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ABSTRACT

Manuscript Type: Empirical

Research Question/Issue: Using a panel of non-financial listed firms over a seven-year period, we analyse how the value of family firms is potentially affected by the existence of multiple shareholders, by other large shareholders' voting rights in relation to the family's, by the final power distribution (that is, whether the family's voting rights exceed those of other shareholders), by the identity of the blockholders and the existence of shareholder agreements.

Research Findings/Insights: After we control for a possible self-selection bias and for endogeneity issues, results of a Heckman two-stage method suggest that other large shareholders' voting rights in relation to the family's do not affect family firm value. The results indicate that what seems to matter is who controls the company in terms of voting power, i.e., whether there is just one large shareholder or other major blockholders as well, and whether they have more or fewer voting rights than the largest owner. The market favours a firm that has multiple large shareholders provided that the family retains control by holding most of the voting rights. However, when there is just one family owner or when other blockholders have more voting power than the family, industry-adjusted family firm value is negatively affected. The existence of shareholder agreements and families and non-financial firms as other blockholders has no impact on company performance while foreign shareholders tend to increase family firm value.

Theoretical/Academic Implications: Academics should take the presence of multiple large shareholders into account as this can affect family power. It is not a question of collusion or contestability per se. The market seems to value other large investors' ability to balance family power only if families retain control by holding the majority of the votes. The model preferred, therefore, resembles that of a king amid nobility, a "primus inter pares", with other large blockholders (nobility) providing a credible and strong but not overwhelming opposition that benefits minority owners.

Practitioner/Policy Implications: When multiple large owners exist, firm value is increased if the family retains power. Ownership structure matters and the effect of other large shareholders' voting rights on minority investors' wealth has to be considered. New variables to describe particular situations in family firms are needed.

Keywords: Corporate Governance, Family Firms, Other Large Shareholders, Firm Value

INTRODUCTION

Family businesses are a common organizational form nowadays in every economy and industry, whether they are private or listed. They are characterised, among other things, by ownership concentration, with many particularities that stem from the identity of the largest owner: the family. Ownership distribution can range from a single large shareholder to a great number of small investors, with many different situations in between. Given their significance and the globalised economy, family companies are expected to be increasingly targeted by foreign and other arm's-length investors. That is one reason why continuing research into family firm performance and blockholder relationships is needed.

The existence of other large shareholders with significant stakes is common in family firms around the world (Claessens et al., 2000; Faccio and Lang, 2002). Various studies outline possible interactions and behaviours among multiple large shareholders (Bennedsen and Wolfenzon, 2000; Bloch and Hege, 2003; Zwiebel, 1995), but these aspects have not had subsequent definitive exploration for either listed firms in general or for family businesses. In this vein, different authors call for further research into the corporate governance characteristics of companies that have multiple shareholders (Jara-Bertín et al. 2008; Laeven and Levine, 2008). These situations are extremely interesting in family firms as other large shareholders may collude with or challenge the family, protect their own interests or act as stewards, increasing or reducing family conflicts and/or benefits.

Research into family businesses has mainly focused on how the existence and identity of the second-largest shareholder may influence firm performance (Maury and Pajuste, 2005; Nieto et al., 2009; Pindado et al., 2011; Sacristán-Navarro et al., 2011, 2013); less attention has been paid to the rest of the shareholders and how they may affect firm value. Worth mentioning in this regard, however, is the work of Jara-Bertín et al. (2008). Considering up to the three

biggest shareholders, that study explores how contestability of the majority family owner emanating from other large blockholders affects the value of family and non-family firms and shows the possible effect of identity when the second and third large shareholders are also families.

We aim to add empirical evidence to this strand of literature that examines how the performance of family firms is potentially affected by other shareholders' presence. Specifically, we analyse how value is influenced by the existence of multiple owners and by factors that can sway how blockholders interact.

Our study focuses on a single country, Spain, and on family firms. However, we compare the results obtained for family firms with those for the whole sample of Spanish listed companies and for the subsample of non-widely held non-family firms. Although using a database of only listed companies from a single country could be seen as limiting the significance of the results, we believe Spain is an interesting country for studying the issues at hand because of its high proportion of concentrated ownership and of family owners at listed firms. It also has a low percentage of institutional investor shareholdings and its financial institutions play a more prominent role than in the U.S. (Mínguez-Vera and Martín-Ugedo, 2007).

Moreover, using a database from a single market allows us to obtain data for a large percentage of listed firms (our initial database includes almost 100% of the listed companies in the Spanish Stock Market). We can also consider both large and medium-sized firms (and therefore, both old and young firms) and analyse some specific aspects, i.e., agreements among large shareholders, that are described in the Annual Corporate Governance Reports. A single-country database also allows us to identify family firms more accurately using the ultimate owner methodology. Thus, we can avoid assumptions, such as one described by Faccio and Lang (2002): classifying an owner as a family when it has not been possible to

identify the owner of an unlisted firm, which can lead to overclassification of sample companies as family firms.

Using the ultimate ownership methodology, and, after controlling for endogeneity issues and applying a two-step Heckman model that avoids selection biases when we analyse relationships separately for subsamples of firms extracted from the main sample, we examine how family company performance is affected by factors that have been discussed in previous research. These include the existence of multiple shareholders and their voting rights relative to those of the largest shareholder (as a proxy of the ability of other large shareholders to challenge the largest one – the contestability effect – see, for example, Gutiérrez et al., 2012; Jara-Bertín et al., 2008; Maury and Pajuste, 2005). However, we also look at other aspects than can influence family firm value: the final distribution of power, i.e., whether the family has the most voting rights; blockholder identity, extending beyond families and individuals to other non-financial firms and foreign companies; and shareholder agreements.

Our study reinforces the argument that family businesses should be analysed as a separate group, because blockholders' influence on company value may differ for family and non-family settings. In line with previous research, we conclude that multiple large investors exist even in family companies. They affect firm value positively, with the most frequent combination of shareholder being family owners plus other non-financial firms and/or other families and individuals. However, our results do not support that firm performance is affected by the voting rights of other blockholders relative to the voting rights of the family (as a measure of contestability of the family from the blockholders), or by their identity as families and individuals and/or other non-financial firms, or by the existence of shareholder agreements (as a proxy of collusive behaviours with the family). Foreign investors as blockholders do influence firm value positively.

Our findings suggest there are private benefits of control and a family discount – that is, the market negatively values a family firm that has a unique large owner – and that the size of the discount depends on the extent of the family owner's control, i.e., whether the family's voting rights exceed those of other large shareholders. In fact, we report that company value increases if there are multiple shareholders that have fewer control rights than the family or are foreign firms; but value decreases if the other shareholders' combined ownership exceeds the family's. Thus, our results suggest that the other blockholders' influence on performance depends on a delicate balance of power (control) between them and the family, and on whether these blockholders are foreign investors.

The paper is organized as follows: Section 2 sets out our theoretical framework and hypotheses. Section 3 describes our database and methodologies. Section 4 presents the results of our analyses. Section 5 summarizes our main conclusions.

THEORETICAL BACKGROUND AND HYPOTHESES

The question of how firms differ in terms of financial performance is one of the most studied topics in family business research (Gedajlovic et al., 2012). Some authors point out the positive relationship between family ownership and performance, while others demonstrate the negative relationship. Issues such as ownership concentration and distribution, shareholder identity and family involvement are frequently intermingled in all the analyses, so it is difficult to interpret results. The identity of the large owner – the family – gives these companies some specific characteristics (positive and negative) that affect the relationship between ownership concentration and firm performance. As Aguilera and Crespí-Cladera (2012) point out, this relationship is and will continue to be an unresolved issue because it requires exploration of many contingencies.

For listed family firms, an aspect that may affect the relationship between family ownership and performance is the fact that these companies do not always have just one large owner, the family; there may be other blockholders in the ownership structure and their presence may have an impact on value. So, what is the case for studying family businesses separately? Previous empirical research for firms in general and for family firms has yielded mixed results on the effect of multiple large shareholders, and in some cases, on the effect of the other shareholders' identities (see Table 1). For example, Jara-Bertín et al. (2008) conclude in a multi-country study that contestability of the control of the largest shareholder increases the value of family firms, while Maury and Pajuste (2005), for Finnish companies, report that if family-controlled businesses are not monitored by other strong blockholders, they are more valuable. Regarding blockholders identity, Sacristán-Navarro et al. (2011) do not encounter that any combination of first and second shareholder significantly influences family firm' performance.

- Insert Table 1-

Multiple blockholders' positive effect on firm performance may be explained through agency cost theory (Jensen and Meckling, 1976; Fama and Jensen, 1983a, 1983b) and stewardship theory (Davis et al., 1997; Donaldson and Davis, 1991).

From an agency point of view, families may act in their own interests and treat the company as a private bank or a family employment service (Shleifer and Vishny, 1997), giving top positions to family members instead of professional managers, for example. If families obtain private benefits of control at the expense of other investors, large blockholders may alter family power, reducing possible agency costs by efficiently monitoring the biggest shareholder (Bennedsen and Wolfenzon, 2000; Bloch and Hege, 2003). As Miller and Le Breton-Miller (2006) suggest, possible costs of family ownership may be reduced by

influential shareholders outside the family. Other large blockholders can be more objective monitors of family executives, and might balance family power by forming alliances to challenge the family and to trigger opportunities for contesting the family's control (Pfeffer, 1992). They also might help locate and hire better managers and improve resource-allocation decisions, protecting firm wealth by curbing its expropriation by family members (Anderson and Reeb, 2004) and by preferring lower dividends. Thus, contestability from shareholders leads to better control of managers by preventing self-interest on the part of the dominant owner: the family.

Contestability refers to the capacity to contest the control of the largest shareholder (Maury and Pajuste, 2005), and to stakeholders' motivation to form coalitions to accomplish that (Jara-Bertín et al., 2008). Accordingly, Maury (2004) reports that institutional and corporate blockholders boost stock prices, while CEO and family blockholders are associated with lower CEO turnover after poor performance but greater contestability encourages top executive shake-ups in cases of poor performance and increases the payout policy. Jara-Bertín et al. (2008) detect that a more balanced ownership structure leads to stronger company performance and higher capital market valuation.

Unlike agency theory, stewardship theory assumes managers are loyal to the company and interested in seeing it perform strongly (Davis et al., 1997; Donaldson and Davis, 1991). Other shareholders may contribute to maximizing firm value by joining forces with the family. They may also contribute expertise and objectivity, provide alternative perspectives and bring to bear critical information that the family might have overlooked (Miller and Le Breton-Miller, 2006). Moreover, if the other shareholders are directors, they have greater incentive to be vigilant stewards of company resources (Burkart et al., 1997, 2006) and to form a coalition with the family. Sitting on the board as stewards, they offer objective advice,

networking and industry-specific expertise, or generally advocate for corporate health and viability (Anderson and Reeb, 2004). In this sense, the other large shareholders have a positive impact on company value by helping the family meet corporate objectives.

However, large blockholders may hinder family firm performance. They may primarily look out for their own interests and not those of other investors or employees (Andres, 2008) and may use their control rights to maximize their own utility, possibly at the expense of other shareholders. They may engage in collusion or form coalitions with families with the aim of extracting private benefits of control (Zwiebel, 1995) to the detriment of minority shareholders. In addition, a group of blockholders may face collective problems and may even quarrel because of differing interests or conflicting views of corporate strategy, as "too many cooks spoil the stock" (Earle et al., 2005). Rivalry can emerge, with each group's votes enabling them to cancel one another's initiatives (Miller and Le Breton-Miller, 2006). Moreover, once a large owner is present, the contributions that additional blockholders make to managerial monitoring are small, and these blockholders may serve only to increase the costs of concentration by reducing trading liquidity and the information value of the share price, as Earle et al. (2005) suggest.

In summary, multiple large shareholders can have a positive or negative impact on firm performance, because of the contestability/stewardship effect, or the collusion/pursuit of personal interests/rivalry effect. Considering prior empirical results for the Spanish market that show a positive influence associated with the number of blockholders (Gutiérrez et al., 2012), and results for Western Europe that show a positive impact associated with the existence of multiple shareholders (Laeven and Levine, 2008), we favour the contestability/stewardship effect associated with multiple blockholders and state Hypothesis 1:

H1: The existence of multiple shareholders and increasing ratios of voting rights' of other large blockholders in relation to those of the largest family owner are likely to positively influence family firm value.

We must also consider that the effect on family firm performance may depend not only on the existence of multiple blockholders, the extent of their voting rights and how the rights are apportioned among those shareholders, but also on the final power distribution, i.e., whether the main owner's voting rights exceed those of the other large shareholders (measures that relate to the existence of multiple shareholders or to the ratio of blockholders' voting rights over those of the family do not reflect the final distribution of power between the family and other blockholders). Contestability/collusion behaviours, the opportunity for other blockholders to provide valuable input, or their possible tendency to advance their personal interests may depend on who controls the firm (the family or the other blockholders).

If the other shareholders have more power than the family they may be more likely to challenge the family, pursue their own agendas and engage in rivalry. On the other hand, if the family has the most power there may be less rivalry among the other blockholders, enhancing firm performance; or the others may tend to collude with the family, reducing value. However, one should not assume that blockholders will collude with or fail to challenge the largest shareholder just because they have less voting power. For example, activist investors challenge company management without having overwhelming ownership of outstanding shares. Blockholders who have fewer voting rights than the family and are less likely to engage in rivalry could still credibly oppose the largest shareholder, thereby enhancing firm performance. Considering this last argument and the reduced chance of rivalry among blockholders when the family's power exceeds that of other blockholders, we present Hypothesis 2:

H2: Families' power exceeding that of other blockholders (that is, if the family controls the firm) is likely to positively influence family firm value.

The effect of multiple shareholders on family firm performance may depend not only on the extent of their voting rights and the final distribution of power, but also on their identity. As Attig et al. (2008) point out, the identity of other blockholders is important in determining the risk of expropriation in family-controlled firms; different types of blockholders may have varying strategic goals that will influence their attitudes toward the largest shareholder. Accordingly, prior empirical evidence shows that the identity of the blockholders may have an effect on firm performance (see Table 1).

Most of the empirical evidence in this regard refers to the role played by families versus other large non-family shareholders (see Table 1). Families are a unique type of investor, with particular concerns about company survival and strong incentives to monitor management closely. If the monitoring requires knowledge of a firm or market-specific technology, families might have an advantage because of their long-term presence in the company (Andres, 2008), but they prefer a lesser degree of voluntary disclosure (Chen et al., 2008) and are reluctant to lose control. When a firm's other large shareholders are families, they share a similar identity with the main family owner. They may have interests (for example, similar fiscal, generational and transition problems) that are conducive to the main family co-operating more with the second shareholder, but this can also increases the main family's private benefits of control (collusion). Nevertheless, sharing identity could strengthen blockholders' motivation to differentiate themselves from the largest shareholder (therefore increasing contestability toward the largest shareholder) and from each other (intensifying rivalry among them).

Similar arguments could be put forward for non-financial blockholders, especially as non-financial firms often have an individual or a family as large shareholder. Considering

empirical evidence for European companies reported by Jara-Bertín et al. (2008) and Pindado et al. (2011) that points to a negative effect on firm performance when families are second shareholders, we hypothesize that families (and non-financial companies) as blockholders will reduce family firm value.

Foreign companies may also have specific characteristics and may not make the same business decisions as domestic shareholders because of social and cultural differences. Thus, foreign firms as shareholders may be more eager to contest family power. They also may give the firm a better understanding of foreign clients and competitors, thereby enhancing its performance; this effect may be particularly relevant for businesses that operate in international markets. Various studies for Europe (for example, Piscitello and Rabbiosi, 2005, for Italy; Conyon et al., 2002, for the U.K., and Weche Gelübcke, 2011, for Germany) support these arguments and suggest foreign ownership has a positive effect on firm productivity. Similarly, for Spain, for example, Desender et al. (2008) document that during period of stock market crisis the number of foreign shareholders' presence positively influence company performance. Thus, we state the following hypotheses:

> *H3a: Families or individuals and non-financial companies as other blockholders will tend to collude with the largest family owner and may engage in rivalry between them. Thus, they are likely to negatively influence family firm value.*
>
> *H3b: Foreign companies as other blockholders will tend to contest the largest family owner and provide valuable views to the firm. Thus, they are likely to positively influence family firm value.*

In addition to identity, an aspect that determines the behaviour of other large shareholders toward the largest is the existence of agreements among them. Shareholder agreements are contractual arrangements that address issues not covered in the company's by-laws. These agreements may regulate, among other things, the relationship between blockholders (for

example, their voting) and may be signed by all parties or just some of them (which may or may not include the largest shareholder). Given the nature of the agreements, they may curb possible rivalry among blockholders, but they may also protect large shareholders' private benefits of control, including those of the largest owner. In fact, as Villalonga and Amit (2009) report, voting agreements or trusts constitute a primary source of the wedge between the percentage of votes owned and the percentage of votes controlled by families within corporations; and Gianfrate (2007) notes that these arrangements protect controlling shareholders from hostile takeovers and favour entrenchment of incumbent managers. Taking into account this previous empirical evidence that supports the use of shareholder agreements as a wedge by families and the largest shareholders, we expect that these agreements will encourage collusion and thus we present our last hypothesis:

> *H4: Shareholder agreements between blockholders are likely to negatively influence family firm value.*

SAMPLE, VARIABLES AND METHODOLOGY

Sample

To test the hypotheses presented in the theoretical background, we chose to examine Spanish non-financial listed firms over the period 2004-2010. By focusing on a single country we were able to build a panel of most of the companies listed on the Spanish Stock Market, including large and medium-sized firms. Multi-country studies frequently just include a sample of the largest listed firms for which data to estimate variables are available on international databases. For example, Jara-Bertín et al. (2008) include 57 Spanish companies in their sample − 45% of our sample size − 36 Belgian firms and 29 Greek firms. The effect of other large shareholders on company performance may vary depending on firm size, as larger businesses will be expected to present more dispersed ownership. Moreover, our

approach allowed us to better understand our data in order to track down the ultimate owner and to identify family ties. Financial and insurance companies were not considered because of their particular characteristics, such as their specificity from an accounting point of view, or because of the regulation or structure of these markets.

Spain provides a valuable and interesting context in which to study the relationship between different types of concentrated ownership and firm performance. It is a developed economy in which there is high ownership concentration, with the ultimate ownership characterising Spanish ownership structure in many cases (see Aguilera and Desender, 2015, and García-Castro and Aguilera, 2012, for a description of the Spanish corporate governance system).

From the initial database, we excluded subsidiary firms (a business that is more than 90%-owned by another listed firm in our sample), those observations in which the company had been merged, and some firms for which data were incomplete because of distress problems (2 firms, 11 observations). As a result, and also taking into account that some companies entered and others exited the Stock Market during the period considered, we ended up with an unbalanced panel of 126 firms and 733 observations: 454 observations could be classified as family businesses and 279 were non-family.

Family firms were defined as those that are "controlled" (in terms of ownership) by families or individuals acting as first or ultimate owners (following the standard methodology employed by La Porta et al., 1999). In this sense, whenever the family was the largest owner (direct or indirect), holding more than 10% of the shares, the firm was classified as a family business. But if the large owner was a non-financial firm whose ultimate owner, identified by following the chains of control, was a family or an individual holding more than 10% of the voting rights, the company was also classified as a family firm. Thus, we searched for the stake held by individuals or families (adding up the voting rights of the various family

members), which allowed us to get a better picture of the real ultimate ownership structure of sample firms. By doing so and having the information to determine the ultimate owners of companies' blockholders, we were able to identify family businesses without making assumptions that could under- or overestimate family firms' importance in our sample. Family members were identified by their surnames (first or second surname); that is, they were defined as those who were related by blood. Family members by marriage were also taken into account.

Ownership structure and corporate governance data were obtained from the Corporate Governance Report the firms provide to the Spanish Supervisory Agency (CNMV). The companies' financial information and data on their sectors of activity were obtained from the CNMV and the database of the SABI (*Sociedad de Análisis de Balances Ibéricos*). Finally, information on the firms' market capitalisation was provided directly by the Madrid Stock Exchange.

Variables

As shown in Table 2, we define the following variables related to *ownership structure*:

(a) Different continuous variables that refer to the ownership held by the largest shareholder, the second, third and fourth largest shareholder (FSH, SSH, TSH, IVSH) or the sum of all significant shareholders (those holding more than 3% of the voting rights) (OWNCON); and a variable that measures the gap between the largest shareholder's control rights and cash flow rights (WEDGEFSH).

(b) Other variables measure the existence (MLSH), number (NLSH) and ownership of other large shareholders (VOTING 2341) (see Table 2). Different authors (for example, Jara-Bertín et al., 2008; Maury and Pajuste, 2005) consider variable VOTING 2341 as a proxy of how the

power of the largest shareholder may be contested: a proxy of contestability. When the value of the variable increases, so does the ability of the second, third and fourth blockholders to challenge the main owner (although we must note that this variable's values will also depend on the number of shares the largest blockholder has). Additionally, because the distribution of power among the large shareholders may also influence blockholders' behaviour, we take this effect into account by creating three dummy variables: WHOCONTROLS1, WHOCONTROLS 2 and WHOCONTROLS3 (see Table 2).

We also examine how the identity of the other large shareholders influences firm value, by creating different dummy variables: IDENTITY1 adopts value 1 when all the significant shareholders of the company are either families and individuals and/or non-financial institutions and 0 in other cases; and IDENTITY2 considers the presence of foreign firms as other large shareholders. Finally, dummy variable SHAGREEMENTS adopts value 1 if there are agreements among all blockholders and 0 otherwise.

(c) To define *family firm characteristics*, we use a dummy variable that adopts value 1 if the company has a significant stakeholder – a family or an individual – as main or ultimate owner holding more than 10% of the shares (FF10), and 0 otherwise. We also consider another family firm definition by selecting those businesses whose main owner (without taking into account ultimate owners) is a family or an individual holding more than 10% of the shares (K1FAM10).

As Miller and Le Breton-Miller (2006) state, various dimensions of governance – such as family ownership and family control, management and generation – can influence the agency and stewardship outcomes and therefore the financial performance of the firm. In fact, Villalonga and Amit (2006) and Villalonga and Amit (2009) find that corporate governance reduces the "family firm premium" investors demand. Others report that if families are just

shareholders without board representation, the performance of their companies is not distinguishable (Andres, 2008). Thus, we consider family governance control; that is, where the companies are family managed and/or family chaired (FAMGOV). We also take into account the generations involved in family ownership (OWNFOUNDERS).

(d) To assess *firm characteristics*, we use a market performance indicator (AVALUE) defined as firm industry-adjusted value; and a profitability ratio, firm ROA industry adjusted (AROA). Other variables, expressed as logarithm, are the CEO's tenure since appointment (CEOTENURE), firm size (SIZE), or age (AGE). We also considered leverage (LEV) and the level of financial distress (FINANDISTRESS). Financial distress may indicate the need to attract new investors. The industry (SECTOR) is also taken into account, but only for the first stage of the Heckman model, as in the second stage of model, the dependent variable is industry adjusted.

- Insert Table 2 -

Methodology

First, looking at the whole sample of Spanish non-financial listed companies, we analyse and compare in a descriptive way the ownership variables for family and non-family firms (NFF) using non-parametric tests such as Mann-Whitney U to identify significant differences, as previously the Kolmogorov-Smirnov test revealed the non-normality of the continuous variables employed in the analyses. We also use the Chi-squared test for dummy variables. As well, we compare the values of variables for family firms with those for non-widely held non-family firms (NFF10); that is, with a subsample of non-family companies that have a large owner holding at least 10% of the shares.

Second, for the subsample of family firms (and in the robustness section, for the whole sample and for the subsample of non-widely held non-family firms) we analyse how company value is affected by the following: the existence of multiple blockholders; the ownership held by other large shareholders compared with the family's stake (or compared with the largest shareholder's stake in the case of non-family firms); power distribution; the blockholders' identity; and shareholder agreements. Because we are studying the ownership-performance relationship in a subsample of the whole sample, standard regression techniques do not allow us to control for the endogeneity bias from self-selection. One of the best solutions is to apply the Heckman (1979) two-stage method, which eliminates the bias (Greene, 1999; Wooldridge, 2002) as follows: *(1)* It requires the identification of at least one variable that may be a significant regressor in the selection equation but not in the regression equation (we chose *CEO tenure*); and *(2)* it requires most of the regressors in the regression equation to be included in the selection equation.

In the first stage, the selection equation is estimated as a maximum-likelihood probit model for analysing the propensity to be a family firm and calculating the *Inverse Mills Ratio* (λi). In the second stage, the corrected regression equation is estimated by OLS regression defined as:

$$AVALUE_{it} = \alpha_0 + \beta X_{it-1} + \sum_{t=2004}^{2010} D_t + \varepsilon_{it} \quad \text{(regression equation) (1)}$$

Where $AVALUE_{it}$ is the family firm i industry-adjusted value in the year t, X_{it-1} denotes the explanatory variables that relate to Hypothesis 1 (MLSH, VOTING2341), to Hypothesis 2 (WHOCONTROLS1, 2 and 3), to Hypotheses 3a and 3b (IDENTITY1 or IDENTITY2), and to Hypothesis 4 (SHAGREEMENTS) and control variables (FAMGOV, OWNFOUNDERS, PRIOR PERFORMANCE – AROA –, SIZE, AGE, LEV and FINANDISTRESS) of family i in the year t-1 (note that in order to control for endogeneity problems in the models proposed,

explanatory and control variables are lagged by one year); $\sum_{t=2004}^{2010} D_t$ is a set of time dummy variables covering any non-variant time effect of the firm not included in the regression (we also repeated the estimations without considering annual dummies and the results are the same) and εi is a normal error term. This equation uses data exclusively from family firms.

$$FFi^* = \gamma Zi + \mu i \text{ (selection equation) (2)}$$

where the latent variable FFi* is observed as:

• FF I = 1 (the firm i is a family firm) if FFi* >0, or as

• FFi= 0 (the firm i is not a family firm) if FFi* ≤ 0;

Zi is a vector of variables that affect a firm's propensity to be owned by a family and μi *is* a normal error term.

The fact that *Yi* is observed only if FFi = 1 might lead to bias from self-selection. Thus, as we have previously noted, the Heckman method controls for this bias including the *Inverse Mills Ratio* (λi) as an additional regressor in the regression equation. The *Inverse Mills Ratio* approximates the likelihood of a company being a family firm and is calculated by Stata program using estimates obtained from the selection equation. After we incorporate this correction, the final regression equation is:

$$AVALUE_{it} = \alpha_0 + \beta X_{it-1} + \sum_{t=2004}^{2010} D_t + \vartheta \lambda it \text{ (corrected regression equation) (3)}$$

RESULTS

Descriptive Analysis

The sample's characteristics reveal that the largest shareholder (FSH) holds on average 36.95% of the shares. This figure is much bigger for family firms at 40.38% compared with 31.12% for non-family firms, the differences being statistically significant (see Table 3). In contrast, when we look at the holdings of the second large shareholder (SSH), the third (TSH) and the fourth (IVSH), there are no statistically significant differences for family and non-family observations. When the sum of the voting rights of all the significant owners (OWNCON) is taken into account and comparisons are made between family and non-family firms, the differences are significant, with the largest ownership concentration being in family firms.

There are multiple shareholders (MLSH) in 84% of the non-family companies and in 79% of the family firms. The mean number of significant shareholders apart from the largest one (NSLH) is 1.62 for family firms, compared with 1.70 for non-family companies, the difference being statistically significant. This shows it is necessary to direct our attention to all owners, not just the second one, and also that family firms tend to have fewer blockholders.

Variable VOTING2341 reveals another contrast between family and non-family companies: Other large shareholders have less voting power in family businesses than in non-family firms. This behavioural difference when it comes to the voting rights of other blockholders in relation to the largest one underscores the importance of studying family and non-family firms separately to gain deep insight into the subject.

When multiple large shareholders exist, a question arises: What is the final distribution of power or effective control? We come upon three situations. First, some firms have only one large shareholder (WHOCONTROLS1). This occurs in 21% of the family firm observations and in just 16% of the non-family companies. The second and most common situation is when

the largest shareholder controls the firm with voting rights that exceed the other blockholders' (WHOCONTROLS2; 52% of the whole sample). In the third and final situation (WHOCONTROLS3), the other blockholders' combined voting power exceeds the main shareholder's (24% of the observations in family businesses and 36% in non-family firms, the differences being statistically significant).

As for the identity of all significant owners, the blockholders are made up of just families plus individuals and/or non-financial companies more frequently in family firms (51%) than in non-family businesses (36%). Foreign investors have a greater presence in family firms (37%) than in non-family firms (27%). Also, agreements (SHAGREEMENTS) among blockholders are more common in family firms (15%) than in non-family companies (7%). This may indicate a greater propensity on the part of other blockholders to collude with family owners and align with the family's interests.

In our sample, 63% of the observations are family firms according to our definition (FF10). The family is the largest apparent owner in 40% of sample firms; the rest are cases of ultimate family ownership. This demonstrates that one should follow the chains of control and use the ultimate owner methodology to avoid biased results classifying firms as non-family when in reality they are controlled by a family. 70% of the firms are family governed and ownership is in the founder's hands in 63% of the observations.

-Insert Table 3-

The influence of other large shareholders on firm value

Before the results of the Heckman two-stage method for the subsample of family firms are presented, Table 4 lists the correlation coefficients of the variables used in regressions. For family firms, this table shows that when other large shareholders' voting power is greater than

the family's (WHOCONTROLS3), family firms are less frequently run or governed by the family (FAMGOV). When family power exceeds that of other large shareholders (WHOCONTROLS2), firms are smaller (SIZE) and present lower leverage (LEV). A family or non-financial identity among blockholders (IDENTITY1) implies less contestability (VOTING 2341) and lower values of WHOCONTROLS 2 and 3, while the presence of foreign firms as blockholders (IDENTITY2) implies more contestability (VOTING2341). We must also note that although some of the variables show a statistically significant correlation, following the empirical rule of Kleinbaum et al. (1998), analysis of the variance inflation factors (VIF) shows no evidence of multicollinearity because in no case is VIF above 10.

-Insert Table 4-

Following the methodology chosen to contrast the hypotheses stated in the theoretical section and to control for a possible self-selection bias, we begin by calculating the results of the first-stage probit regression in the Heckman model. The results (available from the authors by request) show that the companies' size (SIZE), age (AGE), and profitability (ROA) and whether they belong to regulated sectors (SECTOR) − most privatised companies come from regulated sectors (utilities, telecommunications, etc.), while family firms tend to belong to non-regulated ones − negatively and significantly affect a company's propensity to be a family firm. In contrast, firm leverage (LEV) and the separation between voting rights and cash flow rights (WEDGE) and CEO's tenure (LCEOTENURE) have a positive effect on the propensity to be a family firm.

Then, in the second stage of the Heckman method, we analyse how family firm industry-adjusted value is affected by the existence of multiple blockholders, their voting rights in relation to the family's, the power distribution between the other large blockholders and the

family, the identity of the other large shareholders and whether shareholder agreements exist. Table 5 summarizes the results of the regressions.

Models 1 and 2 relate to Hypothesis 1. In Model 1 we consider the effect of the existence of multiple large owners (MLSH) on firm value. In Model 2 we look at the effect of other large shareholders' voting rights in relation to those of the largest shareholder, measured by VOTING2341. In Models 3 and 4, which relate to Hypothesis 2, we examine how the final distribution of power as a result of blockholders voting rights affects family firm value. As we explained in the variables section, WHOCONTROLS is a qualitative variable that puts the family company's final distribution of power into three possible categories; thus, to make it operative we define three dummy variables. However, in the regression models it is only possible to add k-1 dummies (in our case 2) because in the other case the parameters cannot be estimated. Therefore, we present our results combining the dummies into pairs to understand what their coefficients really mean. It is sufficient to state the results of the combination of dummy WHOCONTROLS1 and 3 and WHOCONTROLS2 and 3 because the results of the remaining combination can be deduced from the two previous ones. Finally, in Models 5, 6 and 7 we consider the effect of blockholders identity (IDENTITY1 and 2) and agreements (SHAGREEMENTS) on firm value, respectively (Hypotheses 3a, 3b and 4).

In support of Hypothesis 1, the results of Model 1 show that the existence of multiple large shareholders (MLSH) has a positive effect on family firm value ($\beta = .52$, $p < .01$), which suggests that other large investors may benefit the company. Nevertheless, the results of Model 2 do not support Hypothesis 1 as they do not show that other large blockholders' voting power in relation to that of the largest shareholder (VOTING 2341) has any significant effect on family firm value. With regard to Hypothesis 2, our results do support that final distribution of power affects the value significantly. What the results show is that when the

main owner – the family – exclusively controls the firm and there are no other large shareholders (WHOCONTROLS1) ($\beta = -.47$, $p < .01$), and when the family coexists with other large shareholders whose voting rights exceed the family's (WHOCONTROLS3) ($\beta = -.28$, $p < .10$), company value is affected in a negative and significant way. On the other hand, supporting Hypothesis 2, the results suggest that when there are other large owners but the family remains in control (WHOCONTROLS2), value is affected positively ($\beta = .47$, $p < .01$).

Therefore, our findings support the existence of a family discount; that is, the market negatively values family firms when there is a unique large owner, or when the other blockholders exceed family ownership, which indicates there are private benefits of control and rivalry among blockholders.

These results are in line with those of Volpin (2002), who found poor governance for Italian firms (a low q ratio) when one shareholder has all the control. When there are multiple shareholders but the power is in the hands of the family because it has the most voting rights, the other blockholders seem to counterweigh the family's negative influence. In this situation the other shareholders may provide the firm with valuable input, contest family decisions and mitigate for minority owners the cost of entrenchment. Thus, when multiple owners exist, it is valuable for the family to retain control through voting rights. In this situation, when other large shareholders can mount a strong enough but not overwhelming opposition, there seems to be a delicate balance of power that benefits the firm's minority owners. In order to analyse this balance in greater detail, corporate governance structures should be studied and we should also be aware that results may vary for non-listed firms and different environments.

However, when large blockholders have more power than the family, they have a negative effect on value. They may pursue their own agendas and even engage in rivalry and disputes

that damage performance. An example in Spain is Pescanova, a listed family company in hands of the bankruptcy administrator since 2013. Since then it has been fighting to attract new investors. It has several large owners that hold 24.6% of the voting rights, compared with the family's 14.29%. Contestability is high (0.58) and WHOCONTROLS3 takes value 1. During the company's financial crisis, creditors are playing a key role in deciding which new investor should buy in. There are different interests among blockholders, and collusion among various parties is evident. One of the former large shareholders – Damm – is leading former blockholders against creditors. Creditors and shareholders are fighting about the company's future. The result is inefficiency, which has a negative effect on firm value.

Therefore, we conclude that what is important in family firms is the final distribution of power (measured by the proxies WHOCONTROLS 1, 2 and 3), not the relationship between the other blockholders' voting rights and the family's (variable VOTING2341). Our apparently contradictory results for variable VOTING 2341 and the power distribution measures suggest that firms, and family companies in particular, need to be analysed in greater detail because of their specific characteristics. There could be various reasons for our findings. First, variable VOTING2341's lack of effect on company value could be explained by the fact that it makes only a marginal contribution to managerial monitoring (Earle et al., 2005). While families hold an average of 40.29% of voting rights in family companies, other large shareholders have just 14.48%.

Second, other large shareholders' attitudes toward the main owner (the family) and the ties those others may have to the family can be hidden in variable VOTING2341, suggesting the need to break out such information. Another explanation for the non-significance of variable VOTING2341 could be that the identity of the blockholders is not considered.

Previous studies such as Andres (2008) highlight the importance of the identity of the second large shareholder, and for example Jara- Bertín et al. (2008) document that the presence of a family as second large reference shareholder (or second and third) has a negative effect on the value of family firms. Our study contradicts these previous results and Hypothesis 3a, as families and non-financial firms as blockholders do not influence company performance (Model 5, Table 5); but we do obtain support for Hypothesis 3b because foreign investors' presence as other blockholders positively influences ~~(at a 0.10 level)~~ firm performance (β = .27, $p < .10$). (Model 6, Table 5). These results indicate the need to consider other large shareholders' identity when analysing the relationship between multiple blockholders and firm performance. An aspect that should also be explored is how different types of blockholders exercise their power in the firm's governance structures.

Our results also contradict Hypothesis 4, as the variable representing the existence of shareholder agreements SHAGREEMENTS does not turn out to be significant (Model 7). In all cases but two, the shareholder agreements include the largest owner. Shareholder agreements are made not only with families or between families as ultimate owners, but also between families and financial investors (especially savings banks). In some cases, and as consequence of the financial crisis and interventions by creditors, the agreements are between financial institutions. The small percentage of shareholder agreements and the variety of situations in which they are seen may help explain the non-significance of variable SHAGREEMENTS.

Finally, with regard to control variables, we get that prior performance (AROA) has a positive and significant effect on family firm industry-adjusted value. Family generation (OWNFOUNDERS) also influences value positively and founder ownership has a positive and significant effect. In this vein, we provide more evidence that there is a founder effect in

ownership, like Andres (2008) for instance (although his measure considers whether the founder is still active as CEO). Family governance (FAMGOV) has no additional effect on performance, nor does financial distress. However, similarly to the results obtained by Donker et al. (2007) and García-Castro et al. (2010), company size (SIZE) in some of the models has a negative and significant impact on family firm value, perhaps because smaller firms cannot achieve optimal scale economies (De Miguel et al., 2004; Himmelberg et al., 1999; Leech and Leahy, 1991).

- Insert Table 5 -

Robustness checks

To establish the robustness of our results, we repeat our estimations considering the whole sample of Spanish listed companies as well as the non-widely held non-family firms subsample and employ additional measures, models and methodologies (tables of the results are available from the authors on request).

First, we test the hypotheses for *all listed Spanish firms* and for *non-family* non-widely held firms, comparing the results with those for the family firms. For the whole sample of listed firms we employ GMM methodology as it is not necessary to control for the self-selection bias and we have a panel data structure and a possible endogeneity problem, while we employ a Heckman model (in order to avoid a bias selection) for the subsample of non-family firms whose first large shareholder owns more than 10%. We stress that the number of observations in the case of non-family firms is not large (169) and consequently we must be cautious when interpreting the results. We again consider AVALUE as dependent variable and we use the same independent variables as in the subsample of family firms, obviously omitting FAMGOV and OWNFOUNDER. The results show some differences compared with those obtained for family firms.

Contrariwise to what was the case for the subsample of family firms, variable MLSH does not present a significant coefficient and variable VOTING2341 shows a negative and significant effect (at a 0.10 and 0.05 level, respectively) on firm value both for all sample firms and for the subsample of non-widely held non-family firms (therefore supporting that there is collusion with the largest shareholder or rivalry and conflicts among other large blockholders). Variables WHOCONTROLS 1, 2 and 3 do not turn out to be statistically significant for the subsample of non-widely held non-family firms. For the whole sample of firms, company value is positively affected when multiple large shareholders hold fewer voting rights than the largest one (WHOCONTROLS2), while value decreases in firms where other large shareholders have more voting power than the largest one (WHOCONTROLS3). However, the pairwise comparisons show that there are no significant differences between WHOCONTROLS1 and the other two categories.

For the whole sample, as was the case for the subsample of non-family firms, variables IDENTITY1 and SHAGREEMENTS do not turn out to be significant in either case. Variable IDENTITY2 turns out to be positive and significant for the subsample of non-family firms and non-significant for the whole sample.

Over all, these results show that multiple blockholders' impact on company value differs for family and non-family businesses and for the whole sample of firms. Our findings confirm the need to consider family companies separately, because analysis of the whole sample can conceal the different behaviours of family firms. Future studies could try to disentangle the reasons for these different behaviours.

Second, we estimate the models proposed (summarized in Table 5) considering a profitability variable, *AROA*, as *dependent variable*, instead of firm industry-adjusted value. The results do not show a significant impact from MLSH on profitability. Similarly, VOTING2341 does not

turn out to be significant. Moreover, no effect from WHOCONTROLS is found. This could be due to the differences among indicators. AVALUE shows market value reflecting investors' expectations, while AROA is related more to internal efficiency in managing resources. Variables IDENTITY1, IDENTITY2 and SHAGREEMENTS do not turn out to have a significant influence on profitability, either.

Third, when we repeat the estimations (summarized in Table 5) using *alternative* measures of *contestability* such as DALL (measured as FSH-SSH-TSH-IVSH divided by FSH + SSH + TSH+ IVSH), the results are the same.

Fourth, in the models summarized in Table 5 we include an *alternative* measure of the *identity* of the large blockholders that considers only whether all blockholders are families or individuals, adopting value 1 and 0 in other cases. The results do not change; they are similar to those obtained for variable IDENTITY1. We also investigate whether the identity of the blockholders (considering alternatively the two proxies of identity) and agreements among shareholders affect the relationship between VOTING2341 or voting rights distribution (WHOCONTROLS 1, 2 and 3) and family firm value (VALUE). We do this by adding to Models 2, 3 and 4 of Table 5 the IDENTITY1, IDENTITY2 and SHAGREEMENTS variables, alternatively, multiplied by variables VOTING2341 or WHOCONTROLS 1, 2 and 3. None of these variables turns out to be statistically significant when we consider variables IDENTITY1 and SHAGREEMENTS. But the results do show a significant coefficient (at a 0.10 level) for the interaction variable of the presence of foreign investors (IDENTITY2) and variable WHOCONTROLS2. Thus, foreign investors seem to increase the positive effect of family voting rights exceeding other shareholders'. This result suggests that foreign investors may mount a credible opposition to families' value-decreasing decisions and that their expertise may be particularly valuable for family firms.

Fifth, we consider different *family firm definitions* such as K1FAM and FF10GOV (the latter defined as the product of FF10 and FAMGOV) in the models summarized in Table 5. Variable FF10GOV applies to those family firms that are family owned and managed or chaired, and both variables are more restrictive definitions to avoid potential overclassification of family companies. In both cases, there is a significant effect from MLSH on family firm value, but no effect from VOTING2341 is shown. Voting rights distribution has the same effect on value when we consider FF10GOV, but not when we define family companies as K1FAM. In this case, WHOCONTROLS2 shows a positive effect on family firm value while WHOCONTROLS1 shows a negative influence. However, the pairwise comparisons reveal that there are no significant differences between WHOCONTROLS3 and the first two categories. Variable IDENTITY2 does not show a significant coefficient on firm value when we use either the K1FAM definition or the FF10GOV definition.

Finally, we estimate the models proposed for family firms by interacting AGE with the VOTING2341 and WHOCONTROLS 1, 2 and 3 variables. The only significant interactive variables are WHOCONTROLS1 x AGE and WHOCONTROLS2 x AGE. More specifically, the results indicate that the older the family firm, the lesser the negative effect of WHOCONTROLS1 and the lesser the positive effect of WHOCONTROLS2. This suggests that in older firms (and therefore larger firms) the credibility of opposition from other large shareholders may not be as strong as in younger and smaller firms. One possible explanation could be that large companies have higher monitoring costs (task specialization makes monitoring more difficult and costly).

DISCUSSION

Family firms present a high ownership concentration compared with other types of companies, especially because the largest owner's stake is significantly greater in family

firms than in non-family businesses. However, families also coexist with other large shareholders whose voting and control power varies.

Agency theory holds that the family as largest shareholder may extract private benefits of control, which decreases firm value. However, other blockholders may prevent this behaviour by challenging the family and contesting its power, increasing value. On the other hand, stewardship theory sees managers as being loyal to the company, so blockholders who join forces with the main shareholder increase firm value by helping the family pursue value-maximizing objectives. Therefore, both contestability (linked to agency theory) and loyalty/alignment with the family (linked to stewardship theory) are factors in large blockholders' positive influence on family firm performance. However, according to agency theory, large blockholders may also try to advance their own interests, seek private benefits of control and collude with the family to the detriment of minority shareholders. Moreover, a group of blockholders may face collective problems and have conflicting views of corporate strategy, so rivalry may emerge and decrease firm value.

With this dual perspective drawn from agency and stewardship theory, our study analyses how possible interactions among other large shareholders may influence family firm performance, and how various factors may weaken or strengthen the link between the blockholders' presence and company value. We report that their influence may be different in family firms than in non-family businesses (and in family companies versus the whole sample). Specifically for family firms, our results show that the existence of multiple blockholders has a positive effect on value.

However, other large shareholders' voting rights in relation to those of the principal owner − a variable used in the literature as a proxy of contestability against the largest shareholder from other blockholders − do not significantly influence company value. Contrariwise, for the

subsample of non-widely held non-family firms (and for the whole sample) the number of blockholders has no significant impact, but there is a significant negative effect associated with the ratio of the other blockholders' voting rights to those of the main owner.

Our results also suggest that in family firms there may be many interesting situations that can go unnoticed in the general measures used in previous studies. In fact, the market negatively values family firms that have a unique large owner and that there is value in concentrating ownership but not giving all the power to the controlling family. This suggests that when the family retains control, credible opposition from other large shareholders that is strong enough but not overwhelming curbs family entrenchment and increases firm value. That balance of power benefits the minority owners. However, if other blockholders are strong enough to unite in overthrowing the family if necessary, they may try to protect their own interests and there may be power struggles that harm company performance. The balance of power may be disrupted and business goals, from a minority owner's point of view, may be superseded by the other shareholders' agendas.

In this sense, our findings are in line with those of Le Breton-Miller et al. (2011), indicating that too much family can be a dangerous thing. Our results for family companies suggest that the market does look favourably on the presence of other large owners, but only under certain circumstances. Blockholders who have more voting power than the family may pursue their own agendas and engage in rivalry and disputes, damaging firm value. On the other hand, when they have less voting power than the family, and especially if they are foreign investors, they may act as a credible but not overwhelming opposition, increasing profitability.

These results have considerable implications for family owners and for investors. Multiple large shareholders have a positive effect on company value as long as the family remains in control. Our study also demonstrates to researchers that it can be risky to classify a company

as a family firm by looking only at the stake of the largest owner. It is relevant to examine all of the shareholders thoroughly to make an accurate determination of family control. Finally, our results indicate a need to further explore the family firms subsample for insight into the varying behaviours and situations within those companies.

Future research should explore the governance implications and the structures, composition and identities of other large shareholders in detail, in other institutional settings and with reference to other types of family firms. We recommend three objectives: First, to examine what effect the distribution of power has on corporate governance structures such as the board of directors; second, to further analyse blockholders identity, i.e., to what extent the positive effect of family power (when other large owners have fewer voting rights) depends on the blockholders' presence in corporate governance and on their characteristics (considering, for example, the industry sectors for non-financial and foreign firms, the backgrounds of families and individuals, and possible interlockings on the board); and finally, to test the arguments using stock prices instead of performance indicators.

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Table 1: Empirical effects of multiple large shareholders on firm performance

Author	Sample	Concentration measure	Performance measure	Results
Negative effect				
Earle et al. (2005)	Budapest Stock Exchange 1996-2000	C_{all}: sum of all blockholders	ROE	The marginal costs of concentration may outweigh the benefits when the increased concentration involves "too many cooks."
Konijn et al. (2011)	US data	Herfindahl Index scaled	Tobin's Q	Negative correlation between blockholding and Tobin's Q
Positive effect				
Andres (2008)	275 German exchange-listed companies	Dummy identification of blockholders over 25% (only one blockholder for each firm)	ROA, ROE, Tobin's Q	Family firms outperform companies with other types of blockholders. The performance of family businesses is better only in firms in which the founding family is either on the executive or the supervisory board.
Attig et al. (2009)	1259 publicly traded companies in 9 East Asian economies	Several measures of contestability: differences, Herfindahl, ratios	Tobin's Q	The presence, number, and size of multiple large shareholders are associated with a significant valuation premium. The identity of MLS influences corporate value. The valuation effects of MLSS are more pronounced in firms with greater agency costs (when the second is a family or the state).
Faccio et al. (2001)	Multi country study of listed firms 1992-1996	Multiple owners dummy if they exceed 10%	Multiple measures	The presence of multiple large shareholders is associated with higher dividend payments
Gutiérrez and Pombo (2009)	233 non-financial Colombian listed firms	Herfindahl, Shapley value	Tobin's Q, ROA and ROE	Regression results show that a more equal distribution of equity among large blockholders has a positive effect on firm value. Contestability matters most when firm shares are liquid and actively traded on the stock market.
Gutiérrez et al. (2012)	Spanish Closely held corporations 1996-2000	Dummy variables by ranges	ROA and market to book ratio	Firms that are more vulnerable to minority expropriation have blockholders controlling groups with aggregate equity stakes that are far removed from 50%, which is the point that maximizes the chances of expropriation. Moreover, performance improves when the controlling group's stake moves away from the region where expropriation is more likely and, if within this region, when the number of group members increases.

Table 1: Empirical effects of multiple large shareholders on firm performance

Author	Sample	Concentration measure	Performance measure	Results
Jara-Bertín et al. (2008)	1208 companies from 11 European countries	Alternative measures such as: - the sum of the ownership of the second and the third largest shareholders relative to the ownership of the largest shareholder; - two alternative measures of contestability as variations of the Herfindahl index	Market to book ratio	- Increased contestability of the control of the largest shareholder increases the value of family-owned firms. - In firms in which the largest shareholder is a family, a second family shareholder reduces firm value. An institutional investor as second shareholder increases firm value. - Better legal protection of shareholders not members of the controlling coalition increases the value of family firms. - The formation of a controlling coalition of shareholders can exacerbate the expropriation of minority shareholders if these controlling shareholders are families.
Leaven and Levine (2008)	1657 publicly traded firms in Europe	Dispersion ratio (CF largest –CF SSH)	Tobin's Q	There is a strong negative relationship between cash flow rights dispersion and Tobin's Q. The negative effect is more pronounced when the holders are of different types (families, financial institutions, state)
Maury and Pajuste (2005)	Finnish listed firms 1993-2000	Herfindahl Index Shapley value	Tobin's Q	A more equal distribution of votes has a positive effect on firm value. This result is particularly strong in family-controlled firms if they are not monitored by another blockholder (typically a financial institution).
Mínguez-Vera and Martín-Ugedo (2007)	Spanish listed firms 1998-2000	Several measures: - the percentage of capital owned by the two to five largest shareholders of the firms - the Herfindahl index (H) - the third measure of concentration is a logistic transformation.	Tobin's Q	There is a non-significant relationship between the concentration of shareholdings and the value of the firm. The presence of an individual or family investor as the major shareholder also has a favorable influence on the value of the firm.

Table 2: Variables of the study

Variables	Description
a) Ownership structure variables	
FSH	Voting rights of the large owner (considering direct and indirect ownership) and grouping all family voting rights in the case of family firms
SSH	Voting rights of the second large owner (next blockholder in terms of size after the FSH)
TSH	Voting rights of the third large owner
IVSH	Voting rights of the fourth large owner
OWNCON	Sum of the voting rights of all significant owners
WEDGEFSH	Difference between control rights and cash flow rights of the largest shareholder
b) Other large shareholders variables	
MLSH	Dummy variable that adopts 1 if the firm has multiple significant large owners (by examining the next three owners besides the largest), and 0 otherwise
NLSH	Number of significant owners apart from the largest one (by examining the next three owners besides the largest), and 0 otherwise
VOTING 2341	(SSH+ TSH+ IVSH) divided by FSH
WHOCONTROLS1	Dummy variable that adopts the value of 1 if the firm has only one large shareholder, and 0 otherwise
WHOCONTROLS2	Dummy variable that adopts 1 if the firm has multiple large owners and the large shareholder (FSH) has more voting power than the rest of owners (SSH+TSH+IVSH), and 0 otherwise
WHOCONTROLS3	Dummy variable that adopts 1 if the firm has multiple large owners and the large shareholder (FSH) has less voting power than the rest of owners (SSH+TSH+ IVSH), and 0 otherwise
IDENTITY1	Dummy variable that adopts the value of 1 it all blockholders are families and individuals and/or non-financial firms and 0 otherwise.
IDENTITY2	Dummy variable that adopts the value of 1 if other blockholders except the largest one are foreign firms and 0 otherwise.
SHAGREEMENTS	Dummy variable that adopts 1 if there is a shareholder agreement among blockholders and 0 in other cases
c) Family firm characteristics	
FF10	Dummy variable that adopts the value of 1 when families and individuals are either the largest shareholder (FSH) or the ultimate owner having a threshold over 10%, and 0 otherwise. It considers chains of ownership. Those observations that are not FF10 are classified as NFF (non-family firms).
K1FAM10	Dummy variable that adopts 1 when families and individuals are the largest shareholder (FSH) having a threshold over 10%, and 0 otherwise. It considers only apparent ownership not ultimate ownership.
FAMGOV	Dummy variable that adopts 1 if family firms (FF10) are family managed and/or family chaired, and 0 otherwise
OWNFOUNDERS	Dummy variable that adopts 1 if the owners are founders, and 0 otherwise –- they are descendants or a combination of founders and descendants
d) Firm characteristics	
VALUE	Firm market value or capitalisation + the book value of debt divided by the book value of total assets
AVALUE	Industry adjusted value – firm value minus the industry median each year
ROA	Return on assets (operating income over total assets)
AROA	Industry adjusted firm return on assets - firm ROA minus industry median each year
CEO TENURE	Number of years since the first appointment of the CEO up to the reference year
SIZE	Book total sales in thousand Euros
AGE	Firm age
SECTOR	Dummy variable that adopts 1 if the firm belongs to a regulated industry (energy, electricity, telecommunications and transport) and 0 in other cases
LEV	Book value of total debt/book value of total assets
FINANDISTRESS	Financial expenses over net profit

Table 3: Descriptive statistics and mean differences

FF10 denotes family firms; NFF refers to those observations that are not classified as FF10. NNF10 denotes those non-family firms whose large shareholder holds more than 10% (excluded are widely-held firms). For continuous variables, the statistic we use to measure statistical differences is the Mann-Whitney U test. For dummy variables (a) the statistic used is the Chi-squared test and the descriptive statistic is the frequency. In order to analyse statistical differences, we use a sample without any missing values in the variables considered in the descriptive analysis. Thus, although the initial sample is composed of 733 observations, descriptive results are calculated with a sample of 677 observations. Sample size for the regression analyses is even smaller due to the use of lags.

Variables		All Sample	FF10 (1)	NFF (2)	NFF10 (3)	Mann-Whitney U/ Chi-squared test (a) (1) y (2)
		N = 677	N = 426	N = 251	N=194	
FSH	Mean	36.95	40.38	31.12	37.79	36,629***
	Median	29.56	35.01	22.41	25.85	
SSH	Mean	9.27	8.91	9.88	11.22	51,648
	Median	8.28	8.63	7.58	9.99	
TSH	Mean	3.75	3.65	3.92	4.33	51,756
	Median	4.64	4.50	4.90	5	
IVSH	Mean	1.90	1.81	2.06	2.30	51,935
	Median	0	0	0	0	
OWNCON	Mean	51.87	54.76	46.99	55.64	42,192***
	Median	57.83	59.56	44.14	54.92	
WEDGEFSH	Mean	1.5	2.22	0.27	0.21	44,054***
	Median	0	0	0	0	
MLSH (a)	Freq.	81%	79%	84%	84%	2.979†
NSLH	Mean	1.65	1.62	1.70	2.51	48,829.5**
	Median	2	2	2	2	
VOTING2314	Mean	0.69	0.58	0.88	0.76	40,525***
	Median	0.55	0.41	0.87	0.78	
WHOCONTROLS1 (a)	Freq.	19%	21%	16%	16%	2.979†
WHOCONTROLS2 (a)	Freq.	52%	54%	48%	51%	2.292
WHOCONTROLS3 (a)	Freq.	29%	24%	36%	32%	10.117***
IDENTITY1 (a)	Freq.	45%	51%	36%	31%	14.497***
IDENTITY2 (a)	Freq.	34%	37%	27%	26%	6.53†
SHAGREEMENTS (a)	Freq.	12%	15%	7%	9%	8.01**
VALUE	Mean	1.64	1.63	1.64	1.71	51,157
	Median	1.26	1.26	1.24	1.23	
AVALUE	Mean	0.36	0.33	0.41	0.51	52,267
	Median	0	0	0.02	0.02	
ROA	Mean	0.06	0.05	0.08	0.08	43,693***
	Median	0.05	0.05	0.07	0.07	
AROA	Mean	0.02	0.02	0.03	0.03	45,956**
	Median	0	0	0	0	
CEO TENURE	Mean	9.11	10.03	7.55	7.44	46,093**
	Median	6	8	5	5	
SIZE	Mean	6,350,045.66	4,028,724.11	10,289,818.5	7,571,632.85	41,315***
	Median	1,003,442	851,409	1,642,732	1,812,498	
AGE	Mean	44.64	42.31	48.58	49.91	45,144***
	Median	38	37	39	41	
SECTOR (a)	Freq.	17%	14%	24%	22%	10.809***
LEV	Mean	0.64	0.64	0.63	0.64	51,607
	Median	0.64	0.64	0.64	0.64	
FINANDISTRESS	Mean	0.29	0.62	-0.25	0.55	49,823
	Median	0.21	0.19	0.24	0.23	
FF10	Freq.	63%	100%	0	0	
K1FAM	Freq.	40%	62%	0	0	
FAMGOV	Freq.	48%	70%	0	0	
OWNFOUNDERS	Freq.	62%	63%	0	0	

† p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001

Table 4: Correlation matrix for the dependent and explanatory variables

Selection equation variables (N = 574)	1	2	3	4	5	6	8	9
1. FF10	1							
2. SIZE	-0.20*** (0.000)	1						
3. AGE	-0.15*** (0.000)	0.21*** (0.000)	1					
4. ROA	-0.09* (0.022)	0.05 (0.228)	-0.05 (0.216)	1				
5. SECTOR	-0.12** (0.004)	0.28*** (0.000)	-0.04 (0.374)	0.09* (0.019)	1			
6. LEV	0.01 (0.757)	0.32*** (0.000)	0.15*** (0.000)	-0.11** (0.009)	0.02 (0.618)	1		
7. WEDGE	0.19*** (0.000)	0.12** (0.004)	0.02 (0.629)	0.07 (0.103)	0.13** (0.002)	0.09* (0.037)	1	
8. CEOTENURE	0.09* (0.024)	-0.02 (0.662)	0.16*** (0.000)	0.06 (0.125)	-0.15*** (0.000)	-0.05 (0.193)	-0.02 (0.671)	1

Regression equation variables (N = 353)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. AVALUE	1														
2. VOTING2341	0.00 (0.897)	1													
3. WHOCONTROLS1	-0.18*** (0.000)	-0.45*** (0.000)	1												
4. WHOCONTROLS2	0.18*** (0.000)	-0.36*** (0.000)	-0.56*** (0.000)	1											
5. WHOCONTROLS3	-0.05 (0.332)	0.82*** (0.000)	-0.24*** (0.000)	-0.67*** (0.000)	1										
6. IDENTITY1	-0.05 (0.388)	-0.23*** (0.000)	0.41*** (0.000)	-0.14** (0.009)	-0.21*** (0.000)	1									
7. IDENTITY2	0.09 (0.105)	0.15** (0.004)	-0.20*** (0.000)	0.05 (0.379)	0.12* (0.018)	-0.38*** (0.000)									
8. SHAGREEMENTS	-0.04 (0.439)	-0.09† (0.080)	0.06 (0.280)	0.02 (0.634)	-0.08 (0.127)	0.06 (0.287)	-0.12* (0.022)	1							
9. FAMGOV	0.06 (0.273)	-0.11* (0.037)	0.04 (0.406)	0.08 (0.107)	-0.14** (0.008)	-0.03 (0.524)	-0.01 (0.774)	-0.11* (0.032)	1						
10. OWNFOUNDER	0.21*** (0.000)	0.07 (0.208)	-0.08† (0.097)	0.03 (0.553)	0.04 (0.427)	-0.03 (0.581)	-0.00 (0.885)	-0.08 (0.104)	-0.18*** (0.000)	1					
11. AROA	0.242*** (0.000)	0.12* (0.022)	-0.09† (0.064)	-0.00 (0.918)	0.09† (0.075)	-0.17** (0.001)	-0.00 (0.999)	-0.00 (0.986)	-0.07 (0.177)	0.14* (0.010)	1				
12. SIZE	-0.18*** (0.000)	-0.07 (0.187)	0.25*** (0.000)	-0.26*** (0.000)	0.08 (0.143)	-0.09† (0.088)	-0.03 (0.588)	0.26*** (0.000)	-0.05 (0.303)	-0.05 (0.303)	0.00 (0.940)	1			
13. AGE	-0.12* (0.028)	-0.14** (0.008)	0.05 (0.386)	0.052 (0.325)	-0.10† (0.053)	0.13* (0.017)	-0.05 (0.320)	-0.09 (0.101)	-0.19*** (0.000)	-0.07 (0.180)	-0.09† (0.066)	0.18*** (0.000)	1		
14. LEV	-0.13* (0.017)	-0.02 (0.768)	0.11* (0.032)	-0.15** (0.004)	0.07 (0.167)	-0.00 (0.997)	-0.14** (0.010)	0.10† (0.058)	-0.00 (0.897)	-0.12* (0.019)	-0.14** (0.009)	0.35*** (0.000)	0.12* (0.022)	1	
15. FINANDISTRESS	-0.00 (0.972)	0.03 (0.546)	-0.09† (0.076)	0.06 (0.244)	0.01 (0.818)	-0.03 (0.505)	-0.08 (0.137)	0.00 (0.870)	-0.03 (0.553)	-0.00 (0.893)	-0.01 (0.807)	0.05 (0.354)	0.07 (0.198)	-0.03 (0.593)	1

(p-value) † p< 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001

Table 5: The impact of other large shareholders on family firm value

VARIABLES	MODEL1	MODEL 2	MODEL 3	MODEL 4	MODEL 5	MODEL 6	MODEL 7
MLSH	0.52**						
	(3.42)						
VOTING 2341		-0.08					
		(-0.75)					
WHOCONTROLS1			-0.47**				
			(-2.74)				
WHOCONTROLS2				0.47**			
				(2.74)			
WHOCONTROLS3			-0.28†	0.19			
			(-1.85)	(0.98)			
IDENTITY1					-0.05		
					(-0.42)		
IDENTITY2						0.27†	
						(1.65)	
SHAGREEMENTS							0.09
							(0.48)
FAMGOV	0.23	0.15	0.17	0.17	0.16	0.17	0.17
	(1.56)	(1.05)	(1.21)	(1.21)	(1.13)	(1.20)	(1.18)
OWNFOUNDERS	0.46***	0.45**	0.44**	0.44**	0.45**	0.45***	0.45**
	(3.63)	(3.47)	(3.44)	(3.44)	(3.47)	(3.50)	(3.47)
AROA	1.66***	1.86***	1.83***	1.83***	1.79***	1.83***	1.83***
	(3.80)	(4.21)	(4.19)	(4.18)	(4.02)	(4.19)	(4.16)
SIZE	-0.08†	-0.10*	-0.07	-0.07	-0.10*	-0.10*	-0.10*
	(-1.88)	(-2.53)	(-1.54)	(-1.54)	(-2.51)	(-2.53)	(-2.49)
AGE	-0.06	-0.09	-0.09	-0.09	-0.08	-0.08	-0.08
	(-0.65)	(-0.95)	(-0.96)	(-0.96)	(-0.82)	(-0.82)	(-0.81)
LEV	0.05	0.03	0.03	0.03	0.02	0.08	0.08
	(0.19)	(0.08)	(0.11)	(0.11)	(0.08)	(0.28)	(0.06)
FINANDISTRESS	-1.61-04	4.88-03	8.68-04	8.68-04	3.99-03	6.14-03	4.06-03
	(-0.01)	(0.34)	(0.06)	(0.06)	(0.28)	(0.43)	(0.28)
Annual effect considered[a]	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Inverse Mills ratio Lambda ( )	-0.04	0.05	-0.03	-0.03	0.06	0.06	0.05
	(-0.14)	(0.20)	(-0.13)	(-0.13)	(0.23)	(0.23)	(0.19)
Wald	χ^2 (14) =70.52***	χ^2 (14) = 57.54***	χ^2 (15) = 67.20***	χ^2 (15) = 67.20***	χ^2 (14) = 57.10***	χ^2 (14) = 60.07***	χ^2 (14) = 55.66***
R-Squared	0.16	0.14	0.16	0.16	0.14	0.15	0.14

Dependent variable is ADJUSTED VALUE. Values are unstandardized coefficients, with t values in parentheses. Wald test is a χ^2 test of all coefficients in the regression model except the constant, are equal to 0. Models are estimated with the constant but it is not reported in the table. In order to have complete data in our estimates and to have the same sample size in all the models presented, the final sample for the Heckman analysis was made up of 117 firms and 574 observations (353 for family firms and 221 for non-family companies).

Number of observations = 353; number of family firms = 77

[a] There is not any significant annual effect in the models. † p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001