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Earnings Management and Contests for Control: An Analysis of European Family Firms

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Abstract

In this paper, the influence of large shareholders on earnings management in family-owned firms is analyzed using a sample of firms from nine European countries. How contests for control for the largest shareholder and the existence of a controlling coalition in family-owned firms affect earnings management is considered. It was found that increases in the contestability of control by the largest shareholder reduce earnings management in family-owned firms. The results also show that in firms in which the largest shareholder is a family member, a second or third family shareholder increases discretionary accruals.

Keywords: corporate control, discretionary accruals, earnings management, family firms

JEL Classification codes: G32, M41

The discretionary behavior of managers is one area of capital markets that has made the greatest contribution to knowledge in accounting. Managers can improve or impair the quality of financial statements through a number of actions such as voluntary disclosure, choice of accounting methods, and estimation of accruals. Broadly speaking, earnings management can be defined as a strategy used by the management of a company to modify the firm's earnings so that the figures match a predetermined target. The practice is usually carried out for the purposes of income smoothing. Thus, rather than having years of exceptionally good or bad earnings, companies are able to keep the figures relatively stable by adding and removing cash from reserve accounts. Because motives for earnings management may be opportunistic, attempts to smooth over earning can be perceived as detrimental to the interests of some stakeholders (Beaver & Engel, 1996; Dechow & Skinner, 2000). Although the abuse of earnings management can be punished by authorities, proving such abuse is not an easy task. Therefore, accounting research has focused on methods to detect earnings management, which often has been linked to the mechanisms of corporate governance that potentially affect managers' discretionary behavior (Bharath, Sunder, & Sunder, 2008; Doyle, Ge, McVay, 2007; Zhao & Chen, 2008) and the institutional framework (Burgstahler, Hail, & Luez, 2006; Dargenidou, McLeay, & Raonic, 2007; Gabrielsen, Gramlich, & Plenborg, 2002; Leuz, Nanda, & Wysocki, 2003). For instance, in the literature, the following has been studied: effect of the size and composition of the board of directors (Beasley 1996; Peasnell, Pope, & Young, 2005; Xie, Davidson III, & DaDalt, 2003), the audit committee (DeFond & Jiambalvo, 1991; Klein, 2002), managerial ownership (Cheng & Warfield, 2005; Gabrielsen et al., 2002), external auditors (Becker,

DeFond, Jiambalvo, & Subramanyam, 1998; DeFond & Subramanyam, 1998), and institutional investors (Jiambalvo, Rajgopal, & Venkatachalam, 2002). Nonetheless, the effect of ownership on earnings management remains a relatively unexplored topic.

We contribute to this line of research by analyzing how the distribution of power among shareholders is related to earnings management. Because one of the main ways to acquire power in firms is through ownership, the focus is on the ownership structure and the effect of the presence of different, large shareholders on the incentive to manage earnings. In most European firms, the main agency problem is agency problem II, which is the result of conflict between controlling and non-controlling shareholders (Becht & Roell, 1999; Bozec & Laurin, 2008; Johnson, Porta, Lopez-de-Silanes, & Shleifer, 2000). An agency II problem seems to be more prominent in family-owned firms in which control is aligned with ownership, and minority shareholders face the possibility of expropriation by large shareholders who often have family ties with managers (Ali, Chen, & Radhakrishnan, 2007; Villalonga & Amit, 2006). In such situations, the contest for control by the dominant shareholders becomes a key issue (Bennedsen & Wolfenzon, 2000; Lehmann & Weigand, 2000; Maury & Pajuste, 2005; Volpin, 2002).

The analysis for this study is based on the notion of contest, that is, how other large shareholders can challenge the power of the largest shareholder (Laeven & Levine, 2008). Contest, or rivalry, is the motivation among stakeholders to form coalitions to challenge the power of dominant managers, directors, or shareholders. Coalitions shift as individual stakeholders continually seek out the most advantageous relationships to obtain greater power. The model is consistent with the approach of financial agency theory whereby firms are sets of relationships among stakeholders with conflicting interests. In the financial agency framework, large shareholders can play a dual role. Although shareholders have incentives to extract private benefits by expropriating minority shareholders' wealth, their high stake in the ownership of the firm gives them incentives to improve the firm's performance. Thus, the role of large shareholders and the formation of controlling coalitions within a firm are vital and can have an asymmetric influence on a firm's strategic decisions (Bloch & Hege, 2001; Claessens, Djankov, Fan, & Lang, 2002; Gomes & Novaes, 2005).

In this study, how the distribution of ownership and the contest for control of the largest family shareholder impacts the earnings management of family-owned firms is examined. Using a sample of 590 firms from 9 European countries, the results show that the distribution of control among several blockholders reduces earnings management in family firms. Moreover, coalitions among families or individual shareholders reduce the quality of financial statements by triggering earnings management. The results are coherent and extend previous research in a number of ways. First, consistent with Jung and Kwon (2002) and Yeo, Tan, Ho, and Chen (2002), the outstanding role played by large shareholders in overseeing managers' accounting decisions is corroborated. Second, consistent with Ali et al. (2007), Bona, Pérez, and Santana (2007), Siregar and Utama (2008), and Wang (2006), the importance of family ownership in the willingness to declare earnings, or informativeness, was confirmed. Third, the suitability of a balanced ownership structure among several large shareholders was shown, which is consistent with the findings of Maury and Pajuste (2005) and Jara-Bertin, López-Iturriaga, and López-de-Foronda (2008) that a more equal distribution of votes among large blockholders has a positive effect on firms' value.

The contribution of the paper is twofold. First, no study that examines the influence of shared control on earnings management was evident in literature searches; a specific channel through which ownership structure can modify earnings management is demonstrated through this study. In addition, the results of the study may assist in the design of some mechanisms of corporate governance aimed at improving firms' performance and transparency in capital markets. Second, prior literature has focused primarily on data from a single country (mainly the United States but also Korea, Singapore, and Spain); in this study, research into a multinational context is expanded. In so doing, it is shown that the influence of a controlling coalition is not a country-specific issue but rather, is common to a number of Western European firms.

The remainder of the paper is organized as follows. In the next section, the hypotheses concerning the relationship between abnormal accruals and contests for the control of family shareholders are developed. In Section III, the sample and data are described. Section IV contains the research design and empirical results. In Section V, we summarize and conclude.

Theoretical Background

Earnings Management

The use of accruals is permitted by accounting systems, whose function as described by the FASB in Statement of Financial Accounting Concepts No.6 (1985) follows:

> [An] *attempt to record the financial effects on an entity of transactions and other events and circumstances that have cash consequences for the entity in periods in which those transactions, events, and consequences occur rather than only in the period in which cash is received or paid by the entity."* [1] (FASB-SFAC No. 6, 1985, para. 139)

Accrual accounting gives managers a set of possibilities for applying their own criteria to determine the actual earnings throughout the financial reporting process. For instance, managers can alter the timing of recognition of revenues and expenses or delay the recognition of losses (Leuz et al., 2003). This is the basis of so-called earnings management.

As defined by Healy and Wahlen (1998), earnings management arises "when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholder about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers" (p. 6). The accounting literature shows that earnings management can take several forms, from real assets decisions (Bartov, 1993; Black, Sellers, & Sheehy, 1998) or changes in R&D expenditures (Bange & DeBondt, 1998; Bushee, 1998), to pure accounting decisions such as a change in accounting procedures (Watts & Zimmerman, 1986) or the use of accounting accruals (McNichols & Wilson, 1988). By far, abnormal accruals are a core topic in research about earnings management (Dechow 1994; Jones 1991) [2].

Most of the accrual-based models for the detection of earnings management have in common the division of accruals into two different components: the normal or non-discretionary accruals and the abnormal or discretionary ones. While the first include those accruals oriented toward improving the information content of earnings reports, discretionary accruals are accruals related to managers' concerns about their own interests. A number of accrual-based models exist, but most of the literature is based on Jones' (1991) model or some of its developments. The ROA-adjusted extension was used, in which ROA is considered a factor potentially affecting total accruals (Kothari, Leone, & Wasley, 2005). This choice is motivated by the fact that ROA provides better estimations than other measures of operational performance (Barber & Lyon, 1996; Lyon, Barber, & Tsui, 1999; Ikenberry, Lakonishok, & Vermaelen, 1995).

Earnings Management and Family Ownership

There is a vast literature about the relation between ownership structure and firm value (Demsetz & Villalonga, 2001; McConnell & Servaes 1990; McConnell, Servaes, & Lins, 2008). One of the closest papers to this study within the literature is Jara-Bertin et al. (2008). Jara-Bertin et al. analyzed the influence of large shareholders on firms' value using an international sample of European firms. They found that increased contestability for the control of the largest shareholder increased the value of family-owned firms. The results also showed the relevance of the second shareholder's identity for firm value. They claimed better legal protection of minority shareholders would increase the value of family firms.

Nonetheless, the relationship between the ownership structure and firms' accounting choices remains a relatively unexplored topic. Consistent with Jara-Bertin et al. (2008), this study was focused on the notion of *contestability*, but the study goes a step further by exploring the possible influence of the relationship between large, dominant shareholders and minority shareholders on earnings management[3]. Most of the prior literature has focused on the role of managerial ownership and institutional ownership on earnings management or informativeness (Jiambalvo, Rajgopal, & Venkatachalam, 2002; Jung & Kwon, 2002; Siregar & Utama, 2008; Yeo et al., 2002). The problem of earnings, in terms of both management and informativeness, has been addressed in a managers-shareholders' framework by showing that earnings quality is critically linked to the discretionary ability of managers and to the monitoring ability of shareholders. For example, Jung and Kwon (2002) found support for the hypothesis of the active monitoring role of shareholders by showing that informativeness about earnings increased with the holdings of blockholders. In the same line, Yeo et al. (2002) and Bae and Jeong (2007) reported that high external, unrelated blockholding results in fewer opportunities for earnings management, and better monitoring of managers positively affects accounting measures.

Dempsey Hunt, and Schroeder (1993), however, claimed that the dichotomous owner-controlled/manager-controlled classification is insufficient to explain earnings management fully. Reinforcing this assertion is the highly concentrated ownership structure of many Continental European firms, which places the controlling power of a firm in the hands of a shareholder or founding family (Becht & Roell, 1999; La Porta, Lopez-de-Silanes, & Shleifer, 1999). That is, most European firms face agency problem II.

The conflictual relation between controlling and minority shareholders is especially prominent in family firms (Ben-Amar & André, 2006), given the usual family ties between managers and large shareholders, which increases the risk of expropriation of minority shareholders by controlling family shareholders (Claessens et al., 2002; Cronqvist & Nilsson, 2003; Maury & Pajuste, 2005).

High ownership concentration in the hands of a small number of shareholders can result in executive entrenchment. Fan and Wong (2002) discussed two ways through which concentrated ownership reduces earnings informativeness. First, outside investors may perceive the accounting information reported by controlling owners to be self-interested, causing the reported earnings to lose credibility. Second, ownership concentration prevents the leakage of proprietary information about the firms' possible rent-seeking activities. This loss of informativeness about earnings is exacerbated when cash-flow rights are separated from voting rights (Francis, LaFond, Olsson, & Schipper, 2005). Consistent with the theory of entrenchment, Sánchez, and García (2007) and Yeo et al. (2002) showed that the relationships among insider ownership, discretionary accruals, and information about earnings is nonlinear, so insiders' attitudes depend on their ability to control the firm and on the cost of extracting private benefits.

Ownership concentration within family firms can influence corporate disclosure practices in two opposing directions. On the one hand, the lower separation between ownership and control and higher ownership concentration can result in managerial entrenchment. The literature has shown that high managerial stakes can provide managers with strong incentives to engage in earnings management in a nonlinear earnings management (Cheng & Warfield, 2005; Yeo et al., 2002). On the other hand, other studies (Ali et al., 2007; Wang, 2006) show that high ownership concentration within family firms improves the informational content of earnings because highly skilled managers are better able to interpret earnings' components to predict future cash flows and thus manage earnings less. Taken together, the results show a diverse portrait of the impact of family ownership on corporate disclosure. Although less separation between ownership and control leads to less manipulation of earnings for opportunistic reasons (Siregar & Utama 2008), high ownership concentration could result in managerial entrenchment and expropriation from non-family shareholders.

Little is known about how family ownership operates as a mechanism of corporate governance to modify the quality of financial statements (Bona et al., 2007; Siregar & Utama, 2008). Intuition suggests the contest for control of the largest family shareholder is a key factor affecting earnings management. Consistent with the hypothesis of more severe forms of agency problem II found in firms with large controlling shareholders and minority shareholders, family-owned firms face a higher risk of expropriation by family shareholders. In such situations, the contest for control of the largest shareholder becomes a key issue (Bloch & Hege, 2001; Edwards & Weichenrieder, 2004; Maury, 2006; Maury & Pajuste, 2005).

If the largest shareholder faces a greater contest and his or her control is more disputed, he or she must solicit consensus from other shareholders to maintain the control necessary to make the main strategic decisions. Therefore, when the position of the largest shareholder is challenged, he or she may form control coalitions with other reference shareholders to reach the majority of the voting rights. The role of large shareholders and the formation of the controlling coalition within family firms are vital and can have a significant impact on the performance of the firm (Bennedsen & Wolfenzon, 2000; Bloch & Hege, 2001; Claessens et al., 2002; Gomes & Novaes, 2001). While reference shareholders can join with the largest shareholder to help him or her retain control, they also may prevent the largest shareholder from behaving opportunistically and reduce the private benefits he or she might extract. In other words, when other reference shareholders intervene in the preparation of financial information, concealment or manipulation of information by the largest shareholder becomes costly and more difficult.

The contest for the control of the largest shareholder to reduce the discretionary accruals is assessed by investigating whether more contested control reduces discretionary accruals and by comparing the results from family-owned firms with the results from non-family owned firms. The following hypothesis is tested:

> H1: The distribution of ownership among several reference shareholders reduces earnings management more among family-own firms compared to non-family owned firms.

The family nature of the largest shareholder and the degree to which his or her control is contested by other reference shareholders is not the only factor that influences earnings management. The nature of the other shareholders can also be relevant. Maury and Pajuste (2005) and Ball, Robin, and Wu (2003) suggested that family groups have a higher propensity to seek private benefits. Because many of the dynamics that apply to family shareholders also hold for large individual shareholders, family or individual shareholders can more easily achieve consensus to the detriment of the other shareholders. Conversely, in a firm where the largest shareholder is a family but the other reference shareholders are non-family members (i.e., non-financial corporations, institutional investors, banks, etc.), the connivance of interests becomes more difficult as do agreements to extract private benefits.

A coalition formed by families faces lower costs for extracting private benefits than a coalition that includes an institutional investor or a bank that is under stricter supervision by regulatory authorities, which consequently, increases the costs of extracting private benefits. The possibility of agreement among family shareholders is therefore more feasible. In other words, forming coalitions to expropriate minority shareholders among institutional investors is more difficult than among families or private shareholders. As a result, accounting choices among coalitions including an institutional investor or bank have a lower impact because shareholder expropriation is much more difficult, and thus there is a lower occurrence of earnings management.

The second hypothesis is the following:

> H2: A family or individual as a second or third shareholder has a positive influence on earnings management in firms in which the largest shareholder is also a family or and individual.

The transparency of financial statements is often affected by the legal and institutional setting (Haw, Hu, Hwang, & Wu. 2004). Preparers of financial reporting incentives depend on the extent of political influence relative to market influences on their practices (Ball et al., 2000). Investor protection measures also must be taken into account because insiders, in an attempt to protect their private control benefits, may use earnings management to conceal a firm's performance from outsiders when investor protection is weak (Leuz et al. 2003). Likewise, Maury (2006) showed that the influence of family ownership is conditional; it is based on the protection of minority shareholders against family opportunism. Therefore, we also controlled for the legal protection of each country through the classification provided by La Porta, Lopez-de-Silanes, Shleifer, & Vishny (1998, 2000) and La Porta, Lopez-de-Silanes, Shleifer (1999).

Empirical Design

Sample

The sample was obtained from two databases: data from financial statements (i.e., balance sheets and income and expenditures statements) and the market value of firms was obtained from the Compustat database, while information about the ownership structure of the firms came from the Amadeus database. As shown in Table 1, the sample includes 590 firms from 9 European Union countries and contains 2,104 observations between 1996 and 2000.[4] Although not balanced across countries, the sample is relatively balanced in terms of the legal origins of each financial system[5] (La Porta, Lopez-de-Silanes, Shleifer, et al., 1998): 359 firms in common law countries versus 231 firms in civil law countries.

Table 1
Composition of the Sample by Countries

Country	Firms	Observations
Belgium	9	23
Denmark	18	68
Finland	12	39
France	122	348
Germany	45	136
Great Britain	359	1,379
Spain	30	121
Sweden	34	89
The Netherlands	25	97
Total	590	2,104

Variables

The dependent variable, proxy earnings management, is the absolute value of discretionary accruals (ABSDA). A more in-depth description of this variable is presented in the discussion about the empirical method. Total accruals (TA) depend on the growth in total revenues (ΔREV), measured as the change in annual revenues from year t−1 to year t, and the level of depreciable assets, which are defined as the gross level of property, plants, and equipment (GPPE). To avoid heteroskedasticity, the variables are scaled by total assets at book value.

To examine contests of the control, an index to measure how the power of the largest shareholder can be contested (CONTEST) was built, which is defined as the sum of the ownership of the second and the third largest shareholders relative to the ownership of the largest shareholder[6]. In short, the higher the value of CONTEST, the more contested the largest shareholder can be. However, the CONTEST variable not only depends on the difference between the largest and other reference shareholders, but it also can be affected by the number of shares owned by the main shareholder.[7] To reinforce CONTEST and avoid problems created by the size of the largest owner's holdings, a dummy variable, TC, is included, which equals 1 when the cash flow rights of the largest shareholder are in the first tercile (i.e., the third of firms with the highest values for ownership held by the largest shareholder), and zero otherwise. The inclusion of TC allows the specific effect of largest owner share size on his or her ability and incentives to extract private benefits to be tested.

To test the robustness of the results, two alternative measures of contest as variations of the Herfindahl index, HERF1 and HERF2, are defined. Previously used by Maury and Pajuste (2005), HERF1, which is measured by the sum of the squares of the differences between the first and the second largest ownership stakes and the second and third largest ownership stakes,[8] emphasizes the differences in the voting stakes among the three largest shareholders. HERF2, also employed by Maury and Pajuste, is defined as the sum of squares of the three largest ownership stakes.[9] As the value of both Herfindahl indexes increases, the concentration of the largest shareholder's power also increases, and consequently, contests to the manager's power decreases.

The definition of the family nature of a firm is the key to this study. According to Villalonga and Amit (2006), the family nature of a firm depends on three aspects: ownership, control, and management. Because conflict between family and non-family shareholders is likely to be costly in family firms, the focus is on ownership, paying particular attention to the distribution of ownership. Consequently, two dummy variables, DFAM2 and DFAM23, depending on the characteristics of the two largest secondary shareholders were defined: DFAM2 equals 1 is when the second owner is a family and is zero otherwise; and DFAM23 equals 1 when both the second and the third shareholders are members of a family and is zero otherwise. Following Barontini and Caprio (2006), reference shareholders were classified as families, institutional investors, the state, banks, and non-financial firms. The percentage of cash flow rights of the first, second, and third largest shareholders (C1, C2, and C3, respectively) were taken into account.

Finally, as control variables, firm size, defined as the log of total assets (LOGAST); leverage ratio (LEV), measured as the debt-to-equity ratio; and payout ratio (DIV) were included. LEV and DIV act as traditional mechanisms of corporate discipline and have been commonly included in research on earnings management (Dechow & Skinner, 2000; DeFond & Jiambalvo, 1994; Sweeney, 1994), thus making the results of this research comparable to previous research. To address the legal protection of the shareholders other than the largest shareholder, a dummy variable, LEGAL, was used, which equals 1 when the firm belongs to a common law country and zero otherwise.[10] In employing this variable, which links the legal and institutional framework of each country to the legal protection of its shareholders, the assumption is that shareholders' rights are better protected in common law countries (La Porta et al., 1997, La Porta, Lopez-de-Silanes, Shleifer, 1998).

Some potential industry effects were controlled for by defining a set of 10 dummy variables based on the one-digit SIC codes. Likewise, time effects were controlled for with a set of yearly dummy variables. The Appendix provides complete definitions of all variables.

Empirical Method

The methodology is divided into two stages. First, total accruals were estimated to separate the discretionary from the nondiscretionary component. Second, the discretionary or abnormal accruals were regressed against the variables of ownership structure in family firms to test the effects on managers' discretionary accounting decisions.

Total accruals are estimated according to Jones' (1991) model. This widely used model is based on the idea that changes in a firm's economic condition and managers' discretion result in accruals. Although several alternative models identify earnings management (Dechow & Dichev, 2002; Dechow, Richardson, & Tuna, 1995; Kothari et al., 2005), Jones' (1991) model performs better than its time-series counterparts in detecting earnings management (Bartov, Gul, & Tsui., 2000). The performance is improved and estimations that are even more consistent achieved when suitable statistical methodology (i.e., panel data) is implemented.

Total accruals are the difference between results and the cash flow of the firm's ordinary activities. In Jones' (1991) model, nondiscretionary accruals are calculated by regressing total accruals (TA) against the growth in total revenues (ΔREV) and the gross level of property, plants and equipment (GPPE). Nevertheless, the possible mean reversion or momentum in earnings or in turnover necessitates the inclusion of a measure of performance (Kothari et al., 2005; Louis & Robinson, 2005). Therefore, ROA was incorporated as a possible factor affecting total accruals because it provides better estimations than other measures of operational performance or return of stocks (Barber & Lyon, 1996; Ikenberry et al., 1995; Lyon et al., 1999).

Total accruals are dependent on ΔREV, GPPE, and ROA as expressed in Equation 1:

$$TA_{it} = \alpha_0 + \alpha_1 \Delta REV_{it} + \alpha_2 GPPE_{it} + \alpha_3 ROA_{it} + \eta_i + \varepsilon_{it} \quad (1)$$

where the subscripted i identifies the individual and the subscripted t identifies the time period; η_i is the term of fixed effects and can include several effects specific to the firm and is constant through time; and ε_{it} is the random error of each observation, which captures the possible misspecification of measurement in the independent variable as well as any other omitted independent variable.

The estimated values of TA in Equation 1 are considered the normal accruals, given the sales of the firm and depreciation of the assets. Consequently, the errors of the regression are abnormal or discretionary accruals (DA) because that they are not motivated by either sales or depreciation of assets, and they could arise due to the discretionary decisions of managers. Therefore, DA is defined with Equation 2 as follows:

$$ABSDA_{it} = \left|DA_{it}\right| = TA_{it} - (a_0 + a_1 \Delta REV_{it} + a_2 GPPE_{it} + a_3 ROA_{it}) \quad (2)$$

where a_i is the estimated coefficient of α_i.

In the second stage of the study, the effect of the contest to the largest family shareholder on earnings management is examined. Consistent with the literature on earnings management (Dechow, 1994; Dechow & Skinner, 2000), the lagged value of the dependent variable (DA_{it-1}) is introduced as an explanatory variable because earnings management tends to smooth earnings, so it is likely to be conditioned by accounting decisions in previous years. The model, which includes the control variables, is expressed in Equation 3 as follows:

$$ABSDA_{it} = \alpha_1 + \beta_1 \cdot ABSDA_{it-1} + (\beta_2 + \alpha_2 \cdot TC) \cdot CONTEST_{it} +$$

$$(\beta_3 + \alpha_3 \cdot DFAM2) \cdot C2_{it} + (\beta_4 + \alpha_4 \cdot DFAM23) \cdot C3_{it} + \beta_5 \cdot LEGAL_{it} + \beta_6 \cdot LEV_{it} +$$

$$\beta_7 \cdot LOGAST_{it} + \beta_8 \cdot DIV_{it} + \eta_i + \eta_t + \varepsilon_{it} \quad (3)$$

where η_t stands for the time effect and includes macroeconomic effects that affect all the companies in the same period in a cross-sectional manner.

The empirical analysis is based on the econometrics of panel data, which is the most suitable method when data are combined from different firms over several years. Panel data methodology also allows control of the unobservable constant heterogeneity (i.e., fixed effects) and provides more efficient estimators than cross-sectional models (Arellano, 2003; Baltagi, 1995).

Jones' (1991) model, as stated in equation (1), is estimated by the within-groups method because TA is exogenous. Conversely, equation (3) poses a problem of endogeneity due to the introduction of lagged dependent variables among the set of explanatory variables. To address this problem, the model is estimated using Blundell and Bond's (1998) and Bond's (2002) panel data system estimator, which is an improved version (based on the suitability of the instruments) of the generalized method of moments. Given the possibility that weak instruments could induce poor asymptotic precision (Alonso-Borrego & Arellano, 1999), a generalized method of moments system estimator provides the most efficient estimates. In this context, the choice of instruments becomes a key decision, and all the right-hand-side variables up to three years lagged were used.

The consistency of the estimates depends critically on the absence of second-order serial autocorrelation in the residuals and on the validity of the instruments (Arellano & Bond, 1991). Therefore, the Auto(2) test was reported. To test the validity of the instruments, the Hansen test of overidentifying restrictions was used, which allows tests of the absence of a correlation between the instruments and the error term and therefore checks the validity of the selected instruments. Two Wald tests, *z*1 and *z*2, are presented, which report the joint significance of the reported coefficients and the industry dummies, respectively. Three *t*-tests are also reported for linear restrictions for the interacted dummies: *t*2, *t*3, and *t*4, which test for the significance of $\beta_2 + \alpha_2$, $\beta_3 + \alpha_3$, and $\beta_4 + \alpha_4$, respectively.

Results and Discussion

Preliminary analysis: descriptive statistics

Table 2 provides descriptive statistics for the sample. Because the family nature of the firm is a relevant feature, a mean comparison test and the associated *p*-values are provided. As expected, contestability differs significantly across firms, with family firms reporting less contested control; that is, in family firms, CONTEST is significantly lower, and both HERF1 and HERF2 are significantly higher. These differences in contestability may be due to higher ownership concentrations as suggested by C1 and C2. There are no systematic differences in terms of discretionary accruals, and the null hypothesis of equal means across subsamples cannot be rejected for either DA or ABSDA. The findings are consistent with the theoretical framework that the impact of family ownership on earnings management is uncertain.

Table 2
Main Descriptive Statistics of the Sample

	Mean							
	Total	Family firms	Nonfamily firms	*p*-value	Std. dev.	Median	Min.	Max.
C1	0.254	0.260	0.200	0.002	0.148	0.235	0.018	0.510
C2	0.131	0.133	0.112	0.099	0.093	0.100	0.010	0.500
C3	0.075	0.074	0.074	0.987	0.055	0.062	0.000	0.330
CONTEST	0.984	0.965	1.139	0.010	0.505	0.947	0.086	2.000
HERF1	0.041	0.042	0.023	0.010	0.055	0.014	0.000	0.250
HERF2	0.121	0.124	0.083	0.006	0.112	0.080	0.001	0.500
LOGAST	5.351	5.322	5.602	0.302	2.022	4.839	0.161	11.288
LEV	0.312	0.317	0.310	0.823	0.215	0.319	0.000	0.909
DIV	0.056	0.055	0.058	0.804	0.102	0.040	0.000	1.386
TA	0.043	0.043	0.037	0.675	0.113	0.059	–0.552	0.518
GPPE	0.642	0.645	0.613	0.547	0.396	0.601	0.000	2.366
ΔREV	0.219	0.136	0.251	0.357	0.333	0.102	–3.412	1.770
ROA	0.074	0.067	0.073	0.033	0.049	0.060	0.000	0.557
DA	–0.033	–0.031	–0.045	0.509	0.151	–0.026	–0.682	1.598
ABSDA	0.113	0.091	0.102	0.527	0.317	0.000	0.000	1.000

Note: This table provides the mean, median, standard deviation, and minimum and maximum values of the main variables. C1, C2, and C3 are the ownership held by the first, second, and third largest shareholders, respectively; CONTEST is a measure of contestability; HERF1 and HERF2 are measures of lack of contestability; LEV is the ratio between debt and equity; LOGAST is the log of total assets; DIV is the ratio between dividend payments and equity; TA is total accruals; GPPE is gross plant, property, and equipment; ΔREV is the relative change in total revenues; DA is discretionary accruals; and ABSDA is the absolute value of discretionary accruals. The p-value is the highest level of significance to reject the null hypothesis of equal means between both sub samples.

Table 3 presents the Pearson correlation matrix among the variables. As expected, CONTEST is correlated significantly and negatively with HERF1 and HERF2 because they are opposite measures of control concentration. The close correlation between ABSDA and the contestability variables is emphasized. The variance inflation factor (VIF) is provided to test for multicollinearity. The VIF scores are below 2, and thus, that collinearity does not skew the results is confirmed (Belsley, Kuh, & Roy, 2004; Kutner, Neter, Nachtsheim, & Li, 2005).

To test the first hypothesis with respect to the impact of ownership distribution among reference shareholders on earnings management, the differences in discretionary accruals depending on the degree of contestability are examined. The sample is split according to the mean value of the three measures of contestability (CONTEST, HERF1, and HERF2), and the mean values of ABSDA are reported in Table 4. That higher contestability is negatively related to ABSDA is found; moreover, the relationship is consistent for family firms regardless of the criteria used to divide the sample.

Table 3
Pearson Correlation Matrix and Variance Inflation Factors

	ABSDA	CONTEST	HERF1	HERF2	C2	C3	LOGAST	LEV
CONTEST	0.0951							
	(0.0003)							
HERF1	–0.1360	–0.6310						
	(0.0000)	(0.0000)						
HERF2	–0.2053	–0.3976	0.7818					
	(0.0000)	(0.0000)	(0.0000)					
C2	–0.1980	0.0282	0.3384	0.7901				
	(0.0000)	(0.2866)	(0.0000)	(0.0000)				
C3	–0.0751	0.3153	–0.1158	0.3778	0.5154			
	(0.0046)	(0.0000)	(0.0000)	(0.0000)	(0.0000)			
LOGAST	–0.1369	–0.1003	0.0324	0.0352	–0.0061	–0.1223		
	(0.0000)	(0.0001)	(0.2222)	(0.1846)	(0.8175)	(0.0000)		
LEV	–0.0126	0.0270	–0.0234	–0.0308	–0.0411	–0.0445	0.2559	
	(0.5639)	(0.3086)	(0.3769)	(0.2453)	(0.1213)	(0.0930)	(0.0000)	
DIVE	–0.0158	0.0312	–0.1062	–0.1512	–0.1439	–0.1049	0.0432	–0.0086
	(0.4698)	(0.2397)	(0.0001)	(0.0000)	(0.0000)	(0.0001)	(0.0481)	(0.6935)
VIF		0.422	0.090	0.036	0.123	0.308	0.871	0.905

Note: This table provides the coefficients of correlation (p-value) among variables and variance inflation factor to test the absence of multicollinearity. ABSDA is the absolute value of discretionary accruals; CONTEST is a measure of contestability; HERF1 and HERF2 are measures of lack of contestability; C2 and C3 are the ownership held by the second and third largest shareholders, respectively; LOGAST is the log of total assets; and LEV is the ratio between debt and equity. The *p*-value is the highest level of significance to reject the null hypothesis of correlation among variables.

Table 4
Discretionary Accruals According to Firm Ownership and Level of Contestability

	CONTEST			HERF1			HERF2		
	High ABSDA	Low ABSDA	*p*-value	High ABSDA	Low ABSDA	*p*-value	High ABSDA	Low ABSDA	*p*-value
Family firms	0.083	0.102	0.072	0.099	0.140	0.023	0.096	0.143	0.008
Non-family firms	0.094	0.110	0.510	0.073	0.113	0.000	0.102	0.062	0.000

Note: This table provides the absolute value of discretionary component of total accruals (ABSDA) according to the degree of contestability to the first shareholder (high vs. low contestability). The degree of contestability is segmented according to the mean value of CONTEST, HERF1, and HERF2. The *p*-value is the highest level of significance to reject the null hypothesis of equal means between high and low contestability.

Discretionary Accruals Estimation

Given the key role of the measure of earnings management, ABSDA is calculated using three different models: the Jones (1991) cross-sectional model, the cross-sectional Jones modified model (Dechow et al., 1995), and the cross-sectional ROA-adjusted Jones model (Kothari et al., 2005). The results of the estimations of the three models are shown in Table 5. Because they all provide analogous results, the estimates of equation (3) are only reported for the ROA-adjusted model.[11]

Table 5 reports the results of the estimation of the earnings management models. For each model, 1,033 industry-year–country regressions were estimated.[12] The mean; standard deviation; and minimum, maximum,

and median coefficients are reported. For the Jones (1991) model, shown in Panel A, the coefficient ΔREV is generally negative, with a mean (median) of –0.02 (0.00) and a mean (median) *t*-test of –0.09 (0.04). The results are statistically significant in 286 of 1,033 regressions. As expected, the coefficient of GPPE is usually negative, with a mean (median) of –0.46 (–0.42) and mean (median) *t*-test of –1.10 (–0.46). The coefficient is statistically significant in 261 of 1,033 regressions. The significance of both coefficients is analogous to similar research. The mean (median) of the adjusted-R^2 coefficient is 0.46 (0.42), suggesting that the model has substantial explanatory power.

Table 5
Estimation of Total Accruals

Panel A: Jones (1991) cross-sectional model										
		Intercept		ΔREV		GPPE		ROA		
	No. obs.	Coeff.	*t*-stat	Coeff.	*t*-stat	Coeff.	*t*-stat	Coeff.	*t*-stat	Adj. R^2
Mean	11.37	0.00	0.39	–0.02	–0.09	–0.46	–1.10	—	—	0.46
Std. dev.	15.71	0.30	6.54	8.22	4.69	0.32	7.91	—	—	0.32
Mín.	7	–3.93	–16.46	–93.64	–93.58	0.0004	–57.03	—	—	0.0004
Max.	156	2.07	42.60	87.05	26.13	1.00	21.80	—	—	1.00
Median	11	0.00	0.02	0.00	0.04	–0.42	–0.46	—	—	0.42
Panel B: Jones modified cross-sectional model (Dechow et al., 1995)										
		Intercept		ΔREV – ΔREC		GPPE		ROA		
	No. obs.	Coeff.	*t*-stat	Coeff.	*t*-stat	Coeff.	*t*-stat	Coeff.	*t*-stat	Adj. R^2
Mean	11.37	0.01	1.24	0.003	0.43	–0.05	–1.85	—	—	0.46
Std. dev.	15.71	0.33	22.41	0.63	11.06	0.48	19.74	—	—	0.32
Mín.	7	–2.97	–16.88	–9.80	–96.68	–8.87	–66.62	—	—	0.0001
Max.	156	6.91	57.46	9.00	68.40	5.04	22.80	—	—	1.00
Median	11	0.00	0.02	0.00	0.10	–0.01	–0.45	—	—	0.42
Panel C: ROA-Adjusted Jones model (Kothari et al., 2005)										
		Intercept		ΔREV		GPPE		ROA		
	No. obs.	Coeff.	*t*-stat	Coeff.	*t*-stat	Coeff.	*t*-stat	Coeff.	*t*-stat	Adj. R^2
Mean	11.37	–0.02	–0.29	0.24	0.10	–0.09	–0.78	–0.19	–1.09	0.71
Std. dev.	15.71	0.92	7.22	5.96	22.93	1.01	4.79	5.99	18.17	0.30
Mín.	7	–26.34	–89.80	–13.50	–86.43	–15.25	–70.73	–41.05	–39.31	0.01
Max.	156	4.34	76.44	80.09	79.06	13.87	61.74	31.06	22.92	1.00
Median	11	0.00	–0.09	0.00	0.06	–0.01	–0.54	0.00	–0.14	0.82

Note: This table shows the mean, standard deviation, minimum, maximum and median coefficient, *t*-statistics, and adjusted-R^2 coefficient of the cross-sectional regressions of Jones model (Panel A), cross-sectional Jones modified model (Panel B), and cross-sectional return on assets (ROA)-adjusted Jones model (Panel C). The dependent variable is total accruals scaled by total assets (TA), and the explanatory variables are the relative change in total revenues (ΔREV), the relative change in receivables (ΔREC), ROA, and the proportion of gross property, and plant and equipment over total assets (GPPE).

Panel B of Table 5 shows that the difference between the growth of turnover and the increase in receivables (ΔREV–ΔREC) in the Jones modified model (Dechow et al., 1995) has a positive coefficient, with a mean (median) of 0.003 (0.00) and a mean (median) *t*-test of 0.43 (0.10). The coefficient is positive in 290 of 1,033 regressions. The coefficient of GPPE is generally negative with a mean (median) of –0.05 (–0.01) and a mean (median) *t*-test of –1.85 (–0.45). The coefficient is statistically significant in 269 of 1,033 regressions. The model also explains a significant part of the variation in total accruals as the mean (median) of the adjusted-R^2 coefficient is once again 0.46 (0.42).

Panel C of Table 5 shows that the coefficient of ΔREV in the ROA-adjusted Jones model (Kothari et al., 2005) is positive with a mean (median) of 0.24 (0.00) and a mean (median) *t*-test of 0.10 (0.06). The coefficient is significant in 232 of 1,033 industry–year–country regressions. The coefficient of GPPE is usually negative with a mean (median) of –0.09 (–0.01) and a mean (median) *t*-test of –0.78 (–0.54). The coefficient is significant in 217 of 1,033 regressions. The ROA coefficient has a mean (median) of –0.19 (–0.00) and a mean (median) *t*-test of –1.09 (-0.14). This ROA-adjusted model has more explanatory power than its counterparts do, as indicated by the mean (median) of the adjusted-R^2 coefficient of 0.71 (0.82).

From these results, the discretionary component of total accruals (DA) as shown in equation (2) is computed. The absolute value (ABSDA) as a proxy of earnings management and run differentiated regressions for family versus non-family firms as reported in Tables 6 and 7 is used.

Family ownership and earnings management: explanatory analysis

The results, as shown in columns 1 through 3 in Table 6, support Hypothesis 1, which states that the distribution of ownership among several reference shareholders reduces earnings management among family-owned compared with non-family-owned firms due to the higher incentives for opportunistic behavior. That more contested corporate control (CONTEST) significantly reduces abnormal accruals in family firms is found, whereas it has the opposite effect in the firms whose largest shareholder is not a family member (column 1). The result is robust to alternative specifications of contestability as shown in columns 2 and 3. If HERF1 and HERF2 are used, which account for the concentration of control, a positive influence on earnings management in family firms and a negative impact in non-family firms are found.

The inference is corroborated by the effect of the stake owned by the second and third largest shareholders (C2 and C3). Both variables are related negatively and significantly to ABSDA (columns 1–3). Thus, greater involvement of the shareholders reduces the control of the largest shareholder and limits his or her ability to make discretionary accounting decisions.

The second hypothesis addresses the effect of the possible agreements among reference shareholders when the second and third largest shareholders are families. The results in Table 6 show that although C2 and C3 negatively affect earnings management, the effect turns positive when these shareholders are families. Specifically, the interacted variables C2·DFAM2 and C3·DFAM23 have a significant positive effect on ABSDA, which means that in firms in which the largest shareholder is a family, higher ownership in the hands of a second family shareholder (C2·DFAM2) or both a second and a third family shareholder (C3·DFAM23) provides higher incentives to manage earnings.

To perform a test of the joint effect of C2 and C2·DFAM2, the linear constraints tests, *t3*(*t4*) is reported relative to the joint significance of $\beta_3 + \alpha_3$ ($\beta_4 + \alpha_4$) coefficients, namely, the ownership of the second (third) largest shareholder and the interaction with his or her family nature. Both test results are significant.

Table 6
Results of the Generalized Method of Moments Estimations

	(1)		(2)		(3)	
	Family firms	Non-family firms	Family firms	Non-family firms	Family firms	Non-family firms
$ABSDA_{t-1}$	0.571***	0.140***	0.544***	0.072***	0.562***	0.074***
	(7.97)	(5.03)	(7.57)	(3.47)	(7.96)	(3.64)
CONTEST	–0.045*	0.055***				
	(–1.84)	(2.82)				
HERF1			0.725**	–0.617**		
			(2.51)	(–2.27)		
HERF2					0.381*	–0.422***
					(1.84)	(–2.67)
C2	–0.799***	0.506	–0.818***	0.376	–1.091***	0.654**
	(–2.77)	(1.40)	(–3.23)	(1.52)	(–2.75)	(2.53)
C2·DFAM2	0.394*	–0.656*	0.157**	0.492*	0.272*	0.449*
	(1.61)	(–1.90)	(2.46)	(1.81)	(1.78)	(1.55)
C3	–0.525*	0.393	–0.713**	0.209	–0.389*	0.307
	(–1.67)	(0.81)	(2.01)	(0.43)	(–1.83)	(0.63)
C3·DFAM23	0.590*	0.677	0.142**	0.455	0.304*	0.563
	(1.85)	(0.47)	(2.22)	(0.37)	(1.71)	(0.45)
LOGAST	–0.008	0.000	0.001	0.002	–0.002	0.003
	(–0.66)	(–0.01)	(0.09)	(0.54)	(–0.21)	(1.32)
LEV	–0.062	–0.071	–0.022***	0.053	–0.050***	0.041
	(–1.14)	(–1.45)	(–0.34)	(1.12)	(–0.84)	(0.89)
DIV	0.231*	0.060	0.309**	0.154	0.259**	0.081
	(1.80)	(0.41)	(2.38)	(0.98)	(2.04)	(0.53)
Institutional effect	Yes	Yes	Yes	Yes	Yes	Yes
Time effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	581	1,098	581	1,098	581	1,098
Auto(2)	–1.22	–0.56	–1.19	–0.86	–1.21	–0.95
t2	–1.93*	–0.31	–1.74*	2.29**	–2.57**	2.92
t3	1.77*	0.64	–2.92***	0.53	1.86*	0.62
t4	9.69(13)***	10.58(13)***	9.84(13)***	10.67(13)***	10.54(13)***	19.2(13)***
z1	4.68(2)***	2.4(2)*	2.53(2)**	2.45(2)*	2.85(2)*	2.97(2)*
z2	22.49 (24)	23.75(30)	20.98(24)	25.79(30)	21.62(24)	25.89(30)
Hansen test	22.49 (24)	23.75(30)	20.98(24)	25.79(30)	21.62(24)	25.89(30)

Note: This table provides the estimated coefficients (*t*-statistic) from the system estimator of the generalized method of moments estimation. The dependent variable is the absolute value of discretionary accruals (ABSDA). The dependent variables are defined in the Appendix. We control for time and institutional effects. Auto(2) is a test of second order serial autocorrelation of the residuals under the null hypothesis of no serial correlation. *t*2, *t*3, and *t*4 are tests for linear restrictions under the null hypothesis of no significance. *z*1 and *z*2 are Wald tests of the joint significance of the reported coefficients and time dummy variables, respectively, asymptotically distributed as χ^2 under the null hypothesis of no significance (degrees of freedom). The Hansen test is a test of overidentifying restrictions, asymptotically distributed as χ^2 under the null hypothesis of no correlation between the instruments and the error term (degrees of freedom). *** denotes 99% confidence level. ** denotes 95% confidence level. * denotes 90% confidence level.

Regarding the control variables, as expected, the legal and institutional framework has a negative effect on earnings management, but this effect applies only to non-family firms. An unexpected result is that financial leverage is related negatively to discretionary accruals. This result deviates from previous research (Watts & Zimmermann, 1986) but could be due to systematic differences in leverage ratio between common and civil law countries so that its impact is subsumed in the institutional effect. Another explanation could be based on a possible complementary use of dividends and leverage as mechanisms of control, so dividends partially reflect the influence of leverage.

Family ownership and earnings management: robustness analysis

To check robustness and to test further the impact of control concentration in family firms, new regressions were run focused on family-owned firms as reported in Table 7. The most important feature of the new analyses is the introduction of TC, a dummy variable, which equals 1 when the cash flow rights of the largest shareholder are in the first tercile and zero otherwise. By interacting TC with CONTEST, the specific effect of contestability in the firms with the most concentrated ownership structure can be examined.

The simplest version of the analysis is reported in the first column of Table 7. Results corroborate the negative influence of the contest for the control on earnings management even when CONTEST is isolated from the influence of C2 and C3. In column 2, the interacted variable CONTEST·TC is introduced. Its negative and significant coefficient emphasizes how the contest for control plays a significant role in family firms with the most concentrated ownership structure. That is, ownership in family firms that are more concentrated give managers additional incentives to entrench themselves and additional means to extract private benefits through earnings management.

The results reported in columns 3 through 5 of Table 7 concern the influence of the second and third largest shareholders in family firms along with the specific effect of contestability in family firms with the most concentrated ownership structures. Column 3 (column 4) shows the results of the tests of the effect of the second (third) reference shareholder; in column 5, the combined effect of the second and third shareholder is introduced.

Consistent with previous results, the findings show that as the stakes of the second and third largest shareholder (i.e., C2 and C3) increase, the control of the largest shareholder increases and earnings management decreases. Conversely, the interacted variables (i.e., the specific effects of ownership when the reference shareholders are also family members) point at a possible entente among family shareholders to expropriate non-family shareholders. Furthermore, the absolute value of the coefficients of C2·DFAM2 and C3·DFAM23, respectively, exceed the absolute values of the coefficients of C2 and C3. In turn, a net amplifying effect is found. This inference is supported by the tests of linear constraints *t3* and *t4*, given that they show that the coefficients $\beta_3 + \alpha_3$ and $\beta_4 + \alpha_4$ are both significant. Consequently, families as second or third largest shareholders in family firms offset the positive effects of higher ownership stakes for other reference shareholders in terms of the quality of the financial statements.

We provide the Hansen test of overidentifying restrictions in Tables 6 and 7. The Hansen test allows the null hypothesis of the validity of the instruments to be accepted. In addition, the Auto(2) test suggests the lack of second-order serial correlation. In all the estimates, time effects are controlled with dummy variables.

Several additional models were applied. First, alternative measures of firm size and of financial leverage were considered. Second, industry dummy variables based on two-digits SIC codes were introduced. These estimates (not reported) corroborate the previously reported results and are available from the authors on request.

Table 7
Results of the Generalized Method of Moments Estimations (Sensitivity Analysis)

	(1)	(2)	(3)	(4)	(5)
$ABSDA_{t-1}$	0.788***	0.515***	0.582***	0.533***	0.569***
	(16.37)	(10.88)	(11.86)	(10.18)	(11.10)
CONTEST	–0.051***	–0.033*	–0.055***	–0.044**	–0.043**
	(–2.69)	(–1.81)	(–3.05)	(–2.43)	(–2.30)
CONTEST·TC		–0.060***	–0.080**	–0.135***	–0.110***
		(–2.62)	(–1.99)	(–5.48)	(–3.10)
C2			–0.151**		–0.016*
			(–2.23)		(–1.71)
C2·DFAM2			0.393**		0.136**
			(2.15)		(1.98)
C3				–0.716***	–0.700**
				(–3.50)	(–2.47)
C3·DFAM23				0.832***	0.987*
				(3.26)	(1.80)
LOGAST	–0.008	–0.005	0.006	0.019**	0.021**
	(–1.21)	(–0.80)	(0.79)	(2.50)	(2.55)
LEV	–0.068	–0.035	–0.058*	–0.090***	–0.122***
	(–1.1)	(–0.63)	(–1.62)	(–2.38)	(–3.11)
DIV	0.048	0.176	0.357**	0.419***	0.329*
	(0.31)	(1.37)	(1.98)	(2.83)	(1.89)
Institutional effect	Yes	Yes	Yes	Yes	Yes
Time effect	Yes	Yes	Yes	Yes	Yes
Observations	581	581	581	581	581
Auto(2)	–1.21	–1.23	–1.21	–1.14	–1.13
t2		–2.81***	–3.32***	–4.66***	–3.32***
t3			1.82*		2.07**
t4				3.74***	3.65***
z1	59.15(8)***	41.3(9)***	33.99(12)***	35.94(12)***	34.17(14)***
z2	2.78(2)**	2.83(2)**	4.25(2)*	2.81(2)*	2.37(2)*
Hansen test	15.00(18)	24.03(23)	19.04(24)	24.24(30)	25.21(28)

Note: This table provides the estimated coefficients (*t*-statistic) from the system estimator of the generalized method of moments estimation. The dependent variable is the absolute value of discretionary accruals (ABSDA). The explanatory variables are defined in the Appendix. Time and institutional effects are controlled. Auto(2) is a test of second order serial autocorrelation of the residuals under the null hypothesis of no serial correlation. *t2*, *t*3 and *t*4 are tests for linear restrictions under the null hypothesis of no significance. *z*1 and *z*2 are Wald tests of the joint significance of the reported coefficients and time dummy variables, respectively, asymptotically distributed as χ^2 under the null hypothesis of no significance (degrees of freedom). The Hansen test is a test of overidentifying restrictions, asymptotically distributed as χ^2 under the null hypothesis of no correlation between the instruments and the error term (degrees of freedom). *** denotes 99% confidence level. ** denotes 95% confidence level. * denotes 90% confidence level.

Conclusions and Direction for Future Research

In recent years, the emphasis in a number of studies has been on agency problem arising between large, controlling shareholders and minority shareholders (Becht & Roell, 1999; Bozec & Laurin, 2008; Johnson, Porta, Lopez-de-Silanes, & Shleifer, 2000). In firms with a concentrated ownership structure, controlling shareholders may have incentives to expropriate the small—albeit larger in number—minority shareholders. The problem, which is widely spread among European firms, is exacerbated by family ownership because family members have more incentives than other types of investors to form coalitions to extract private benefits.

Research with respect to the influence of family ownership on earnings management is not conclusive. This paper takes a step forward by focusing on the influence of contests for the control of the largest shareholder on earnings management in family firms. Consistent with analogous research about the relevance of the contestability of the largest shareholder on the firm's value, it was found that contests for control play a critical role in improving the transparency of financial statements. More specifically, the results show that, in family-owned firms, the absence of contestability of control is positively related to earnings management, whereas the finding does not hold for non-family owned firms. Moreover, the presence of another individual or family as the second or third largest reference shareholder has an amplifying effect on earnings management in the firms in which the largest shareholder is a family.

The results point to shared control among several reference shareholders as a balanced solution between two extremes: the lack of control often found in widely dispersed ownership structures and the discretionary behavior typical of firms with only one controlling shareholder. Especially in family firms, the need for consensus among family members with other reference shareholders may reduce the use of private information and improve the quality of the accounting information.

The findings suggest several directions for future research. A more complete description of the controlling coalition would be of interest. We base our work solely on the ownership of the reference shareholders, but the analysis could be broadened to include the involvement of the family members in firm management. Another direction for further study would be an analysis of how the composition of the controlling coalition interacts with other governance mechanisms such as the board of directors. Finally, some particular characteristics of the legal regime could be analyzed in more depth to identify the issues of the institutional setting potentially affecting the quality of the financial statement.

References

Ali, A., Chen, T. Y., & Radhakrishnan, S. (2007). Corporate disclosures by family firms. *Journal of Accounting and Economics, 44*, 238-286.

Alonso-Borrego, C., & Arellano, M. (1999). Symmetrically normalized instrumental—Variable estimation using panel data. *Journal of Business & Economic Statistics, 17*(1), 36-49.

Arellano, M. (2003). *Panel data econometrics*. Oxford, United Kingdom: Oxford University Press.

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies, 58*(2), 277-297.

Bae, K. H., & Jeong, S. W. (2007). The value-relevance of earnings and book value, ownership structure, and business group affiliation: Evidence from Korean business groups. *Journal of Business Finance & Accounting, 34*, 740-766.

Ball, R., Robin, A., & Wu, J. S. (2003). Incentives versus standards: Properties of accounting income in four East Asian countries. *Journal of Accounting and Economics, 36*(1-3), 235-270.

Baltagi, B. (1995). *Econometric analysis of panel data*. New York, NY: John Wiley and Sons.

Bange, M. M., & DeBondt. (1998). R&D budgets and corporate earnings targets. *Journal of Corporate Finance, 4*, 153-184.

Barber, B., & Lyon, J. (1996). Detecting abnormal operating performance: The empirical power and specification of test statistics. *Journal of Financial Economics, 41*, 359-399.

Barontini, R., & Caprio, L. (2006). The effect of family control on firm value and performance. Evidence from Continental Europe. *European Financial Management, 12*, 689-723.

Bartov, E. (1993). The timing of asset sales and earnings manipulation. *The Accounting Review, 68*, 840-855.

Bartov, E., Gul F. A., & Tsui, J. S. L. (2000). Discretionary-accruals models and audit qualifications. *Journal of Accounting and Economics, 30*(3), 421-452.

Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *The Accounting Review, 71*(4), 443-465.

Beaver, W. H., & Engel, E. (1996). Discretionary behaviour with respect to allowances for loan losses and the behaviour of security prices. *Journal of Accounting and Economics, 22*, 177-206.

Becht, M., & Roell, A. (1999). Blockholdings in Europe: An international comparison. *European Economic Review, 43*(4-6), 1049-1056.

Becker, C., DeFond, M. L., Jiambalvo, J., & Subramanyam, K. R. (1998). The effects of audit quality on earnings management. *Auditing: A Journal of Practice and Theory, 15*, 1-24.

Belsley, D. A., Kuh, E., & Roy, E. (2004). Regression diagnostics. Identifying influential data and sources of collinearity. New York, NY: Wiley.

Ben-Amar, W., & André, P. (2006). Separation of ownership from control and acquiring firm performance: The case of family ownership in Canada. *Journal of Business Finance & Accounting, 33*, 517-543.

Bennedsen, M., & Wolfenzon, D. (2000). The balance of power in closely held corporations. *Journal of Financial Economics, 58*, 113-139.

Bharath, S. T., Sunder, J., & Sunder, S. V. (2008). Accounting quality and debt contracting. *The Accounting Review, 83*(1), 1-28.

Black, E. L., Sellers, K. F., & Sheehy, T. (1998). Earnings manipulation using asset sales: An international study of countries allowing noncurrent asset revaluation. *Journal of Business, Finance and Accounting, 25*, 1089-1118.

Bloch, F., & Hege, U. (2001). Multiple shareholders and control contest. In *Document de Travail, n. 01*: Groupement de Recherche en Economie Quantitative d'Aix-Marseille.

Blundell, R., & Bond, S. (2000). GMM estimation with persistent panel data: An application to production functions. *Econometric Reviews, 19*(3), 321-340.

Bona, C., Pérez, J., & Santana, D. (2007). Family control and earnings quality. *Spanish Accounting Review, 10*(1), 11-34.

Bond, S. (2002). Dynamic panel data models: A guide to micro data methods and practice. *Working Paper 09/02*. London, UK: Institute for Fiscal Studies.

Bozec, Y., & Laurin, C. (2008). Large shareholder entrenchment and performance: Empirical evidence from Canada. *Journal of Business Finance & Accounting, 35*, 25-49.

Burgstahler, D., & Dichev, I. (1997). Earnings management to avoid earnings decreases and losses. *Journal of Accounting and Economics 24*, 99-126.

Burgstahler, D. C., Hail, L., & Leuz, C. (2006). The importance of reporting incentives: Earnings management in European private and public firms. *The Accounting Review, 81*(5), 983-1016.

Bushee, B. J. (1998). The influence of institutional investors on myopic R&D investment behaviour. *The Accounting Review, 73*, 305-333.

Cheng, Q., & Warfield, T. (2005). Equity incentives and earnings management. *The Accounting Review, 80*(2), 441-476.

Claessens, S., Djankov, S., Fan, J. P. H., & Lang, L. H. P. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *Journal of Finance, 57*(6), 2741-2771.

Cronqvist, H., & Nilsson, M. (2003). Agency costs of controlling minority shareholders. *Journal of Financial and Quantitative Analysis, 38*(4), 695-719.

Dargenidou, C., McLeay, S., & Raonic, I. (2007). Ownership, investor protection and earnings expectations. *Journal of Business Finance & Accounting, 34*, 247-268.

DeAngelo, H. (1986). Accounting numbers as market valuation substitutes: A study of management of public stockholders. *The Accounting Review, 61*, 400-420.

Dechow, P. M. (1994). Accounting earnings and cash flows as measures of firm performance: the role of accounting accruals. *Journal of Accounting and Economics, 18*, 3-42.

Dechow, P. M., & Dichev, I. D. (2002). The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review, 77*, 35-59.

Dechow, P. M., Richardson, S., & Tuna, I. (2003). Why are earnings kinky? An examination of the earnings management explanation. *Review of Accounting Studies, 8*, 355-384.

Dechow, P. M., & Skinner, D. J. (2000). Earnings management: Reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons, 14*(2), 235-250.

Dechow, P. M., Sloan, R. G., & Sweeney, A. (1995). Detecting earnings management. *The Accounting Review, 70*(2), 193-225.

DeFond, M. L., & Jiambalvo, J. (1994). Debt covenant violation and manipulation of accruals: Accounting choice in troubled companies. *Journal of Accounting and Economics, 18*, 145-176.

DeFond, M. L., & Subramanyam, K. R. (1998). Auditor changes and discretionary accruals. *Journal of Accounting and Economics, 25*, 35-68.

Dempsey, S. J., Hunt, H. G. I., & Schroeder, N. W. (1993). Earnings management and corporate ownership structure: An examination of extraordinary reporting. *Journal of Business Finance & Accounting, 20*, 479-500.

Demsetz, H., & Villalonga, B. (2001). Ownership structure and corporate performance. *Journal of Corporate Finance, 7*(3), 209-233.

Doyle, J. T., Ge, W., & McVay, S. (2007). Accruals quality and internal control over financial reporting. *The Accounting Review, 82*(5), 1141-1170.

Edwards, J., & Weichenrieder, A. (2004). Ownership concentration and share valuation: Evidence from Germany. *German Economic Review, 5*, 143-171.

Fan, J. P., & Wong, T. J. (2002). Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of Accounting and Economics,* 33**,** 401-425.

Financial Accounting Standards Board (1985). *Statement of financial accounting concepts no. 6 : elements of financial statements : a replacement of FASB Concepts statement no. 3 (incorporating an amendment of FASB Concepts Statement no. 2)*. Stamford, Conn.: Financial Accounting Standards Board of the Financial Accounting Foundation.

Francis, J., LaFond, R., Olsson, P., & Schipper, K. (2005). The market pricing of accruals quality. *Journal of Accounting and Economics, 39*, 295-327.

Gabrielsen, G., Gramlich, J. D., & Plenborg, T. (2002). Managerial ownership, information content of earnings, and discretionary accruals in a non-US setting. *Journal of Business Finance & Accounting, 29*, 967.

Gomes, A., & Novaes, W. (2001). Sharing of control as a corporate governance mechanism. *Working Paper 01-029*. Pennsylvania, USA: Penn Economics Department (University of Pennsylvania).

Haw, I., Hu, B., Hwang, L., & Wu, W. (2004). Ultimate ownership, income management, and legal and extra-legal institutions. *Journal of Accounting Research, 42*, 423-462.

Healy, P. (1985). The effect of bonus schemes on accounting decisions. *Journal of Accounting and Economics, 7*, 85-107.

Healy, P., & Wahlen, J. M. (1999). A review of the earnings management literature and its implication for standard setting. *Accounting Horizons, 13*, 365-383.

Ikenberry, D., Lakonishok, J., & Vermaelen, T. (1995). Market underreaction to open market share repurchases. *Journal of Financial Economics, 39*, 181-208.

Jara-Bertin, M., López-Iturriaga, F. J. & López-de-Foronda, O. (2008). The contest to the control in European family firms: How other shareholders affect firm value. *Corporate Governance: An International Review, 16*(3), 146-159.

Jiambalvo, J., Rajgopal, S., & Venkatachalam, M. (2002). Institutional ownership and the extent to which stock prices reflect future earnings. *Contemporary Accounting Research, 19*(1), 117-145.

Johnson, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2000). Tunneling. *American Economic Review, 90*(2), 22-27.

Jones, J. J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research, 29*(2), 193-128.

Jung, K. & Kwon, S. Y. (2002). Ownership structure and earnings informativeness. Evidence from Korea. *The International Journal of Accounting, 37*, 301-325.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33, 375-400.

Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics, 39*, 163-197.

Kutner, M. H., Neter, C. J., Nachtsheim, J., & Li, W. (2005). *Applied linear statistical models*. New York, NY: Mc Graw Hill.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *Journal of Finance, 54*(2), 471-517.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal Determinants of External Finance. *Journal of Finance,* 52**,** 1131-50.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy, 106*(6), 1113-1155.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (2000). Investor protection and corporate governance. *Journal of Financial Economics, 58*(1-2), 3-27.

Laeven, L., & Levine, R. (2008). Complex ownership structures and corporate valuations. *Review of Financial Studies, 21*(2), 579-604

Lehmann, E., & Weigand, J. (2000). Does the governed corporation perform better? Governance structures and corporate performance in Germany. *European Financial Review, 4*, 157-195.

Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics, 69*(3), 505-527.

Louis, H. & Robinson, D. (2005). Do managers credibly use accruals to signal private information? Evidence from the pricing of discretionary accruals around stock splits. *Journal of Accounting and Economics,* 39**,** 361-380.

Lyon, J., Barber, B., & Tsui, C. (1999). Improved methods for tests of long-run abnormal stock returns. *Journal of Finance, 54*, 165-201.

Maury, B. (2006). Family ownership and firm performance: Empirical evidence from western European corporations. *Journal of Corporate Finance, 12*, 321-344.

Maury, B., & Pajuste, A. (2005). Multiple large shareholders and firm value. *Journal of Banking & Finance, 29*(7), 1813-1834.

McConnell, J. J., & Servaes, H. (1990). Additional evidence on equity ownership and corporate value. *Journal of Financial Economics, 27*(2), 595-612.

McConnell, J. J., Servaes, H., & Lins, K. V. (2008). Changes in insider ownership and changes in the market value of the firm. *Journal of Corporate Finance, 14*(2), 92-106.

McNichols, M., & Wilson, G. P. 1988. Earnings management from the provision of bad debts. *Journal of Accounting Research, 26*, 1-31.

Peasnell, K., Pope, P. F., & Young, S. (2000). Detecting earnings management using cross-sectional abnormal accruals models. *Accounting and Business Research, 30*, 313-326.

Peasnell, K., Pope, P. F., & Young, S. (2005). Board monitoring and earnings management: Do outside directors influence abnormal accruals? *Journal of Business Finance & Accounting, 32*, 1311-1346.

Sánchez, B. J. P., & García M. E. (2007). Ownership structure, discretionary accruals and the informativeness of earnings. *Corporate Governance: An International Review, 15*(4), 677-691.

Siregar, S. V., & Utama, S. (2008). Type of earnings management and the effect of ownership structure, firm size & corporate-governance practices: Evidence from Indonesia. *The International Journal of Accounting, 43*, 1-27.

Subramanyam, K. R. (1996). The pricing of discretionary accruals. *Journal of Accounting and Economics, 22*, 249-281.

Sweeney, A. (1994). Debt-covenant violations and managers' accounting responses. *Journal of Accounting and Economics, 17*, 281-308.

Villalonga, B., & Amit, R. (2006). How do family ownership, control, and management affect firm value? *Journal of Financial Economics, 80*(2), 385-417.

Volpin, P. F. (2002). Governance with poor investor protection: Evidence from top executive turnover. *Journal of Financial Economics, 64*, 61-90.

Wang, D. (2006). Founding family ownership and earnings quality. *Journal of Accounting and Research, 44*, 619-655.

Watts, R. L., & Zimmerman, J. L. (1986). *Positive accounting theory*. Englewood Cliffs, NJ: Prentice Hall.

Xie, B., Davidson III, W. N., & DaDalt, P. J. (2003). Earnings management and corporate governance: The roles of the board and the audit committee. *Journal of Corporate Finance, 9*(3), 295-316.

Yeo, G. H. H., Tan, P. M. S., Ho, K. W., & Chen, S.S. (2002). Corporate ownership structure and the informativeness of earnings. *Journal of Business Finance & Accounting, 29*, 1023-1046.

Zhao, Y., & Chen, K. (2008). The influence of takeover protection on earnings management. *Journal of Business, Finance and Accounting, 35*(3), 347-375.

Footnotes

1 FASB 1985, SFAC No. 6, para. 139.

2 Among others, one could cite Healy (1985), DeAngelo (1986), McNichols and Wilson (1988), Dechow et al. (1995), Peasnell, Pope, & Young (2000), Dechow et al. (2003), Kothari et al. (2005) as examples of studies of abnormal accruals as instruments to manage earnings. Burgstahler and Dichev (1997) studied the role of accruals to avoid small losses or drops in profits. Dechow (1994) and Subramanyam (1996) studied the valuation of accruals in capital markets.

3 The extension of Jara et al.'s (2008) approach to earnings management makes sense because the firm's value is not the only driver for earnings management (Dechow & Skinner, 2000; Healy & Wahlen, 1999).

4 We use a secondary database for the estimation of earnings management. The secondary sample includes 11,736 observations and comes from Compustat.

5 The balance between legal origins is consistent with the approach towards the influence of the legal framework even though it may mean some imbalance across countries.

6 CONTEST = (C2+C3)/C1, where Ci is the cash flow rights of the first, second, and third shareholders; 5% is the lowest ownership proportion to be considered a reference shareholder.

7 CONTEST has the same value for a firm in which C1 is 30%, C2 is 20%, and C3 is 15% as for a firm in which C1 is 3%, C2 is 2%, and C3 is 1.5%.

8 HERF1 = (C1 – C2)2 +(C2 – C3)2, where Ci is the cash flow rights of the first, second, and third shareholders.

9 HERF2 = C12 + C22 + C32, where Ci is the cash flow rights of the first, second, and third shareholders.

10 The coefficients of this variable are not reported in the tables because LEGAL controls for the institutional effect.

11 This model was selected on the basis of the t-test for means according to Kothari et al. (2005). Two tests in 250 randomly defined subsamples of 100 firms were conducted: The first test relates to the null hypothesis that discretionary

accruals are no-negative, and the second test addresses the null hypothesis that discretionary accruals are no-positive. t-statistics are computed as the mean of each subsample divided between the estimation error once standardized by the squared root of the number of observations. This value is compared with a t-distribution with n-1 degrees of freedom. The ROA-adjusted Jones model (Kothari et al., 2005) is the best specified because it gives the lowest rates of reject of the null hypothesis of lack of earnings management.

12 The sample was split by two SIC-codes digits. As previously explained, estimations have been run with a sample of 11,736 observations from Compustat database from 1997 to 2000.

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The authors are grateful to Alisa Larson, Domingo Javier Santana Martín, Javier Gil-Bazo, an anonymous referee, and the editor, Sergio Chión for their comments on a previous version and Óscar López de Foronda for his help in collecting the data. All the remaining errors are our responsibility.

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Appendix - Definition of Variables

Abbreviations	Variable	Definition
C1	Ownership concentration	Ownership held by the largest shareholder
C2	Ownership concentration	Ownership held by the second largest shareholder
C3	Ownership concentration	Ownership held by the third largest shareholder
CONTEST	Contestability for the power of the largest shareholder	$(C_2 + C_3)/C_1$
TC	Tercile of ownership concentration	Equals 1 if the ownership of the largest shareholder is in the tercile of the highest C1 in the sample, and zero otherwise
HERF1	Lack of contestability for the power of the largest shareholder	$(C_1 - C_2)^2 + (C_2 - C_3)^2$
HERF2	Lack of contestability for the power of the largest shareholder	$C1^2 + C2^2 + C3^2$
DFAM2	Nature of the second shareholder	Equals 1 when the second largest shareholder is a family or an individual and zero otherwise
DFAM23	Nature of the second and third shareholders	Equals 1 when both the second and the third largest shareholders are families or individuals and zero otherwise
LEGAL	Institutional effect	Equals 1 if the firms belong to the Anglo-Saxon corporate system and zero otherwise
LOGAST	Size of the firm	Log of total assets
LEV	Financial leverage	Debt book value/equity book value
DIV	Dividend payout	Dividends/equity
TA	Total accruals	(ΔNonmonetary current assets – ΔNonmonetary current liabilities – amortization expense)/Total assets
DA	Discretionary accruals	Error of equation (1): $TA_{it} = \alpha_0 + \alpha_1 \times \Delta REV_{it} + \alpha_2 \times GPPE_{it} + \alpha_3 \times ROA_{it} + \eta_i + \varepsilon_{it}$
ABSDA	Discretionary accruals	Absolute value of DA
ΔREV	Growth in revenues	Change in annual revenues from year t − 1 to year t
GPPE	Gross property, plant and equipment	Gross property, plant, and equipment/total assets
ΔREC	Growth in receivables	Change in annual receivables from year t − 1 to year t
ROA	Return on assets	Gross income/total assets