Does the type of family control affect the relationship between ownership structure and firm value?

ABSTRACT

Our objective is to disentangle which family business characteristics enable family ownership to be an effective corporate governance mechanism. To this aim, we investigate whether the relationship between ownership concentration and firm value is moderated by the type of family influence. This study shows that family control positively affects performance, primarily when family members serve on the board and when the founder is still influential. Our findings hold when we control for the general blockholder effect and they are robust to a battery of tests. We conclude that the impact of ownership concentration on firm value differs across family firms.

JEL classification: G32.

I. INTRODUCTION

La Porta et al. (1999) showed that companies are typically controlled by an ultimate owner with a significant proportion of shares in the firm. And among all ultimate owner types, family control is the most frequent form of organizational structure (Morck et al. 2005). Despite the prevalence of family firms in many countries and the influence of family owners throughout the world, the evidence on the effect of family ownership on corporate performance is still inconclusive. The identity of large shareholders matters in corporate governance (Sarkar and Sarkar 2000). Therefore, we analyze whether the performance difference between family and non-family firms is mainly due to particular family firm characteristics. Using a unique sample of listed companies from nine Western European countries, we find empirical evidence supporting that the superior performance of family-controlled corporations is primarily due to those in which the family is directly represented on the board of directors and those in which the founder influence is still present.

This study contributes to the existing finance and family business literature in several different ways. First, we provide empirical results on the different impacts of family control on firm value relative to other ownership structures by using a restrictive definition of family firm that excludes from this group of corporations the so-called *lone founder businesses*. Second, we contribute to the ongoing debate about the benefits and costs of family control as compared to other organizational forms by taking into account the possibility that the different performance of family firms is mainly driven by certain types of family-controlled corporations. And third, the use of the panel data methodology to estimate our models allows us to overcome several problems highlighted in prior finance literature (i.e., the unobservable heterogeneity and endogeneity of explanatory variables).

II. OWNERSHIP CONCENTRATION, FIRM VALUE AND FAMILY FIRMS

The owner-manager agency problem occurs when ownership and management are separated because the firm's owner delegates the decision-taking process to a manager (Jensen and Meckling 1976) who may have motivations that do not coincide with shareholders' interests. Corporate governance appears as a solution to this agency conflict, with ownership concentration as one possible internal control mechanism (Shleifer and Vishny 1997). Large shareholders solve the free-rider problem that occurs when investors do not own enough company shares to assume the costs of effectively monitoring management. Minority shareholders do not have incentives to control managers since their costs would exceed the benefits obtained from that supervision. If ownership concentration indeed motivates management monitoring, it should have a positive impact on firm value. However, the

existence of a large owner in the company can create another agency conflict, the one between dominant and minority shareholders. This conflict arises due to the risk that controlling shareholders expropriate wealth from small investors, which in turn leads to a decrease in firm value. This is the main agency problem when ownership concentration is too high (Yeh et al. 2001).

In this context, the relevant question that needs to be answered is: when does the monitoring function of the largest owner prevails over the incentive to expropriate minority shareholders' wealth? The identity of large shareholders (and, more precisely, the differentiation between family and non-family controlling shareholders) is of great importance in the study of the ownership-performance relationship (Holderness and Sheehan 1988). Controversy still exists on the influence that family ownership has on firm value, with a strand of literature that points out the potential benefits of family control and supports a positive effect of this type of organizational structure (Anderson and Reeb 2003; Maury 2006; Andres 2008) and other investigations that, on the contrary, support a negative impact (Barth et al. 2005). Previous studies argue that active and passive family involvement might influence corporate performance differently (Anderson and Reeb 2003; Andres 2008).

When family members are involved in the management of the firm, they can better control outside chief executive officers (CEOs) and, as a consequence, CEO turnover is reduced (González et al. 2015), which confers more stability on the company. The convergence of interest effect that characterizes the relation between insider ownership and corporate performance (e.g., Morck et al. 1988; Stulz 1988) also supports this line of reasoning. In light of these arguments, we propose the first hipothesis as follows:

Hypothesis 1: The stronger positive impact of ownership concentration on value in family firms is mainly due to those firms in which family members serve on the board of directors.

Morck et al. (1988) already suggested that firm age should be taken into account when analyzing the ownership-performance relationship. We expect expropriation incentives of family members to be lower when ownership is still in the hands of the first generation for several reasons. First, first-generation family firms have not still faced one of the most controversial decisions inside this type of organization; i.e., the succession decision. If succession is not properly planned, generational transfers of control can result in squabbles and tensions among family members (Blumentritt et al. 2013). The fight over the resources of large families increases the motivation for extracting private benefits. Such family conflicts will have a negative effect on firm value. This argument is in line with the results of Miller et al. (2007), who conclude that only *lone founder businesses* perform better than other US public corporations, while *true family businesses* do not show superior market valuations.[1] Therefore, we can argue that young family firms are better performers than old ones.

Second, prior research supports that family firms controlled or run by the founder perform differently as compared to those in the hands of second or later generations (Villalonga and Amit 2006). The different performance of old family firms can be in part explained by how managers are appointed in these businesses. Individual family interests, rather than corporate objectives such as value maximization, are likely to influence management appointments in family firms, leading to a decline in corporate value post-succession. Additionally, although founders that manage young family firms usually possess unique skills and experience, as well as the managerial talent necessary to run the company, succeeding generations in old family corporations can lack such entrepreneurial talent (Anderson and Reeb 2003). Consistent with this view, Bennedsen et al. (2007) find significant declines in firm performance surrounding the appointment of family managers as opposed to professional

---

[1] These authors define *lone founder businesses* as those in which an individual is one of the company's founders and is also a manager or a large owner, with no other family members involved; whereas *true family businesses* are those that include multiple family members as major owners or managers.

managers. Beyond the typical profit maximization objective of other owner types, family firms consider the business as a family legacy to be continued. When succession takes place, founder's nepotism may lead to the appointment of a family member, instead of a more qualified external professional, as manager. Such appointments are a way of expropriating minority shareholders as it implies that the family's goals prevail over the firm's interests.

Since young family firms are generally founder-run corporations and old family firms are more likely to be in the hands of second or later generations (Fiss and Zajac 2004), we pose the following hypothesis:

Hypothesis 2: The stronger positive impact of ownership concentration on value in family firms is mainly due to those firms controlled by the first generation.

III. SAMPLE, VARIABLES, AND MODELS

To test our hypotheses, we obtain a sample of publicly listed companies from nine Western European countries. Our main source of information is the Amadeus database, which provides the market, financial, and ownership structure data that we need for the analyses. Additionally, some macroeconomic information required to calculate some of the control variables are extracted from the *Main Economic Indicators* published by the Organization for Economic Cooperation and Development (OECD). The final sample comprises 834 publicly listed companies (4,729 observations) for the time period spanning from 1999 to 2006. We do not cover years beyond 2006 for two main reasons. First, in 2007 started the turbulence in financial markets that lead to the global financial crisis in 2008 (Trichet 2010). We avoid analyzing this period of time because the resulting global financial turmoil might have caused changes in firm value and ownership structure inexplicable with rational arguments. Studying a stable time span is more suitable to understand the role of family firms in the ownership-value relationship. Second, we focus on this time frame for a better comparison with other studies that do not cover the crisis period either (Maury 2006).

[Insert Table 1 about here]

The dependent variable in our models is firm value, IAV_{it}, which we adjust to account for industry effects. The main independent variable is ownership concentration, OC_{it}, which is the percentage of votes held by the largest shareholder of the company. And we consider several control variables based on previous studies. All variable definitions, along with their descriptive statistics, are presented in Table 1. We consider a company as being family controlled if the largest shareholder is a family or a member of the founding family with at least 10% of the company's voting rights. To identify corporations in which a family is the largest owner, we proceed as follows. First, we identify the firm-year observations in which the largest shareholder is *an individual or a family*. From these companies, in some cases Amadeus asserts that the largest shareholder is a family, but in other cases only the name of an individual is provided. We classify the former as family controlled as long as the family owns at least 10% of the company's voting rights. Second, when the largest owner is just an individual, we investigate whether there is another individual with the same family name either on the board of directors or with a stake in the firm. In these cases, we can assure that at least two members of the same family are involved in the company and therefore consider it as being family controlled. This group of corporations, in which the largest owner is an individual, must also fulfill the voting rights criterion to be included in the family firm sample. By adopting this definition, we avoid including in the same group companies owned solely by the founder and those with several family members (e.g., Cheung et al. 2010).

We develop two models to estimate our hypotheses. To test Hypothesis 1, we propose the following specification:

$$IAV_{it} = \alpha_0 + (\alpha_1 + \lambda_1 BFD_{it} + \beta_1 NBFD_{it})OC_{it} + \phi X_{it} + \varepsilon_{it}, \qquad (1)$$

where X_{it} is the set of control variables and ε_{it} is the error term. Table 1 contains detailed definitions of all variables. In model (1), we split the family firm sample into two groups depending on whether family members are present in the board of directors (BFD_{it}) or not ($NBFD_{it}$).

In addition, to test Hypothesis 2, we estimate the following model:

$$IAV_{it} = \alpha_0 + (\alpha_1 + \varphi_1 FGFD_{it} + \psi_1 SGFD_{it})OC_{it} + \phi X_{it} + \varepsilon_{it}. \qquad (2)$$

In model (2) the splitting criterion is whether the business is controlled either by the first generation ($FGFD_{it}$) or by succeeding generations ($SGFD_{it}$).

We use the panel data methodology in the estimation of the models; in particular, we use the system generalized method of moments (GMM) estimator for two main reasons. First, this method allows us to control for individual heterogeneity. This issue is very important in our analysis because every firm, and especially family ones, has its own specificity that gives rise to a particular behavior closely linked to the culture of the company, which in family firms is instilled by the owner family. Second, our methodology helps us to mitigate the endogeneity problem, which occurs when the error term is correlated with any of the explanatory variables. Regarding reverse causality concerns, as Anderson and Reeb (2003) indicate, it is not clear whether family ownership improves corporate performance, or if superior performance leads families to maintain their stake in the company. We finally check for the potential misspecification of the models. First, we use the Hansen J statistic of over-identifying restrictions to test for the absence of correlation between the instruments and the error term. Second, we use the m_2 statistic, developed by Arellano and Bond (1991), to test for the lack of second-order serial correlation in the first-difference residual.

IV. RESULTS

The regression results that enable us to test Hypotheses 1 and 2 are presented in column 1 of Tables 2 and 3, respectively. As shown in column 1 of Table 2, the positive impact of ownership concentration on value for family businesses with family representation on the board is stronger than that for the remaining family firms. This finding thus supports Hypothesis 1 and suggests that the convergence of interest effect proposed in prior studies (e.g., Morck et al. 1988; Stulz 1988) similarly applies to family firms in which family members serve on the board of directors. In line with previous family business works, we find that active family involvement in the firm management is positive in term of firm performance (Anderson and Reeb 2003; Maury 2006; Andres 2008). A reason for this result is the argument that family members should play an active role in the company and serve as stewards of the firm to achieve a better outcome because such active role will contribute to reinforce the family leadership inside the corporation.

[Insert Tables 2 and Table 3 about here]

With respect to the different performance between founder-led family corporations and those in the hands of second and later generations, the results presented in column 1 of Table 3 indicate that the founder effect plays an important role in Western European family firms. As can be seen in this column, family businesses run by the first generation outperform family firms controlled by second and successive generations, consistent with Hypothesis 2. Moreover, both types of family businesses outperform non-family firms. Our results support the view that, since family and founder owners have different objectives and governance practices, we should make a distinction between them when analyzing their effect on firm value. This finding can be due to the succession process that old family firms are likely to have experienced. Recall that succession can lead to the expropriation of minority shareholders' wealth as a consequence of the potential family conflicts and the appointment of less qualified family candidates to management positions. This argument is consistent with previous family business literature that finds that the better performance of family firms is to

a large extent attributable to young family corporations and founder-led family companies (Anderson and Reeb 2003; Villalonga and Amit 2006).

We conduct several robustness tests to check the validity and reliability of the results discussed above, and we continue to find support for our two hypotheses. First, we control for the blockholder effect by including in the model the interaction between ownership concentration, OC_{it}, and a blockholder effect dummy, BE_{it}. Results can be found in column 2 of Tables 2 and 3. The empirical evidence obtained corroborates our previous findings. Second, to allow for a better comparison with previous empirical studies similar to ours, we re-estimate all models using an alternative measure of the firm's market value (i.e., industry-adjusted Tobin's q, IAQ_{it}). The results are provided in column 3 of Tables 2 and 3. Third, we estimate our models after excluding financial companies (whose primary SIC code is in the interval 60-69), resulting in a final sample of 658 companies (3,788 observations). The estimated coefficients can be found in column 4 of Tables 2 and 3. Finally, we have also performed all analyses described in the study, including the robustness tests, using other ownership concentration thresholds to delineate family control. The regression results based on the 20% and 25% cutoff points, available from the authors upon request, are qualitatively the same as the ones discussed earlier. In sum, the results of the robustness checks let us conclude that our findings are consistent and reliable across specifications.

V. CONCLUSIONS

In this study, we examine how family control affects the market value of a firm in an effort to shed light on the issue of whether family firms are really superior performers as compared to non-family corporations. More precisely, we investigate the possibility that the performance difference of family businesses is moderated by specific firm-level characteristics, such as an active family involvement in management and the generation controlling the company. From a governance perspective, we analyze whether different family control types shape the balance between the monitoring function of ownership concentration and the expropriation risk associated with large shareholders. Our analyses disentangle the value implications for family firms compared to their non-family counterparts.

Our empirical evidence shows that family firms generally outperform non-family firms and, as a result, family ownership can be beneficial to minority shareholders. This positive effect of family ownership is mainly due to those family companies in which family members serve on the board of directors and those family businesses controlled by the first generation.

The present work has important implications for family firms. On the one hand, our results highlight the importance of family presence on the board of directors in order to increase the value of the company. In fact, the presence of family members on the board will allow the family to transmit its values to the management team and will reinforce the family business culture, which can constitute an important source of competitive advantage. Moreover, an active family involvement in the company will contribute to the dissemination of the corporate culture throughout the organization. On the other hand, the study indicates that generational changes pose one of the biggest challenges to the success of the family firm, as generally accepted among family business experts. However, those family firms that are able to plan the transition in advance and to place the business success above personal family interests are likely to strengthen the company's outcome. To achieve this goal, founders must avoid nepotistic appointments. An added benefit of avoiding this type of appointment is that family firms can overcome their lack of managerial resources (Nieto et al. 2015). Family shareholders also need to address the possible conflicts that might arise during the transition of the company from one generation to the next more efficiently.

References

Anderson, R. and D. Reeb (2003), 'Founding-Family Ownership and Firm Performance: Evidence from the S&P 500', *Journal of Finance*, 58, 1301–1328.

Andres, C (2008), 'Large Shareholders and Firm Performance − An empirical Examination of Founding-Family Ownership', *Journal of Corporate Finance*, 14, 431–445.

Arellano, M and S. Bond (1991), 'Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations', *Review of Economic Studies*, 58, 277–297.

Barth, E., T. Gulbrandsen and P. Schone (2005), 'Family Ownership and Productivity: The Role of Owner-Management'. *Journal of Corporate Finance*, 11, 107–127.

Bennedsen, M., K.M. Nielsen, F. Pérez-González and D. Wolfenzon (2007), 'Inside the Family: The Role of Families in Succession Decisions and Performance', *Quarterly Journal of Economics*, 122, 647–691.

Blumentritt, T., T. Mathews and G. Marchisio (2013), 'Game Theory and Family Business Succession: An Introduction', *Family Business Review*, 26, 51–67.

Cheung, Y., A. Stouraitis and W. Tan (2010), 'Does the Quality of Corporate Governance Affect Firm Valuation and Risk? Evidence from a Corporate Governance Scorecard in Hong Kong', *International Review of Finance*, 10, 403–432.

Fiss, P.C. and E.J. Zajac (2004), 'The Diffusion of Ideas Over Contested Terrain: The (Non)adoption of a Shareholder Value Orientation Among German Firms', *Administrative Science Quarterly*, 49, 501–534.

González, M., A. Guzmán, C. Pombo and M. Trujillo (2015), 'The Role of Family Involvement on CEO Turnover: Evidence from Colombian Family Firms', *Corporate Governance: An International Review*, 23, 266–284.

Holderness, C.G. and D.P. Sheehan (1988), 'The Role of Majority Shareholders in Publicly Held Corporations: An Exploratory Analysis', *Journal of Financial Economics*, 20, 317–346.

Jensen, M.C. and W. Meckling (1976), 'Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure', *Journal of Financial Economics*, 3, 305–360.

La Porta, R., F. Lopez-de-Silanes and A. Shleifer (1999), 'Corporate Ownership Around the World', *Journal of Finance*, 54, 471–517.

Maury, B. (2006), 'Family Ownership and Firm Performance: Empirical Evidence from Western European Corporations', *Journal of Corporate Finance*, 12, 321–341.

Miller, D., I. Le Breton-Miller, R.H. Lester and A.A. Cannella (2007), 'Are Family Firms Really Superior Performers?', *Journal of Corporate Finance*, 13, 829–858.

Morck, R., A. Shleifer and R.W. Vishny (1988), 'Management Ownership and Market Valuation: An Empirical Analysis', *Journal of Financial Economics*, 20, 293–315.

Morck, R., D. Wolfenzon and B. Yeung (2005), 'Corporate Governance, Economic Entrenchment, and Growth', *Journal of Economic Literature*, 43, 655–720.

Nieto, M.J., L. Santamaría and Z. Fernández (2015), 'Understanding the Innovation Behavior of Family Firms', *Journal of Small Business Management*, 53, 382–399.

Pindado, J., I. Requejo and C. de la Torre (2011), 'Family Control and Investment–Cash Flow Sensitivity: Empirical Evidence from the Euro Zone', *Journal of Corporate Finance*, 17, 1389–1409.

Sarkar, J. and S. Sarkar (2000), 'Large Shareholders Activism in Corporate Governance in Developing Countries: Evidence from India', *International Review of Finance*, 1, 161–194.

Shleifer, A. and R.W. Vishny (1997), 'A Survey of Corporate Governance', *Journal of Finance*, 52, 737–783.

Stulz, R.M. (1988), 'Managerial Control of Voting Rights: Financing Policies and the Market for Corporate Control', *Journal of Financial Economics*, 20, 25–54.

Trichet, J.C. (2010), 'State of the Union: The Financial Crisis and the ECB's Response between 2007 and 2009', *Journal of Common Market Studies*, 48, 7–19.

Villalonga, B., and R. Amit (2006), 'How Do Family Ownership, Control, and Management Affect Firm Value?', *Journal of Financial Economics*, 80, 385–418.

Yeh, Y., T. Lee and T. Woidtke (2001), 'Family Control and Corporate Governance: Evidence from Taiwan', *International Review of Finance*, 2, 21–48.

Table 1 Definition and summary statistics of variables

Panel A: Definition of variables

Variable	Symbol	Definition
Industry-adjusted firm value	IAV_{it}	Firm value is the market value of equity divided by the replacement value of total assets. The market value of equity is equal to market capitalization (number of recorded shares multiplied by the year-end price) divided by the replacement value of total assets. The replacement value of total assets is obtained as in Pindado et al. (2011). The industry-adjusted firm value is calculated by subtracting the industry median firm value from the firm's value. Industry medians are computed at the most precise SIC level in which there is a minimum of five companies.
Industry-adjusted Tobin's q	IAQ_{it}	Tobin's q is the market value of equity plus market value of debt, all divided by the replacement value of total assets. The industry-adjusted Tobin's q is calculated by subtracting the industry median Tobin's q from the firm's Tobin's q. Industry medians are computed at the most precise SIC level in which there is a minimum of five companies.
Ownership concentration	OC_{it}	Percentage of votes held by the largest shareholder of the company.
Family dummy	FD_{it}	Dummy variable that equals one if the largest shareholder is an individual or a family with at least 10% of the votes (we also use 20% and 25% thresholds as robustness tests). Additionally, when the largest shareholder is an individual, for the company to be considered family controlled, we require that another individual with the same family name either serves on the board of directors or has a stake in the firm. Otherwise, the variable takes the value of zero.
Board family dummy	BFD_{it}	Dummy variable that equals one for family firms in which at least one member of the controlling family serves on the board of directors, and zero otherwise.
Non-board family dummy	$NBFD_{it}$	Dummy variable that equals one for family firms in which no family member serves on the board of directors, and zero otherwise.
First-generation family dummy	$FGFD_{it}$	Dummy variable that equals one for family firms in which the founder effect is still present, and zero otherwise. Based on previous family business literature (Fiss and Zajac 2004), we consider that the founder effect is still present in family firms that are less than 30 years old.
Succeeding-generation family dummy	$SGFD_{it}$	Dummy variable that equals one for family firms in which the founder effect is no longer present (i.e., those that are more than 30 years old), and zero otherwise.
Size	$SIZE_{it}$	Log of replacement value of total assets.
Debt ratio	$DEBT_{it}$	Following Pindado et al. (2011), the debt ratio is the market value of long-term debt divided by the sum of the market value of long-term debt, the book value of short-term debt, and the market value of equity.
Cash flow	CF_{it}	Net profit plus book depreciation, all divided by the replacement value of total assets.
Age	AGE_{it}	Log of the difference between the corresponding period of time minus the date of incorporation of the company.
Stake of the second largest shareholder	SOC_{it}	Percentage of votes held by the second largest shareholder of the firm.
Blockholder effect dummy	BE_{it}	Dummy variable that equals one if there is a shareholder in the firm with at least 10% of the votes (we also use 20% and 25% thresholds as robustness tests), and zero otherwise.

Panel B: Summary statistics

	Mean	Std. Dev.	Min.	Median	Max.
IAV_{it}	0.184	0.819	-0.950	-0.023	11.075
IAQ_{it}	0.177	0.805	-0.966	-0.029	10.947
OC_{it}	0.246	0.189	0.003	0.178	0.980
$SIZE_{it}$	12.811	1.891	9.277	12.575	19.154
$DEBT_{it}$	0.078	0.099	0.000	0.047	0.821
CF_{it}	0.075	0.088	-0.912	0.079	0.781
AGE_{it}	3.402	0.987	0.693	3.434	6.443
SOC_{it}	0.106	0.078	0.000	0.090	0.500

Table 2 Ownership concentration and firm value: Presence of family members on the board of directors

Test	1	2	3	4
Dep. Var.	IAV_{it}	IAV_{it}	IAQ_{it}	IAV_{it}
OC_{it}	0.423***	0.770**	0.496***	0.439***
	(0.111)	(0.358)	(0.113)	(0.132)
BFD_{it} x OC_{it}	1.113***	1.116***	1.364***	1.475***
	(0.267)	(0.264)	(0.267)	(0.276)
$NBFD_{it}$ x OC_{it}	0.243	0.258	0.303**	-0.393
	(0.161)	(0.159)	(0.154)	(0.285)
$SIZE_{it}$	0.002	0.016	0.007	0.046*
	(0.018)	(0.018)	(0.018)	(0.023)
$DEBT_{it}$	-1.388***	-1.552***	-1.317***	-1.851***
	(0.130)	(0.133)	(0.129)	(0.166)
CF_{it}	1.392***	1.226***	1.197***	1.208***
	(0.121)	(0.110)	(0.152)	(0.169)
AGE_{it}	-0.076***	-0.086***	-0.078***	-0.084***
	(0.016)	(0.016)	(0.016)	(0.017)
SOC_{it}	-1.345***	-1.497***	-1.362***	-1.725***
	(0.156)	(0.152)	(0.165)	(0.214)
BE_{it} x OC_{it}		-0.330		
		(0.285)		
Constant	0.439**	0.337	0.390*	0.002
	(0.214)	(0.216)	(0.217)	(0.290)
m_2	-0.30	-0.32	-0.54	-0.56
Hansen	241.33 (200)	260.01 (225)	247.50 (200)	210.81 (197)
N	4,729	4,729	4,729	3,788

Notes: Definitions of variables in Table 1. The models are estimated using the system GMM. Standard errors are in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 3 Ownership concentration and firm value: First vs. succeeding-generation family firms

Test	1	2	3	4
Dep. Var	IAV_{it}	IAV_{it}	IAQ_{it}	IAV_{it}
OC_{it}	0.576***	0.686*	0.636***	0.513***
	(0.124)	(0.380)	(0.107)	(0.136)
$FGFD_{it}$ x OC_{it}	1.757***	1.923***	1.981***	1.947***
	(0.316)	(0.310)	(0.316)	(0.273)
$SGFD_{it}$ x OC_{it}	0.794***	0.882***	0.842***	0.949***
	(0.191)	(0.187)	(0.190)	(0.159)
$SIZE_{it}$	0.029	0.048**	0.033	0.061***
	(0.023)	(0.022)	(0.024)	(0.022)
$DEBT_{it}$	-1.480***	-1.699***	-1.442***	-1.887***
	(0.129)	(0.126)	(0.115)	(0.151)
CF_{it}	1.260***	1.287***	0.848***	1.106***
	(0.138)	(0.115)	(0.162)	(0.147)
AGE_{it}	-0.080***	-0.084***	-0.074***	-0.065***
	(0.016)	(0.016)	(0.016)	(0.017)
SOC_{it}	-1.532***	-1.781***	-1.659***	-2.028***
	(0.173)	(0.194)	(0.167)	(0.182)
BE_{it} x OC_{it}		-0.143		
		(0.301)		
Constant	0.097	-0.052	0.064	-0.247
	(0.282)	(0.273)	(0.298)	(0.285)
m_2	-0.24	-0.25	-0.57	-0.49
Hansen	234.63 (200)	259.26 (225)	235.72 (200)	207.60 (200)
N	4,729	4,729	4,729	3,788

Notes: Definitions of variables in Table 1. The models are estimated using the system GMM. Standard errors are in parentheses. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.