INSIDERS OWNERSHIP AND FIRM VALUE IN SOUTHERN EUROPE

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Abstract

The effectiveness of the insider ownership as an internal governance mechanism is addressed in the Southern European context using a sample of publicly traded firms during the 2001-2007 period. A cross country and panel data design is used, taking into account the endogeneity problem arising in studies of corporate governance. The results provide new evidence of the influence of the insider ownership on firm value by testing a non-linear relationship. Our study supports both the convergence of interests and the entrenchment effect. It also shows whether there are significant differences in the estimated relationship between family and non family firms. We find that when the large shareholder has not a family nature, firm value initially declines with insider ownership, then increases, and, finally, increases again. However, when the large shareholder has a family nature, firm value initially increases.

Keywords: Corporate Governance, Insider Ownership, Large Family Shareholder, Firm Value, Endogeneity, Listed Firms

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1. Introduction

During last decades, a large body of studies has analyzed the effect of ownership structure or board of directors on firm value (Baysinger and Butler, 1985; Demsetz and Lehn, 1985; Hermalin and Weisbach, 1991; Jensen and Meckling, 1976). There has been a large body of literature that has examined both the empirical and theoretical effects of different ownership and control structures on firm value. Most empirical evidence in this regard has traditionally focused on companies with dispersed ownership structures, typical of the models of corporate control of USA and UK (Finegold et al., 2007). Throughout recent years, several studies have shown how dispersed ownership structures do not dominate as much as suggested by the arguments of Berle and Means (1932), revealing the importance of concentrated ownership structures in most part of the business world.

The presence of shareholders holding a high proportion of the firm's capital constitutes a way to mitigate the effects of the separation of ownership and control on firm value. As Berle and Means (1932) asserted, the manager of a firm in which each shareholder holds only a small fraction of the firm's capital can engage in value reducing activities. A minority shareholder has weak incentives to engage in monitoring of managers because he or she supports all the costs of monitoring while getting only a small fraction of the benefits (the typical free rider problem). In contrast, a concentrated ownership structure in which one or more shareholders own a large block of equity has the potential for refuting the managers from engaging in moral hazard behaviour. A large shareholder may also be actively involved on the board of directors or nominate a person to represent him or her there, in order to ensure that management is acting in the interests of shareholders (Jensen, 1993). The relationship between directors' ownership and firm value has been the focus of empirical research since Jensen and Meckling (1976) hypothesize that insider ownership⁹ is an important mechanism for aligning the interests of managers and shareholders.

Whether directors' ownership is beneficial or detrimental to firm value is an empirical question. Related empirical evidence is mixed and inconclusive. On the one hand, some studies are consistent with the Jensen and Meckling(1976) convergence of interest hypothesis, which suggests that a uniformly positive relationship exists between insider ownership and

⁹ Insider ownership can be divided into managers' ownership (managers' shareholdings) and directors' ownership (directors' shareholdings).

firm value. On the other hand, other studies give support to the Demsetz (1983) and Fama and Jensen (1983) entrenchment hypothesis, which suggest that at high levels of insider ownership a negative relationship exists between insider ownership and firm value. Moreover, some authors do not find any significant relationship between both variables, while others found non-linear relationships supporting both the convergence of interest and entrenchment hypotheses.

A key aspect of firm governance is not only the quantitative dimension of ownership structure, that is, the level of ownership concentration, but also its qualitative dimension, that is, the typology of the firm's shareholders (Bammens et al., 2010). The governance practices of family businesses (FBs) differ from those of non-FBs (NFBs), because not all shareholders have the same incentives large (Bartholomeusz and Tanewski, 2006). Values and objectives vary across contexts and actors and this needs to be taken into account when designing and interpreting empirical studies (Huse et al., 2011). Thus, a contingency and contextual perspective is needed to test the relationship between corporate governance and firm value in order to show that in some contexts certain corporate designs may be recommended, but in other contexts other designs may be more important (Huse et al., 2011).

Considering these prospective connections, our two main aims are to highlight the importance of suitably contextualising any assessment of ownership structure as a business governance mechanism, and to test whether the optimal level of directors' shareholdings is different for FBs and NFBs. Thus, we adopt a contingency approach wherein the impact of directors' shareholdings on firm vale is seen as a relationship that varies depending on context under analysis, in particular on the qualitative dimension of ownership structure (whether the firm is a FB). To that end, we address an empirical analysis for a sample of listed firms from Southern Europe during the 2001-2007 period.

This study is expected to contribute to existing corporate governance literature in three main ways. Firstly, the Southern European business sector enables us to analyze the impact of directors' shareholdings on firm value in a context characterized by high ownership concentration and the presence of family groups in the control of a significant number of firms. While in the US the main issue is managers' opportunistic behavior (Type I agency problem owner-manager, Villalonga and Amit, 2006), in Southern Europe the focus is on the divergence of interests between large and minority shareholders (Type II agency problem owner-owner, Villalonga and Amit, 2006). Unlike most existing studies, which have usually compared widely dispersed NFBs with very closely held FBs, in this study both types of firms, FBs and NFBs, have a concentrated ownership structure, that is, all firms in our sample have a large

shareholder¹⁰. The monitoring role by owners and its effect on firm performance are not as important in US as in Southern European countries, where ownership concentration is higher, the level of investor protection is lower, and large blockholders have greater power and stronger incentives to ensure shareholder value maximization (Díaz and García, 2004; Maury, 2006; Sánchez-Ballesta and García-Meca, 2007). Given the theoretical and empirical gap in this knowledge, it seems important to examine whether within an environment of concentrated ownership the relationship between directors' shareholdings as an insider corporate governance mechanism and firm value depends on the family nature of the large shareholder. Secondly, we control for nonlinearities to be consistent with both the convergence of interest and the entrenchment hypotheses. Finally, and in contrast with most prior studies, which have usually used cross-section samples and treated ownership as exogenous, we used a panel data design and consider the potential endogeneity of ownership structures (Demsetz, 1983; Demsetz and Villalonga, 2001; Himmelberg et al., 1999; Palia, 2001) when estimating the relationship between directors' shareholding and firm value.

The study is structured as follows. Section 2 reviews the theoretical and empirical literature on insider ownership and firm value and posits the hypotheses to be verified. Section 3 describes the sample of firms and the methodological approach adopted. Section 4 offers the main empirical results to emerge and, finally, Section 5 rounds off the paper with the main conclusions and implications.

2. The relationship between insider ownership and firm value

Theoretical and empirical literature considers insider ownership as one of the main mechanisms that affect firm value. Several papers examine the benefits and costs of insider ownership on the basis of two competing hypotheses. On the one hand, Jensen and Meckling (1976) convergence of interest hypothesis contends that, as insider ownership in a firm increases, agency costs decrease because insiders become less inclined to divert resources away from value maximisation or to engage in other sub-optimal activities and therefore their interests and those of shareholders are aligned. Consistent with this hypothesis, several studies argue that stock ownership by board members gives them an incentive to ensure that the firm is run efficiently and to monitor managers carefully (e.g., Brickley et al., 1988). When board members have considerable holdings in a company's stock (either direct holdings of stocks or

¹⁰ As we further explain in the methodological section of this paper, the large shareholder is a family in the case of FBs, and e.g. holding companies, banks and so on in the case of NFBs.



options on the firm's stock), their decisions impact their own wealth. Further, the impact of the directors' decisions on their wealth is compounded when the receipt of stock or options is a component of their compensation package. Consequently, they are less likely to take actions that would reduce shareholder wealth. According to this hypothesis, a positive relationship between insider ownership and firm value exists.

On the other hand, Demsetz (1983) and Fama and Jensen (1983) point out that a rise in the insiders' ownership stakes may also have adverse effects in reconciling agency conflicts and these can lead to an increase in insiders' opportunism. They contend that market discipline will force insiders to adhere to value maximisation at very small levels of insider ownership, but high levels of insider ownership could lead to entrenchment, because passive shareholders find it difficult to monitor and control the actions of such insiders. In this sense, it is possible that insiders have sufficient control to follow their own objectives without taking into account the interest of all shareholders. According to the entrenchment hypothesis, at high levels of insider ownership, firm value may be affected adversely. The entrenchment effect implies that high levels of insider ownership create incentives for the large active shareholder to expropriate wealth from minority investors (Fama and Jensen, 1983; Shleifer and Visnhy, 1997; Stulz, 1988).

Given these two opposing forces (convergence and entrenchment), as Morck et al. (1988) and McConnell and Servaes (1990), among others suggest, the relation between director ownership and performance depends on which force dominates with any particular degree of director's equity ownership. Insiders are faced with both positive and negative incentives to ensure that they follow objectives which maximize shareholder wealth. The effectiveness of these incentives is potentially a function of the level of insider ownership in the firm. Therefore, we expect nonlinear relationship between directors' а shareholdings and firm value to exit. Prior studies show that there is great disparity in the functional form of such a relation. While some studies found a quadratic relationship (e.g. Adams and Santos, 2006; Barnhart and Rosenstein, 1998; Faleye, 2007; Mc Connell and Servaes, 1990), others evidenced that a cubic relationship exists (e.g. Miguel et al., 2004; Morck et al., 1988; Holderness et al., 1999). A metaanalytical study by Sánchez-Ballesta and García-Meca (2007) on the insider ownership/firm value relationship provides both evidence of the convergence of interests and support for the entrenchment hypothesis. Although they offer evidence of the nonlinear relationship between ownership structure and firm value, they cannot account for the different inflection points found, which may also vary according to the system of corporate governance. Bearing in mind the above

arguments, and following Morck et al. (1988) and Miguel et al. (2004), we propose that there is a cubic relationship between firm value and insider ownership. More specifically, we expect that firm value increases with insider ownership at low and high levels (as a result of the convergence of interest effect) and decreases with insider ownership at intermediate levels (as a consequence of the insiders' entrenchment effect).

2.1. Family and non-family large shareholders

Previous empirical research ignore the diverse identities of various types of investors, such as large family shareholders, who may have different interests, time horizons, and strategies from typical public investors (Aguilera and Jackson, 2003). In this paper, we adopt a contextual approach and propose the propensity of insiders to maximise/expropriate shareholder wealth to be a function not only of the level of insider ownership in the firm but also of the identity of the large shareholder. The effect of insider ownership on firm value depends on the agency problem it is supposed to solve and agency problems in FBs are different from those in NFBs. Agency theorists acknowledge that directors and boards vary in their incentives to monitor in order to protect shareholder interests; as a result, incentives are an important precursor to effective monitoring (Fama, 1980; Jensen and Meckling, 1976). For family owners it is natural to have a board presence and they are usually managers as well (Lane et al., 2006). Therefore, directors' ownership is greater when the controlling shareholder is a family, as there is a high degree of convergence between insider and family ownership (Block et al., 2011; Demsetz and Villalonga, 2001). In publicly traded FBs, family controlling shareholders have strong incentives to monitor management, in order to protect family wealth (Anderson and Reeb, 2003; Barontini and Caprio, 2006; McVey and Draho, 2005), thereby mitigating the classical agency problem between owners and managers (Agency Problem I, Villalonga and Amit, 2006). FBs are characterized by involvement-oriented management philosophies, strong firm identification, low reliance on institutional powers, and personal and social fulfilment (Anderson and Reeb, 2003; Corbetta and Salvato 2004; Miller and Le Breton-Miller, 2006). The purpose of investment of large family shareholders is not to produce short-term gains, as with others shareholders (Shleifer and Vishny, 1997); rather, particularly for FBs, the shareholders tend to maintain a long term perspective on their investment that benefits current, as well as future, generations. FBs are institutions in which family owners, freed from short-term financial market demands, are emotionally committed to the long-run survival and reputation of their firms as their fortunes, careers, and their personal honour, as well as

that of their children and ancestors, are at stake (Miller and Le Breton-Miller 2006).

Another type of agency cost, however, can be higher within publicly trade FBs with respect to their nonfamily counterparts. Concentrated family ownership brings about the risk of power abuse and extraction of private benefits at the expense of nonfamily minority shareholders (Agency Problem II, Villalonga and Amit 2006). If the large shareholder is not a family (e.g. holding companies, banks), the private benefits of control are diluted among several independent owners. As a result, the large shareholder's incentives for expropriating minority shareholders are small, but so are its incentives for monitoring the manager, and thus we revert to Agency Problem I. By contrast, if the large shareholder is an individual or a family, it has greater incentives for both expropriation and monitoring, which are thereby likely to lead Agency Problem II to overshadow Agency Problem I. Therefore, family influence needs to be balanced with corporate structures which limit the family's discretion over firm resources and the danger of expropriation of firm wealth (Anderson and Reeb, 2003). Furthermore, within the setting of FBs, three another sources of moral hazard can be identified, which set them apart from their non-family counterparts (Bammens et al., 2010; Mazzi, 2011): (1) the owning-family's pursuit of its own non-economic interests, which refers to the threat of owning-families pursuing non-economic family objectives (keeping the control of the company, firm survival, financial independence and/or family harmony) to the detriment of nonstakeholders' interests (Block et family al., 2011;McVey et al., 2005); (2) the parental tendency to act upon altruistic motives, which concerns the risk of self-control problems exacerbated by parental altruism (Schulze et al., 2001); and (3) the different nuclear family units' pursuit of their own interests, which refers to moral hazard problems that may arise from intrafamily divergence of interests. When family control is very high, unorthodox methods, such as favoritism of family members, for determining board composition can emerge, which can be detrimental to minority shareholders. Thus, the coincidence between owners and managers/directors in FBs can lead to family entrenchment and delays in the succession to lead the company (Lane et al., 2006). This often results in family shareholders having control rights significantly in excess of their cash-flow rights.

Summing up, family ties can also explain nonlinearities in the relationship between insider ownership and firm value in terms of potential benefits and costs of family ownership. Both effects of insider ownership on firm value, positive and negative, are expected to be more pronounced in family organizations. The positive relationship will be enhanced by altruistic effects generated as result of their longer investment horizons (Schulze et al., 2001), while the negative relationship will do so for the greater likelihood of expropriation of minority shareholders (Gómez-Mejía et al., 2001). The disadvantages of having a family member as the principal shareholder of the company are more likely to arise when his stake in the company is too high. It will contribute to improved firm value as family ownership increases up to a certain level, beyond which it will have the opposite effect. Therefore, we expect lower free-rider agency costs and superior convergence of interest in FBs as compared with NFBs for low levels of director ownership, whereas at higher levels we expect the entrenchment effect to prevail over the convergence one. Consistently, we postulate that the point at which the likelihood of minority shareholder expropriation will begin to dominate the convergence of interest will be higher in FBs than in NFBs.

3. Methodological Issues: Sample, variables and econometric methodology

3.1. Sample

The sample used in our analysis comprises a panel of non-financial, publicly traded firms from Spain, Portugal and Italy during the 2001-2007 period. We chose these countries because of the origin of their legal systems. The latter were developed within the tradition of French Civil Law, and thus, both the ownership concentration and the proportion of family controlling shareholders tend to be higher than in countries whose legal systems originated from Common Law due to the lower level of protection of shareholder interests in the former (La Porta et al., 1999).

Our starting point was the construction of a database of FBs and NFBs operating in the three selected European countries. This database was drawn up manually based on information provided by the supplier Bureau Van Dyjk on ownership structures and public information on significant shareholders available from stock market regulators and/or on company websites. Information on management and boards was collected from firms' financial and corporate reports. For financial and market data, we used the Amadeus Database, the financial reports released by firms and the data from the stock exchanges of the three countries.

Following La Porta et al. (1999), we used control chain methodology to identify firms' owners. Because our aim was to obtain a sample that was as homogeneous as possible and would thus allow us to link the differences found to the identity of the controlling shareholder and not to the level of concentration of property rights, we only included firms with an ultimate owner. We considered a company to have an ultimate owner if the main shareholder directly or indirectly held a percentage of the company greater than or equal to 25% (García-



Ramos and Olalla, 2011)¹¹. On the basis of these criteria, all of the firms in our sample have a concentrated ownership structure. For a business to qualify as a FB, we required family members not only to control at least 25% of property rights together but also to be actively involved in the control and/or management of the firm. Correspondingly, we divided the sample into two groups, FBs and NFBs. Moreover, we only included those firms for which information was available on all of the variables considered for a sufficient number of years according to the econometric technique used¹². After we had applied these filters, the number of companies included in the sample was 215, 34.42 % were classified as FBs.

3.2. Variables

Variables may be classified into three groups: a dependent variable measuring firm value, explicative variables measuring insider ownership and control variables.

We used Tobin's q as measure of firm value. We approximated this variable using each firm's ratio of market to book value ratio (Q), which we calculated as the book value of total assets minus the book value of common equity plus the market value of common equity divided by the book value of total assets. Many other studies use either this measure or a similar one as the dependent variable in research on the effectiveness of corporate governance mechanisms for both financial and non-financial firms (e.g., Alonso-Bonis and Andrés-Alonso, 2007; Andrés et al., 2005; Chen et al., 2008; Miguel et al., 2004).

With regard to the explicative variables representing insider ownership we used directors' ownership, which we calculated as the proportion of shares owned by directors of the board of each company. We also included directors'ownership², which is the square of the variable directors'ownership, and directors'ownership³, which is the cube of the variable directors' ownership.

Finally, control variables that influence firm value were included to avoid any bias in the results, consistent with prior studies of corporate governance and firm value (e.g., Alonso-Bonis and Andrés-Alonso, 2007; Andrés et al., 2005; Chen et al., 2008; Miguel et al., 2004). First we included the lag value of Tobin's q (lag firm value) to control for dynamic endogeneity (Wintoki et al., 2011). Although most studies of the relation between governance and performance ignore dynamic endogeneity (the idea that a firm's current performance affects both future governance and future performance), theory suggests that a firm's characteristics and its contracting environment affect both performance and governance, and, therefore, ignoring dynamic endogeneity may introduce bias into estimates of the relation between governance and performance. The size of the company was approached by the natural logarithm of book value of total assets (firm size), because the inclusion of the variable in absolute terms might lead heteroskedasticity and spurious correlation to Previous studies found problems. have that organisation size is related to organisation performance for various reasons, including diversification, economies of scale, access to less expensive sources of funds, and so forth, suggesting that size should be included as a control variable. Degree of financial leverage was calculated as the ratio of total firm debt to total assets (firm debt). This figure was included because firm debt provides a mechanism for curbing agency costs. The age of the firm, which was proxied by the natural logarithm of the number of years since the firm was founded (firm age), was included to control for the company's life cycle and its growth options.

allocation companies¹³was Industrial of performed through a set of 7 dummies (sector_z: with z ranging from 1 to 7, which takes a value of 1 when the firm belongs to sector z and a value of 0 otherwise). These variables were included to monitor industry-level factors such as economies of scale and competitive intensity, which may account for variation in firm value across industries. Year allocation of observations was performed through a set of 6dummies (year_x: with x ranging from 1 to 6, which takes a value of 1 when the sample observation corresponds to year x and a value of 0 otherwise). These variables were included to take into account macroeconomics effects. Country allocation of companies was performed through a set of 2 dummies (country_y: with y ranging from 1 to 2, which takes a value of 1 when the firm belongs to country y and 0 otherwise). They were included to take into account differences among countries because there is evidence to suggest that there are country-specific factors that may affect corporate governance relationships.

¹³We adopted the SIC classification (2003) (Standard Industrial Classification of Economic Activities). We excluded the financial sector because its corporate governance is highly specific and because it has its own regulations.



¹¹ We chose this threshold for two reasons. First, whereas the existing literature on the USA used levels of 10% and 20%, we tried to adjust to the more concentrated ownership structures of most European countries. Second, we sought to maintain consistency with the official definition of a family business in Europe as approved in 2008 by two international institutions representing FBs, the European Group of Owner Managed and Family Enterprises (GEEF) and the Board of the Family Business Network.

¹² We needed available data for at least five consecutive years within the 2001-2007 period to test the second-order serial correlation (Blundell and Bond, 1998), which is fundamental to guaranteeing the robustness of the estimations made via the GMM System methodology.

Table 1sums up the descriptive statistics for our two subsamples.

Variable	Me	ean	Median	
	NFBs	FBs	NFBs	FBs
Firm value	1.48	1.41	1.13	1.20
Directors' ownership	0.19	0.40	0.04	0.53
Firm size	13.50	12.91	13.19	12.58
Firm debt	0.58	0.59	0.63	0.63
Firm age	3.20	3.30	3.18	3.31

Table1. Descriptive statistics NFBs and FBs

As shown in Table 2, the correlation coefficients are weak and do not violate the assumption of independence between the variables. To test for multicollinearity, the Variance Inflation Factor (VIF) was calculated for each independent variable. The results indicate that all of the independent variables had VIF values of less than 10 and that there are therefore not problems of multicollinearity (Myers, 1990).

Table 2. Correlation matri	able 2	e 2. Correlat	tion matrix
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Correlation	1	2	3	4	FIV
1Firm value	1.00				
2Directors' ownership	0.03	1.00			1.08
3 Firm size	-0.15 ***	-0.29 ***	1.00		1.28
4Firm debt	-0.03	-0.13 ***	0.33 ***	1.00	1.17
5 Firm age	-0.13 ***	-0.00	0.16 ***	0.01	1.03

*** denotes signification at the 1%; ** at 5%; and * at 10% level

3.3. Econometric methodology

The methodology employed is closely linked to having observations of the same firm at different points in time. Thus, the econometric approach used to test our hypotheses is panel data, which allows us to account for individual unobservable heterogeneities between different companies and to eliminate the risk of obtaining biased resultsthrough the breakdown of the error term into several components¹⁴. This issue is particularly important when comparing FBs to NFBs and when analysing corporate governance structures. It should be taken into account that all firms and, more specifically, those owned and controlled by families, have their own particularities (McVey et al., 2005) giving rise to specific behaviours closely linked to firm culture, which in FBs is instilled by the controlling family and manifests itself in the decisionmaking process and consequently in firm value.

The potential endogeneity of ownership structure may seriously affect the ownership-value relation (Demsetz and Villalonga, 2001; Demsetz, 1983; Himmelberget al., 1999; Palia, 2001)¹⁵. Thus, to address the endogeneity problem that arises in our analysis, we used the generalised method of moments system estimator¹⁶(Blundell and Bond, 1998).

Using the above methodology, we proposed a model that explained firm valuein accordance with the explicative variables related to insider ownership and the control variables considered. To test whether there were any significant differences between the subsamples of FBs and NFBs, separate models were estimated for each of them, where subscripts *i* and *t* referred to the firm and time period, respectively. The steps undertaken in running the regressions are as follows. First, we entered the explicative variable *insider ownership*. In step two, we entered also the quadratic term *insider ownership*². In the third step, we included the cubic term *insider ownership*³. Finally, we showed the model with all explicative variables and the control variables:

¹⁶ The parameters were calculated in two steps, as this method is robust to heteroskedasticity. Using the Wald test of heteroskedasticity, we found that our sample suffered from this problem.



¹⁴uit = YEAR_x + COUNTRY_y + SECTOR_z + η_1 + v_{it} where η_i is the specific error of individual i (unobserved heterogeneity) and which lists the unobservable effects that only affect the company i; v_{it} is the random disturbance; YEAR_t represents those shocks that occur at time t and affect all individuals equally; COUNTRY_j and SECTOR_z represent country and sector specific effects respectively.

¹⁵ See Demsetz (1983) and Demsetz and Villalonga (2001) for the endogeneity of ownership concentration, and Himmelberg et al. (1999) and Palia (2001) for the endogeneity of insider ownership.

FIRM VALUE_{it} = $\beta_0 + \beta_1 DIRECTORS' OWNERSHIP_{it} + \beta_2 DIRECTORS' OWNERSHIP_{it}^2 + \beta_3 DIRECTORS' OWNERSHIP_{it}^3 + \beta_4 FIRM SIZE_{it} + \beta_5 FIRM DEBT_{it} + \beta_6 FIRM AGE_{it} + (YEAR_x + COUNTRY_y + SECTOR_z + \eta_1 + v_{it})$

Additionally, and in order to identify the optimal level of insider ownership for each subsample, we derive the optimal levels of insider ownership at which the firm values are maximized. To that end and according to Miguel et al. (2004), we solve for the first derivative of firm value with respect to insider ownership. Note that these cut-off points are the inflection points at which the relation between insider ownership and firm value turns from positive to negative or from negative to positive.

4. Results and discussion

The results of the models' estimations are reported in Tables 3 and 4 for NFBs and FBs respectively. For each model, we have presented estimated coefficients and indicated whether they are statistically different from zero (p-value). The joint F tests of the overall statistical significance confirm the validity of our two final models IV and VIII for NFBs and FBs respectively (57.76 for NFBs and 9.42 for FBs,with p-values < 0.001). The AR2 tests confirm the absence of second-order serial correlation¹⁷ (-1.03for NFBs and 0.05 for FBs,with p-values> 0.1). Finally, the Hansen tests confirm the validity of the instruments we used to avoid the endogeneity problem (22.80for NFBs and 7.38 for FBs, with p-values> 0.1).

4.1. Results for NFBs

According to Table 3, the contribution of insider ownership to firm value in NFBs is non-linear. More specifically, our empirical results show a significant cubic relationship between insider ownership and firm value. In particular, the relationship is negative for low levels of insider ownership, as the coefficient of *directors' ownership* shows (-1.647 and p-value < 0.05), positive for intermediate levels of insider ownership, as the coefficient of *directors' ownership* shows (4.226 and p-value < 0.05), and negative for high levels of insider ownership, as the coefficient of *directors' ownership*² shows (4.226 and p-value < 0.05), and negative for high levels of insider ownership, as the coefficient of *directors' ownership*³ shows (-2.654 and p-value < 0.1).

With the estimated coefficients we optimally derive the inflection points at which the relationship between insider ownership and firm value in NFBs turns firstly from negative to positive and lastly from positive to negative¹⁸ (see Figure 1). Results show that if directors' ownership is between 0 and 25.72%, increases in directors' ownership will result in lower firm value. If directors' ownership ranges from 25.72 to 77.59%, increases in directors' ownership will result in higher firm value. Finally, when directors' ownership is above 77.59%, increases in directors' ownership will result in lower firm value. We interpret this evidence as consistent with both the convergence of interest and the entrenchment hypotheses.

These results point out that, in NFBs, for high levels of insider ownership the entrenchment hypothesis prevails. In these contexts, insiders are looking out for their own welfare rather than that of all firm's shareholders (Stulz, 1988). The finding that firm value decreases for the very highest insider ownership levels-above 77.59%-compared to previous studies is consistent with the argument that the entrenchment effect for firms with a large nonfamily shareholder in Southern Europe requires higher ownership than for firms in USA¹⁹ (e.g., Holderness et al. (1999) or Morck et al. (1988) show that insiders get entrenched when ownership ranges from 5 to 25%; Adams and Santos (2006), Barnhart and Rosenstein (1998), Faleye (2007) or McConnell and Servaes (1990) show that insiders get entrenched when ownership is above 10, 34, 5 and 40% respectively). This may be due to greater institutional ownership in these firms, reducing the ability of insiders to entrench themselves.

However, for intermediate levels of insider ownership-ranging from 25.72 to 77.59%-the convergence of interest hypothesis dominates. In this situation, insiders have greater incentives to maximize firm value as their equity holding grows. Consistent with Morck et al. (1988), Short and Keasey (1999) at above a certain level of ownership, corporate directors are faced with such severe financial penalties for failing to maximise the value of their companies that they are forced to make decisions which will maximise firm value, regardless of how this affects their private benefits of control.

¹⁹Miguel et al. (2004) show that in Spain insiders get entrenched when ownership ranges from 35 to 70%, although their sample includes all quoted companies' for the period ranging from 1990 to 1999 and therefore they are considering both firms with and without a large shareholder.



¹⁷ Given the use of first-difference transformations, we expected some degree of first-order serial correlation (test AR1), and this correlation does not invalidate our results. However, the presence of second-order serial correlation does signal omitted variables.

¹⁸ These cut-off points are calculated as follows: $IP(directors'ownership) = \frac{-2\beta_1 \pm \sqrt{(2\beta_2)^2 - 12\beta_1\beta_3}}{6\beta_3}$

Table 3. GMM Estimations for NFBs

Coefficients from the System GMM regression are reported. Yes: inclusion of dummy variables. Wald-test year dums: Wald test of the joint significance of the year's dummy variables; Wald-test country dums: Wald test of the joint significance of the countries' dummy variables; Wald-test sector dums: Wald test of the joint significance of the sector's dummy variables. JOINT F-test: F test of the joint significance of the variables in the model, under the null hypothesis of lack of relationship. Hansen: over-identifying restriction test, distributed as a chi-square under the null hypothesis of no relation between the instruments and the error term. AR(1) is the first order serial correlation statistic using residuals in first differences, under the null hypothesis of non-serial correlation.AR(2) is the second order serial correlation statistic using residuals in first differences, under the null hypothesis of non-serial correlation.

	Model I	Model II	Model III	Model IV
Dependent variable Firm	Coef.	Coef.	Coef.	Coef.
value (Q)	p-value	p-value	p-value	p-value
Constant	1.187 ***	1.015 ***	0.935 ***	0.425
	(0.000)	(0.000)	(0.000)	(0.114)
Lag firm value	0.229 *	0.428 ***	0.459 ***	0.771 ***
	(0.063)	(0.000)	(0.000)	(0.000)
Directors' ownership	-0.639 **	-1.981 ***	-4.448 **	-1.647 **
_	(0.036)	(0.000)	(0.023)	(0.041)
Directors' ownership ²		1.889 **	10.240 **	4.226 **
		(0.023)	(0.048)	(0.040)
Directors' ownership ³			-6.133 *	-2.654 **
_			(0.077)	(0.049)
Firm size				-0.004 **
				(0.046)
Firm debt				0.125
				(0.301)
Firm age				-0.017
_				(0.459)
year				YES
country				YES
sector				YES
Inflection points				25.72%
				77.59%
Tests of significance:				
Wald-test year dums				7.22 ***
				(0.000)
Wald-test country dums				3.35 **
				(0.038)
Wald-test sector dums				0.74
				(0.641)
F-test of join significance	4.94 ***	12.04 ***	14.82 ***	57.76 ***
	(0.008)	(0.000)	(0.000)	(0.000)
Instruments validity test:				
Hansen test	9.02	15.67	10.83	22.80
	(0.251)	(0.154)	(0.544)	(0.472)
Autocorrelation test:		1.04		
AK(1)		-1.26	-1.44	-2.24 **
	0.02	(0.207)	(0.149)	(0.025)
AK(2)	-0.92	-1.07	-1.18	-1.03
	(0.360)	(0.286)	(0.236)	(0.303)

*** denotes signification at the 1%; ** at 5%; and * at 10% level







The finding that firm value increases at an intermediate level of insider ownership range of 25.72-77.59% compared to previous studies is consistent with the argument that interest alignment for firms with a large nonfamily shareholder requires higher ownership than for firms in USA (e.g. Holderness et al. (1999) or Morck et al. (1988) show that the convergence of interests prevails when ownership ranges from 0 to 5%; Adams and Santos (2006), Barnhart and Rosenstein (1998), Faleye (2007) or McConnell and Servaes (1990) show that the convergence of interests prevails when ownership ranges from 0 to 10, 34, 5 and 40% respectively). The initial decline in Q as ownership increases from 0% to 25.72% is puzzling as directors' entrenchment is unlikely to occur at such a low level of ownership except for very large firms with very highly diversified ownership (Cui and Mark, 2002). It is possibly that in these firms low insider ownership (below25.72%) is insufficient to align managers and shareholders interests to overcome the control of the board by insiders. In fact, increases in ownership at low levels would merely serve to provide more control by insiders. Another reason may be that these increases of ownership at low levels result from generous awards of stock and stock options by insider-dominated boards that are viewed negatively by the market.

As for the remainder of the variables included in the model, our results are robust to the inclusion of control variables. We have found that *lag firm value* has a positive and significant effect on firm value, confirming the dynamic endogeneity. The effect of *firm size* on firm value is negative, while the contribution of firm debt is not significant. Finally, year and country effects are significant, while sector effects are not.

4.2. Results for FBs

According to Table 4, the contribution of insider ownership to firm value in FBs is non-linear. More specifically, our empirical results show a significant U-shaped²⁰ relationship between insider ownership and firm value, as the positive coefficient of *directors' ownership* (1.292 and p-value < 0.01) and the negative coefficient of *directors' ownership*² (-0.790 and p-value < 0.01) indicate.

With the estimated coefficients we optimally derive the inflection point at which the relationship

between insider ownership and firm value in FBs turns from positive to negative 21 (see Figure 2). Results show that if directors' ownership is between 0 and 81.74%, increases in directors' ownership will result in higher firm value. If directors' ownership is above 81.74% increases in directors' ownership will result in lower firm value. These results point out that, in FBs, for directors' ownership up to 81.74% insiders have greater incentives to maximize firm value as their equity holding grows and, thus, the convergence of interest hypothesis prevails. However, for very high levels of directors' ownership the entrenchment hypothesis dominates, because benefits deriving from the alignment of interests will be offset by drawbacks resulting from family entrenchment and then by the expropriation of non-family minority shareholders' value.

This result is consistent with Miguel et al. (2004), who found that the value of Spanish firms rises as ownership concentration increases from 0 to 87%. Although we are considering not the level of ownership concentration, but the insider ownership, as we have stated in the theoretical section of the paper there is a high convergence between ownership concentration and insider ownership in FBs (Block et al., 2011).

As for the remainder of the variables included in the model, our results are robust to the inclusion of control variables. We found that *lag firm value* has a positive and significant effect on firm value, confirming the dynamic endogeneity. *Firm size* had not a significant effect on firm value, while the effect of firm debt is negative. Finally, year, country and sector effects are significant.

```
IP(directors'ownership) = \frac{-\beta_1}{\beta_2}
```



²⁰As it is shown in Table 4, the coefficient of directors' ownership³ is positive but non-significant. Therefore, we have not included the cubic form of insider ownership in the final model VIII, but we have model it as a quadratic relationship. Moreover, when modelling the relationship between firm value and insider ownership in FBs as a cubic relationship, one of the inflection points indicate an insider ownership above 100% of property rights and total control rights are, reasonably, required to sum to 100%.

²¹ This cut-off pointis calculated as follows:

Table 4. GMM Estimations for FBs

Coefficients from the System GMM regression are reported. Yes: inclusion of dummy variables. Wald-test year dums: Wald test of the joint significance of the year's dummy variables; Wald-test country dums: Wald test of the joint significance of the countries' dummy variables; Wald-test sector dums: Wald test of the joint significance of the sector's dummy variables. JOINT F-test: F test of the joint significance of the variables in the model, under the null hypothesis of lack of relationship. Hansen: over-identifying restriction test, distributed as a chi-square under the null hypothesis of no relation between the instruments and the error term. AR(1) is the first order serial correlation statistic using residuals in first differences, under the null hypothesis of non-serial correlation.AR(2) is the second order serial correlation statistic using residuals in first differences, under the null hypothesis of non-serial correlation.

	Model V	Model VI	Model VII	Model VIII
Dependent variable Firm	Coef.	Coef.	Coef.	Coef.
value (Q)	p-value	p-value	p-value	p-value
Constant	0.360 ***	0.448 ***	-0.049	-0.726
	(0.041)	(0.001)	(0.846)	(0.567)
Lag firm value	0.581 ***	0.529 ***	0.714 ***	0.895 ***
	(0.000)	(0.000)	(0.000)	(0.000)
Directors' ownership	0.430 **	3.156 ***	3.999 **	1.292 ***
_	(0.046)	(0.000)	(0.024)	(0.002)
Directors' ownership ²		-3.750 ***	-5.746 **	-0.790 ***
_		(0.000)	(0.035)	(0.001)
Directors' ownership ³			1.241	
-			(0.140)	
Firm size				0.016
				(0.784)
Firm debt				-0.308 **
				(0.040)
Firm age				0.078
-				(0.139)
year				YES
country				YES
sector				YES
Inflection points				81.74%
Tests of significance:				
Wald-test year dums				12.89 ***
				(0.000)
Wald-test country dums				3.17 **
				(0.048)
Wald-test sector dums				1.95 *
				(0.100)
F-test of join significance	4.14 **	49.04 ***	2.66 *	9.34 ***
	(0.046)	(0.000)	(0.077)	(0.000)
Instruments validity test:				
Hansen test	18.30	8.14	7.75	5.84
	(0.147)	(0.520)	(0.458)	(0.322)
Autocorrelation test:				
AR(1)	-1.14	-1.65 *	-0.44	-3.42 ***
	(0.256)	(0.099)	(0.661)	(0.001)
AR(2)	1.09	0.93	1.09	1.17
	(0.278)	(0.354)	(0.278)	(0.240)

*** denotes signification at the 1%; ** at 5%; and * at 10% level





Figure 2. Relationship between firm value and directors' ownership in FBs

Our empirical analysis shows that the effect of directors' ownership on firm value changes depending on the identity of the large shareholder. Contrasting findings for FBs and NFBs may suggest that the qualitative dimension of the ownership structure (whether the company is family or not family controlled) is of importance. The positive effect of directors' ownership on firm value (as a result of the convergence of interests) is more prevalent in FBs than in NFBs, due to altruistic effects generated by family ties and the longer time horizons of family shareholders (Block et al., 2011; Le Breton-Miller and Miller, 2006; Schulze et al., 2001). The finding that firm value increases at a higher level of directors' ownership range of 25.72-77.59% in NFBs as compared with rises from 0% up81.74% of directors' ownership in FBs is consistent with the argument that interest alignment for NFBs requires higher ownership than for FBs. Whereas the market is penalizing NFBs for low levels of directors' ownership, because investors are interpreting increases in ownership at low levels would merely serve to provide more control by insiders, FB investors believe in the business's long-term investment philosophy of FBs that creates one of their greatest competitive advantages (Habbershon and Williams, 1999). Family shareholders with controlling power and many shares are more likely to supervise the company to protect their own interests due to the greater linkage between their own wealth and company performance. In a study of continental Europe, Barontini and Caprio (2006) found that only when the family is not represented in the board do FBs seem to perform worse than NFBs. Shleifer and Vishny (1997) have suggested that family ownership and management can add value when a country's political and legal systems do not provide sufficient protection against the expropriation of minority shareholders' value by the majority shareholder. This suggestion has been formalised by Burkart et al. (2003). Their results show that in economies with a strong legal system that prevents expropriation by majority shareholders, a professionally managed firm with widely held stock is optimal. However, where the legal system cannot protect minority shareholders, as in most countries in the European context (La Porta et al., 1999), it is optimal to keep both control and management within the family. Empirical evidence for Western Europe (Maury, 2006) shows that there are benefits to family control with respect to control by other non-family blockholders in non-majorityheld firms.

However, although it is possible that FBs may be influenced by family shareholders' interest other than profit maximization, including family harmony, firm survival or the continuation of family ownership, management and control, the likelihood of expropriation minority shareholders' wealth does not seem to be more prevalent in FBs than in NFBs in our sample. As it is shown in table 5, the entrenchment effect occurs at a similar level of directors' ownership in both FBs and NFBs. At levels around80% of directors' ownership, insiders become sole owners and have complete control of the company. The Southern European capital markets are relatively illiquid, as compared to those of the United States, the United Kingdom, Germany, and Japan. The expropriation of minority shareholders may be more likely when stockmarkets are illiquid, since the relative low liquidity of capital market would impedeminority shareholders to sell out when they perceive abuses by controlling owners (Maug, 1998; Miguel et al., 2004).

5. Conclusions

This paper investigates the relationship between directors' shareholdings as an internal governance structure and firm value in the Southern European context. We adopt a contingency approach wherein the impact of directors' shareholding on firm value is seen as a relationship that varies depending on circumstances. By using a panel data sample and taking into account the endogenous nature of



ownership structure, we found evidence consistent with both the convergence of interest and the entrenchment hypotheses.

Moreover, our research highlights the importance of suitably contextualising any assessment of insider ownership as a business governance mechanism. In this sense, the analysis showed that within a context of high ownership concentration, the identity of the large shareholder influences the relationship between directors' ownership and firm value.

Overall, the results obtained confirm that insider ownership matters and that the convergence of interests and the entrenchment effects are different for FBs and NFBs. Differences in corporate governance systems could explain different value-ownership relations across different institutional contexts.

We feel that the study findings may be particularly pertinent for FB owners and board members, their advisors, other stakeholders, practitioners, regulatory bodies overseeing corporate governance, and the scientific community in general.

Our research has several limitations that suggest opportunities for future research. First, it must be acknowledged that the analysis is limited to publicly traded FBs and NFBs that also have large shareholders and that we only considered forms operating within the tradition of French Civil Law. Further research is needed to test whether the same conclusions can be applied to both different countries and different legal systems. In addition, FBs may have other nonfamily shareholders with controlling shares that can influence the behaviour of shareholders and family directors and the creation of firm value. Future research should analyse the impact of the presence of institutional investors on the relationship between insider ownership and the value of FBs. The analysis carried out here points to the need for researchers to further probe the differences between FBs and NFBs with regard to their practices and governance.

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