEO being re-appointed whereas regressions (4), (5) and (6) compare the odds of the appointment of a nonfamily CEO to the odds of the incumbent family CEO being re-appointed. Finally, for regressions (7), (8) and (9) the base case is the appointment of a new family CEO; these regressions compare the odds of a nonfamily CEO being appointed to the odds of a new family CEO being appointed.[27]

Similar to Table VI, there is little evidence that family power matters. Hence, there is still no support for Hypothesis 1. Similarly, family generation still does not matter. Also in support of our previous results, directors' independence from the controlling family 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 directors' independence in regression (6) is also significant, and negative as expected. These results provide further support for Hypothesis 3. In detail, regressions (5) and (6) suggest that it is more likely for a nonfamily CEO to be appointed than for the incumbent CEO to be re-appointed when directors' independence is high. In addition, re-appointment of the incumbent is more likely than the appointment of another family member. As per Hypothesis 3, regressions (8) and (9) suggest that it is also more likely that a nonfamily CEO is appointed than another family member when directors' independence from the controlling family is high. Hence, there is further support for Hypothesis 3. As previously found, conventional directors'

[26] These regressions are available upon request from the authors.
[27] For the sake of brevity, we do not report the coefficients for the firm and CEO characteristics as well as the intercept. However, these are included in regressions, except for regressions (10)-(12), which only include the intercept due to multicollinearity issues.

independence has no effect. There is also further support for Hypothesis 4 about shareholder protection. Firms with a US or UK cross-listing are more likely to appoint a nonfamily CEO rather than a family CEO (see regressions (7)-(9)). Finally, there is still no support for Hypothesis 5 as performance is not significant.

INSERT TABLE VIII ABOUT HERE

5.2 The reasons for CEO departures

Studies on the impact of past firm performance on CEO appointments have also investigated the link between the type of CEO successor and the reason for succession. For instance, Puffer and Weintrop (1995) argue that neither corporate performance nor the composition of the board of directors explains successor type when the succession is caused by the voluntary retirement of the incumbent CEO. They also suggest that the personal relationship between the retiring CEO and the designated successor may take precedence over organizational performance considerations. Nevertheless, they conclude that, when the incumbent CEO is forced to leave, past performance is likely to be the key determinant of the choice of successor. However in practice, it is rare that firms announce the departure of a family CEO as a forced departure. Often, euphemistic terms are used to mask the dismissal of a family member or no reason is stated (Dherment-Ferere and Renneboog, 2000). Past studies have used different proxies for forced dismissal, such as the age of the incumbent CEO and the absence of a reason given for the departure (e.g. Hillier and McColgan, 2009). We follow the same approach.

Table I summarizes the different reasons for CEO departure for our sample. The main reason 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 (about 25%). Natural departures, which include deaths and retirement, represent roughly 6% of the 283 successions. Based on the retirement age used in the literature (e.g. Puffer and Weintrop, 1995; and Huson et al., 2001), we consider 65 years as the

cut-off point to distinguish between planned retirement (CEO is 65 or older) and early retirement (CEO is younger than 65). Forced departures represent more than 9% of the 283 successions or roughly 23% of the 115 successions excluding re-appointments. Following previous studies (e.g. Dherment-Ferere and Renneboog, 2000; Hillier and McColgan, 2009), we do not consider natural departures of CEOs (i.e., death and retirement) and CEOs becoming chairs of the board to be forced departures.

Table I shows that, out of the 26 forced departures, 4 are family-to-family successions and 22 are family-to-nonfamily successions. We run a multinomial logit with the dependent variable equalling one if the 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 other successions. Regressions (10)-(12) in Table VIII present the results. Given the small number of forced departures, these regressions do not include the CEO and firm characteristics.

Family generation matters when we compare forced departures to re-appointments: all three regressions suggest that firms that are no longer in the first family generation are more likely to force the incumbent CEO to leave. Interestingly, we also find that directors' independence from the controlling family is significant at the 5% level (see regression (11)). This suggests that it is more likely for the family CEO to be forced to leave than to be re-appointed when directors' independence is high. Hence, there is further support for Hypothesis 3. However, shareholder protection does not have an impact on forced departures. Regression (11) suggests that it is less likely that the incumbent CEO is forced to leave than re-appointed when past performance is weak. However, the coefficient is significant at the 10% level only and we do not find any such effect when performance is measured by the CARs.

5.3 Actual changes in the CEO

While our sample includes re-appointments of the incumbent family CEO, existing studies on CEO successions typically exclude such observations. When we exclude re-appointments (see Table IX), our existing results are upheld. 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 IX ABOUT HERE

6. Conclusion

This paper analyses the determinants of the CEO succession decision in family controlled firms with family CEOs in France, Germany and the UK. The five hypothesized determinants of the succession decision are family power, family generation, directors' independence, shareholder protection and past performance. The main contribution of our paper is to propose a more accurate measure of directors' independence, which contrary to regulation and 'best practice' accounts for links with the controlling family. When we use our measure, we find strong support for the hypothesis that directors' 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. Further, directors' independence increases the likelihood of a nonfamily CEO being appointed and the likelihood of the incumbent CEO being forced to leave. However, there are no such effects for conventional, i.e. reported board independence. This suggests that conventionally defined board independence is biased and is not an accurate measure of board strength and quality. This result has important policy implications for regulators and best practice in corporate governance.

Finally, there is also evidence that French firms with a US or UK cross-listing are less likely to replace the incumbent family CEO with another family member. This is further confirmation of

the bonding hypothesis (Coffee, 1999) whereby firms opt into a better corporate governance system via a cross-listing to bond themselves against expropriating their minority shareholders.

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Table I

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. The majority of the successions are re-appointments of the incumbent, 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 65 years of age or older, and earlier retirement, when the CEO is youger than 65 years. 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. For eight successions we could not find any explanation or news article for the reason for departure. 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 is 65 years of age or older)	8	1	3.2	68.0
Early retirement (CEO is younger than 65 years)	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 II

Annual and industry distribution of the sample of successions

The sample includes 283 successions in 231 firms, of which 137 firms are French, 94 are German and the remaining 52 are UK firms. Panel A reports the distribution across time whereas Panel B reports the distribution across industries of the 283 successions. Both panels report the number of family-to-family and family-to-nonfamily successions. Seven out of the 54 successions in *Other* industry in Panel B belong to successions in 5 firms providing lodging for the general public (mainly hotels) (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	Percent
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	Percent	N	Percent	N	Percent
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	100.0	71	100.0	283	100

Panel C: Country distribution of successions

Country	Family-to-family		Family-to-nonfamily		Total	
	N	Percent	N	Percent	N	Percent
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	100.0	71	100.0	283	100

Table III

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. All the variables are defined as in Table A. Descriptive statistics on firm characteristics and CEO characteristics are reported in Panel A. Descriptive statistics on the hypothesized determinants are reported in Panel B. Due to missing values, the actual number of observations for some variables is smaller than 231.

	Mean	P25	P50	P75	S.D.	Min	Max
Panel A: Firm and CEO characteristics							
Market value, million €	283.63	12.63	41.86	152.98	769.64	0.96	5,300
Total assets, million €	424.47	22.00	69.53	238.91	1,866	2.16	26,000
Assets growth, %	9.43	-4.97	5.02	14.91	35.50	-69.65	225.07
Industry-adjusted M/B	0.42	-1.00	-0.22	-0.28	0.98	-8.58	31.01
Long-term debt to equity, %	26.21	0.55	13.04	43.40	77.23	-701.24	434.14
Interest coverage	0.70	0.00	1.00	1.00	0.46	0.00	1.00
Dividend payout, %	25.16	0.00	19.38	43.86	25.99	0.00	97.09
Herfindahl index	0.13	0.04	0.10	0.13	0.14	0.01	0.78
Incumbent CEO characteristics							
Tenure	19.40	13.00	18.00	25.00	9.90	2.00	48.00
Age	55.92	48.00	57.00	63.00	10.09	34.00	79.00
Panel B: Hypothesized determinants							
Family power							
Family wedge, %	5.63	0.00	0.00	10.76	9.15	-2.70	52.96
Family control, %	60.71	50.50	61.01	70.87	15.86	25.12	99.36
Family ownership, %	54.93	44.30	55.00	65.79	15.21	17.67	99.36
Family generation	0.32	0.00	0.00	0.00	0.47	0.00	1.00
Directors' independence							
Conv. directors' independence, %	55.07	45.45	57.14	66.67	15.70	0.00	85.71
Independence from the controlling family, %	24.01	0.00	25.00	40.00	20.04	0.00	77.79
Reduction in directors' independence, %	30.21	12.50	28.54	50.00	22.32	0.00	83.33
Directors' independence from the controlling family, %	24.01	0.00	25.00	40.00	20.04	0.00	77.79
Shareholder protection	0.11	0.00	0.00	0.00	0.31	0.00	1.00
Past performance							
Previous year return on equity, %	3.17	0.98	9.06	18.39	41.08	-286.23	125.40
CAR[-12;-1]	0.68	-1.30	0.77	2.68	2.36	-4.07	5.03

Table IV

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. All the variables are defined as in Table A. 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	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	1.00	1.00	0.62
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
Panel B: Hypothesized determinants						
Family power						
Family wedge, %	5.78	5.42	0.29	0.00	0.00	1.00
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 generation[§]	0.31	0.44	-2.01**	0.00	1.00	-2.00**
Directors' independence						
Conv. directors' independence, %	55.04	52.24	1.26	57.14	55.55	0.99
Independence from the controlling family, %	19.52	36.16	-6.34***	20.00	38.46	-5.85***
Reduction in directors' independence, %	33.99	16.80	5.92***	33.33	12.50	5.77***
Shareholder protection[§]	8.49	16.90	-2.00**	0.00	0.00	-1.99**
Past performance						
Previous year return on equity, %	7.20	-1.35	1.62	10.24	7.97	1.07
CAR[-12;-1]	0.56	1.02	-1.16	0.50	1.77	-1.26

Table V

Cross-country differences in succession characteristics

This table presents the mean and median comparisons across the three countries – France, Germany and the UK. Panel A reports the results for the family-to-family successions, whereas Panel B reports the results for the family-to-nonfamily successions. The table only reports descriptive statistics for variables with significant differences between countries, i.e. family wedge, family control, family ownership and directors' independence from the controlling family. 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). All the differences are tested at the 5% level of significance and the superscript 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 descriptives in Panel A are based on 113 observations for France, 64 observations for Germany and 35 observations for the UK. The results reported 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 wedge, %	$8.09^{2,3}$	$9.20^{2,3}$	3.41^{1}	0.00^{1}	2.70^{1}	0.00^{1}
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, %	$58.59^{2,3}$	$57.73^{2,3}$	$53.05^{1,3}$	$54.27^{1,3}$	$46.48^{1,2}$	$44.50^{1,2}$
Directors' independence						
Conv. directors' independence, %	57.31^{3}	60.00^{3}	56.78^{3}	59.17^{3}	$44.60^{1,2}$	$40.00^{1,2}$
Independence from the controlling family, %	$13.53^{2,3}$	$0.00^{2,3}$	27.79^{1}	27.27^{1}	23.75^{1}	25.00^{1}
Reduction in directors' independence, %	$42.55^{2,3}$	$40.00^{2,3}$	$27.01^{1,3}$	22.22^{1}	$20.86^{1,2}$	20.00^{1}
Panel B: Family-to-nonfamily						
Family power						
Family wedge, %	7.10	$5.59^{2,3}$	5.46	0.00^{1}	2.97	0.00^{1}
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}	$45.75^{1,2}$	$47.62^{1,2}$
Directors' independence						
Conv. directors' independence, %	44.40^{2}	48.33^{2}	$61.66^{1,3}$	$61.25^{1,3}$	46.87^{2}	50.00^{2}
Independence from the controlling family, %	30.12	37.50	38.41	40.00	40.04	40.00
Reduction in directors' independence, %	16.72^{3}	11.12	23.17^{3}	18.18^{3}	$6.82^{1,2}$	00.00^{2}

Table VI
Logit regressions of the determinants of the choice of the CEO successor

This table reports the results of the logistic 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 (including a re-appointment of the incumbent family CEO), and zero otherwise. The hypothesized determinants are family wedge, family generation, directors' independence from the controlling family, shareholder protection, and past performance (as measured by the return on equity (regressions 1-3) and cumulative abnormal returns (regressions (4)-(6)). In regressions (1) and (4) we measure board independence using the conventional directors' independence whereas regressions (2) and (5), (3) and (6) include independence from the controlling family and the reduction in directors' independence, respectively. Year t is the year of the succession announcement. 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. The parameters of the four factor model are estimated from month -37 to month -13. All six regressions include the hypothesized determinants of the CEO successor choice and in addition control 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 CEO age. CEO tenure is not included in the regressions due to multicollinearity problems. ME stands for marginal effects. All variables are as defined in Table A. Standard errors are reported in the parentheses and are corrected for firm-level clustering. Figures in bold denote significance at the 10% level or better (two-tailed test).

Independent Variables	(1)		(2)		(3)		(4)		(5)		(6)	
	Coef.	ME	Coef.	ME	Coef	ME	Coef	ME	Coef	ME	Coef	ME
Family wedge$_{t-1}$	-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)	
Family generation$_{t-1}$	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)	
Conv. directors' independence$_{t-1}$	0.011	0.001					-0.017	-0.002				
	(0.017)						(0.020)					
Independence from the controlling family$_{t-1}$			**-0.070**	-0.009					**-0.086**	-0.006		
			(0.023)						**(0.033)**			
Reduction in directors' independence$_{t-1}$					**0.064**	0.007					**0.054**	0.005
					(0.023)						**(0.029)**	
Shareholder protection$_{t-1}$	-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)**	
Return on equity$_{t-1}$	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)	
Assets growth$_{t-1}$	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$_{t-1}$	-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 equity$_{t-1}$	0.001	0.000	-0.002	-0.000	-0.004	-0.000	0.001	0.000	-0.003	-0.000	-0.006	-0.001
	(0.006)		(0.007)		(0.007)		(0.008)		(0.009)		(0.008)	
Interest coverage$_{t-1}$	-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$_{t-1}$	0.005	0.001	0.010	0.001	0.018	0.002	0.004	0.000	0.015	0.001	0.016	0.001
	(0.010)		(0.011)		(0.014)		(0.013)		(0.016)		(0.016)	

Herfindahl index$_{t-1}$	-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$_{t-1}$	-0.274	-0.035	0.123	0.015	0.006	0.001	0.181	0.017	0.484	0.035	0.379	0.035
	(0.215)		(0.220)		(0.233)		(0.262)		(0.322)		(0.271)	
Age$_t$	**-0.085**	-0.011	**-0.078**	-0.010	**-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	0.187	1.178	0.138	**2.446**	0.238	0.663	0.048	0.691	0.062
	(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)	
Industry & year dummies	Yes		Yes		Yes		Yes		Yes		Yes	
Number of observations	159		139		138		128		119		118	
McFadden's pseudo R^2	0.307		0.406		0.389		0.316		0.465		0.397	
Wald Chi^2	44.837		64.317		47.853		34.442		84.559		49.459	

Table VII

Logit regressions of the determinants of the choice of the CEO successor with country effects

This table reports the logistic 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. 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, directors' independence, shareholder protection, and past performance, as measured by return on equity. Directors' independence is measured using conventional directors' independence, independence from the controlling family and reduction in directors' independence. 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. For each of these three groups of regressions, the first one includes the conventional measure of board independence whereas the second and third ones include independence from the controlling family and the reduction in directors' independence, respectively. 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 (7)-(9). Also, the interaction 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 in the regressions due to multicollinearity problems. ME stands for marginal effects. Standard errors are reported in the parentheses and are corrected for firm-level clustering. Figures in bold denote significance at the 10% level or better (two-tailed test).

	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)	
	Coef.	ME	Coef.	ME	Coef.	ME	Coef.	ME	Coef.	ME	Coef.	ME	Coef.	ME	Coef.	ME	Coef.	ME
Family wedge$_{t-1}$	-0.021	-0.003	-0.022	-0.003	-0.052	-0.006	**0.079**	0.011	**0.066**	0.008	**0.082**	0.010	-0.017	-0.002	-0.018	-0.002	-0.014	-0.002
	(0.030)		(0.032)		(0.037)		**(0.039)**		**(0.040)**		**(0.039)**		(0.030)		(0.030)		(0.026)	
Family generation$_{t-1}$	-0.813	-0.104	-1.108	-0.139	-1.198	-0.141	0.586	0.077	-0.052	-0.007	0.054	0.006	0.175	0.023	-0.115	-0.014	0.058	0.007
	(1.084)		(1.130)		(1.113)		(0.859)		(1.032)		(1.026)		(0.692)		(0.782)		(0.768)	
Conv. directors' independence$_{t-1}$	0.004	0.000					0.019	0.002					0.016	0.002				
	(0.019)						(0.019)						(0.018)					
Independence from the controlling family$_{t-1}$			**-0.068**	-0.008					**-0.069**	-0.009					**-0.067**	-0.008		
			(0.032)						**(0.024)**						**(0.024)**			
Reduction in directors' independence$_{t-1}$					**0.062**	0.007					**0.067**	0.008					**0.073**	0.009
					(0.022)						**(0.031)**						**(0.028)**	
Shareholder protection$_{t-1}$	1.099	0.141	0.278	0.035	-0.252	-0.030	**-2.244**	-0.297	**-3.203**	-0.407	**-2.832**	-0.328	-1.179	-0.153	**-1.605**	-0.200	-1.278	-0.150
	(1.096)		(1.364)		(1.506)		**(0.868)**		**(1.026)**		**(1.107)**		(0.817)		**(0.833)**		(0.892)	
Return on equity$_{t-1}$	0.017	0.002	0.018	0.002	0.020	0.002	-0.002	-0.000	-0.003	-0.000	-0.001	-0.000	0.008	0.001	0.012	0.002	0.011	0.001
	(0.014)		(0.031)		(0.028)		(0.008)		(0.012)		(0.012)		(0.011)		(0.011)		(0.013)	
Family wedge$_{t-1}$ x France	0.059	0.008	0.061	0.008	**0.113**	0.013												
	(0.053)		(0.048)		**(0.054)**													
Family generation$_{t-1}$ x France	1.481	0.189	1.249	0.156	1.290	0.152												
	(1.217)		(1.149)		(1.055)													
Conv. directors' independence$_{t-1}$ x France	0.017	0.002																
	(0.019)																	
Directors independent from the controlling family$_{t-1}$x France			0.009	0.001														
			(0.025)															
Reduction in directors' independence$_{t-1}$x France					0.004	0.000												
					(0.034)													
Shareholder protection$_{t-1}$ x France	**-3.481**	-0.445	**-3.345**	-0.419	**-2.389**	-0.281												
	(1.292)		**(1.373)**		**(1.412)**													
Return on equity$_{t-1}$ x France	-0.030	-0.004	-0.025	-0.003	-0.028	-0.003												
	(0.021)		(0.033)		(0.031)													
Family wedge$_{t-1}$ x Germany							**-0.090**	-0.012	-0.079	-0.010	**-0.110**	-0.013						

Table VII cont.	**(1)**		**(2)**		**(3)**		**(4)**		**(5)**		**(6)**		**(7)**		**(8)**		**(9)**	
							(0.049)		(0.055)		**(0.062)**							
Family generation$_{t-1}$ x Germany							-2.264	-0.299	-1.963	-0.249	**-2.525**	-0.292						
							(1.472)		(1.768)		**(1.495)**							
Conv. directors' independence$_{t-1}$ x Germany							0.004	0.001										
							(0.014)											
Directors independent from the controlling family$_{t-1}$ x Germany									0.015	0.002								
									(0.022)									
Reduction in directors' independence$_{t-1}$ x Germany											0.013	0.002						
											(0.031)							
Shareholder protection$_{t-1}$ x Germany							**2.871**	0.379	**2.858**	0.363	2.985	0.345						
							(1.408)		**(1.690)**		(1.900)							
Return on equity$_{t-1}$ x Germany							**0.028**	0.004	0.058	0.007	0.062	0.007						
							(0.016)		(0.040)		(0.042)							
Family generation$_{t-1}$ x UK													0.448	0.058	0.200	0.025	0.304	0.036
													(1.389)		(2.075)		(1.228)	
Conv. directors' independence$_{t-1}$x UK													**-0.046**	-0.006				
													(0.024)					
Directors independent of the controlling family$_{t-1}$ x UK															-0.034	-0.004		
															(0.044)			
Reduction in directors' independence$_{t-1}$ x UK																	-0.053	-0.006
																	(0.050)	
Return on equity$_{t-1}$ x UK													0.008	0.001	-0.004	-0.001	-0.002	-0.000
													(0.026)		(0.024)		(0.024)	
Assets growth$_{t-1}$	0.008	0.001	0.030	0.004	0.022	0.003	0.006	0.001	0.031	0.004	0.017	0.002	0.018	0.002	0.037	0.005	0.031	0.004
	(0.010)		(0.019)		(0.016)		(0.008)		(0.022)		(0.014)		(0.011)		(0.025)		(0.021)	
Industry-adjusted M/B$_{t-1}$	-0.088	-0.011	-0.018	-0.002	-0.107	-0.013	-0.037	-0.005	-0.004	-0.001	-0.080	-0.009	-0.000	-0.000	0.057	0.007	-0.010	-0.001
	(0.106)		(0.195)		(0.192)		(0.079)		(0.166)		(0.170)		(0.086)		(0.125)		(0.144)	
Long-term debt to equity$_{t-1}$	0.003	0.000	0.000	0.000	-0.003	-0.000	0.005	0.001	-0.002	-0.000	-0.004	-0.000	0.003	0.000	-0.002	-0.000	-0.002	-0.000
	(0.006)		(0.008)		(0.007)		(0.007)		(0.008)		(0.007)		(0.006)		(0.007)		(0.007)	
Interest coverage$_{t-1}$	0.184	0.024	-0.160	-0.020	-0.206	-0.024	-0.067	-0.009	-0.425	-0.054	-0.514	-0.060	-0.293	-0.038	-0.595	-0.074	-0.925	-0.109
	(0.787)		(0.840)		(0.850)		(0.774)		(0.901)		(0.867)		(0.730)		(0.865)		(0.926)	
Dividend payout$_{t-1}$	0.007	0.001	0.014	0.002	0.021	0.002	0.009	0.001	0.016	0.002	**0.023**	0.003	0.005	0.001	0.012	0.001	0.019	0.002
	(0.010)		(0.012)		(0.013)		(0.011)		(0.012)		**(0.013)**		(0.010)		(0.012)		(0.015)	
Herfindahl index$_{t-1}$	-3.596	-0.460	-3.120	-0.391	-1.200	-0.141	**-3.929**	-0.520	-3.437	-0.436	-1.893	-0.219	-3.647	-0.473	-2.280	-0.282	-1.690	-0.199
	(2.265)		(2.941)		(2.883)		**(2.019)**		(2.750)		(2.679)		(2.453)		(2.443)		(3.541)	
Lnsize$_{t-1}$	-0.256	0.033	0.216	0.027	0.139	0.016	-0.163	-0.022	0.367	0.047	0.185	0.021	-0.269	-0.035	0.143	0.018	-0.019	-0.002
	(0.216)		(0.229)		(0.251)		(0.229)		(0.266)		(0.272)		(0.217)		(0.213)		(0.254)	
Age$_t$	**-0.090**	-0.011	**-0.088**	-0.011	**-0.089**	-0.010	**-0.095**	-0.013	**-0.081**	-0.010	**-0.091**	-0.011	**-0.083**	-0.011	**-0.080**	-0.010	**-0.079**	-0.009
	(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)**	
Industry & year dummies	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Number of observations	159		139		138		159		139		138		159		139		138	
McFadden's pseudo R^2	0.362		0.432		0.434		0.348		0.438		0.447		0.302		0.396		0.389	
Wald Chi^2	70.345		73.644		80.375		64.205		79.473		84.235		46.483		66.850		46.898	

Table VIII

Robustness analysis − Multinomial logits

This table reports the multinomial logistic regressions for the hypothesized determinants of the CEO successor choice and control variables using a more granular classification of the dependent variable. In detail, the dependent variable in regressions (1)-(9) is a categorical variable which is one, if the CEO is re-appointed, two if there is a change in CEO and the new CEO is a family member, and three if there is such a change and the new CEO is not related to the controlling family. The dependent variable in regressions (10)-(12) is a categorical variable which is one if the CEO is re-appointed, two if there is a forced departure, regardless of whether the new CEO is a family member or a nonfamily individual, and three for other departures. All successions that did not result in a re-appointment of the incumbent CEO are considered forced departures with the exclusion of natural departures and cases of CEO becoming a chairman or moving to a supervisory board. Details are provided in Table I. 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). Regressions (10)-(12) 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, directors' independence, shareholder protection, and return on equity. Although not reported below, there is an intercept and we also control for firm and CEO characteristics, except in regressions (10)-(12), where they are excluded due to multicollinearity issues. 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. Also, in regressions (10)-(12) we compare 26 forced departures with 168 re-appointments. Standard errors are reported in the parentheses. Figures in bold denote significance at the 10% level or better (two-tailed test).

Independent Variables	New family CEO	New family CEO	New family CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Nonfamily CEO	Forced departures compared to re-appointments		
	Compared to re-appointments						Compared to new family CEO					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Family wedge$_{t-1}$	0.041	**0.116**	0.063	0.034	0.034	0.035	-0.008	-0.082	-0.027	**-0.071**	**-0.088**	**-0.096**
	(0.033)	**(0.062)**	(0.042)	(0.030)	(0.039)	(0.034)	(0.037)	(0.062)	(0.042)	**(0.040)**	**(0.044)**	**(0.052)**
Family generation$_{t-1}$	0.110	0.921	0.059	-0.024	0.173	0.194	-0.134	-0.748	0.135	**2.342**	**3.052**	**2.718**
	(1.058)	(1.715)	(1.516)	(0.808)	(0.845)	(0.838)	(1.084)	(1.609)	(1.454)	**(0.834)**	**(1.060)**	**(1.117)**
Conv. Directors' independence$_{t-1}$	-0.018			-0.010			0.008			0.001		
	(0.033)			(0.018)			(0.037)			(0.021)		
Directors independent of the		**-0.104**			**0.062**			**0.166**			**0.046**	
controlling family$_{t-1}$		**(0.038)**			**(0.023)**			**(0.044)**			**(0.020)**	
Reduction in directors'			0.029			**-0.061**			**-0.090**			**-0.047**
independence$_{t-1}$			(0.036)			**(0.023)**			**(0.041)**			**(0.024)**
Shareholder protection$_{t-1}$	**-4.391**	**-4.705**	**-2.856**	0.962	1.289	1.250	**5.353**	**5.995**	**4.107**	0.080	-1.129	-0.891
	(1.778)	**(2.565)**	**(1.390)**	(0.772)	(0.883)	(0.857)	**(1.911)**	**(2.747)**	**(1.564)**	(1.310)	(1.419)	(1.468)
Return on equity$_{t-1}$	-0.004	-0.010	-0.000	-0.011	-0.012	-0.008	-0.006	-0.002	-0.008	-0.011	**-0.016**	-0.013
	(0.017)	(0.019)	(0.025)	(0.009)	(0.011)	(0.010)	(0.017)	(0.021)	(0.025)	(0.008)	**(0.008)**	(0.009)
France	1.588	-0.320	-0.342	**-2.105**	-1.418	-1.139	**-3.693**	-1.097	-0.797	-1.305	-0.156	0.137
	(1.344)	(1.698)	(1.321)	**(1.221)**	(1.453)	(1.391)	**(1.621)**	(2.014)	(1.688)	(0.968)	(0.839)	(1.082)
Germany	1.664	2.816	1.479	-1.686	-1.623	-0.592	**-3.350**	**-4.440**	-2.071	-0.488	-0.092	0.690
	(1.721)	(2.388)	(1.795)	(1.097)	(1.272)	(1.147)	**(2.005)**	**(2.680)**	(2.011)	(0.747)	(0.811)	(0.937)
Industry & year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	174	154	153	174	154	153	174	154	153	273	246	244
McFadden's pseudo R^2	0.433	0.516	0.491	0.433	0.516	0.491	0.433	0.516	0.491	0.222	0.258	0.248

Table IX
Robustness analysis − Logit regressions based on the actual changes in CEO

This table is similar to Table VI, but the sample excludes the 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, directors' independence, shareholder protection, and past performance (as measured by the return on equity (regressions (1)-(6)) and cumulative abnormal returns (regressions (7)-(12)). Directors' independence is measured using the conventional directors' independence, independence from the controlling family and the reduction in directors' 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). Year t is the year of the succession announcement. 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. 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 A. Standard errors are reported in the parentheses. Figures in bold denote significance the 10% level or better (two-tailed test).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Family wedge$_{t-1}$	-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$_{t-1}$	0.220	0.092	0.285				0.444	0.724	0.527			
	(0.716)	(0.801)	(0.784)				(0.732)	(0.878)	(0.841)			
Conv. directors'	0.033			0.026			0.033			0.029		
independence$_{t-1}$	(0.023)			(0.024)			(0.025)			(0.027)		
Independence from the		**-0.078**			**-0.070**			**-0.093**			**-0.082**	
controlling family$_{t-1}$		**(0.022)**			**(0.023)**			**(0.029)**			**(0.029)**	
Reduction in directors'			**0.068**			**0.061**			**0.070**			**0.062**
independence$_{t-1}$			**(0.021)**			**(0.021)**			**(0.024)**			**(0.024)**
Shareholder protection$_{t-1}$				**-2.428**	-1.454	-1.488				**-2.319**	-1.303	-1.560
				(0.992)	(1.182)	(1.146)				**(1.058)**	(1.225)	(1.175)
Return on equity$_{t-1}$	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)
Industry dummies	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

Table A
Definitions of Variables

This table presents definitions of the variables used in the paper.

Variable	Definition
Family power	The three measures of family power are family ownership, family control and family wedge. They are defined below.
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, annual reports)
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. (Source: Osiris, Thomson One Banker, Hoppenstedt Aktienführer, 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.
Family generation	Generation of the incumbent family CEO relative to the generation of the founder, i.e. 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. (Source: annual reports)
Conventional directors' independence	The number of directors that are reported as being independent in the annual reports. 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. (Source: annual reports)
Directors' independence from the controlling family	The number of directors that are independent from the controlling family as percentage of board size. A director is classified as being independent vis-à-vis the controlling family if she/ he 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. (Source: annual reports, IPO prospectuses, Thomson One Banker)
Reduction in directors' independence	The difference between directors' independence from the controlling family and conventional directors' independence
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. (Source: Osiris)
Return on equity	Earnings after interest and tax as a percentage of equity (voting and non-voting shares) measured in year t-1. (Source: Datastream)
CARs	The cumulative abnormal returns 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 month -37 to month -13. (Source: Datastream)
Assets growth	Percentage change in total assets from year t-2 to year t-1. (Source: Datastream)
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)
Long-term debt to equity	Long-term debt measured as a percentage of voting and non-voting shares in year t-1. (Source: Datastream)
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)
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 is market value. (Source: Datastream)
Herfindahl index	Measured as $H = \sum_{i=1}^{N} S_i^2$, where S_i is market share of firm *i* in industry sales (turnover) and *N* is number of firms in the industry. H ranges from 1/N to one. The closer it is to one, the more concentrated the industry. H is measured in year t-1, except for successions in years 2008 to 2010 where this is 2006 as the index is only available until that year. (Source: EU-KLEMS)
Tenure	Number of years the individual has been a CEO in year t. (Source: Annual reports, Thomson One Banker)
Age	Age of the incumbent CEO in years, measured in year t. (Source: Annual reports, Thomson One Banker)
Lnsize	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)
Industry dummies	Based on the Fama and French 10 industry portfolio classification. See for details.