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Outside CEOs, board control and the financing policy of small privately held family firms

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Abstract

We investigate how the presence of an outside CEO is related to the financing policy of privately held family firms, taking into account the degree of family control via the board of directors. For a sample of 367 Belgian firms we find that family firms with an outside CEO have a lower leverage, although they take more entrepreneurial risk. The negative relation between the presence of an outside CEO and leverage is more pronounced for long-term debt than for short-term debt. Family control via the board of directors reduces the effect of an outside CEO on entrepreneurial risk and leverage.

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Outside CEOs, board control and the financing policy of small privately held family firms

1. Introduction

A significant percentage of privately held family firms are managed by an outside CEO. While family owners are generally reluctant to delegate responsibility to outsiders (Kets de Vries, 1993), they may by necessity employ outside CEOs when new managerial skills are required (Gedajlovic, Lubatkin, and Schulze, 2004) or when other intra-family succession problems occur (De Massis, Chua, and Chrisman, 2008; Chua, Chrisman, and Bergiel, 2009). Transferring the management to an outside CEO is a critical event in the lifecycle of a family firm and a dominant concern for family business leaders (Chua, Chrisman, and Sharma, 2003) as the separation of ownership and management could lead to agency conflicts between the family owners and the outside CEO.

In this study, we investigate how the presence of an outside CEO compared to the presence of an inside family CEO, is related to the financing policy of privately held family firms, taking into account family control via the board of directors. Surprisingly, this question has so far largely been ignored by the literature. A few studies (Anderson, and Reeb, 2003; Amore, Minichilli, and Corbetta, 2011) have investigated the impact of an outside CEO on the debt policy of large listed family firms, but they do not consider small privately held family firms, which are the predominant form of family firm around the world and which are the focus of our study. We investigate the effect of an outside CEO on the debt policy of 367 small privately held family firms in Belgium. Belgium provides an appealing research setting to investigate privately held family firms because these firms play a crucial role in the Belgian economy and all limited liability companies must publish annual financial statements. Moreover limited liability companies with more than two shareholders are legally

required to install a board of directors with at least three members. This allows us to combine financial data from a public database with corporate governance data collected by survey.

First, we expect that family firms will take more entrepreneurial risk if they have an outside CEO, which will reduce debt levels. Family owners want to keep control over the firm to protect their *socio-emotional wealth*, that is, the utilities family owners derive from the noneconomic aspects of the business (Gomez-Mejia et al., 2011). As a result, they will have a low appetite for risk (Schulze and Kellermans, 2015) and will be reluctant to issue new equity that dilutes their ownership of the firm. Family firms with an outside CEO will often have reached a stage in which family ownership is dispersed over extended family members (Schulze, Lubatkin, and Dino, 2003). At this stage, the socio-emotional wealth of family owners will be smaller and they will be less concerned about keeping control over the firm (Berrone, Cruz, and Gomez-Mejia, 2012; Cennamo et al., 2012; Gomez-Mejia et al., 2014). They will therefore be more tolerant towards entrepreneurial risk taking and the issuance of new equity (Gomez-Mejia et al., 2007). The outside CEOs themselves are likely to have goals and preferences that diverge from those of the family owners, and may induce them to take more risk than family CEOs (Jensen and Meckling, 1976). We hypothesize that the family firm offsets the higher entrepreneurial risk taken when there is an outside CEO with lower financial risk, that is, by reducing leverage. The higher entrepreneurial risk of family firms with an outside CEO will also make it more difficult for the firm to get bank loans. We therefore expect that family firms will use less debt financing when the CEO is an outsider.

Second, we predict that the debt level of family firms with an outside CEO will depend on the extent of family control via the board of directors. Outside CEOs will not always get the same leeway from family shareholders. They are less likely to allow the outside CEO to pursue risky strategies that reduce leverage when the family's socio-

emotional wealth is high. The board of directors plays a central role in setting the strategy and controlling the management of family firms (for example, Bammens, Voordeckers, and Van Gils, 2011; Wilson, Wright, and Scholes, 2013). Board control will reflect the extent to which the family owners want to protect their socio-emotional wealth. If the family owners have a strong desire to preserve their socio-emotional wealth, the board of directors may be a tool to reduce risks that might lead to a loss in socio-emotional wealth (Schulze and Kellermans, 2015). This leads us to expect that the relation between the presence of an outside CEO and leverage will be moderated by family control via the board of directors. We use a direct measure of board control based on survey data reflecting a board's actual involvement in monitoring and control, rather than the traditional proxies based on board characteristics as is typically done in the literature.

Finally, we also distinguish between long-term debt and short-term debt. We hypothesize that the negative effect of an outside CEO on debt will be stronger for long-term debt than for short-term debt because the agency cost of debt is larger for long-term debt than for short-term debt (Heyman, Deloof, and Ooghe, 2008). The availability and the cost of short-term debt is less sensitive to the risk taking behavior of the outside CEO, as loan contract terms must be renegotiated more frequently (Ortiz-Molina and Penas, 2008).

All the hypotheses are confirmed by our empirical analysis, which includes a battery of robustness tests. We find that family firms take more entrepreneurial risk but have lower leverage when they have an outside CEO; the negative relation between the presence of an outside CEO and leverage is reduced when board control is stronger and is stronger for long-term debt than for short-term debt.

Our study contributes to the literature on family business in two important ways. To the best of our knowledge, ours is the first study to analyze how an outside CEO is related to the financing policy of small privately held family firms, distinguishing between long-term

debt and short-term debt. Prior literature on the role of outside CEOs in family firms have investigated how their presence affects the financial performance (Cucculelli and Micucci, 2008), entrepreneurial risk (Huybrechts, Voordeckers, and Lybaert, 2013) and cash policy (Steijvers and Niskanen, 2013) of private family firms. However, no previous work has considered the effect that an outside CEO has on debt policy. Prior debt policy studies have investigated firm-level determinants of the debt policy of family firms (for example, Coleman and Carsky, 1999; López-Gracia and Sánchez-Andújar, 2007), compared the debt policies of private family firms and nonfamily firms (for example, Coleman and Carsky, 1999; Gallo, Tàpies, and Cappuyns, 2004; Blanco-Mazagatos, De Quevedo-Puente, and Castrillo, 2007), and analyzed the influence of owner-manager characteristics and preferences (Romano, Tanewski, and Smyrniotis; Koropp, Grichnik, and Kellermanns, 2013), but do not consider the role of outside CEOs. Mishra and McConaughy (1999), Anderson and Reeb (2003) and Amore, Minichilli, and Corbetta (2011) do take into account the difference between family CEOs and outside CEOs, but they investigate large listed family firms which are very different from the firms in our sample, that is, small privately held family firms.¹

Second, we show that family influence via the board of directors matters when the family firm has an outside CEO. This finding is based on a *direct* measure of board control rather than on indirect proxies reflecting board composition. Governance scholars stress the need for research on board variations in terms of what boards actually do (Bammens, Voordeckers, and Van Gils, A., 2011; Kammerlander et al., 2015; Zattoni, Gnan, and Huse, 2015). We respond to this call by examining how the involvement of the family firm's board in control moderates the impact of an outside CEO on leverage. Despite claims in the family business literature that small family firms rely more on informal governance mechanisms and

¹ Anderson and Reeb (2003) consider only family firms included in the S&P 500 Industrial index. Amore, Minichilli, and Corbetta (2011) also include private firms in their sample (they do not mention how many) but these firms are much larger than the firms in our sample. The average total assets in their sample is € 129 mio while it is €17 mio in our sample.

have only a ceremonial board, we provide empirical evidence that the board of directors is an influential governance mechanism in the presence of an outside CEO (Blumentritt, Keyt, and Astrachan, 2007; Hall and Nordqvist, 2008; Nordqvist, Sharma, and Chirico, 2014; Kammerlander et al., 2015). Our findings also indicate that board composition variables, which are typically used in the family business literature, do not fully capture the board's influence on small family firm processes and outcomes. Information about a board's involvement in monitoring and control should be included in the research design if one wants to understand board effectiveness with respect to firm outcome variables.

This paper proceeds as follows. First, we review the literature and formulate our hypotheses. Next, we discuss the research sample and variables and we present the descriptive statistics and results. The last section summarizes the findings and concludes.

2. Hypotheses

2.1. The presence of an outside CEO and leverage

Our starting point is the observation that family firms with an outside CEO take more entrepreneurial risk than those with a family CEO (Huybrechts, Voordeckers, and Lybaert, 2013). This may happen for two reasons. First, family firms will often appoint an outside CEO when they have reached a stage in which the family owners have become more tolerant towards risk-taking (Schulze, Lubatkin, and Dino, 2003; Gomez-Mejia et al., 2007). Second, the outside CEOs themselves are likely to have personal objectives that diverge more from those of family owners than the objectives of family CEOs (Barton and Matthews, 1989; Chaganti, Decarolis, and Deeds, 1995; LeCornu et al., 1996; Romano, Tanewski, and Smyrnios, 2001).

Outside CEOs will often be appointed when the firm's ownership is dispersed over extended family members, who are little or not involved in the firm's management. The

family owner's socio-emotional wealth is likely to be lower and they are likely to be less concerned about keeping control over the firm (Schulze et al., 2003; Gomez-Mejia et al., 2007). According to Schulze, Lubatkin, and Dino (2003), in family firms where the daily management of the firm is delegated to an outside CEO, family owners are less "overinvested" in the firm and they have risk preferences that are similar to those of institutional investors. As a result, family owners are more tolerant towards pursuing promising projects with uncertain returns which might reduce socio-emotional wealth, resulting in more entrepreneurial risk-taking. Since they care less about keeping control, they are also more tolerant for new equity issuances that dilute their ownership stake. This tolerance for entrepreneurial risk taking and issuance of new equity will make it easier for the outside CEO to pursue policies that lead to a lower leverage.

The decisions by family CEOs are primarily driven by their desire to preserve the family's socio-emotional wealth, but this is less likely to be a priority for outside CEOs (Huybrechts, Voordeckers, and Lybaert, 2013). Family CEOs are typically under-diversified shareholders who have most of their financial wealth invested in the firm (Naldi et al., 2007). Outside CEOs typically have no ownership stake (Huybrechts, Voordeckers, and Lybaert, 2013). As a result, an outside CEO may take more entrepreneurial risk than a family CEO. Outside CEOs may also have a higher tolerance for entrepreneurial risk-taking in order to make themselves more valuable and gain status by accomplishment (Dyer, 1989; Chaganti, Decarolis, and Deeds, 1995; Huybrechts, Voordeckers, and Lybaert, 2013). They may have superior skills (Perez-Gonzalez, 2006; Bennedsen et al., 2007; Cucculelli and Micucci, 2008) and may be more likely to take advantage of attractive growth opportunities (Chua, Chrisman, and Sharma, 2003; Amore, Minichilli, and Corbetta, 2011). In this way, outside CEOs can become more costly to replace for the family and may be better positioned in the job market once they leave the firm. Family CEOs, on the other hand, are often not willing to

take risk and pursue growth because of the fear of losing control and reducing employee well-being (Davidsson, 1989; Wiklund, Davidsson, and Delmar, 2003). Huybrechts, Voordeckers, and Lybaert (2013) find empirical support for the positive influence of an outside CEO on the level of entrepreneurial risk-taking by private family firms.

How does this affect the financing policy of family firms? We expect that the presence of an outside CEO will be negatively associated with the leverage of family firms, for two reasons. First, family firms with an outside CEO may want to offset the higher entrepreneurial risk by reducing financial risk in order to minimize bankruptcy risk, that is, by lowering the level of debt. Second, banks may be less willing to extend loans to family firms if they have an outside CEO. Entrepreneurial risk-taking leads to more volatile cash flows (Altman and Saunders, 1997). Banks prefer firms to be conservative, as banks do not enjoy the upside potential from entrepreneurial risk-taking, but bear the downside risk. They may prefer to lend to family firms in which the family is more involved, that is, firms with a family CEO, not only because these firms take less risk, but also because the family is more likely to take a long-term perspective and make survival a paramount objective, which should align the interests of the lender and the borrower (Chua et al., 2011). So, these arguments suggest that family firms with an outside CEO will have a lower leverage, compared to family firms with a family CEO:

H1: Family firms with an outside CEO will have lower debt levels than those with a family CEO.

This is a non-trivial hypothesis. It could be argued that family firms will have *more* debt when the CEO is an outsider. The pursuit of growth under an outside CEO may increase the *need* for non-control diluting debt: the financing behavior of family firms typically follows a pecking order (Blanco-Mazagatos, De Quevedo-Puente, and Castrillo, 2007;

López-Gracia and Sánchez-Andújar, 2007) and the investments of growth-oriented family firms are more likely to exceed retained earnings (Amore, Minichilli, and Corbetta, 2011). The presence of an outside CEO may also facilitate *access* to debt. Steijvers and Niskanen (2013) argue that banks may regard the presence of an outside CEO in family firms as a positive signal of quality. Outside CEOs may be superior in terms of managerial talent and flexibility; family CEOs are selected from a small pool of family members and are emotionally attached to the firm (Perez-Gonzalez, 2006; Bennedsen et al., 2007; Cucculelli and Micucci, 2008), and the appointment of an outside CEO may reduce the vulnerability of the firm to problems of parental altruism and nepotism (Dekker et al., 2013). Nevertheless we expect that the negative effect of the presence of an outside CEO will outweigh a potential positive effect. The higher earnings volatility of private family firms in the presence of an outside CEO can be more easily assessed than CEO characteristics and is more likely to play an important role for credit risk measurement and lending decisions.

2.2. Family control via the board of directors

We expect that the debt policy of family firms with an outside CEO and leverage will depend on the degree of family control over the firm. Family firms may not only appoint an outside CEO when the family's socio-emotional wealth is low, but also when it is still high, for example because the outside CEO has skills which are not available among family members. In those firms, it will be important for the family owners to keep control over the firm and avoid the loss of socio-emotional wealth. They will still have a low appetite for risk and be reluctant to issue new equity (Blanco-Mazagatos, De Quevedo-Puente, and Castrillo, 2007). Rather than issuing new equity, they will prefer to issue non-control diluting debt, even if this increases the risk of organizational failure (Gomez-Mejia et al., 2007).

The effect of an outside CEO on debt policy is therefore likely to be moderated by family control which is associated with the family's socio-emotional wealth. Fama and

Jensen (1983) point out that the board of directors is often a crucial monitoring tool in organizations in which decision agents do not bear a major share of the wealth effects of their decisions. These boards not only hire, fire and reward top-level decision managers, but they also ratify and monitor the decisions initiated and implemented by the these managers. So through boards owners can control a CEO's entrepreneurial risk taking and the resulting implementations. According to Audretsch, Hülsbeck, and Lehmann (2013) family owners use boards of directors to monitor outside CEOs. The board of directors, which in family firms typically consists of only family shareholders or a majority of family shareholders (Gallo, Tàpies, and Cappuyns, 2004), is regarded as one of the most imperative and influential governance mechanisms in privately held family firms (for example, van den Heuvel, Van Gils, and Voordeckers, 2006; Uhlaner, Wright, and Huse, 2007). It plays a central role in setting the strategy and controlling the management (Bammens, Voordeckers, and Van Gils, A., 2011; Wilson, Wright, and Scholes, 2013). Case-based studies stress the importance of this governance mechanism in the context of outside CEOs (for example, Blumentritt, Keyt, and Astrachan, 2007; Hall and Nordqvist, 2008). (Audretsch, Hülsbeck, and Lehmann , 2013) argue that family board members are superior monitors to other watchdogs. Consistent with this argument, they find that family monitoring of the outside CEO via the board of directors increases the performance of family firms. A stronger board control reflects a stronger desire of the family to protect its socio-emotional wealth and makes it more difficult for the outside CEO to increase entrepreneurial risk. Therefore we expect that board control moderates the negative relation between the presence of an outside CEO and leverage. We therefore hypothesize:

H2: The negative effect of an outside CEO on the debt level of family firms will be attenuated by family control via the board of directors.

2.3. Long-term debt versus short-term debt

We also expect that the presence of an outside CEO will matter more for long-term debt than for short-term debt. Debt with a longer maturity increases the agency costs of debt because it provides the firm with greater opportunities to take actions at the expense of its creditors, who face an adverse selection problem vis-à-vis the better-informed insiders of the firm (Heyman, Deloof, and Ooghe, 2008). In the case of short-term debt, loan contract terms must be renegotiated more frequently than long-term debt, allowing creditors to monitor and control managers more effectively. As a result, the agency costs of long-term debt are larger than those of short-term debt (Ortiz-Molina and Penas, 2008).

An outside CEO is associated with a greater riskiness of the firm's operations which may lead to higher default risk, thereby increasing the long-term credit risk for the creditors. As a result, if creditors are less willing to provide debt to family firms with an outside CEO due to their greater riskiness (H1), the effect is likely to be bigger for long-term debt than short-term debt. We therefore hypothesize that a negative effect of the presence of an outside CEO on the leverage of family firms will be stronger for long-term debt than for short-term debt.

H3: The negative effect of an outside CEO on the debt level of family firms will be stronger for long-term debt than for short-term debt.

3. Sample and variables

3.1. Sample

To collect the required data regarding ownership, management and the board of directors, we sent out a survey to a large sample of Belgian firms. For all these firms the financial information was obtained from the Bel-First database of Bureau Van Dijk, which includes the financial statements of all Belgian corporations. Our sample was constructed as

follows. First, we only included privately held limited liability firms with the legal form of “Naamloze Vennootschap” (NV) which are legally required to publish annual accounts and to install a board of directors. Second, we restricted the sample to small and medium sized firms, that is, firms with less than 500 employees.² Firms with less than 20 employees are removed from the sample since boards of directors in these firms are likely to only have a rubber stamp role. Third, consistent with other capital structure studies, we limited the sample to non-financial firms and exclude institutions that belong to the public administration. 8,965 privately held firms matched these criteria.

Using a web-based survey, telephone interviews and questionnaires delivered by mail, we contacted the CEOs of these 8,965 firms in our population. The survey was conducted in the frame of a project on corporate governance in private organizations financed by the Belgian Institute of Science and Technology (IWT) and was distributed in two stages for organizational reasons. The first survey wave was sent out in the July–October period of 2011. A second wave was sent out April through June of 2012. A total of 714 questionnaires were completed and returned, yielding a response rate of eight percent. This is in line with other Belgian survey-based studies collecting data on a wide range of governance issues (for example, van den Heuvel, Van Gils, and Voordeckers, 2006; Huybrechts, Voordeckers, and Lybaert, 2013). After excluding firms with missing data, we are left with 607 firms.

To assess the representativeness of the population of respondents, we compare the responding firms with the non-responding firms. We do not find significant differences with regard to the capital structure, firm size, profitability, industry or early versus late respondents to the survey, reducing concerns over non-response bias. In addition, using different sources for our independent and dependent variables of interest also mitigates

² As a robustness check we consider only firms with less than 250 employees and firms with less than 50 employees. The results are discussed in the empirical results section.

concerns about common method bias. While our governance variables are collected from the survey data, our debt policy variables are based on an external database. We also test whether the different survey methods used may influence responses. These tests do not reveal any significant difference in the data collected using different methods. Out of the responding population of 607 firms, we now select the family firms among them for the analysis of our research question.

Although there is considerable variation in the literature with regard to the definition of a family firm (for example, Chua, Coleman, and Carsky, 1999; Chrisman, Chua, and Sharma, 2005; Uhlaner et al., 2012), studies typically focus on family involvement in ownership and management. Since we focus on the role of an outside CEO, we define family firms based on ownership. Respondents were asked to categorize the first-, second- and third-largest shareholder as a family, an individual, a private equity/venture capital firm, a financial institution or a non-financial firm. A family is defined as “two or more relatives that are shareholders.” An individual is defined as “a single person who does not have relatives that are shareholders.” We classify a firm as a family firm when the largest shareholder is a family.³ In this way, 367 firms are classified as family firms. The other 240 firms have an individual (83), a private equity/venture capital firm (59), a financial institution (14) or a non-financial firm (84) as largest shareholder. This indicates that 70 percent of the firms that are not subsidiaries (for example, firms that do not have a non-financial firm as a largest shareholder) are family firms.

3.2. Variables

Outside CEO. There has been a tendency to equate outside CEOs or nonfamily CEOs within family firms with “professional managers” (for example, Dyer, 1989). However, this

³ As a robustness check we consider three alternative definitions of a family firm, which are discussed in the empirical results section.

view has been challenged by Hall and Nordqvist (2008) who show that family CEOs can also be professional managers with a formal business education. Blumentritt, Keyt, and Astrachan (2007) define outside or nonfamily CEOs as “individuals hired by families to act as lead executives within their family business. [...] managers who are given responsibility for the performance of the firms for which they work, while they are unlikely to have any ownership stake in them.” Thus, outside CEOs are “nonfamily, nonowner managers” (Schein, 1995; Hall and Nordqvist 2008). The CEOs receiving the survey were asked whether they are a shareholder of the firm. We measure the presence of an *Outside CEO* as a dummy variable equal to one if the CEO has no ownership stake in the firm.⁴

*** Table 1 about here ***

Board Control. To measure the extent of board control, we construct a direct measure rather than an indirect proxy, as is often done in the literature. Huse (2005) identifies three different board control roles: behavioral control, output control and strategic control. In order to measure these different tasks, we rely on a scale derived from van den Heuvel, Van Gils, and Voordeckers (2006) and Minichilli, Zattoni, and Zona (2009). The eight items that make up this scale are listed in Table 1. For each item, respondents are asked to indicate on a five-point Likert scale, ranging from one (strongly disagree) to five (strongly agree), the extent to which the board is involved in a particular task. Table 1 reports the mean and standard deviation score for each item. To construct our *Board Control* variable, we calculate the average of all items. Exploratory factor analysis confirms the unidimensionality of the different board control roles. The item-to-total correlations, the inter-item correlations, and

⁴ A potential drawback of this definition is that there may be some misclassifications; some family CEOs may have no ownership stake, and some nonfamily CEOs may be shareholders of their firms. However, these misclassifications should reduce the likelihood of finding any significant results for this variable. As a robustness check we consider alternative definitions of an outside CEO, which are discussed in the empirical results section.

the Cronbach's alphas confirm the internal consistency of our measure.⁵ To develop our hypotheses, we (implicitly) assume that board control in privately held family firms is driven by shareholding (family) directors. This is confirmed by our data: 94 percent of the family firms in our sample have at least one shareholder sitting on the board, and the mean and median percentage of shareholding directors is 68 percent and 67 percent, respectively.

Debt. We consider *Total Debt*, which is all financial debt (excluding trade debt) scaled by total assets. We also distinguish between *LT-Debt* with a maturity of more than one year, and *ST-Debt* with a maturity of no more than one year. All debt variables are measured at the end of 2011.

Entrepreneurial Risk Taking. In line with several other studies (for example, Huybrechts, Voordeckers, and Lybaert, 2013), we measure *Risk Taking* by the standard deviation of earnings before interest and taxes over total assets over a five-year period from 2007 until 2011. To deal with high skewness, we log-transform this variable.⁶

Control variables. We include several control variables that are commonly used in studies investigating firm-level determinants of the leverage of privately held firms (for example, Hall, Hutchinson, and Michaelas, 2004; Sogorb-Mira, 2005; Heyman, Deloof, and Ooghe, 2008; Degryse, de Goeij, and Kappert, 2012) and family firms (for example, Coleman and Carsky 1999; López-Gracia and Sánchez-Andújar, 2007). These control variables include firm age, size, asset tangibility, profitability, cash holdings and industry. Older firms may have less debt because they grow less rapidly and have been able to accumulate internal funds over a longer span of time. *Age* is the number of years since the year of incorporation. Larger firms may more easily obtain debt financing, as problems of information asymmetry

⁵ All validity checks are available upon request.

⁶ We checked whether the very high risk firms in our sample are different by t-testing for differences between the very high risk firms (i.e. firms > 90 percentile for risk taking) and the other sample firms. The only significant differences we find are that very high risk firms tend to be younger and have a higher cash flow.

and financial distress are likely to be lower. We measure firm size by the book value of *Total Assets*. To deal with high skewness, we log-transform the variables *Age* and *Total Assets*. We expect a positive correlation between asset tangibility and leverage, as tangible assets provide collateral and reduce the agency costs of debt. *Asset Tangibility* is computed as tangible fixed assets divided by the book value of total assets. More profitable firms may use more retained earnings to fund their activities, lessening the need to borrow. *Cash Flow* is operating cash flow scaled by the book value of total assets. *Cash Holdings* is calculated as cash and cash equivalents over the book value of total assets. The firms in our sample operate in different industries: construction (14 percent), manufacturing (35 percent), transportation (nine percent), wholesale (22 percent), retail (three percent), services (15 percent) and primary industry (two percent). To control for industry effects, we include dummy variables based on two-digit SIC codes. These control variables are measured at the end of 2010, one year prior to the measurement of our dependent variables.

*** Table 2 about here ***

4. Empirical results

4.1. Descriptive statistics

Table 2 reports mean, standard deviation and Pearson correlation coefficients. Continuous variables are winsorized at the top and bottom one percentiles to mitigate the effect of outliers. 16.3 percent of our sample firms have an outside CEO. The average score on our board control variable is 3.472. Total debt is 18.3 percent on average. The mean long-term and short-term debt is 11.5 percent and 6.7 percent, respectively. With respect to the other variables, the average firm in our sample is 29 years old. Average total assets is 17.361 million €. The average cash flow over total assets ratio is 12.7 percent. The presence of an

outside CEO is significantly negatively correlated (at the one percent level) with total debt and long-term bank debt, and positively correlated with firm age and size.

*** Table 3 about here ***

4.2. Regression results

Before testing our hypotheses, we check whether the presence of an outside CEO is associated with a higher level of entrepreneurial risk taking, as is commonly assumed in the literature. We estimate an OLS-regression in which the log of risk taking is the dependent variable and the outside CEO dummy is included as an independent variable. The results are reported in regression model 1 of Table 4. For all regressions, reported p-values are robust for heteroscedasticity. Consistent with Huybrechts, Voordeckers, and Lybaert (2013), we find that the coefficient of the outside CEO dummy is positive and significant at the one percent level, confirming that privately held family firms take more entrepreneurial risk if they have an outside CEO.⁷ In model 2, we take into account family control via the board of directors by including the interaction between *Board Control* and *Outside CEO*. If board control reflects the extent to which the family owners want to protect their socio-emotional wealth, we expect that a stronger board control is associated with less entrepreneurial risk taking. This is indeed what we find: while the effect of *Outside CEO* remains positive and significant at the one percent level in model 2, the interaction between *Board Control* and *Outside CEO* is negative and significant at the five percent level.

Next, we investigate how the presence of an outside CEO is related to debt policy (H1). For the debt regressions we use the Tobit regression method with the censoring point at zero. While ordinary least-squares estimations may be inappropriate as our debt measures are

⁷ In regressions reported in the appendices, we also find that family firms take less entrepreneurial risk than non-family firms. Our results are consistent with Huybrechts et al. (2013) and indicate that the presence of an outside CEO reduces the family firm effect on entrepreneurial risk taking.

zero for a considerable number of observations, the Tobit specification accounts for the fact that borrowing propensity may also differ for firms with no debt. *Total Debt* is the dependent variable in regression models 3 and 4. The results in model 3 indicate a significantly ($p < 0.01$) negative relation between the presence of an outside CEO and total leverage.⁸ This result is consistent with H1 that the presence of an outside CEO is negatively associated with leverage.⁹ When we calculate the marginal effects at the censoring point of a discrete change of *Outside CEO* from zero to one, we observe that the presence of an outside CEO decreases the unconditional expected value of *Total Debt* by 8.85 percentage points and the expected value conditional on being uncensored by 6.46 percentage points. Moreover, a firm with an outside CEO has a 17.86 percentage points lower probability of being uncensored than a firm with a family CEO. This indicates that the relation between the presence of an outside CEO and debt is not only statistically significant, but economically significant as well. With respect to the control variables, we find that firms unsurprisingly have a higher debt ratio when they have more tangible assets and when they hold less cash.

*** Figure 1 about here ***

In regression model 4, which includes the interaction between *Outside CEO* and *Board Control*, we again observe a significantly ($p < 0.01$) negative coefficient for *Outside CEO*, but also a significantly ($p < 0.01$) positive interaction between *Outside CEO* and *Board Control*. This result provides empirical support for H2 that the negative relation between the presence of an outside CEO and leverage is moderated by tighter board control. Figure 1 depicts the marginal effect of an outside CEO on total debt for different levels of board

⁸ To test for a potential multicollinearity problem, we calculate the variance inflation factors of all independent variables. A variance inflation factor exceeding 10 is regarded as a sign of multicollinearity. However, the highest value in our analysis is 1.20, far below this threshold.

⁹ In regressions reported in the appendices, we also find that total leverage is higher for family firms than for non-family firms, which is consistent with for example Blanco-Mazagatos, De Quevedo-Puente, and Castrillo (2007). Our results indicate that the presence of an outside CEO reduces the family firm effect on leverage.

control. The full line shows how the effect of an outside CEO changes with an increase in board control, while the dotted lines around this line show the 95 percent confidence interval for statistical significance. The zero line is above the upper boundary of the confidence interval until board control reaches the value of four, which suggests that the presence of an outside CEO has a significant negative effect on total debt unless board control is very strong.

Regression models 5 and 6 in Table 3 show the results for *Long-Term Debt* and *Short-Term Debt*. Consistent with H3, we find that the negative relation between the presence of an outside CEO and debt is more negative for long-term debt than for short-term debt. Creditors are more willing to lend in the short-term than in the long-term as loan contract terms must be renegotiated more frequently. With respect to the control variables, we find that the positive relation with asset tangibility is driven by *Long-Term Debt* and that the negative relation with profitability is driven by *Short-Term Debt*.

*** Table 4 about here ***

4.3. Endogeneity

Since we use cross-sectional data, it cannot be ruled out that our analysis is subject to the endogeneity problem of reverse causality: firms with higher leverage ratios might be more likely to select an outside CEO. To address this issue we use instrumental variables which are correlated with the possible endogenous regressor (*Outside CEO*) but uncorrelated with the error term of the regression. Following for example Huybrechts, Voordeckers, and Lybaert (2013) we use CEO tenure as employee at the firm as an instrumental variable. Additionally we also use CEO age. In the first-stage regression we include the instrumental variables to predict the value for Outside CEO. The predicted value is included in the second-stage regressions reported in Table 4. A Weak Identification Test shows that the instrumental variables are strongly correlated with the presence of an outside CEO (Cragg-Donald Wald F

statistic > 10) and the Hansen J-Statistic confirms that the instrumental variables are exogenous (p-value > 0.10) in all regressions. The IV regression results are consistent with the findings in Table 3: the presence of an outside CEO increases entrepreneurial risk taking (model 7) and decreases leverage, both total debt (model 8) and LT-debt (model 9).

*** Table 5 about here ***

To further ascertain that our results are not affected by endogeneity, following Frank (2000) and Larcker and Rusticus (2010) we have investigated the characteristics an omitted variable must have in order to overturn the regression results. The unidentified omitted variable must be correlated with both the dependent variable Y and the treatment variable X in order to cause spurious negative correlations between Y and X. Specifically, the product of two partial correlations, the correlation between the omitted variable and Y and the correlation between the omitted variable and X, needs to be at least -0.0827 to overturn the significant (at the 5% level; 2-sided test with $t = -1,96$) negative association between Y and X. To put this number in perspective, the largest negative product of the partial correlations with Y and X based on the identified control variables is -0.0197 for Asset Tangibility. Thus, we would need an omitted variable with an impact 320% greater than that of any of the control variables to change the results, suggesting that it is unlikely that a confounding omitted variable would overturn the negative association between Y and X.

4.4. Family firms

In the family business literature, there is no consensus on the definition of a family firm. So far, we have classified a firm as a family firm when the largest shareholder is a family. In order to ensure that our results are not driven by this classification, we consider two alternative family firm definitions. First, we restrict our sample to those firms that have a family as largest shareholder owning more than 50 percent of the equity (for example,

Blanco-Mazagatos, De Quevedo-Puente, and Castrillo, 2007). This reduces our sample by 52 observations. We initially do not consider individuals as family shareholders, because e.g. Miller et al. (2007), Block et al. (2011) and Uhlaner et al. (2012) underline the importance of differentiating families from single owners (founders). As an alternative, we consider families and individual shareholders together (cf., for example, López-Gracia and Sánchez-Andújar, 2007). Individuals may have inherited the firm from their parents or may have the intention to transfer the firm to their children. This increases our sample by 83 observations. Table 5 reports regression results for the alternative family firm definitions. In both cases, the significant effect of an outside CEO on debt and the moderating role of board control is confirmed.

4.5. Other robustness checks

Outside CEO. We consider three alternative measures of an outside CEO, which so far has been defined as a CEO without share ownership. First, we take into account that outside CEOs may have limited ownership. McConaughy (2000), for example, observes that the average percentage of common stock held by a nonfamily CEO is 0.36 percent. When respondents indicated that the CEO is also shareholder of the firm, they were also asked to indicate their ownership percentage (<five percent, five–50 percent, or >50 percent). As a robustness check, we now classify CEOs who own shares but have less than five percent ownership as outside CEOs. As a second robustness check, we restrict our definition of outside CEO to the CEOs who do not own shares and are also not a family member. We have information about whether the outside CEO is a family member or not for a subset of our sample of 275 firms. Third, for a subsample of 271 firms we classify as outside CEOs the CEOs who do not own shares, are not a family member *and* were hired from outside the

firm.¹⁰ For each of the three alternative outside CEO measures, we find that the presence of an outside CEO significantly reduces debt. The moderating effect of board control remains statistically significant when we allow for limited ownership by the outside CEO, but becomes insignificant in the two other cases which are based on a much smaller sample.

Board control. To measure the extent of board control, we considered three different board control roles: behavioral control, output control and strategic control (see Table 1). We re-estimate our analyses using only the behavioral control measure as the items pertaining to this role explicitly measure the extent to which the board members monitor and control the CEO (rather than the firm-level output and strategic control). The results are qualitatively very similar to those reported in the paper. Moreover, we (implicitly) assume that board control is driven by shareholding (family) directors. Although we do not regard this as an unreasonable assumption, we perform our analyses again after removing firm observations with an outside CEO and a board with at least one independent director. This reduces our sample by 19 observations. Again, we find qualitatively similar results. Finally, we use board size and the percentage of shareholding directors as alternative measures of board control. We find that a larger number of directors on the board and a higher percentage of directors holding shares reduce the negative effect of an outside CEO on leverage, although the moderating effect of shareholding directors is not statistically significant. The results indicate that these board composition variables, which are typically used in the family business literature, have a lower ability to capture the board's influence on small family firm processes and outcomes, compared to our direct measure of board control.

Small firms. Our sample includes firms with up to 500 employees. To ensure that our results are not driven by the larger firms in our sample, we re-estimate our analyses for firms with less than 250 employees (351 observations) and firms with less than 50 employees (221

¹⁰ An outside CEO is classified as being hired from outside the firm when its tenure as a CEO equals its tenure as an employee of the firm.

observations). Again the basic results are confirmed, although the moderating effect of board control becomes statistically insignificant when the sample is reduced to 221 firms with less than 50 employees.

CEO personal characteristics. To shed light on how outside CEOs differ from insider CEOs, we also investigated personal characteristics of the CEOs in our sample. There are no significant differences in gender or age between outside CEOs and insider CEOs. While 60 percent of the outside CEOs have a university degree, this is only true for 44 percent of the insider CEOs. Not surprisingly outside CEOs have held the position of CEO for a shorter period of time, on average. While the tenure of insider CEOs averages 17 years, outside CEOs only held the position for 8 years, on average. We did not control for these CEO characteristics in our basic regressions since these variables do not appear to be of primary importance in the context of SME financing (Mac an Bhaird, 2010). Including CEO gender, age, and tenure reduces our sample to 360 observations, and additionally including CEO education further reduces the sample to 197 observations. Our basic results are again confirmed.

Founder firms versus later generation firms. Finally we take into account intergenerational differences in family firms. The generation of the family firm, which may be correlated with the presence of an outside CEO, has been found to significantly affect the use of debt (for example, Molly, Laveren, and Deloof, 2010 and Molly, Laveren, and Jorissen, 2012). Respondents are asked to indicate the generation of the owning family (first, second, third, later). This information is available for 273 firms. To reduce the concern that this omitted variable biases our results, we re-estimate our regressions after including three dummy variables: second generation, third generation and fourth or later generation. These variables measure the difference between founder firms and later generation firms. The presence of an outside CEO is still significantly and negatively related to the use of debt.

Consistent with Molly, Laveren, and Jorissen (2012), we also find that leverage is lower for second- and third-generation firms (relative to founder firms). As in other robustness checks which are based on a reduced sample, the moderating effect of board control is still positive but not statistically significant anymore.

5. Discussion and concluding remarks

The appointment of an outside CEO is a critical event in the lifecycle of family firms. Family firms with an outside CEO will take more entrepreneurial risk than firms managed by an inside family CEO and family owners, who want to preserve the family's socio-emotional wealth. Consistent with prior empirical evidence from Huybrechts, Voordeckers, and Lybaert (2013), we find that small privately held family firms take more entrepreneurial risk when they have an outside CEO. However, we also find that these firms use less debt when they have an outside CEO instead of an inside family CEO. This suggests that higher entrepreneurial risk taking is offset with lower financial risk. Banks may also be less willing to extend loans to firms that are at an increased risk of default due to higher entrepreneurial risk. The negative effect of an outside CEO on debt is stronger for long-term debt than short-term debt, consistent with the hypothesis that the availability and cost of short-term debt is less sensitive to the risk taking behavior of the outside CEO, as loan contract terms must be renegotiated more frequently. However, the effect of the presence of an outside CEO on debt and risk taking decreases when the board of directors (which consists of family shareholders) has stronger control over the outside CEO. This result is consistent with the hypothesis that family owners use the board of directors to enforce policies which preserve their socio-emotional wealth.

Our results suggest that it is important to take into account the presence of an outside CEO when considering the financial policy of small privately held family firms. Furthermore,

our results reveal that control by the board of directors also matters. Despite the general belief in the family business literature that smaller family firms rely more on informal governance mechanisms and only have a ceremonial board role, we provide empirical support for the argument that the boards of directors can fulfill an important governance role, at least when the family firm has an outside CEO (Blumentritt, Keyt, and Astrachan, 2007; Hall and Nordqvist, 2008; Nordqvist, Sharma, and Chirico, 2014; Kammerlander et al., 2015). We also demonstrate that it is important to consider the *term structure* of debt when considering the debt policy of family firms. Interestingly, while we find a negative association between the presence of an outside CEO and the leverage for privately held small family firms, Anderson and Reeb (2003) find no effect of a hired CEO on the debt policy of Fortune 500 firms, while Amore, Minichilli, and Corbetta (2011) document a significant *increase* in the use of debt by large family firms in Italy following the appointment of a nonfamily CEO. These differences confirm that the financing policies of privately held family firms are driven by different factors than those of listed family firms.

Despite the interesting results derived from our analyses, we must mention some limitations of our study. An important limitation is that we do not know what families or outside CEOs really ‘want’, in general or in the specific setting of our study. While we hypothesize that our findings are driven by the desire of family members to preserve their socio-emotional wealth, we do not have data on a family’s socio-emotional wealth objectives, it is merely assumed to exist. We therefore do not know to what extent the statistical relations we observe are driven by socio-emotional wealth. This limitation provides an opportunity for further research into the influence of a family’s SEW objectives on the family firm’s debt policy, by considering actual measures of SEW (see e.g., Debicki et al., 2016; Hauck et al., 2016). Furthermore, we do not know what the CEO wants, and how his/her personal preferences affect our results. It is also not clear to what extent the financing policy of family

firms is set by the outside CEO or by the board representing the family shareholders. In this respect, it would also be interesting to delve deeper into the relation and interaction between outside CEOs and boards, for example using case study research. Furthermore, while the lower leverage of family firms with an outside CEO might reflect the firm's higher willingness to issue new equity or decision to reduce financial risk (demand effect), the higher entrepreneurial risk might also reduce the willingness of banks to extend loans to firms with higher default risk (supply effect). Our data do not allow us to empirically distinguish between these effects. In this respect, it would be interesting to investigate the bank loan officer's perceptions of family firms in the presence of an outside CEO. Our findings are also based on data for a specific time frame and a single country (Belgium) with a particular cultural setting, which limit the generalizability of the findings to other settings. While Belgian family firms are arguably representative of family firms in other continental European countries, it would be interesting to replicate our analysis using data from other countries and time periods. The family firm effect on financing decisions is different among different countries and time frames (cf. for example, Coleman and Carsky, 1999; López-Gracia and Sánchez-Andújar, 2007), and this may also be the case for the outside CEO effect within family firms. It would therefore be interesting to do a multi-country study that compares the impact of outside CEOs, board control and financing policy across several national and cultural settings. Our results indicated that insights on formal board control matter in order to understand a family firm's financing policy when an outside CEO is present. Future research on family firm financing could also collect data on family governance mechanisms and study how board governance and family governance act as substitutes or compliments in the area of family firm financing (see also Kammerlander et al. 2015; Songini and Gnan, 2015).

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Table 1
Measurement of board control

Board Control	Items	Mean	SD
Behavioral control	The board is involved in following up and reassessing the CEO's contribution and behavior	3.41	1.39
	The board is involved in following up and reassessing the CEO's financial rewards	3.27	1.53
	The board supervises the CEO	3.23	1.45
	The board sets management compensation	3.18	1.45
Output control	The board controls that the activities are well organized	3.57	1.27
	The board develops plan and budgets	3.31	1.40
	The board is kept informed on the financial position of the company	4.20	1.12
Strategic control	The board actively monitors and evaluates strategic decisions	3.64	1.20

N = 367, SD = standard deviation, for each item, survey respondents were asked to indicate on a five-point Likert scale, ranging from one (strongly disagree) to five (strongly agree), to what extent the board was involved in that task.

Table 2

Mean, standard deviation and Pearson correlation coefficients

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1 Outside CEO	0.163		1									
2 Board Control	3.472	1.024	0.04	1								
3 Risk Taking	0.047	0.036	0.10	-0.04	1							
4 Total Debt	0.183	0.176	-0.16	0.03	-0.07	1						
5 LT-Debt	0.115	0.140	-0.15	0.05	-0.07	0.77	1					
6 ST-Debt	0.067	0.108	-0.09	-0.03	-0.03	0.60	-0.04	1				
7 Age (Years)	29	17	0.17	-0.04	-0.15	-0.12	-0.22	0.09	1			
8 Total Assets (1,000 €)	17,361	35,124	0.20	0.05	-0.15	-0.05	-0.09	0.01	0.09	1		
9 Asset Tangibility	0.258	0.211	-0.05	0.01	0.05	0.36	0.53	-0.08	-0.17	-0.10	1	
10 Cash Flow	0.127	0.103	0.05	-0.13	0.19	-0.11	0.00	-0.17	-0.11	-0.09	0.09	1
11 Cash Holdings	0.139	0.158	-0.03	-0.03	0.05	-0.43	-0.28	-0.32	0.07	-0.04	-0.26	0.19

N = 367, SD = standard deviation, **bold** text indicates statistical significance at the 1% level.

Industries: construction (14%), manufacturing (35%), transportation (9%), wholesale (22%), retail (3%), services (15%), primary sector (2%)

Table 3

Multiple regression analysis: outside CEOs, board control, entrepreneurial risk and debt

Model: Dependent Variable: Regression Type:	1. Ln(Risk Taking) OLS	2. Ln(Risk Taking) OLS	3. Total Debt Tobit	4. Total Debt Tobit	5. LT-Debt Tobit	6. ST-debt Tobit
Outside CEO	0.306*** (0.005)	1.155*** (0.003)	-0.110*** (0.001)	-0.454*** (0.000)	-0.388*** (0.004)	-0.217*** (0.008)
... x Board Control		-0.239** (0.021)		0.096*** (0.004)	0.083** (0.029)	0.041* (0.057)
Board Control		0.051 (0.238)		-0.009 (0.300)	-0.003 (0.706)	-0.012 (0.138)
Ln(Age)	-0.155** (0.024)	-0.146** (0.034)	-0.018 (0.300)	-0.021 (0.251)	-0.034** (0.042)	0.019 (0.222)
Ln(Total Assets)	-0.122*** (0.001)	-0.126*** (0.000)	0.005 (0.554)	0.006 (0.477)	0.002 (0.781)	-0.002 (0.803)
Asset Tangibility	0.226 (0.280)	0.212 (0.304)	0.256*** (0.000)	0.263*** (0.000)	0.349*** (0.000)	-0.082* (0.060)
Cash Flow	1.014** (0.038)	1.026** (0.034)	-0.109 (0.329)	-0.110 (0.332)	-0.018 (0.852)	-0.134 (0.176)
Cash Holdings	0.161 (0.547)	0.155 (0.559)	-0.560*** (0.000)	-0.551*** (0.000)	-0.269*** (0.000)	-0.554*** (0.000)
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.138	0.150	0.297	0.317	0.347	0.168
F-Statistic	4.91***	4.83***	16.18***	14.46***	12.75***	5.46***

N = 367, robust p-values in parentheses: *** p<0.01, ** p<0.05, * p<0.10

Table 4

Instrumental variable regressions

Model:	7.	8.	9.
Dependent Variable:	Ln(Risk Taking)	Total Debt	LT-Debt
Regression Type:	Two-Stage Least Squares	Two-Stage Tobit	Two-Stage Tobit
Predicted Outside CEO	0.881*** (0.004)	-0.115* (0.062)	-0.175*** (0.002)
Ln(Age)	-0.201*** (0.005)	-0.016 (0.347)	-0.025 (0.107)
Ln(Total Assets)	-0.151*** (0.000)	0.006 (0.534)	0.006 (0.504)
Asset Tangibility	0.292 (0.165)	0.250*** (0.000)	0.330*** (0.000)
Cash Flow	0.796 (0.144)	-0.079 (0.493)	0.016 (0.873)
Cash Holdings	0.301 (0.280)	-0.571*** (0.000)	-0.288*** (0.000)
Industry Dummies	Yes	Yes	Yes
R-Squared	0.069		
F-Statistic	4.86***		
Wald Chi Squared		172.82***	163.43***
Weak Identification Test (F-Stat)	26.35***	26.35***	26.35***
Hansen J-Statistic (p-Value)	0.901	0.170	0.155

N = 361, robust p-value in parentheses: *** p<0.01, ** p<0.05, * p<0.10
 Instruments are CEO tenure as employee and CEO age.

Table 5

Regression results for different family firm definitions

Model: Family Firm Definition:	10. Largest shareholder owning more than 50% of equity	11. Largest shareholder owning more than 50% of equity	12. Including individuals	13. Including individuals
Dependent Variable: Regression Type:	Total Debt Tobit	Total Debt Tobit	Total Debt Tobit	Total Debt Tobit
Outside CEO	-0.085** (0.015)	-0.403*** (0.004)	-0.104*** (0.000)	-0.354*** (0.001)
... x Board Control		0.087** (0.032)		0.070** (0.024)
Board Control		-0.006 (0.525)		-0.002 (0.794)
Ln(Age)	-0.010 (0.568)	-0.012 (0.496)	-0.013 (0.411)	-0.015 (0.355)
Ln(Total Assets)	0.002 (0.870)	0.002 (0.844)	0.003 (0.652)	0.003 (0.660)
Asset Tangibility	0.272*** (0.000)	0.271*** (0.000)	0.273*** (0.000)	0.275*** (0.000)
Cash Flow	-0.177 (0.154)	-0.169 (0.176)	-0.131 (0.182)	-0.127 (0.193)
Cash Holdings	-0.510*** (0.000)	-0.504*** (0.000)	-0.571*** (0.000)	-0.566*** (0.000)
Industry Dummies	Yes	Yes	Yes	Yes
Observations	315	315	450	450
R-Squared	0.291	0.304	0.291	0.303
F-Statistic	13.55***	11.97***	19.18***	17.16***

Robust p-value in parentheses: *** p<0.01, ** p<0.05, * p<0.10

Appendices

Appendix 1

Regression results for different measures of outside CEO (the dependent variable is Total Debt)

Model: Outside CEO measure:	A1.1. Including CEOs with limited ownership (<5%)	A1.2. Nonowner, nonfamily CEOs	A1.3. Nonowner, nonfamily CEOs hired from outside the firm	A1.4. Including CEOs with limited ownership (<5%)	A1.5. Nonowner, nonfamily CEOs	A1.6. Nonowner, nonfamily CEOs hired from outside the firm
Outside CEO	-0.107*** (0.000)	-0.140*** (0.003)	-0.155** (0.016)	-0.428*** (0.000)	-0.309** (0.039)	0.029 (0.884)
... x Board Control				0.090*** (0.004)	0.049 (0.274)	-0.055 (0.352)
Board Control				-0.009 (0.295)	-0.011 (0.249)	-0.004 (0.677)
Ln(Age)	-0.019 (0.278)	0.002 (0.906)	-0.002 (0.907)	-0.020 (0.262)	-0.000 (0.991)	-0.002 (0.904)
Ln(Total Assets)	0.006 (0.509)	0.015 (0.158)	0.015 (0.165)	0.007 (0.444)	0.015 (0.144)	0.016 (0.141)
Asset Tangibility	0.256*** (0.000)	0.341*** (0.000)	0.354*** (0.000)	0.263*** (0.000)	0.347*** (0.000)	0.358*** (0.000)
Cash Flow	-0.120 (0.283)	-0.081 (0.536)	-0.098 (0.472)	-0.111 (0.321)	-0.070 (0.591)	-0.115 (0.393)
Cash Holdings	-0.562*** (0.000)	-0.497*** (0.000)	-0.498*** (0.000)	-0.554*** (0.000)	-0.496*** (0.000)	-0.497*** (0.000)
Industry Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	367	275	271	367	275	271
R-Squared	0.299	0.348	0.340	0.317	0.352	0.344
F-Statistic	16.48***	16.17***	14.01***	14.72***	14.18***	12.26***

Robust p-value in parentheses: *** p<0.01, ** p<0.05, * p<0.10

Appendix 2

Regression results for different measures of board control (the dependent variable is Total Debt)

Model: Board Control Measure:	A2.1. Only behavioral board control	A2.2. Excluding outside CEO firms with at least one independent director	A2.3. Board size and shareholding directors
Outside CEO	-0.358*** (0.000)	-0.506*** (0.000)	-0.419*** (0.000)
... x Board Control	0.072*** (0.004)	0.104*** (0.001)	
... x Board Size			0.190** (0.014)
... x Shareholding directors			0.134 (0.235)
Board Control	-0.006 (0.391)	-0.009 (0.296)	
Board Size			-0.035 (0.256)
Shareholding Directors			0.009 (0.811)
Ln(Age)	-0.021 (0.237)	-0.022 (0.182)	-0.017 (0.310)
Ln(Total Assets)	0.006 (0.493)	0.009 (0.317)	0.010 (0.324)
Asset Tangibility	0.259*** (0.000)	0.301*** (0.000)	0.272*** (0.000)
Cash Flow	-0.104 (0.353)	-0.109 (0.310)	-0.112 (0.316)
Cash Holdings	-0.553*** (0.000)	-0.554*** (0.000)	-0.565*** (0.000)
Industry Dummies	Yes	Yes	Yes
Observations	367	348	365
R-Squared	0.317	0.347	0.320
F-Statistic	14.70***	16.83***	12.95***

Robust p-value in parentheses: *** p<0.01, ** p<0.05, * p<0.10

Appendix 3

Regression results for different definitions of small firms (the dependent variable is Total Debt)

Model: Small Firms Definition:	A3.1. Less than 250 employees	A3.2. Less than 50 employees	A3.3. Less than 250 employees	A3.4. Less than 50 employees
Outside CEO	-0.112*** (0.002)	-0.154** (0.011)	-0.461*** (0.000)	-0.365 (0.192)
... x Board Control			0.096*** (0.008)	0.057 (0.489)
Board Control			-0.008 (0.354)	-0.004 (0.668)
Ln(Age)	-0.019 (0.283)	-0.018 (0.454)	-0.022 (0.229)	-0.019 (0.453)
Ln(Total Assets)	0.011 (0.279)	0.037** (0.028)	0.011 (0.261)	0.037** (0.027)
Asset Tangibility	0.272*** (0.000)	0.363*** (0.000)	0.273*** (0.000)	0.360*** (0.000)
Cash Flow	-0.106 (0.351)	-0.067 (0.655)	-0.100 (0.384)	-0.055 (0.713)
Cash Holdings	-0.540*** (0.000)	-0.476*** (0.000)	-0.535*** (0.000)	-0.474*** (0.000)
Industry Dummies	Yes	Yes	Yes	Yes
Observations	351	221	351	221
R-Squared	0.300	0.381	0.317	0.381
F-Statistic	15.63***	16.04***	13.91***	14.16***

Robust p-value in parentheses: *** p<0.01, ** p<0.05, * p<0.10

Appendix 4

Regression results including CEO personal characteristics (the dependent variable is Total Debt)

Model: CEO Characteristics:	A4.1. Excluding CEO Education	A4.2. Including CEO Education	A4.3. Excluding CEO Education	A4.4. Including CEO Education
Outside CEO	-0.087** (0.012)	-0.083** (0.042)	-0.445*** (0.000)	-0.547*** (0.000)
... x Board Control			0.100*** (0.003)	0.126*** (0.001)
Board Control			-0.011 (0.179)	0.003 (0.784)
CEO Gender (Male)	0.007 (0.863)	-0.002 (0.972)	0.008 (0.842)	0.003 (0.955)
CEO Age	-0.002* (0.069)	-0.006*** (0.001)	-0.002** (0.038)	-0.006*** (0.000)
CEO Tenure as CEO	0.002 (0.103)	0.002 (0.275)	0.002* (0.085)	0.002 (0.149)
CEO Education (University)		-0.033 (0.257)		-0.023 (0.392)
Ln(Age)	-0.019 (0.291)	-0.026 (0.266)	-0.021 (0.240)	-0.033 (0.147)
Ln(Total Assets)	0.008 (0.385)	0.017 (0.142)	0.009 (0.310)	0.017 (0.151)
Asset Tangibility	0.250*** (0.000)	0.087 (0.229)	0.258*** (0.000)	0.119* (0.087)
Cash Flow	-0.083 (0.450)	-0.284** (0.033)	-0.084 (0.447)	-0.281** (0.028)
Cash Holdings	-0.562*** (0.000)	-0.824*** (0.000)	-0.551*** (0.000)	-0.807*** (0.000)
Industry Dummies	Yes	Yes	Yes	Yes
Observations	360	197	360	197
R-Squared	0.299	0.354	0.321	0.400
F-Statistic	13.54***	9.21***	12.30***	9.02***

Robust p-value in parentheses: *** p<0.01, ** p<0.05, * p<0.10

Appendix 5

Regression results including intergenerational differences (the dependent variable is Total Debt)

Model:	A5.1.	A5.2.
Outside CEO	-0.104** (0.017)	-0.275* (0.099)
... x Board Control		0.048 (0.333)
Board Control		-0.013 (0.176)
2nd Generation	-0.046** (0.047)	-0.043* (0.063)
3th Generation	-0.046* (0.086)	-0.050* (0.058)
4th Generation or Later	-0.016 (0.632)	-0.013 (0.711)
Ln(Age)	0.002 (0.910)	-0.000 (0.997)
Ln(Total Assets)	0.014 (0.161)	0.015 (0.136)
Asset Tangibility	0.340*** (0.000)	0.341*** (0.000)
Cash Flow	-0.048 (0.719)	-0.053 (0.692)
Cash Holdings	-0.475*** (0.000)	-0.470*** (0.000)
Industry Dummies	Yes	Yes
Observations	273	273
R-Squared	0.353	0.357
F-Statistic	14.01***	12.52***

Robust p-value in parentheses: *** p<0.01, ** p<0.05, * p<0.10