The Stock Market Reaction to the CEO successor Announcement in Family Firms

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ABSTRACT

We investigate the determinants of the market reaction to the announcement of the appointment of a CEO successor in French, German and UK listed family firms with an incumbent, family CEO during 2001-2010. Given the strong family control, we conjecture that investors expect a family successor and hence do not react to the announcement of the appointment of the latter. In contrast, the announcement of the appointment of a nonfamily successor is likely to be met by positive cumulative abnormal returns (CARs). In line with our conjecture, we do not find a market reaction to the announcement of the appointment of a family CEO, whereas the announcement of a nonfamily successor elicits positive and significant CARs. We then study the determinants of the market reaction to the announcement of a nonfamily successor. We find that the poorer the past performance of the firm, the more positive are the CARs. Also, the greater the board independence, the less positive are the CARs for poorly performing firms. The latter result is more pronounced when board independence is adjusted for links of so called independent directors to the controlling family. Finally, more positive CARs are observed for poorly performing firms, with a UK or US cross-listing.

Keywords: CEO succession, family firms, corporate governance, board independence, shareholder protection

JEL codes: G32, G34

1. Introduction

Family firms are the most prevalent corporate structure around the world making up the majority of publicly listed firms (La Porta *et al.* 1999, Claessens *et al.* 2000, Faccio and Lang 2002, Kets de Vries *et al.* 2007). Nevertheless, despite their prevalence, the literature on family firms is as yet limited (Chen *et al.* 2013). In particular, research has not extensively investigated the impact of powerful families on corporate decision making.

One such decision relates to CEO successions. As the family CEO is about to retire, the firm is faced with the dilemma of whether to appoint a family member or a professional nonfamily CEO. Bertrand and Schoar (2006) argue that the founders and/or their families may be subject to 'dynastic thinking', resulting in the top management jobs being filled with members of the family rather than with more talented professional managers. Indeed, family members are not always the best candidates for the job, as they may lack proficiency (Burkart *et al.* 2003), yet they typically have an unfair advantage over nonfamily candidates in getting the top positions in their firm (Schulze *et al.* 2001). Hence, when family successors are chosen due to their family ties rather than on merit, nonfamily shareholders are disadvantaged (Pérez-González 2006). Thus, nonfamily, i.e. minority shareholders' preference for a better qualified, nonfamily CEO may clash with the family's desire to extract private benefits of control from their firm. This suggests that the choice of the successor to the incumbent family CEO is a setting in which the interests of the family and those of the minority shareholders may be in conflict.

This paper explores the market reaction to the announcement of the successor to the incumbent family CEO in family firms. We assume that investors expect a family member to succeed the incumbent family CEO and, hence, do not react to the news of such an appointment, whereas the appointment of a nonfamily CEO is unexpected and therefore met with a positive market response to its announcement. Apart from testing the validity of this first conjecture, the aim of this paper is to explain the size of the market reaction to the announcement of the appointment of a

nonfamily CEO. This is done for the case of listed family firms from France, Germany and the UK. The paper builds on previous work by the authors, which studies five determinants of the CEO successor choice in family firms. These determinants are family power, family generation, board independence, i.e., directors' independence vis-à-vis the controlling family, shareholder protection and past performance. They find that greater board independence vis-à-vis the controlling family and shareholder protection reduce the likelihood of the appointment of a family member. Nevertheless, board independence only has an impact if it is adjusted for the links so called independent directors have with the controlling family. In contrast, when the incumbent CEO is the founder (or from his/her generation) and family control is high, there is a greater likelihood that the successor will be a family member.

The paper makes three important contributions to the literature. First, it focuses on listed family firms where the minority expropriation might be more pronounced. In contrast, the existing literature on CEO successions has mostly focused on unlisted family firms where there are unlikely to be minority shareholders. Second, it explores the market reaction to an important corporate decision for family firms, i.e. the CEO succession decision, across three different corporate governance systems – i.e., France, Germany and the UK. Finally, it uses a novel set of determinants to explain the market reaction to CEO successor announcements. More specifically, the limited numbers of studies on the market reaction to CEO succession announcements in family firms (e.g., Smith and Amoako-Adu 1999, Pérez-González 2006) focus primarily on North American firms as well as the impact of CEO characteristics, such as successor age and educational background. Conversely, factors that may matter to investors are typically omitted from the analysis. Such factors include family power, founder, directors' independence vis-à-vis the family, shareholder protection and past firm performance.

The paper is structured as follows. Section 2 reviews the literature and formulates the conjectures. Section 3 discusses the sample selection process, the variables and the methodology. The results

are presented in Section 4, and Section 5 contains the robustness analysis. Finally, Section 6 concludes.

2. Literature Review and Conjectures

The aim of this section is twofold. First, it reviews the existing literature on CEO successions in family firms and their impact on operating performance and cumulative abnormal returns (CARs) around the announcement of the succession decision. Second, it develops a set of conjectures as to how various factors, which also determine the likelihood of a nonfamily successor replacing the incumbent family CEO, explain the market reaction to the announcement of the appointment of a nonfamily CEO.

2.1 Existing studies on the consequences of CEO successions in family firms on performance

Existing studies suggest that the appointment of a family member to replace the incumbent CEO hurts operating performance. Smith and Amoako-Adu (1999), for example, analyse CEO successions in a sample of Canadian family firms.[1] They find that the operating return on assets (OROA) of firms appointing nonfamily CEOs is significantly below the industry median over the four years pre-succession, but improves over the first four years post succession. In contrast, firms appointing a family successor perform above the industry median before the succession but perform worse than the median after the succession. Similarly, Pérez-González (2006) and Bennedsen *et al*. (2007) find a substantial decline in OROA around family successor appointments (the latter use both one-year and three-year averages before and after the announcement year).[2] Pérez-González (2006) explains this decline in performance by the poor academic record of the family successor and hence the poor managerial skills (or lack thereof) of

[1] They define family firms as firms where the departing CEO is a family member (i.e. the founder or one of his/her descendants).
[2] Similarly, Morck *et al.* (2000) examine a sample of Canadian firms managed by heirs of the founder and find that they underperform compared to similar US firms with dispersed ownership.

the family heir.[3] Similarly, Villalonga and Amit (2006) show that descendant-CEO firms perform worse than nonfamily firms.

Nevertheless, not all of the empirical studies find strong support for the argument that family firms that appoint professional nonfamily CEOs perform better than family CEOs. For example, Sraer and Thesmar (2007) document that both founder and descendant controlled French firms perform better (measured by ROA, ROE, and market-to-book value) than nonfamily firms. Ehrhardt *et al.* (2006) find that, for the case of Germany, family firms outperform nonfamily firms in terms of OROA but not stock performance.

Moving onto the market reaction, Smith and Amoako-Adu (1999) do not find significant CARs at the announcement of the appointment of a nonfamily CEO in family firms. However, they find that the appointment of a family successor generates negative and significant CARs. They explain the negative market reaction to the appointment of a family successor by the young age of the latter, which suggests his/her inexperience. Finally, Hillier and McColgan (2009) find that, for the case of the UK, the departure of a strong founder-CEO elicits significantly positive CARs.

While the number of studies investigating the market reaction to the appointment of a successor to the incumbent family CEO is still fairly limited and the evidence is therefore still out there, we nevertheless argue the following:

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

What the above studies on the market reaction to the appointment of a CEO successor have failed to do is to adjust for the likelihood of the appointment of a nonfamily CEO. However, both existing theory and empirical studies suggest that firm characteristics are likely to influence the choice of the type of CEO successor and, in turn, the market reaction to the announcement of the

[3] Academic record is measured by the type of undergraduate institution attended by the successor, assuming that attending a selective college provides a valuable signal of ability. Pérez-González (2006) finds that firms appointing family successors who did not attend a selective college, i.e. 45% of all family successors, experience a 25% lower OROA and market-to-book ratio within the 3 years of the succession compared to firms appointing a nonfamily CEO.

successor choice. In terms of theory, Gimenez and Novo (2010) predict that, given the family's concerns about a possible reduction in their control (due to their reduced participation in the management) and private benefits, as well as the incremental costs generated by monitoring the potentially new, nonfamily CEO, the family may prefer to maintain the top management position. Burkart *et al.* (2003) predict that this is especially the case when the firm is based in a country with poor investor protection which makes it easier to extract private benefits of control. Further, Gimenez and Novo (2010) predict that it is more likely that there will be a family successor if the firm's past performance has been good.

From an empirical point of view, Ansari *et al.* (2014) find that, if family power (measured by family control, family ownership and the wedge, i.e. the difference between the percentage of the family's voting rights and cash flow rights) is strong or the CEO is the founder (or a member of his/her generation), there is a greater likelihood that the successor to the family CEO is another family member.

We argue that the greater the likelihood that the successor will be a family member the more positively will the market respond when a nonfamily CEO is appointed. In order to explain this market reaction, we use the determinants identified by existing studies to predict the type of successor. More specifically, we test whether greater family power, the fact whether the incumbent CEO is of the founder generation, and good past performance elicit a more positive market reaction when a nonfamily CEO is appointed. In contrast, greater board independence and minority shareholder protection, factors found to reduce the likelihood of a family successor, are expected to elicit a less positive market reaction when a nonfamily CEO is appointed.[4] In what follows, we discuss the five factors that explain the market response to the announcement of a nonfamily CEO.

[4] A similar approach is taken by Chen *et al.* (2013) in their study of family ownership and CEO turnovers in firms in the S&P 1500 Index. These authors argue that if investors expect a firm to have difficulty replacing the poorly performing family CEO, they will react more positively to the announcement of the CEO's departure when it indeed occurs. However, the market reacts less positively when the replacement of the CEO is not difficult.

2.2 Factors explaining the market response to the announcement of the appointment of a nonfamily CEO

Family power

Family control is one way of overcoming the principal-agent problem. Indeed, the family shareholder typically has the power (via its voting rights) and the incentives (via its cash flow rights) to monitor the management and to ensure that the latter runs the firm in the interests of the shareholder. The value creation via the monitoring is referred to as the security benefits of control (Grossman and Hart 1980). However, the family may use its power to extract benefits from its firm at the expense of the minority shareholders. Such benefits are the so called private benefits of control (Grossman and Hart 1980). However, the way minority shareholders perceive the role of family power remains unclear. Wong *et al.* (2010) find that family control is an important consideration for investors in evaluating the wealth impacts of corporate venturing announcements, such as acquisitions, joint ventures, and alliances, for family firms. They find that, if the CEO is a family member, there is greater representation of family members on the board of directors or if the family's voting deviate from its cash-flow rights, investors react more negatively to the venturing announcements. Except for the latter paper, studies on family firms do not explicitly investigate the impact of family control or power on the shareholder response to corporate decisions.

Considering the influence of family control on corporate decisions, including the CEO succession decision, we expect that, if family power is great, the market expects the appointment of a family member as the successor to the CEO. Hence, we propose the following conjecture:

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

Founder

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

The founder, however, is often considered to be the one who creates the most value for the firm (Anderson and Reeb 2003, Villalonga and Amit 2006 and 2009) and also attaches a greater degree of emotional wealth to the business (Berrone *et al.* 2010). Further, Carroll (1984, p.97) argues that founders are harder to replace relative to other CEOs because they "have higher levels of commitment, enhanced entrepreneurial and technical skills, and stronger personal ties to employees". Indeed, Fahlenbrach (2009) shows that it is the founder-CEO, and not firm characteristics, that improves firm value as measured by Tobin's Q. He finds that Tobin's Q in founder-CEO firms is 25.9% higher than in nonfounder-CEO firms. He also shows that a value-weighted investment strategy that invested in founder-CEO firms during 1993-2002 would have earned an abnormal return of 10.7% compared to a passive investment strategy.[5] To sum up, the above results show that founder-CEOs create value for the firm. This suggests that the choice of successor to the founder-CEO is crucial. In this vein, Cabrera-Suárez *et al.* (2001) claim that there is a danger that the family's culture, which is a result of its history, may make the firm hostile to change. Their argument is backed up by Villalonga and Amit (2006) who find that family involvement in their firm, apart from founder involvement, destroys rather than creates value.

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

Further, Dyer (1988) argues that, once the firm has passed the founder stage, it is important that its management style moves on from the often paternalistic style of founders to a more professional management style. To sum up, the above review of the literature suggests that the choice of the successor to the founder is crucial. However, families typically do not make the right decision in this context which would consist of appointing a nonfamily firm and moving to a professional management style. Hence, we propose the following conjecture:

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

Directors' independence

Independent directors have been argued to be the most effective governance mechanism to mitigate minority shareholder expropriation (e.g. Winter 1977, DeMott 2008). Nevertheless, there is no consistent evidence that board independence, typically measured by the percentage of independent directors on the board, results in increased firm value and performance. For example, Adams *et al.* (2010) find no significant relationship between board independence and firm performance. Still, studies which examine *specific* board tasks, such as CEO hiring and firing, outside CEO appointments, and setting CEO compensation report better outcomes under more independent boards (see e.g. Dahya and McConnell 2005).

Examining the market reaction to the CEO successions in US firms, Weisbach (1988) shows that there is no wealth impact if the CEO succession takes place in a firm with a board dominated by executive directors. However, he finds positive abnormal returns to the announcement of the appointment of an outside CEO if independent directors dominate the board. Davidson *et al.* (2002) argue that investors react to the CEO succession decision when there is greater board independence because a more independent board is likely to select the most suitable (outside) successor. Further, Dahya and McConnell (2005) show that UK boards, that comply with the Cadbury report's (1992) recommendation about the minimum number of outside directors, are more likely to appoint an outside CEO. Borokhovich *et al.* (2006), who study the influence of

directors' independence on the CEO appointment decision in the case of sudden CEO death in US firms, also arrive at a similar conclusion.

Overall, prior evidence suggests a positive market reaction to the appointment of a nonfamily CEO if the board is dominated by independent directors. However, prior studies also show that greater board independence reduces the likelihood of a family CEO successor (e.g., Ansari *et al.* 2014). Hence, investors expect that the incumbent family CEO may be replaced by a nonfamily successor in firms with greater board independence. Therefore, we expect a less pronounced market reaction to the announcement of a nonfamily CEO in these firms. We arrive at the following conjecture:

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

Shareholder protection

Coffee (2002) shows that cross-listing on a US or UK stock exchange is one way for a foreign firm, based in a country with weak shareholder rights, to enter a better legal system, thereby improving the protection of its minority shareholders. This is the so-called bonding hypothesis. Lel and Miller (2008) test the bonding hypothesis by examining the propensity to replace a poorly performing CEO. They find that the sensitivity of CEO turnover to firm performance is stronger for cross-listed firms than for those that are not cross-listed. In particular, the sensitivity is strongest for firms from countries with weak investor protection that are cross-listed on a US exchange.[6] In line with these findings, Ansari *et al*. (2014) show that firms cross-listed on a US or UK stock exchange are less likely to appoint a family member as successor to the incumbent family CEO. We argue that investors expect the incumbent family CEO to be replaced by a nonfamily CEO for firms cross-listed on a US or UK stock exchange. Therefore, we propose the following conjecture:

[6] These are Level II and Level III American Depositary Receipts (ADRs).

CONJECTURE 5: *If the firm is cross-listed on a US or UK stock exchange, less positive CARs are observed around the announcement of the appointment of a nonfamily successor.*

Past firm performance

Previous studies focusing on widely held firms suggest that the announcement that the incumbent CEO is to be replaced by an outsider typically generates positive CARs when there has been poor pre-succession performance (e.g. Bonnier and Brunnier 1989, Denis and Denis 1995, Khanna and Poulsen 1995). Indeed, some (e.g., Cannella and Lubatkin 1993, and Lauterbach *et al.* 1999) argue that an insider appointment only makes sense in the context of good firm performance. Conversely, firms with poor performance often need to hire outside CEOs as the latter are more likely to be able to change existing strategies, evaluate the current problems, and take decisive action to turn around the firm. However, Chung *et al.* (1987) find that the CEO changes in badly performing firms do not elicit a significant stock market reaction whatever the type of successor. They conclude that investors do not actually believe that the replacement of the CEO will improve the firm's bad profitability.

Nevertheless, Lauterbach *et al.* (1999) find that inside selection deteriorates post succession performance while outside successors improve performance significantly. More precisely, the two-year post-succession performance decreases by 41% after internal appointments compared to an increase of 35% for outside appointments.[7]

Still, Pfeffer and Salancik (1978) suggest that investors are likely to interpret the appointment of a family successor as a signal of stability and continuity of strategy and performance; hence no market reaction is to be expected. However putting this into the context of bad pre-succession performance, the poorer performance, the more likely it is that investors expect the incumbent

[7] Lauterbach *et al*. (1999) find a significant difference between the two-year pre- and post-succession CARs for firms appointing internal successors compared to those appointing outside successors. Their results indicate that, for internal appointments, the pre-succession CARs equal 13% which then decrease to an average of -28% over the two years post-succession. In the case of external appointments, the post-succession performance increases from -39% to 4%. It should be noted that, while Chung *et al.* (1987) consider those that are already employed by the firm and have less than one year of tenure as outsiders, Lauterbach *et al.* (1999) define outsiders as those that have had no previous employment with the firm.

family CEO to be replaced by a nonfamily CEO. Hence, the less likely they will react to the announcement of such an appointment. Therefore, we propose the following, final conjecture:

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

Earlier studies suggest that past performance has an impact on the market reaction to the CEO succession announcement albeit not necessarily directly, but certainly in conjunction with other drivers. For instance, Weisbach (1988) finds evidence that CEO turnover preceded by negative CARs (measured over the four pre-announcement quarters) in firms with outsider dominated boards results in positive abnormal returns on the day of the announcement. Similarly, Salas (2010) finds evidence that the appointment of an outside CEO following the death of the poorly performing founder results in positive CARs. Therefore, we also examine whether family power, founder, board independence and shareholder protection only matter when past performance is low. This is achieved by interacting past performance with these variables.

3. Data and Methodology

3.1 Sample selection

The sample consists of CEO successions in listed family firms from France, Germany and the UK from 2001 to 2010. A family firm is defined as a firm whose largest shareholder is a family, owning at least 25% of the votes, *and* whose incumbent CEO is a member of that family. This paper uses the same sample as Ansari *et al*. (2014).

We start with the full population of listed firms in each of the three countries (1,780 French firms, 1,307 German firms, and 2,437 UK firms). After excluding financial firms, firms without a controlling family holding at least 25% of the votes[8] and/or firms whose controlling family does

[8] In case of pyramidal ownership, we identify the ultimate controlling shareholder and calculate the total votes they hold using the following methodology. When there is indirect ownership through one or more intermediate firms that the large shareholder also controls, known as a control chain (see e.g. La Porta *et al.* 1999), the cash flow rights are the product of the various ownership stakes across the control chain and the voting rights are measured as the 'weakest link' or the lower percentage in the control chain. For further details see Villalonga and Amit (2009).

not remain the largest shareholder for at least half of the period of study, the sample is reduced to 187, 120 and 88 family firms from France, Germany and the UK, respectively. Finally, we require that firms included in the sample must have at least one change in their incumbent family CEO or a re-appointment.[9] As a result, the final sample is comprised of 283 events, i.e. CEO successions as well as re-appointments, in 231 firms, of which 137 events take place in 115 French firms, 94 in 78 German firms and the remaining 52 events in 38 UK firms.[10]

We classify the succession events into two types: family-to-family successions, where the successor is a family member, including re-appointments of the incumbent, and family-to-nonfamily successions, where the successor is not related to the controlling family. 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.[11]

We use LexisNexis, the Forbes database and other online newspapers to identify the announcement date of each succession. Wherever possible, the date is confirmed using more than one source. The biography of the incumbent and successor CEOs, as well as details relating to the directors on the board, are obtained from the annual reports, Reuters, Thomson One Banker and corporate websites. Country specific company guides are used to supplement the required information.[12] Financial information is obtained from Datastream and Osiris.

[9] We define re-appointment as the appointment of the incumbent family CEO to office for a further period of time. The length of term the CEO is re-appointed for is either fixed by the firm (and stated in the annual report) or based on the maximum CEO term as stipulated in the country specific governance regulation (six years for France, five years for Germany, and three years for the UK).

[10] Prior studies on CEO successions in family firms exclude re-appointments of the incumbent family CEO (e.g., Hillier and McColgan 2009). We argue that, given the power of the controlling family relative to the minority shareholders, the former may push for either the re-appointment of the incumbent CEO or the appointment of another family member. Hence, we include re-appointments in our sample. Nevertheless, in the robustness section we report the results excluding re-appointments.

[11] The percentages of family-to-family successions in France, Germany and the UK are 53.3 percent, 30.2 percent and 16.5 percent, respectively.

[12] We use Hoppenstedt Aktienführer for Germany and Companies Handbook for the UK.

3.2 Definitions of the variables and models

The validity of our first conjecture as to the market reactions to the two types of CEO successors is tested via the univariate analysis of the announcement *CARs*. To test the validity of our five conjectures about the stock market reaction to the appointment of a nonfamily CEO successor, we estimate the following OLS model:

$$CAR_i(t_1, t_2) = \alpha_i + \beta_1 Family\ power_i * Family\ CEO_i + \beta_2 Family\ power_i * Nonfamily\ CEO_i$$
$$+\beta_3 Founder_i * Family\ CEO_i + \beta_4 Founder_i * Nonfamily\ CEO_i$$
$$+\beta_5 Directors'independence_i * Family\ CEO_i + \beta_6 Directors'independence_{i_i} * Nonfamily\ CEO_i$$
$$+\beta_7 Shareholder\ protection_i * Family\ CEO_i + \beta_8 Shareholder\ protection_i$$
$$* Nonfamily\ CEO_i$$
$$+\beta_9 Past\ performance_i * Family\ CEO_i + \beta_{10} Past\ performance_i * Nonfamily\ CEO_i$$
$$+\beta_{11} Control\ variables_i$$
$$+\sum_{j=12}^{14} \beta_j Country_j + \sum_{k=15}^{23} \beta_k Industry_k + \sum_{t=24}^{32} \beta_t Year_t + \varepsilon_i \quad (1)$$

where the dependent variable is the *CARs* for each succession announcement *i*, and t_1 and t_2 denote the start date and end date of the event window, respectively, over which the *CARs* are computed.

Apart from the first conjecture, our conjectures focus on the market reaction to the appointment of a nonfamily CEO successor. To test the validity of these conjectures for the full sample, we interact each of the five drivers with the family and also nonfamily successor dummy variables.[13] This allows us to test the conjectures using the full sample of observations and also examine the differential effect of each driver on the *CARs* for each succession type within the same regression. The dependent variable is the market reaction to the CEO succession announcement which is measured using daily cumulative abnormal returns (*CARs*). The *CARs* are based on the market model, with day 0 being the day of the succession announcement. The parameters of the market

[13] An alternative approach is to run our model using sub-samples by the type of successor. However, the sub-sample of nonfamily successors only contains 48 observations, which then causes problems with the degrees of freedom.

model are estimated from day -270 to day -20 using the STOXX Europe 600 Index as the proxy for the market return.[14] The date of the official public announcement of the CEO succession is taken as the announcement date of the event. We employ seven event windows in line with earlier succession studies on family firms (see e.g. Smith and Amoako-Adu 1999). These include [-40, 0], [-10, 0], [0, 1], [0, 10], [-1, 1], [-3, 3] and [-40, 20].

The postulated drivers, i.e., *Family power*, *Founder*, *Directors' independence*, *Shareholder protection* and *Past performance*, are measured in the year preceding the year of the succession announcement. *Family power* is measured in three different ways, i.e., *Family control*, *Family ownership* and *Family wedge*. First, *Family control* is defined as the number of votes held directly by the family, plus any additional votes resulting from indirect or pyramidal ownership,[15] as a percentage of total votes outstanding. Second, *Family ownership* is the number of shares of all classes held by the family expressed as a percentage of total shares outstanding. Finally, the *Family wedge* is the difference between *Family control* and *Family ownership*. It measures the incentives of the controlling family to extract private benefits of control from its firm.

Founder is a dummy variable that equals one if the incumbent CEO is the founder of the company, and zero otherwise. *Directors' independence* is evaluated using three different measures, i.e., *Reported board independence*, *Adjusted board independence* and *Difference in board independence*. *Reported board independence* is defined as the number of non-executive directors reported as being independent in the annual reports expressed as a percentage of board size.[16] However, *Reported board independence* is likely overstated as it ignores links that the so called independent directors have with the controlling family.[17] We adjust *Reported directors'*

[14] STOXX Europe 600 is a comprehensive and liquid index representing large, mid and small capitalisation companies across 18 European countries (see e.g. Betzer *et al*. 2013 for a discussion).
[15] This is measured using the weakest link in the chain of control. See Ansari *et al*. (2014) for details.
[16] 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.
[17] Successive codes of best practice in France, Germany and the UK have stressed the importance of board independence. However, none of the three countries' code of best practice considers a director's independence compromised by links to the family shareholder, unless the director is a representative of the family or a family

independence after assessing each non-executive director's independence relative to the controlling family. We do so by using the six criteria proposed by Ansari *et al*. (2014). In detail, a director is classified as not being independent *de facto* if he/she (1) is related by blood or marriage to the controlling family; (2) has tenure of at least nine years with the firm; (3) is appointed directly via special voting rights by the controlling family; (4) is an employee or director of another firm controlled by the same family; (5) sits on other boards together with family members; and/or (6) is a former employee of the firm (incl. an executive).[18]

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 a cross-listing on a US or UK stock exchange, it is equal to zero for the UK firms. We use two measures of *Past performance*, i.e., the return on assets (*ROA*) and the return on equity (*ROE*). In detail, *ROA* is defined as earnings *before* interest and tax as a percentage of the book value of total assets. *ROE* is calculated as earnings *after* interest and tax as a percentage of (voting and non-voting) equity. Both variables are measured in the year prior to the succession announcement and are adjusted by the industry median in each of the three countries.[19] As discussed in Section 2, it might be the case that *Past performance* only matters in conjunction with one of the five postulated drivers. Hence as a second step, we also interact the postulated drivers with past performance.

We interact each of the five postulated drivers with each of the following two dummy variables at a time. The two dummy variables indicate the type of CEO successor and their interaction with

member. Ansari *et al.* (2014) show that, when board independence is adjusted for the links to the controlling family, it is significantly lower in all three countries, dropping on average between 7 and 18%.

[18] We ignore employee representatives on German supervisory boards. This is because by definition these directors are not independent as they represent employee interests and not those of the shareholders. Hence, the board size of German firms is calculated as the sum of the size of the management board and the size of the supervisory board reduced by the number of employee representatives on the latter. We also evaluate the independence of the 71 nonfamily successor CEOs by applying the same criteria, except for criteria (2) and (6). None of the other four criteria is met by the nonfamily CEOs. Hence, the nonfamily CEOs are very likely unrelated to the controlling family (see Ansari *et al*. 2014 for further details).

[19] *Industry-adjusted ROA* is measured as the difference between the sample firm's *ROA* and the median *ROA* of the same industry group on the respective country stock exchange (based on the Fama and French 10 industry portfolio).

the five drivers allows for a differential effect of each driver for the type of successor. The dummy variables are as follows. The *Family CEO* dummy variable equals 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 *Nonfamily CEO* dummy variable equals one, if the new CEO is not a member of the controlling family, and zero otherwise.

We use the following control variables: *Industry-adjusted M/B, Assets growth, Long-term debt to equity*, *Firm size*, *Forced departures* and *Successor CEO age*. *Industry-adjusted M/B* is measured as the market value of the total equity divided by the book value of equity minus the market-to-book value for the same industry and country.[20] *Assets growth* is defined as the growth of total assets in the year prior to the succession announcement and is calculated as the percentage change in total assets from two years prior to the succession announcement to one year prior. *Long-term debt to equity* is also used to measure leverage. As high leverage would cause the debtholders to monitor the firm more closely (see e.g. Jensen 1986), we expect that the market reaction to the CEO announcement is likely to be less pronounced when leverage is high. *Assets growth* and *Industry-adjusted M/B* are proxies for investment opportunities. We expect that the market reaction to the CEO succession announcement is higher for firms with greater *Assets growth* and *Industry-adjusted M/B* given the greater importance of the choice of CEO successor. *Firm size* is the natural logarithm of total assets in the year prior to the succession announcement. We also control for *Forced departures* and *Successor CEO age*.[21] *Forced departures* is a dummy variable which equals one, if the reason for the succession is the forced dismissal of the incumbent CEO, and zero otherwise.[22] *Successor CEO age* is the age of the successor CEO at the announcement of

[20] Again, the industry classification is based on the Fama and French 10 industries classification.
[21] 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, gender and education have been excluded from the analysis.
[22] The reasons for departures were identified via the financial press covered by LexisNexis. A departure is considered to be forced if we find articles or news releases suggesting that the CEO was "replaced", the CEO departure was due to "policy disagreements", "differences in opinion", or other similar reasons.

the succession decision. Finally, *Country* represents a set of three dummy variables used to control for country specific effects on the market reaction. *Industry* is a set of nine industry dummies based on the Fama and French 10 industry classification. *Year* is a set of nine year dummies for the years 2001 to 2009.

4. Empirical Analysis

4.1 Descriptive statistics and methodological issues

Table I presents the descriptive statistics for the firm, the successions and CEO characteristics in Panel A and for the postulated drivers of the stock market reaction to the succession announcement in Panel B. The results reported in Panel A suggest that the average *Market value* of the firms in the sample is €284 million. Compared to the average market capitalisation of €1.42 billion for all the firms listed on the three stock exchanges, the firms included in our sample are very small. They are in the 1st percentile of the market capitalisation of all the firms listed on the three stock exchanges. Average *Assets growth* in the year prior to the succession is 9.43%. The percentage of *Forced dismissals* is relatively low with 11%. Average and median *Successor CEO age* is about 51 years. In terms of the conjectured drivers (Panel B), average *Family control* is 60.71%, suggesting that the free-float for the sample companies is small. *Family wedge*, i.e. the difference between the family's voting control and ownership, is on average 5.63%. About 61% of the incumbent CEOs are founders. The *Reported board independence* is on average 55% as compared to an average 24% for the *Adjusted board independence*. This suggests that a significant percentage of directors, who are reported to be independent, are not so in actual fact. Only 11% of the French and German firms are cross-listed in the US or the UK. Finally, the average *ROA* and *ROE*, both being industry-adjusted and measured in the year preceding the succession announcement, are 0.39% and -5.40%, respectively. The median *Industry-adjusted ROA* and *ROE* are positive, i.e., 1.39% and 0.26%, indicating that our sample firms perform better

than the industry average.[23] The standard deviation for the *Industry-adjusted ROA* (12.90%) is much lower than for the *Industry-adjusted ROE* (40.61%).

INSERT TABLE I ABOUT HERE

Next, we compare the family-to-family successions with the family-to-nonfamily successions. Panel A of Table II presents the mean and median values for the family-to-family successions as well as the mean and median differences between the two succession types. The respective mean and median values for the family-to-nonfamily successions are reported in Panel B. Overall, this table suggests that family-to-family successions occur in firms with significantly lower *Market value* and *Total assets*. Only about 2% of the family-to-family successions are classified as *Forced departures* compared to 31% for the family-to-nonfamily group. Surprisingly, family-to-nonfamily successors are significantly younger (at the 10% level) than family-to-family successors. However, on excluding re-appointments, it is – as one would expect – the family-to-family successors that are significantly younger (at the 10% level) (the figures are not tabulated). We also find that there is a significant difference at the 5% level or better between the two succession types for *Founder*, *Adjusted board independence* and *Shareholder protection*. Nonfamily successors are appointed by firms with greater *Adjusted board independence* and better *Shareholder protection* and are less likely to be appointed if the incumbent CEO is the *Founder*. Finally, there is no significant difference in the mean and median firm performance (i.e., *Industry adjusted ROA* and *ROE*) between family-to-family successions and family-to-nonfamily successions.

Nevertheless, further analysis (not tabulated) suggests significant differences in terms of *Past performance* between the three countries. We find that UK family-to-family successions have the highest (mean and median) levels of pre-succession performance and, their performance is

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

significantly higher (at the 5% level or better) when compared to the German and French family-to-family successions.[24] Further, German family-to-nonfamily successions have the lowest (at the 5% level) mean and median pre-succession performance compared to the UK and France (not tabulated).[25]

INSERT TABLE II ABOUT HERE

Overall, the univariate analysis suggests that there are significant differences between the two succession groups for three of the postulated drivers, i.e. *Founder*, *Adjusted board independence* and *Shareholder protection*. While overall there are no significant differences for *Past performance* between the two succession types, there are differences across the three countries.

Given the construction of our sample, *Family power*, as measured by *Family control* and *Family ownership*, is high. Previous studies (e.g., Sarin *et al.* 2000, Heflin and Shaw 2000) find a negative relationship between ownership concentration and stock liquidity, suggesting thin trading. Similarly, Attig *et al.* (2006) show that the greater the percentage of cash flow rights held by the large shareholder, the greater is the likelihood that the firm's stock is thinly traded. Hence, thin trading is likely to be a methodological issue affecting our event study. As previous studies (e.g., Friederich *et al*. 2002) show that thin trading may bias the results from an event study and cause the statistical tests to be poorly specified, it is important to identify whether the sample firms are thinly traded.

We use four approaches to identify thinly traded firms, i.e., the free-float, the trading volume, the relative trading volume and a thin trading dummy variable. The free-float is the percentage of all shares outstanding held by nonfamily investors one year before the succession event.[26] Trading volume is the average number of the shares traded per firm daily over the [-310, -60] window

[24] Average *Industry-adjusted ROA* and *ROE* for the UK is 6.26% and 10.39%, respectively. The equivalent percentages for France are 0.23% and -6.23% and for Germany 0.37% and -0.72%.

[25] German firms appointing a nonfamily successor have an average -5.86% and -21.61% *Industry-adjusted ROA* and *ROE*, respectively. The equivalent percentages for France are 3.51% and 3.84% as well as 2.19% and -4.56% for the UK, respectively.

[26] For firms with dual class shares we consider the total number of shares of all classes held by nonfamily investors.

measured in thousands of shares. Relative trading volume is the average of the daily number of share traded per firm over the [-310, -60] window expressed as a percentage of the total number of shares.[27] Finally, the thin trading dummy equals one if the average relative trading volume of the firm's stock over the [-310, -60] window is significantly higher (at the 10% level or better) than the average relative trading volume[28] on the London Stock Exchange (LSE) during the same period.[29]

Panel A of Table III reports the descriptives for the measures of thin trading. France has the lowest average free float (43%), followed by Germany (47%) and then the UK (54%). Hence, France and Germany have greater concentration of control (and ownership) than the UK. These patterns are consistent with previous country studies such as Barca and Becht (2001). Furthermore, family ownership in one French firm is particularly high, leaving a free-float as low as 0.64%.[30] While 17 firms in France have free-float of less than 25%, the corresponding numbers (which are not tabulated) of firms in Germany and the UK are only four and one, respectively. Hence, it is likely that our sample firms are thinly traded. However, we expect the French firms to be more thinly traded given their greater concentration of ownership and control.[31] We also find that all three countries have relative trading volumes of less than 0.1%.

INSERT TABLE III ABOUT HERE

[27] For firms with dual class shares we consider both classes of shares. Similar results are obtained when using [-185, -60] as an alternative window.

[28] All of the sample firms have significantly lower trading volumes than the average trading volume of the firms listed on the LSE. Therefore, the thin trading dummy variable is based on the relative trading volume.

[29] We choose the London Stock Exchange as a benchmark because of its high liquidity (Marsh 1979). For this purpose, we take into account firms listed on both the Official List and the Alternative Investment Market (AIM). Given that both France and Germany have a prevalence of strong corporate control, firms listed on the former two countries' stock exchanges are likely to suffer more from thin trading (see e.g. Wulff 1999). For the UK firms in our sample, when comparing them with the LSE, we exclude our sample firms from the LSE market population. For France and Germany, we compared the results obtained from excluding the UK sample firms from the LSE market population to those obtained from including the UK sample firms. The findings were qualitatively the same (and so were the levels of significance where applicable). Nevertheless to ensure consistency in our approach, we exclude the UK sample firms from the LSE market population when analysing thin trading for the French and German firms.

[30] This figure relates to the French firm Jacues Bogart controlled and majority owned by the Konckier family.

[31] Our firms are very small as they are in the 1st percentile of the market capitalization of all the firms listed on the three stock markets. This suggests a high likelihood of the firms in the sample being thinly traded.

Panel B of Table III presents the differences in the trading volume and relative trading volume between our sample firms and the firms listed on the LSE.[32] As expected, the trading volume and the relative trading volume of our sample firms are significantly lower than those of the firms listed on the LSE and for each of the three countries the differences are significant at the 1% level. We find that the thinnest traded stocks are in France, followed by Germany and then the UK. Importantly, the overall inference is that all our sample firms are thinly traded. Hence, we adjust for thin trading across the entire sample using the Dimson (1979) beta method.[33] We use three tests to determine the significance of the *CARs*, i.e., the Student t-test, the Corrado rank test and the generalised rank test (G-rank). Evidence shows that conventional parametric test statistic, i.e., the Student t-test, is poorly specified for thinly traded samples as compared to nonparametric rank tests (see e.g., Cowan and Sergeant 1996).[34] To overcome this problem, Corrado (1989) introduced the rank test statistic that appears to be consistently the best specified and most powerful test statistic across various event conditions, including thin trading (Campbell and Wesley 1993, and Cowan and Sergeant 1996). Nevertheless, the latter test was initially proposed to detect abnormal returns on the event day, i.e. single day abnormal returns. Hence, the efficiency of the test is reduced when extended to multiple day abnormal returns, i.e. *CARs* (Kolari and Pynnonen 2011). To address this issue, Kolari and Pynnonen (2010, 2011) propose the G-rank test which is much less sensitive to the length of the event window than the Corrado test (see also Cowan 1992).[35]

[32] The UK sample firms are excluded from the population of firms listed on the LSE.

[33] This approach obtains a consistent estimate of beta by aggregating the slope coefficients from the multiple security returns using lagged, contemporaneous and leading market returns. The number of lags and leads of market returns are usually increased in line with the thinness of the stocks. Based on the infrequency of trading in our sample, we use 5 day lags and leads. McInish and Wood (1986) argue that Dimson's (1979) approach is the best technique to reduce the amount of bias in the estimated beta. Nevertheless, they point out that this technique reduces the bias by only 29% as measured by the spread in the OLS beta estimates.

[34] Campbell and Wesley (1993) argue that the high frequency of zero returns in thinly traded firms and the corresponding extreme returns distort the variance estimates required for the abnormal return Student t-tests.

[35] In the G-rank, in order to derive the rank test, the time indexing is redefined such that the *CAR* window length, say 41 days, is squeezed into one observation with time index t=0. This is referred to as the cumulative event day. As a result, this test is less sensitive to the length of the event window. In contrast, in the Corrado test, when all returns are

Given the high level of thin trading in our sample, we expect to observe significant *CARs* in response to the announcement of the CEO succession (more precisely the announcement of a nonfamily successor) for longer rather than shorter event windows. The longer the event window, however, the more likely it will include other events (i.e., confounding events), which is another methodological issue that needs to be addressed. Confounding events may be of particular concern for studies on family firms because the timing and the degree of information disclosure may be down to the family shareholders (Lakhal 2005, Chen *et al.* 2008, Anderson *et al.* 2009, Di Miceli da Silveira and Dias 2010). Even for mandatory disclosures, the controlling family may still be able to influence the exact timing – within the regulatory time frame – of the information to be disclosed.[36] In terms of voluntary disclosure, the evidence is mixed. Some studies (e.g., Chen *et al.* 2008) support the family shareholder's preference for less disclosure whereas others (e.g., Ali *et al.* 2007) argue the exact opposite.[37] However, Hutton (2007) maintains the view that the family's decision to disclose more information than nonfamily firms is not necessarily indicative of less opportunistic behaviour. For example, if the family has incentives to expropriate the minority shareholders it may use disclosures to ease the extraction of private benefits of control.[38] Hence, it is unclear whether family firms prefer to disclose less or more information than widely held firms.

We identify successions with confounding events via LexisNexis during the longest event window employed in the study, i.e., the [-40, 20] event window. Table IV reports the types of the

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transformed to ranks in the event window, they no longer capture the magnitudes of the returns, but only their relative ranks (Kolari and Pynnonen 2010, Cowan 1992).

[36] For instance, despite the regulations on the timeliness of mandatory disclosures, such as those on the announcements of the annual and half-yearly earnings, Ball *et al.* (2000) find that earnings are significantly timelier for common-law countries (such as the US and the UK) than civil law countries (such as France and Germany) which have concentred corporate control.

[37] Chen *et al.* (2008) argue that family shareholders have a long investment horizon and the benefits of accelerating timely information, such as trading profits, accrue less to family shareholders. Additionally, higher family power reduces nonfamily investors' demand for information to monitor managers (see e.g. Bushman *et al.* 2004). Hence, the controlling family may prefer to disclose less information. On the other hand, high ownership concentration implies greater costs of non-disclosure in terms of litigation and tarnishing reputation (Ali *et al.* 2007). This argument, however, may be a greater concern in widely held firms where managers may face a greater job security threat for withholding bad news.

[38] See also Arcot and Bruno (2012) who make a similar argument.

confounding events and their distribution across countries, low and high family control and type of successor as well as their timing (occurrence in [-20, -1] window versus [1, 20] window). We find that 32.5% of the successions events (i.e., 92 out of the 283 succession events in the sample) have confounding events during the [-40, 20] event window. Panel A of Table IV shows that, overall, we have identified 153 confounding events around the 92 succession decisions: 68 confounding events related to 41 successions in the French firms (out of 137 successions in French sample firms), 50 confounding events related to 32 successions in German firms (out of 94 successions in the German sample firms) and 35 confounding events related to 19 successions in UK firms (out of 52 successions in UK firms in the sample). This suggests that on average there is more news (per succession with confounding events) released by the UK family firms than the French and German firms. However, these patterns are mainly driven by earnings announcements, which are routine announcements.[39] The majority of the confounding events in our sample, i.e. 128 out of 153, relate to four types of announcements, i.e., earnings (28.1%),[40] others (25.5%),[41] new product or contract (17.6%),[42] and dividends (12.4%).[43]

[39] The UK quarterly announcements are compulsory whereas in France and Germany this is semi-annual.

[40] Due to the extensive time required to go through each news announcement (they are not always in English), it was not feasible to classify each earnings announcement as being a quarterly, semi-annual, or annual earnings announcement. Only three out of 43 earnings announcements report losses, two of which relate to two French firms and one to a UK firm. While all three are announced prior to the succession announcement, those for the French firms are followed by the appointment of a family CEO whereas that for the UK firm is followed by the appointment of an outsider.

[41] The other types of announcement include four announcements of warnings of a drop in volume and weak trading predictions, two announcements of the intention to go private (and to end being completely held by the family), two announcements of ongoing court cases, two share buy-back announcements, and two on tender offers. The remaining ones include news such as an award for innovative products and the splitting of the key activities of the firm into two separate firms controlled by the same family. Unless the abnormal returns for each of the confounding events are examined, it is difficult to state with certainty whether an announcement is good news or bad news.

[42] The announcements of a new product/contract are mainly done by French and German firms. As reported in Panel A of Table IV, there are 15 confounding events related to the announcement of a new product/contract out of the total of 68 confounding events identified for the French firms and 10 out of 50 confounding events identified for the German firms, respectively. In contrast, only 27 such confounding events out of the 153 total confounding events relate to the UK firms. This is because of the industry that the firms in the respective countries belong to. Both France and Germany have more firms in the business equipment and software industry than the UK, and by nature, firms in this industry have frequent releases of new products (see http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html)

[43] Only one of the dividend announcements, in a UK firm, is related to an expected omission. Similar to the negative earnings announcements, this news is released prior to succession.

Panel B of Table IV investigates whether the confounding events have been timed around the succession announcements and whether they are based on the level of family control[44] and types of successor. There is more news announced during the [-20, -1] window compared to the [1, 20] window (i.e., 59 announcements compared to only 30). This suggests that the controlling family times the release of certain types of news to precede the succession announcement. Furthermore, Panel B also suggests that more news are released around succession announcements made by firms with lower family control than around succession announcements made by firms with concentrated family control (47 compared to 12 announcements). Also, more news appear to be released around family-to-family successions than family-to-nonfamily successions (100 and 53 announcements, respectively). Still, this pattern is driven by our sample distribution as there is a greater proportion of firms appointing a family successor (including re-appointments).[45]

INSERT TABLE IV ABOUT HERE

Table V presents summary statistics for the unadjusted *CARs* for the seven event windows for the 264 successions with complete return data. The G-rank test suggests that only the *CARs* for the two longest windows (i.e., [-40, 0] and [-40, 20]) are positive and significant (at the 5% level).[46] This supports our earlier argument that our sample firms are thinly traded and hence the market reaction to the succession announcement is likely to be observed for the longer announcement windows only. Further support for this argument is provided by the standard deviation of the *CARs* which increases with the length of the event windows. The minimum values are -351.49% for the [-40, 0] window and -516.18% for the [-40, 20] window.[47] Given that our firms are thinly

[44] Low (high) family control firms are defined as firms in the bottom (top) quintile of family control. The average family control in the bottom quintile is 36.49% and that in the top quintile is 82.24% for the full sample of succession events.
[45] On excluding re-appointments, the number of confounding events in the family-to-family group drops from 100 to 26 confounding events.
[46] The G-rank test-statistics are 2.61 and 2.06 for the [-40, 0] and the [-40, 20] windows, respectively.
[47] These minimum *CARs* relate to a single German firm, Nucletron Electronic AG, which experienced the sudden death of its incumbent family CEO. There are only seven cases of the death of the incumbent family CEO in our sample. Further analysis (not tabulated) shows that, for most cases of death of the incumbent family CEO, the subsequent succession announcement does not triggers a significant market reaction.

traded, for the remaining analysis we focus on the two longest event windows, i.e., [-40, 20] and [-40, 0].

INSERT TABLE V ABOUT HERE

Table VI presents the summary statistics by succession type for the unadjusted *CARs* (Panel A), the Dimson-adjusted *CARs* (Panel B), and the Dimson-adjusted *CARs* excluding successions with confounding events (Panel C). Average *CARs* are reported in column (1) whereas the next three columns report the Student t-test (t_{CAR}), the Corrado (1989) rank test ($t_{Corrado}$), and the generalised rank test ($t_{G\text{-}Rank}$), respectively. Except for $t_{G\text{-}Rank}$ for the [-40, 0] window, the unadjusted mean *CARs* for the family-to-family successions are not significantly different from zero. In contrast, both t_{CAR} and $t_{G\text{-}Rank}$ for the [-40, 0] window and t_{CAR} for the [-40, 20] window for the family-to-nonfamily successions suggest that the mean *CARs* are significantly different from zero at the 10% level or better. Similar patterns are obtained for the Dimson-adjusted *CARs* (Panel B) and after excluding successions with confounding events (Panel C). This provides support for Conjecture 1, according to which there is no market reaction to the appointment of a family member, whereas the appointment of a nonfamily successor elicits significant and positive *CARs*.[48] Our results are in line with those of Smith and Amoako-Adu (1999) and Pérez-González (2006). Smith and Amoako-Adu (1999), for example, find that firms appointing nonfamily outsiders experience *CARs* of 9.0% versus *CARs* of about -1.6% for firms appointing family members or nonfamily insiders for the [-40, 20] event window.

INSERT TABLE VI ABOUT HERE

[48] In addition, we perform t-tests for the differences in means between the two succession types for each event window in Panels A, B and C, respectively (results not tabulated). We find that there is no statistical difference between the mean *CARs* of the two groups for Panels A and B. However, the difference is significant at the 10% level for both event windows in Panel C. Furthermore, there are 4 firms experiencing the most negative *CARs* (cumulative abnormal returns greater than 32% in absolute terms in both event windows in the sample) that have 7 confounding events (results not tabulated). This suggests that the succession-*CARs* may be influenced negatively by other news announcements. Hence, the findings in Panel C reiterate the importance of adjusting for thin trading and confounding events.

We also test whether the *CARs* adjusted for thin trading and whether *CARs* obtained by dropping successions with confounding events are different from the unadjusted *CARs* (these figures are not tabulated). We find that there is no significant difference between the unadjusted *CARs*, the *CARs* adjusted for thin trading and the *CARs* after excluding successions with confounding events. This finding is in line with the claim of MacKinlay (1997), in that there is a minimal difference between *CARs* adjusted for thin trading and unadjusted *CARs*. Nevertheless, we use the Dimson-adjusted *CARs* in our cross-sectional regression analysis in the next section.

As a reminder, we find positive *CARs*, significant at the 5% level or better, for the full sample for the [-40, 0] and [-40, 20] windows (see Table V). The sub-sample analysis in Table VI indicates that the significant and positive *CARs* are for firms appointing a nonfamily CEO successor. These results support Conjecture 1 that investors respond to the 'unexpected' appointment of a nonfamily CEO in family firms, while they do not respond when a family member is appointed. Again, these results are upheld when adjusting for thin trading and confounding events.

4.2 Multivariate analysis

Table VII reports the OLS regressions using the Dimson-adjusted *CARs* for the [-40, 0] event window as the dependent variable and the five conjectured drivers and control variables as the independent variables. The five postulated drivers are *Family wedge*, *Founder*, *Board independence*, *Shareholder protection*, and *Past performance*. Each of these drivers is interacted with the *Family CEO* dummy variable and also with the *Nonfamily CEO* dummy variable in order to allow for a differential effect of the drivers across the two types of successions. We also control for firm characteristics (*Industry-adjusted M/B*, *Long-term debt to equity*, *Assets growth* and *Firm size*), *Forced departures* and *Successor CEO age*. We also include *Country*, *Industry* and *Year* dummies. *Board independence* in the four regressions is measured as follows. Regressions (1) and (3) use the *Reported board independence* whereas regressions (2) and (4) use the *Adjusted board independence*. In terms of *Past performance*, regressions (1) and (2) employ the *Industry-*

adjusted ROA whereas regressions (3) and (4) employ the *Industry-adjusted ROE*,[49] both variables being measured one year before the succession announcement year. *Country* dummies are used for each of the three countries, and the constant is therefore omitted.

INSERT TABLE VII ABOUT HERE

For all four regressions in Table VII, the coefficients on *Family wedge*, *Founder*, *Reported and Adjusted board independence*, and *Shareholder protection* are not significant when interacted with the *Nonfamily CEO* dummy variable.[50] This suggests that these four postulated drivers do not influence the stock market reaction to the appointment of a nonfamily CEO. Hence, there is no support for Conjectures 2, 3, 4 and 5. However, when interacting *Reported board independence* with *the Family CEO* dummy variable in regressions (1) and (3), the coefficient is positive and significant at the 10% level. This suggests that the greater the *Reported board independence*, the more positive are the *CARs* to the announcement of the appointment of a family member (or the re-appointment of the incumbent family CEO). Nonetheless, the coefficient is only significant at the 10% level and it is not significant when *Adjusted board independence* is used. Furthermore, *Past performance* (whether *Industry-adjusted ROA* or *ROE*) is the only postulated driver that is positive and consistently significant at the 1% level across the four regressions when interacted with the *Nonfamily CEO* dummy variable. Contrary to Conjecture 6, we find that the poorer the *Past performance*, the *more* positive are the *CARs* to the appointment of a nonfamily CEO. Given the high family power in family firms, investors may underestimate the probability of the incumbent family CEO's replacement in the wake of the poor performance. Therefore, investors' response to the news about the replacement of a poorly

[49] We find that the two most negative values for *Industry-adjusted ROE* are for a German firm and a French firm, both of which are in financial difficulties. We are able to find details pertaining to the succession and financial issues for only one of these firms. Having faced financial difficulties for a few years the German firm Sedlbauer AG was speculated to file for bankruptcy. Though, eventually this firm did not file for bankruptcy, it underwent major restructuring. The appointment of a nonfamily CEO to replace the poorly performing incumbent family CEO was part of this restructuring. Hence, we exclude Sedlbauer AG from the multivariate analysis.

[50] Similar results (not tabulated) are obtained when using *Family control* or *Family ownership* as a measure of *Family power*.

performing family CEO by a nonfamily professional may result in more positive *CARs*. All the *Control variables*, *Country*, *Industry* and *Year* dummies are insignificant across all the four models. Based on Table VII, there is no support for Conjectures 2, 3, 4 and 5 relating to *Family power*, *Founder*, *Board independence* and *Shareholder protection*, respectively. As to Conjecture 6, the poorer the *Past performance*, the *more* positive – rather than the less positive – are the *CARs* to the appointment of a nonfamily CEO. Overall, our results are in line with earlier studies showing that an outsider replacing a poorly performing CEO is viewed as a change agent (Pfeffer and Salancik 1978, Hambrick and Mason 1984). Although the ability of the new CEO to perform better than the incumbent cannot be fully assessed at the succession announcement, the incumbent's replacement by a nonfamily CEO prompts on average a positive anticipation of performance improvements.

4.3 Does past performance affect how the drivers influence the CARs?

Based on the above evidence that *Past performance* has a strong influence on the *CARs* surrounding the announcement of a nonfamily CEO successor, we analyse whether *Past performance* affects how the other four drivers influence the *CARs*. As per Table VII, the postulated drivers, i.e., *Family power*, *Founder*, *Directors' independence* and *Shareholder protection* do not have a direct effect on the *CARs*. However, they may have an effect in the wake of poor performance. Hence, we interact *Past performance* with each the other four drivers. This approach is in line with earlier studies that find evidence that poor past performance combined with outsider dominated boards elicits positive succession-*CARs* to the appointment of an outsider (Weisbach 1988, Boeker and Goodstein 1993, and Zajac and Westphal 1996).

Table VIII reports the OLS regressions of the Dimson-adjusted *CARs* for the [-40, 0] event window on the five postulated drivers (again, with each driver interacted with the *Family CEO* dummy and also with the *Nonfamily CEO* dummy) and also the interactions between *Past performance*, the remaining drivers and the *Nonfamily CEO* dummy. The measures of board

independence in the four regressions are as follows. Regressions (1) and (3) use the *Reported board independence*, while regressions (2) and (4) use the *Adjusted board independence*. In terms of *Past performance*, regressions (1) and (2) use the *Industry-adjusted ROA* whereas regressions (3) and (4) employ the *Industry-adjusted ROE*. The control variables are the same as in Table VII. The four regressions also include *Country*, *Industry* and *Year* dummies.

INSERT TABLE VIII ABOUT HERE

Table VIII shows that *Family wedge* interacted with the type of successor and the interaction between *Family wedge*, *Past performance* and the type of successor are insignificant across the four regressions. This suggests that there is no support for Conjecture 2 on the influence of *Family power* on the *CARs*, even when *Family power* is interacted with *Past performance*. Similarly, we find that neither the coefficient on *Founder* interacted with the type of successor nor the coefficient on the interaction between *Founder*, *Past performance* and the type of successor is significant in any of the four regressions. This is in contrast to prior studies (e.g., Hillier and McColgan 2009) which find that there is a positive market reaction to the replacement of a poorly performing founder-CEO. There is no support for Conjecture 2 on the influence of *Founder* on the *CARs*, even when employing the interaction of the *Founder* with *Past performance*.

Table VIII suggests that the coefficient on *Reported board independence* is positive and significant at the 5% level for both family and nonfamily CEO appointments in regressions (1) and (3). In contrast, the equivalent coefficient on *Adjusted board independence* is insignificant in regressions (2) and (4). Nevertheless, the interaction term between *Board independence* (for both measures), *Past performance* and *Nonfamily CEO* is positive and significant at the 1% level in three out of the four regressions. This suggests that past performance affects the influence of *Board independence* on the *CARs*. What is the economic effect? To answer this question, we first set performance to the first quartile of the performance measure. We then analyse the effect of

Reported board independence on the *CARs* for three different values of *Reported Board independence*, i.e., one standard deviation below mean *Reported board independence* (36.08%), mean *Reported board independence* (52.27%), and one standard deviation above mean *Reported board independence* (68.46%). Evaluating regressions (1) and (2) at the first quartile of the *Industry-adjusted ROA* (i.e., -2.40%) for nonfamily successions only, the overall effect of low, mean, and high *Reported board independence* on the *CARs* is 13.05%,[51] 15.11% and 17.17% for *Reported board independence*. The equivalent figures for *Adjusted board independence* are 9.93%, 6.80% and 3.66%.[52] This suggests that, in the face of poor *Past performance*, the greater the *Reported board independence*, the more positive are the *CARs*. That is, each time *Reported board independence* increases by one standard deviation, the *CARs* increase by about 2%. Conversely, each time *Adjusted board independence* increases by one standard deviation, the *CARs* to the announcement of a nonfamily CEO are reduced by about 3.13%. The equivalent economic effect for regression (4) is a drop of about 4%. The evidence on *Adjusted board independence* in the face of poor performance supports Conjecture 4 that the greater the board independence the less positive are the *CARs* that are observed for the announcement of a nonfamily CEO. The evidence on *Reported board independence*, on the other hand, suggests a more positive market reaction to the announcement of a nonfamily CEO and this is contrary to Conjecture 4.

When considering even lower levels of performance, such as the 10th and the 5th percentile of *Past performance*, however, we find that the support for Conjecture 4 is observed for both *Reported* and *Adjusted board independence*. That is, greater *Reported board independence* also elicits a less positive market response to the appointment of a nonfamily CEO, but at very low

[51] This is obtained as follows: *0.212* * 0.3608 -*3.521* * -0.024 + *3.515* * (-0.024). The three numbers in italic are the coefficient on the interaction between *Reported board independence* and the *Nonfamily CEO* dummy, the *Industry-adjusted ROA* and the former dummy variable and the interaction of all three.
[52] Similarly, based on regression (4) the first quartile of the *Industry-adjusted ROE* (i.e., -7.15%), the overall effect of low, mean, and high *Adjusted board independence* on the *CARs* is 13.81%, 9.73% and 5.66%, respectively.

performance levels (10th percentile or lower). Hence, using the 10th percentile of the *Industry-adjusted ROA*, i.e. -8.34%, the overall effect of low, mean, and high board independence on the *CARs* is 26.24%, 24.94% and 23.64% for *Reported board independence*; and 34.51%, 23.62% and 12.72% for *Adjusted board independence*, respectively. Hence at extremely low levels of performance, we find strong support for Conjecture 4.

Next, we find that the interaction between *Shareholder protection*, *Past performance* and *Nonfamily CEO* dummy variable is negative and significant at the 1% level in regression (3). This suggests that *Past performance* impacts the way *Shareholder protection* affects the announcement *CARs*. However, this is only the case for one out of the four regressions. We find that the effect on the *CARs* for firms that are cross-listed on a US or UK stock exchange and are experiencing poor performance, i.e. are at the 25th percentile of performance (i.e. -7.15% for the *Industry-adjusted ROE*) is 10.25%. The equivalent effect on the *CARs* at the 10th percentile of performance (i.e. -21.19% for the *Industry-adjusted ROE*) is 30.39%. This suggests that the weaker the *Past performance*, the more positive is the market reaction to the appointment of a nonfamily CEO for French and German firms cross-listed on a US or UK stock exchange. This finding should be seen in the light of Lel and Miller (2008) who find that CEOs of firms cross-listed on a US stock exchange are more likely to face termination when firm performance is poor. Although we find some support that poor *Past performance* has an impact on how *Shareholder protection* affects the *CARs*, the evidence is contrary to our Conjecture 5.

Overall, Table VIII suggests that *Past performance* has an impact on the way *Board independence* and to a lesser extent *Shareholder protection* affect the *CARs*. There is no support for Conjecture 2 relating to *Family power* and Conjecture 3 relating to *Founder*. In support of Conjecture 4, we find that, at the first quartile of performance, the greater the *Adjusted board independence*, the less positive are the *CARs* around the announcement of the appointment of a nonfamily CEO. This result is robust when using the two-year average of *Past performance*.

Using *Reported board independence*, Conjecture 4 is supported for very low levels of performance only, for instance the 10th percentile but not the 25th percentile. As to Conjecture 5, which states that cross-listed firms experience less positive *CARs* around the announcement of the appointment of a nonfamily successor, we find the exact opposite as poor performance elicits more positive *CARs* for such firms. The latter, however, must be considered with caution because it holds for only one of the four estimated regressions.

In order to identify whether any of the postulated drivers have a differential effect across the three countries, we test the five conjectures using interactions of each driver with the country dummies for France, Germany and the UK (not tabulated). We find that the coefficients on *Family wedge*, *Founder, Shareholder protection* and their interaction with the *Country* dummies are insignificant when a nonfamily successor is appointed. Hence, the results from Table VIII as to the insignificance of these three drivers are upheld.

5. Robustness Tests

5.1 Alternative performance measures

It may be the case that investors are only concerned with poor past performance if it persists. Therefore, we test the validity of our conjectures using the average performance over the two years preceding the year of the succession announcement instead of using the performance in the year prior to the succession announcement. The results (not tabulated) suggest that there is no support for Conjectures 2, 3, 4 and 5 relating to *Family power*, *Founder*, *Board independence*, and *Shareholder protection*, respectively. As to Conjecture 6, we find again that weaker *Past performance* results in more positive *CARs*.[53] Hence, our results are upheld.[54]

[53] We also re-run the regressions reported in Table VIII using interaction terms between the four drivers and *Past performance* measured as the average *Industry-adjusted ROA* and *ROE* over the two years prior to the announcement year. The results suggest that, in the face of poor performance over these two years, the greater the *Adjusted board independence*, the less positive are the *CARs*. Conversely, the interactions between performance and *Reported board independence* are insignificant. Hence, we find support for our earlier findings, but only when *Board independence* is adjusted for links to the controlling family.

5.2 Alternative event window

We test whether our results using the [-40, 0] event window are robust when the alternative [-40, 20] window is used.[55] The results (not tabulated) suggest that the coefficient on the *Reported board independence* is no longer significant when a family member is appointed. Moreover, the results related to the *Past performance* are upheld only when using the *Industry-adjusted ROE*. The *Industry-adjusted ROA* is only significant when we use its average over the two years preceding the succession.

5.3 CARs after excluding successions with confounding events

We check the robustness of the results by excluding successions with confounding events (results not tabulated). We find that in all four regressions there is no support for Conjectures 2, 3, 4 and 6. However, the coefficient on the *Past performance* measure when a nonfamily successor is appointed is still negative and significant at the 1% level in all four regressions. This suggests that the weaker the *Past performance*, the more positive are the *CARs* around the succession announcement. Overall, our results are upheld after excluding successions that have confounding events around the announcement date.

5.4 Actual changes

168 successions in our sample are re-appointments of the incumbent family CEO. As prior studies typically exclude re-appointments, we check the robustness of our results after excluding re-appointments. The coefficient on *Past performance* when a nonfamily CEO is appointed is

[54] We also use dividend cuts and dividend omissions as alternative measures of *Past performance*. The dividend cuts (omissions) dummy equals one if there is a cut (omission) in the dividend during the two-year period preceding the year of the succession announcement, and zero otherwise. There are 45 and 35 dividend cuts one year and two years before the succession, respectively; and there are only 19 and 4 dividend omissions one year and two years before the succession, respectively. The results (not tabulated) suggest that dividend cuts and omissions do not influence the market reaction to the succession announcement.

[55] We also check the robustness of the results using an event window after the succession announcement. Even when the [2, 20] window is used (similar to Smith and Amoako-Adu 1999), our previous results about past performance are upheld (the figures are not reported).

negative and significant at the 5% level or better in all four regressions. Overall, our results are upheld when excluding re-appointments.

6. Conclusion

This study explores the stock market reaction to the announcement of the CEO successor for family firms in France, Germany and the UK. Considering the high concentration of control of the family in such firms, we argue that investors expect a family successor and hence, do not respond to the appointment of the latter. However, the appointment of a nonfamily successor, which is less likely in such firms, is met by positive *CARs* surrounding the announcement. Our paper contributes to the existing literature as follows. While earlier studies on the stock market reaction to the succession announcement have focused on the CEO characteristics, this paper focuses on the factors that increase or reduce the likelihood of a family successor. Indeed, these factors also likely drive the stock market reaction to the announcement of the appointment of a nonfamily CEO. We conjecture that there is a more positive market reaction to the appointment of a nonfamily CEO the higher the *Family power* as well as if the incumbent CEO is the *Founder* of the firm. Further, the greater the *Board independence* and *Shareholder protection*, the less positive are the *CARs* to the appointment of a nonfamily CEO. Finally, we conjecture that, when *Past performance* is poor, the *CARs* around the appointment of a nonfamily CEO are less positive.

We do not find support for the conjectures relating to *Family power*, *Founder*, *Board independence* and *Shareholder protection*. As to *Past performance*, contrary to the conjectured less positive *CARs* we find that the *CARs* are more positive around the appointment of a nonfamily CEO when *Past performance* is poor. This suggests that, given the high concentration of family control in our sample firms, there is great uncertainty that a nonfamily successor will be appointed even in the wake of poor performance.

Replacing poorly performing CEOs is argued to be a necessary condition for good corporate governance (Macey 1997). This is consistent with Jensen and Ruback (1983) and Shleifer and Vishny (1989, 1997) who contend, although in the context of widely held firms, that an important form of expropriation of shareholder wealth is poorly performing managers staying on the job. We find that, even on interacting our conjectured drivers with *Past performance*, there is no support for our conjectures on *Family power* and *Founder*. Further, when setting *Past performance* equal to the first quartile (i.e. when performance is poor), the greater the *Adjusted board independence*, the less positive are the *CARs* around the appointment of a nonfamily CEO. There is also support for this conjecture when using *Reported board independence*, but only when performance is even poorer, i.e. when it is in the 10^{th} percentile. Finally, when interacting *Past performance* with the *Shareholder protection* dummy, we find some limited evidence that, when performance is poor, firms that are cross-listed on a US or a UK stock exchange experience more positive *CARs* around the announcement of the appointment of a nonfamily CEO. This is contrary to our conjecture which argued for the opposite relation between the two. Overall, there is clear evidence that *Past performance* influences the way *Board independence* affects the announcement *CARs* and some support that it influences the way *Shareholder protection* affects the *CARs*.

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Table I

Summary statistics

This table reports the descriptive statistics for the 231 sample firms at the time of the first succession. Panel A presents the summary statistics on firm characteristics, succession characteristics and successor CEO characteristic. Panel B reports the summary statistics on the conjectured drivers. All variables are measured in the year before the succession announcement year, except for *Forced departures* and *Successor CEO age*. The actual number of observations for some variables is smaller than 231 because of missing values. All variables, except for the *Forced departures* dummy variables and successor CEO characteristic which are measured in the succession year, are measured in the year before the succession announcement year.

	Mean	P25	P50	P75	S.D.	Min	Max
Panel A: Firm, succession 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
Forced departures	0.11	0.00	0.00	0.00	0.31	0.00	1.00
Successor CEO age	50.56	44.00	50.50	58.00	9.46	29.00	79.00
Panel B: Conjectured drivers							
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
Founder	0.61	0.00	1.00	0.00	0.49	0.00	1.00
Directors' independence							
Conventional 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
Shareholder protection	0.11	0.00	0.00	0.00	0.31	0.00	1.00
Past performance							
Industry-adjusted ROA, %	0.39	-2.71	1.39	4.78	12.90	-96.45	56.20
Industry-adjusted ROE, %	-5.40	-8.53	0.26	10.10	40.61	-301.38	112.02

Table II
Mean and median comparisons for the family-to-family and family-to-nonfamily successions

This table provides mean and median comparisons for the 212 family-to-family and 71 family-to-nonfamily successions for France, Germany and the UK. We use a t-test to test whether the difference in means is different from zero and a *z*-test (Mann-Whitney U) for the median differences. [§] denotes dummy variables and the use of a proportion test to test the difference in proportions. All variables are measured in the year before the succession announcement year, except *Forced departures* and *Successor CEO age* which are measured in the succession year. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

			Family-to-family vs family-to-nonfamily	
	Mean	Median	Mean differences (t-test)	Median differences (z-test)
Panel A: Family-to-family successions				
Market value, million €	200.71	46.89	-3.32**	-1.19
Total assets, million €	261.16	69.36	-2.68***	-1.67*
Assets growth, %	9.96	4.87	0.26	1.17
Industry-adjusted M/B	0.45	-0.22	0.56	0.92
Long-term debt to equity, %	26.33	13.93	0.09	0.36
Forced departures[§]	0.02		-7.35***	
Successor CEO age	51.68	52.00	-1.77*	-1.46
Family power				
Family control, %	60.64	60.54	0.49	0.17
Family ownership, %	54.92	54.87	0.55	-0.28
Family wedge, %	5.78	0.00	0.29	1.00
Founder[§]	0.65		-2.36**	
Directors' independence				
Reported board independence, %	55.04	57.14	1.26	0.99
Adjusted board independence, %	19.52	20.00	-6.34***	-5.85***
Difference in board independence, %	33.99	33.33	5.92***	5.77***
Shareholder protection[§]	8.49		-1.99**	
Past performance				
Industry-adjusted ROA, %	1.29	1.54	-1.17	-0.10
Industry-adjusted ROE, %	-1.82	1.02	-1.29	-0.78
Panel B: Family-to-nonfamily successions				
Market value, million €	534.16	68.69		
Total assets, million €	885.61	105.52		
Assets growth, %	4.25	4.64		
Industry-adjusted M/B	0.19	-0.44		
Long-term debt to equity, %	25.47	9.75		
Forced departures§	0.31			
Successor CEO age	49.14	48.00		
Family power				
Family power	59.58	60.35		
Family control, %	53.78	55.70		
Family ownership, %	5.42	0.00		
Family wedge, %	0.49			
Founder§				
Directors' independence				
Reported board independence, %	52.24	55.55		
Adjusted board independence, %	36.16	38.46		
Difference in board independence, %	16.80	12.50		
Shareholder protection§	16.90			
Past performance				
Industry-adjusted ROA, %	-0.77	1.54		
Industry-adjusted ROE, %	-8.58	0.10		

Table III

Testing for thin trading

This table reports summary statistics for the variables used to identify thinly traded succession events for the full sample of 283 successions. There are 137, 94 and 52 successions in France, Germany, and the UK, respectively. Panel A provides descriptive statistics for free float, trading volume, relative trading volume and the thin trading dummy. Free float is the percentage of all shares outstanding held by nonfamily investors one year before the succession announcement. Trading volume is the average daily number of shares traded per firm during the [-310, -60] window, measured in thousands of shares. Relative trading volume is the average of the daily trading volume expressed as a percentage of the total number of shares outstanding measured during the [-310, -60] window. The thin trading dummy variable equals 1 if the relative trading volume of the firm is significantly lower (at the 10% level or better) than that of the London Stock Exchange during the [-310, -60] window and zero otherwise. Panel B reports the comparisons of the mean and median for the trading volume and relative trading volume between firms in our sample and those listed on the London Stock Exchange. Differences in means are assessed using a t-test whereas differences in medians are tested using a z-test (Wilcoxon signed-rank test). *** denotes significance at the 1% level, respectively (two-tailed test).

Panel A: Summary statistics for different measures of thin trading

	Mean	Median	SD	Min	P25	P75	Max
Free-float							
France	42.63	43.36	15.55	0.64	30.62	53.82	74.50
Germany	46.02	44.68	14.57	10.70	37.16	57.00	82.33
UK	54.33	56.40	12.61	18.20	43.67	64.67	78.20
Trading volume							
France	34.72	2.61	136.49	0.00	0.99	11.66	1249.14
Germany	7.19	3.85	13.41	0.26	1.37	7.78	108.79
UK	126.16	51.82	188.83	1.26	10.72	169.95	1003.19
Relative trading volume							
France	0.16	0.09	0.46	0.00	0.03	0.13	5.06
Germany	0.11	0.05	0.17	0.00	0.02	0.11	0.99
UK	0.25	0.16	0.23	0.00	0.10	0.24	1.11
Thin trading dummy (based on relative trading volume)							
France	0.99	1.00	0.09	0.00	1.00	1.00	1.00
Germany	1.00	1.00	0.00	1.00	1.00	1.00	1.00
UK	0.90	1.00	0.31	0.00	1.00	1.00	1.00

Panel B: Differences compared to the London Stock Exchange (LSE)

	France		Germany		UK	
	Mean	Median	Mean	Median	Mean	Median
Trading volume						
LSE	1802.76	1791.95	1748.08	1779.90	1762.34	1794.45
Our sample	34.72	2.61	7.19	3.85	126.16	51.82
Differences	82.92***	9.89***	61.18***	7.57***	41.00***	5.97***
Relative trading volume						
LSE	0.040	0.020	0.040	0.020	0.030	0.020
Our sample	0.002	0.001	0.001	0.000	0.003	0.002
Differences	10.60***	9.69***	8.33***	7.57***	6.63***	5.62***

Table IV

Frequency distribution of the confounding events around succession

This table reports the frequency distribution of the identified confounding events occurring during the [-40,20] event window. Panel A provides the country specific frequency distribution for the confounding events. The 153 confounding events reported in Panel A occur around 92 of the 283 successions events, i.e., 41 events for France, 32 events for Germany, and 19 events for the UK. Panel B reports the frequency distribution of the various events across the [-40,20] event window and distinguishing between low and high family control as well as between the two types of succession. High (low) family control firms are firms in the bottom (top) quintile of family control.

Panel A: Distribution of the confounding events across countries

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

Panel B:Distribution of the confounding events across time, family control and type of successor

	Event	20 days around the event		Family control		Type of successor	
		Before [-20,-1]	After [1,20]	Low	High	Family	Nonfamily
1	Earnings	11	9	14	4	29	14
2	Dividends	7	8	6	2	14	5
3	New product/contract	15	5	5	1	17	10
4	Board changes	3	0	6	0	3	3
5	Acquisition of major share/merge	3	0	1	1	7	1
6	Death of incumbent CEO	0	0	0	1	7	0
7	Cancellation of contracts	3	1	1	0	3	1
8	Others	17	7	14	3	20	19
	Total	59	30	47	12	100	53

Table V

Summary statistics for the unadjusted cumulative abnormal returns

This table provides summary statistics for the unadjusted cumulative abnormal returns (*CARs*) for the 264 successions for which complete returns data is available. The *CARs* are in percentages and are based on daily data for the market model, where day 0 is the day of the succession announcement. The parameters of the market model are estimated from day -270 to day -20. STOXX Europe600 index is the proxy for the market portfolio. Summary statistics are reported for the *unadjusted CARs* over seven event windows, i.e. [-40, 0], [-10, 0], [0, 1], [0, 10], [-1, 1], [-3, 3] and [-40, 20]. ** denotes significance at the 5% level using the generalised rank test (G-rank).

	Mean	Median	S.D.	Min	Max
CAR [-40, 0]	1.29**	1.10	1.10	-351.49	126.82
CAR [-10, 0]	0.91	-0.13	-0.13	-95.54	43.82
CAR [0, 1]	-0.17	-0.08	-0.08	-30.83	17.67
CAR [0, 10]	1.13	-0.43	-0.43	-49.10	146.50
CAR [-1, 1]	-0.05	-0.02	-0.02	-30.63	32.77
CAR [-3, 3]	1.30	-0.16	-0.16	-36.65	176.82
CAR [-40, 20]	1.95**	0.31	0.31	-516.18	133.79

Table VI
Market reaction to the two types of succession announcements

This table presents summary statistics of the cumulative abnormal returns (*CARs*) for the two succession types, i.e., 213 family-to-family and 71 family-to-nonfamily successions. The *CARs* are in percentages and are based on daily data for the market model, where day 0 is the day of the succession announcement. The parameters of the market model are estimated from day -270 to day -20. STOXX Europe600 index is used as a proxy for market returns. Descriptives are presented for the *unadjusted CARs* (Panel A), *Dimson-adjusted CARs* (Panel B), and *Dimson-adjusted CARs excluding confounding events* (Panel C) based on the two event windows [-40, 0] and [-40, 20]. Column (1) reports the mean *CARs*. The significance of the *CARs* is tested using the Student t-test, the Corrado rank test, and the generalised rank test in columns (2) to (4), respectively. The remaining columns report the median, standard deviation, minimum and maximum. ***, **, and * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	Mean	Test-statistic			Median	S.D.	Min	Max
		t_{CAR}	$t_{Corrado}$	$t_{G\text{-}Rank}$				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A:Unadjusted CARs								
Family-to-family								
CAR [-40, 0]	-0.07	-0.11	1.12	1.85*	1.11	32.35	-351.49	126.82
CAR [-40, 20]	0.46	0.45	1.27	1.56	0.28	45.58	-516.18	120.99
Family-to-nonfamily								
CAR [-40, 0]	5.31	2.84***	1.41	1.88*	0.75	21.86	-72.22	64.29
CAR [-40, 20]	6.36	1.88*	1.21	1.29	1.45	28.34	-54.20	133.79
Panel B:Dimson-adjusted CARs								
Family-to-family								
CAR [-40, 0]	-0.59	-0.93	0.73	1.21	1.59	31.77	-359.92	102.29
CAR [-40, 20]	-0.12	-0.12	0.99	1.46	0.47	46.94	-552.60	116.38
Family-to-nonfamily								
CAR [-40, 0]	5.88	2.84***	1.28	1.98*	2.55	23.28	-71.56	70.92
CAR [-40, 20]	7.21	1.95*	1.57	1.94*	2.19	28.07	-52.46	122.83
Panel C:Dimson-adjusted CARs excluding succession events with confounding events								
Family-to-family								
CAR [-40, 0]	0.86	0.98	0.71	1.11	1.59	14.02	-28.98	64.10
CAR [-40, 20]	1.99	1.47	0.92	1.12	-0.15	19.38	-42.75	64.64
Family-to-nonfamily								
CAR [-40, 0]	8.52	1.94*	0.64	1.95*	0.75	22.03	-20.93	70.92
CAR [-40, 20]	8.10	1.13	0.82	2.29**	2.19	21.49	-24.04	80.51

Table VII
OLS regressions explaining the market reaction to the CEO succession announcements

This table reports the OLS regressions of the Dimson-adjusted cumulative abnormal returns (*CARs*) over the [-40, 0] event window on the five conjectured drivers and control variables. The drivers are *Family power* (as measured by *Family wedge*), *Founder*, *Directors' independence*, *Shareholder protection*, and *Past performance*. Each driver is interacted with the *Family CEO* dummy and also with the *Nonfamily CEO* dummy variable to capture any differential effect of each driver across the succession types. The *Family CEO* dummy variable equals 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 from the family. The *Nonfamily CEO* dummy variable equals one if the new CEO is not related to the family, and zero otherwise. Regressions (1) and (3) use *Reported board independence*, and regressions (2) and (4) use *Adjusted board independence*. In terms of past performance, regressions (1) and (2) use the *Industry-adjusted ROA*, and regressions (3) and (4) use the *Industry-adjusted ROE*. Additional control variables in all four regressions include *Industry-adjusted M/B*, *Long-term debt to equity*, *Assets growth*, and *Firm size*. Other control variables include *Successor CEO age* and *Forced departures*. All variables, except for the successor type dummies, *Forced departures* and *Successor CEO age*, are measured in the year before the succession year. The latter variables are measured in the year of the succession. The regressions also include *Country*, *Year* and *Industry* dummies. Standard errors are reported in parentheses and are corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	(1)	(2)	(3)	(4)
Family wedge×Family CEO	-0.092	-0.034	-0.102	-0.034
	(0.253)	(0.233)	(0.268)	(0.264)
Family wedge×Nonfamily CEO	0.018	-0.042	-0.021	-0.030
	(0.250)	(0.257)	(0.242)	(0.249)
Founder×Family CEO	-0.044	-0.026	-0.047	-0.035
	(0.033)	(0.033)	(0.033)	(0.033)
Founder×Nonfamily CEO	0.035	0.014	-0.009	-0.025
	(0.056)	(0.058)	(0.055)	(0.058)
Reported board indep.×Family CEO	0.162*		0.157*	
	(0.088)		(0.091)	
Reported board indep.×Nonfamily CEO	0.095		0.138	
	(0.086)		(0.096)	
Adjusted board indep.×Family CEO		-0.061		-0.059
		(0.088)		(0.085)
Adjusted board indep.×Nonfamily CEO		0.017		0.028
		(0.094)		(0.107)
Shareholder protection×Family CEO	0.002	-0.015	-0.001	-0.021
	(0.041)	(0.048)	(0.041)	(0.047)
Shareholder protection×Nonfamily CEO	0.065	0.031	0.043	0.013
	(0.081)	(0.092)	(0.081)	(0.094)
Industry-adjusted ROA×Family CEO	-0.278	-0.432		
	(0.306)	(0.404)		
Industry-adjusted ROA×Nonfamily CEO	-1.119***	-1.286***		
	(0.259)	(0.255)		
Industry-adjusted ROE×Family CEO			-0.074	-0.096
			(0.080)	(0.103)
Industry-adjusted ROE×Nonfamily CEO			-0.557***	-0.581***
			(0.096)	(0.096)
Industry-adjusted M/B	-0.004	0.004	-0.007	0.003
	(0.006)	(0.010)	(0.006)	(0.011)
Long-term debt to equity	-0.008	0.008	0.001	0.024
	(0.018)	(0.031)	(0.025)	(0.046)
Assets growth	0.047	0.063	0.032	0.042
	(0.058)	(0.073)	(0.054)	(0.065)
Lnsize	0.001	0.006	0.001	0.007
	(0.010)	(0.011)	(0.011)	(0.011)
Forced departures	-0.029	-0.008	-0.047	-0.028
	(0.069)	(0.069)	(0.072)	(0.075)
Successor CEO age	-0.000	-0.001	0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Country, industry and year dummies	Yes	Yes	Yes	Yes
Number of Observations	209	191	207	189
Adjusted R-Squared	0.204	0.215	0.183	0.171
F-value	3.720***	4.527***	4.121***	3.746***

Table VIII
OLS regressions of the market reaction to CEO succession announcements: interaction terms between past performance and other drivers

This table reports the OLS regressions of the Dimson adjusted cumulative abnormal returns (*CARs*) for the [-40, 0] event window on the five conjectured drivers, their interaction terms with *Past performance* and control variables. The drivers are *Family power* (as measured by *Family wedge*), *Founder*, *Directors' independence*, *Shareholder protection*, and *Past performance*. Each driver is interacted with the *Family CEO* dummy variable and also with the *Nonfamily CEO* dummy variable to capture any differential effect of each driver across the succession types. The *Family CEO* dummy variable equals 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 from the family. The *Nonfamily CEO* dummy equals one if the new CEO is not related to the family, and zero otherwise. Regressions (1) and (3) use *Reported board independence*, and regressions (2) and (4) use *Adjusted board independence*. In terms of *Past performance*, regressions (1) and (2) use the *Industry-adjusted ROA*, and regressions (3) and (4) use the *Industry-adjusted ROE*. Control variables include *Industry-adjusted M/B*, *Long-term debt to equity*, *Assets growth*, and *Firm size*. Other control variables include *Successor CEO age* and *Forced departures*. All variables, except for the successor type dummy variables, *Forced departures* and *Successor CEO age*, are measured in the year before the succession year. The latter variables are measured in the year of the succession announcement. The regressions also include *Country*, *Year* and *Industry* dummies. Standard errors are reported in parentheses and are corrected for firm-level clustering. ***, **, * denotes significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	(1)	(2)	(3)	(4)
Family wedge×Family CEO	-0.115	0.012	-0.072	0.052
	(0.256)	(0.237)	(0.265)	(0.263)
Family wedge×Nonfamily CEO	0.064	0.005	0.074	0.038
	(0.203)	(0.193)	(0.225)	(0.241)
Founder×Family CEO	-0.054	-0.017	-0.052	-0.046
	(0.034)	(0.034)	(0.033)	(0.033)
Founder×Nonfamily CEO	-0.023	0.039	-0.019	-0.040
	(0.066)	(0.075)	(0.072)	(0.073)
Reported board indep.×Family CEO	0.180**		0.210**	
	(0.090)		(0.087)	
Reported board indep.×Nonfamily CEO	0.212**		0.235**	
	(0.104)		(0.110)	
Adjusted board indep.×Family CEO		-0.055		-0.070
		(0.087)		(0.085)
Adjusted board indep.×Nonfamily CEO		-0.034		0.056
		(0.135)		(0.132)
Shareholder protection×Family CEO	0.012	-0.013	-0.004	-0.023
	(0.043)	(0.049)	(0.040)	(0.051)
Shareholder protection×Nonfamily CEO	0.062	0.032	0.055	0.001
	(0.085)	(0.111)	(0.085)	(0.096)
Ind-adj.ROA×Family CEO	-0.275	-0.387		
	(0.306)	(0.412)		
Ind-adj.ROA×Nonfamily CEO	-3.521*	-4.428**		
	(1.804)	(1.903)		
Ind-adj.ROE×Family CEO			-0.052	-0.070
			(0.080)	(0.105)
Ind-adj.ROE×Nonfamily CEO			-0.470	-2.058*
			(0.793)	(1.086)
Family wedge×Ind-adj.ROA×Nonfamily CEO	7.073	8.127		
	(5.948)	(5.855)		
Founder×Ind-adj.ROA×Nonfamily CEO	0.391	0.723		
	(1.570)	(1.637)		
Reported board indep.×Ind-adj.ROA×Nonfamily CEO	3.515***			
	(1.253)			
Adjusted board indep.×Ind-adj.ROA×Nonfamily CEO		6.673***		
		(1.792)		
Shareholder protection×Ind-adj.ROA×Nonfamily CEO	-1.958	-1.479		
	(1.311)	(1.689)		
Family wedge×Ind-adj.ROE×Nonfamily CEO			0.539	3.764
			(2.842)	(3.423)

Table VIII cont.

	(1)	(2)	(3)	(4)
Founder×Ind-adj.ROE×Nonfamily CEO			-0.327	0.518
			(0.645)	(0.867)
Reported board indep.×Ind-adj.ROE×Nonfamily CEO			0.725	
			(0.758)	
Adjusted board indep.×Ind-adj.ROE×Nonfamily CEO				2.913***
				(0.841)
Shareholder protection×Ind-adj.ROE×Nonfamily CEO			-1.434***	-0.721
			(0.506)	(0.807)
Industry-adjusted M/B	-0.005	0.006	-0.006	0.006
	(0.006)	(0.011)	(0.005)	(0.011)
Long-term debt to equity	-0.010	0.009	-0.010	0.035
	(0.019)	(0.035)	(0.027)	(0.054)
Assets growth	0.059	0.037	0.019	0.017
	(0.057)	(0.075)	(0.047)	(0.056)
Lnsize	0.002	0.011	0.003	0.008
	(0.011)	(0.011)	(0.012)	(0.012)
Forced departures	-0.055	-0.001	-0.085	-0.019
	(0.058)	(0.068)	(0.080)	(0.074)
Successor CEO age	-0.000	-0.002	0.000	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Country, industry and year dummies	Yes	Yes	Yes	Yes
Number of Observations	209	191	207	189
Adjusted R-Squared	0.224	0.204	0.168	0.187
F-value	4.904***	4.374***	5.882***	3.389***