



DOES OWNERSHIP STRUCTURE AFFECT FIRM PERFORMANCE?
EVIDENCE FROM A CONTINENTAL-TYPE GOVERNANCE SYSTEM*

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Abstract

This paper analyzes the influence of stock ownership structure on firm performance in Spain, a country characterised by the dominance of internal mechanisms of control and a weak external control performed by the markets. Once the possible endogeneity of managerial stock ownership is taken into account, we find no evidence of its influence on firm's performance. This result is consistent with previous evidence for Anglo-Saxon economies. Consistently with the supervisory role of the large shareholders we find also evidence of a positive effect of stock ownership concentration on firm performance. Nevertheless, we have to be cautious relating this result as its significance depends on the firm's size.

Keywords: firm performance, managerial ownership, ownership structure

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1. Introduction

The relationship between ownership structure and firm value has been extensively studied by researchers since the seminal work of Berle and Means (1932). In the empirical literature, mainly two measures of ownership structure have been related to firm value: managerial ownership and ownership concentration. When shareholders do not own a large stake of the firm's shares, managers may incur in opportunistic behaviours, aimed to maximize their utility function at the cost of the shareholders' wealth. A solution to this moral hazard problem is to give managers a share stake in the firm (Jensen and Meckling, 1976). Consequently, firms with a high managerial ownership should show higher market

values. Nevertheless, managers owning large share stakes may also be able to entrench themselves avoiding the monitoring of the Board of Directors and other control devices. In this sense, different empirical studies document a non-monotonic relation between managerial ownership and firm value (Morck et al., 1988; McConnell and Servaes, 1990; Hermalin and Weisbach, 1991; Holderness et al., 1999). The presence of large shareholders may also influence a firm's market value. Grossman and Hart (1980) show that monitoring and disciplining managers may be prohibitively expensive for small shareholders. Thus, monitoring will only be effective if a single party becomes large enough to internalise the costs of control. Consistently with this argument different empirical studies take into account the

influence of this variable on firm value (McConnell and Servaes, 1990; Barclay and Holderness, 1991).

The above reported studies do not usually address the endogeneity problem associated to the use of ownership structure as an explanatory variable of firm value. As argued by Demsetz (1983) and demonstrated by Demsetz and Lehn (1985) ownership structure should be considered an endogenous outcome of the firm's decisions. The studies by La Porta et al. (1999) suggest that ownership structure may not only depend on the firms' characteristics, but also on the firm's countries' legal origin. Besides, Himmelberg et al. (1999) demonstrate that managerial ownership and firm performance are determined by common characteristics, some of which are unobservable. Similar conclusions are achieved, regarding ownership structure and other corporate governance related variables by Denis and Sarin (1999). Furthermore, studies that take into consideration the endogeneity of managerial ownership or of ownership concentration, do not find evidence of any significant influence of ownership structure on firm value (Demsetz and Villalonga, 2001). This empirical evidence supports the argument of the endogeneity of ownership structure proposed by Demsetz (1983).

Our investigation analyzes the relation between a firm's ownership structure and its value, considering as proxy variables for ownership structure both managerial ownership and ownership concentration. For this last measure, the possible influence of different types of large shareholders (banks, institutional investors and non-financial companies) is considered. This analysis is undertaken using OLS estimates and panel data estimates that avoid possible biases associated to the no consideration of unobservable heterogeneity. Besides, we deal with the simultaneous nature of the relation between ownership structure and firm value by using 2SLS estimates. In this sense, our study follows the suggestions of Demsetz and Villalonga (2001) who advise that ownership "should be modelled not only as an endogenous variable, but, simultaneously, as an amalgam of shareholdings owned by persons with different interests".

We find that the results of the OLS estimates and within estimates (panel data) differ significantly. Thus, studies that analyse the relation between ownership structure and firm value should take into consideration the possible influence of unobserved heterogeneity. In this sense, our study supports the results reported by Himmelberg et al. (1999) that show that managerial ownership and firm performance are determined by common characteristics, some of which are unobservable to the econometrician. We go one step further and given the lack of easily identifiable instrumental variables, we try to design a model that incorporates the endogeneity of managerial ownership using 2SLS estimates. When doing this, no significant

relationship is found between managerial ownership and firm value. Thus, our results support the notion that managerial ownership is endogenously determined. Besides, our study aims to analyse the relationship between ownership structure and firm value in a different institutional setting. In comparison with U.S. firms, which are the subject of most empirical studies, Spanish firms' corporate governance characteristics differ significantly. Spain is a French civil-law country and consequently Spanish firms present a high ownership concentration. Spain also lacks an active market for corporate control. As a result of these facts, the relationship between ownership structure and firm value, as well as the determinants of a firm's ownership structure may differ from common-law countries, such as the U.S. or the U.K. Spanish quoted companies include both medium-sized firms and large firms. Thus, we analyse the relation between ownership structure and firm value for both types of firms.

The paper is organised as follows. In Section 2 the theoretical background and previous empirical evidence regarding the relationship between ownership structure and firm value is reviewed. Section 3 presents the institutional features of Spanish firms. The data set, variables and methodology employed are described in Section 4. Section 5 presents the results of the empirical analyses. Finally, Section 6 is dedicated to the main conclusions of the study.

2. Theoretical background

2.1. Managerial ownership and firm value

Jensen and Meckling (1976) show that managerial ownership increases firm value, by reducing agency costs. When managers own a large proportion of the firm's shares, they benefit to a larger extent of the benefits of their effort. Thus, if managerial ownership is an aligning mechanism that ties managers' wealth to shareholders' wealth a linear relation between managerial ownership and firm performance should be expected. However, it is also plausible that a large managerial shareholding may allow managers to entrench themselves as they may isolate from other control devices, such as the Board of Directors (Demsetz, 1983). This is the underlying argument for the non-monotonic linear relation between managerial ownership and firm value suggested by different studies. In this sense, Stulz's model (1988), in a scenery of takeovers, posts the relevance of internal or managerial voting power. While a large stake of managerial voting power decreases the probability of an hostile tender offer and, consequently, decreases corporate value, it also rises the premium obtained by target firms if the tender offer effectively takes place. Thus, the model suggests increases or decreases of corporate value

depending on initial, low or large, internal ownership.

This non-linear relation between a firm's ownership and its value is confirmed by different empirical studies. For the U.S. market, using OLS estimates, Morck et al. (1988), McConnell and Servaes (1990, 1995), Kole (1995) or Holderness et al. (1999) document a non-monotonic relationship between managerial ownership and Tobin's *q* ratio. Similar results are reported for the U.K. by Short and Keasy (1999) or for Spain by Fernández et al. (1998). Nevertheless, not even for the same environment the breakpoints for the relation coincide. For example, while Morck et al. (1988) report that corporate value rises first with increases of internal ownership below 5 per cent, decreases between 5 and 25 per cent, and finally increases slightly when internal ownership exceeds 25 per cent, McConnell and Servaes (1990) document a negative effect of internal ownership between 5 and 25 per cent and a non significant one for ownership values exceeding 25 per cent. Recent studies have tried to estimate this same relationship considering the possible endogeneity of the regressors (using 2SLS or 3SLS), or the influence of unobserved heterogeneity. Studies that take account of the endogeneity of the regressors do not find any significant influence of managerial ownership on firm value. Actually, both Loderer and Martin (1997) and Cho (1998) document that Tobin's *Q* affects managerial ownership, but not viceversa. Himmelberg et al. (1999) argue that, after controlling for observed firm characteristics and firm fixed effects, they "cannot conclude that changes in managerial ownership affect firm performance". On the contrary, Short and Keasey (1999) document a non-monotonic relationship between managerial ownership and firm value, even after controlling for firm fixed effects.

Large shareholders' ownership may also influence corporate value. Large shareholders assure that managers act on behalf of shareholders, while minority shareholders reduce Board of Directors monitoring incentives (Hirshleifer, 1992). Thus, in a scenario of minority shareholders, where a free-rider problem takes place (Grossman and Hart, 1980), ownership concentration increases corporate market value due to its monitoring activity. In this sense, Shleifer and Vishny (1986) model suggests that large shareholders, i.e. banks, security companies, pension funds and families, monitor managers, reduce the premium of takeovers and increase the number of possible bidders and the acquisition probability, rising consequently firm's value. Nevertheless, large investors also bear costs, as they are not diversified and bear excessive risk (Demsetz and Lehn, 1985). Large investors may also extract rents from the manager ex-post, which affects managerial and employee incentives (Burkart et al., 1995), or they may expropriate wealth from minority investors (Shleifer and Vishny, 1997).

The empirical evidence about the role of large shareholders in exercising corporate governance is not conclusive. For the U.S., institutional investors seem to monitor managers when adopting anti-takeover amendments (Brickley et al, 1988; Pound, 1988), to increase corporate value (McConnell and Servaes, 1990) and to increase the likelihood that a firm is taken over (Shivdasani, 1993). For Japan, Kaplan and Minton (1994) show that firms with large shareholders are more likely to replace managers in response to poor performance. On the contrary, Demsetz and Lehn (1985) and Holderness and Sheehan (1988) document no significant relation between the presence of large shareholdings and firm value.

3. Spain's institutional features

Spain offers an interesting environment for analysing the relationship between ownership structure and firm value in several respects. First, most studies of corporate governance focus typically on common-law economies (e.g. U.S. and U.K.). Other countries that scholars typically focus are Japan or Germany, both German-origin-law countries. All these countries present wealthy economies with a high GNP per capita. Second, these studies refer mainly to large firms, due to the market capitalization of listed firms in those countries.

Spain represents an example of a French-civil-law country, with a "medium" GNP among the western economies, and with a large sample of mid-sized firms quoted on the Stock Exchange. Listed companies also present a high ownership concentration. LaPorta et al. (1998) document that common-law countries give both creditors and shareholders the strongest protections. At the opposite site stand the French-civil law countries that give the weakest protection. French civil-law countries also show the lowest quality of law enforcement. These differences in the legal systems determine that companies in common-law countries have a better access to both equity and debt finance and that, in civil-law countries, ownership concentration acts as a substitute for legal protection.

Table 1 shows the legal, equity and debt financing, as well as ownership characteristics of Spain, and compares them to the characteristics of the average of French-civil-law, common-law and German-civil-law country, as well as the U.S., the U.K., Germany and Japan. Spain presents higher scores of shareholder and creditor rights, rule of law and rating on accounting standards, than the mean French-origin country, but, nevertheless, these scores are, except for rule of law, lower than the ones presented by common-law or German-origin countries. Consequently, the measures representing a firm's access to equity and debt financing are also lower for Spain and ownership concentration is very high.

Table 1. Comparative features by legal origin of countries

Measure	English- common- law origin (average)	U.S.	U.K	German- civil-law origin (average)	Germany	Japan	French- civil-law origin (average)	Spain
Shareholders rights index								
Anti-director rights index (aggregation of shareholders rights, ranges from 0 to 6)	4.00	5	5	2.33	1	4	2.33	4
One share-one vote (equals one if the law requires that ordinary shares carry one vote per share)	0.22	0	0	0.33	0	1	0.24	0
Creditors rights index (aggregation of creditor rights, ranges from 0 to 4)	3.11	1	4	2.33	3	2	1.58	2
Rule of law (assessment of the law and order, ranges from 0 to 10, being 0 the minimum)	6.46	10.00	8.57	8.68	9.23	8.98	6.05	7.80
Rating on accounting standards	69.62	71	78	62.67	62	65	51.17	64
GNP per capita (US\$ constant dollars of 1994)	9,353	24,740	18,060	22,067	23,560	31,490	7,102	13,590
Average market capitalization of firms (millions of US\$)	6,586	71,650	18,511	8,057	8,540	26,677	1,844	1,256
Equity finance								
Stock market capitalization held by minorities/GNP (1994)	0.60	0.58	1.00	0.46	0.13	0.62	0.21	0.17
Domestic firms listed/population (1994)	35.45	30.11	35.68	16.79	5.14	17.78	10.00	9.71
IPOs/Population (1996-1997).	3.11	3.11	2.01	0.12	0.08	0.26	0.19	0.07
Debt finance								
Debt/GNP (1994)	0.68	0.81	1.13	0.97	1.12	1.22	0.45	0.75
Debt/sales (1996)	0.26	0.18	0.11	0.30	0.10	0.34	0.27	0.25
Ownership of three largest shareholders (1995, 1996)								
Mean	0.43	0.20	0.19	0.34	0.48	0.18	0.54	0.51
Median	0.42	0.12	0.15	0.33	0.50	0.13	0.55	0.50
Control of large publicly traded firms (1995, 1996)								
Widely held (equals 1 if there is no controlling shareholder with more than 20% of the firm's shares)		0.80	1.00		0.50	0.90		0.35
Control of medium publicly traded firms (1995, 1996)								
Widely held (equals 1 if there is no controlling shareholder with more than 20% of the firm's shares)		0.90	0.60		0.10	0.30		0.00
Pyramid and not widely held (equals 1 if the controlling shareholder exercises control through at least one traded company, 20% threshold)		0.00			0.40	0.00		0.38

Source: La Porta *et al.* (1997, 1998, 1999)

While in Spain the three large shareholders hold 50 percent of the firm's shares, this figure amounts to no more of 20 percent in the U.S., the U.K. or Japan. This high ownership concentration determines that the proportion of firms with no controlling shareholder, that is a shareholder whose direct and indirect voting rights in the firm exceeds 10 percent amounts only to 35 percent for large listed companies and to 0 percent for medium listed companies. For the U.S. these percentages amount to 80 and 90 percent and for Germany, a country traditionally considered with a high ownership concentration, to 50 and 10 percent respectively.

Pyramids in not widely held companies are also quite frequent in Spain, 38 percent compared to 0 percent for the U.S. These figures reported for Spain by La Porta *et al.* (1999) for twenty large firms and

10 medium size firms, are reinforced by the study of Crespi-Cladera and Garcia-Cestona (1998) sponsored by the European Corporate Governance Network (ECGN), as well as by the study of Faccio and Lang (2002). These last authors document that, for the whole sample of listed companies in the Spanish Stock Market, widely held companies amount only to 10 percent, when using 10 percent of ownership as threshold. The major large shareholders are family groups (67 percent) and widely held financial companies (15.07percent). State ownership has declined to 4.24 percent during the last decade of the 20th century due to the privatization process. Besides that, only 44.30 percent of non-widely held companies have no other owner who controls at least 10 percent of the voting rights and controlling shareholders exercise control

through a pyramidal structure and 6.45 percent have cross-shareholdings, while reciprocal holdings are rare. The separation of cash flow and control rights is the lowest, together with France, among European countries and in more than 60 percent of the companies the CEO, Chairman or Vice-Chairman belong to the controlling family. Therefore, as argued by Shleifer and Vishny (1997), in French-civil-law countries such as Spain, controlling shareholders may expropriate wealth from outside shareholders, although the results of Faccio and Lang (2002) do not point to a significant expropriation of wealth of from minority shareholders in Western Europe. Given these features, and compared to the U.S., Spanish companies, a priori, should face agency costs, not so much related to the conflicts of interests between managers and shareholders, but to the conflicts of interests between large shareholders and minority shareholders. Different factors are expected to decrease these conflicts of interests between majority and minority shareholders in Spain. Among them, we may count: the presence of a second large shareholder in a large fraction of the companies, a high ratio of cash flow to control rights or the rare deviations from the rule one-share one-vote. Nevertheless, other aspects may reinforce large

shareholders' and managers' power in Spanish quoted companies: i.e. the fact that a significant percentage of top executives belong to the large shareholders' group, mainly family groups; the regulation that established mandatory takeovers for ownership thresholds above 25 percent of ownership or the incipient Spanish take-over market, with few hostile take-overs. The net impact of all these institutional characteristics determines that, a priori, it is not clear whether the relationship between managerial ownership and firm performance observed for other common-law-countries, will also be corroborated for Spanish companies. Besides, a study of the link between firms' performance and corporate governance structures in common-law countries, should consider, not only the influence of managerial ownership on firm value, but also how other factors that may generate or attenuate conflicts of interests between majority and minority shareholders, i.e. the firms' ownership concentration and the identity of their major shareholders, affect firms' performance.

4.- Database, variables and methodology

4.1.- Sample

Table 2. Sample's industry and annual classification

Panel A: Sample's industry classification		
Industry (SIC Codes)	Number of observations	Percentage of observations
15	95	16.02
16	32	5.40
17	18	3.04
20	81	13.66
26	37	6.24
28	28	4.72
32	65	10.96
33	33	5.56
37	27	4.55
47	27	4.55
49	83	14.00
65	27	4.55
67	40	6.75
Total	593	100.00
Panel B: Sample's annual distribution		
Year	Number of observations	Percentage of observations
1991	77	12.98
1992	80	13.49
1993	91	15.35
1994	91	15.35
1995	89	15.01
1996	85	14.33
1997	80	13.49
Total	593	100.00

The data-base used in the study is composed of all firms listed in Madrid Stock Exchange during the period 1990-1997. We exclude financial firms due to their differential characteristics regarding governance structure and leverage. The selection rules require: (a) each company has to be quoted at

least for four years over the period 1991-1997, (b) the number of sample's companies belonging to an industry, defined as SIC code at the two digit level, amounts to a minimum of four each year; (c) the different variables employed in the study present coherent signs. After applying these filters, the final

sample consists of 92 firms quoted on the Spanish Electronic and Outcry Market. The total number of observations amounts to 593. Companies included in the sample belong to thirteen industries, according to the SIC classification at the two digit level, and the observations are distributed almost evenly around all the years considered in the study (see Table 2).

The data was collected from the databases of the Spanish Supervisory Agency's files (Comisión Nacional del Mercado de Valores). This source provides quarterly information of all quoted firms' large shareholders, those are those owning more than 5 percent of the firms' shares; and of directors' and managers' ownership. It also provides information about the composition of the Board of Directors. Besides these data, additional data was collected from the following databases: the Madrid Stock Exchange's data-tapes, firms' annual reports and the directories "Spain: The Shareholder's Directory", "Who's Who in Spain", Duns 50,000 and Dicodi.

4.2. Description of the variables

Table 3 presents the list and definitions of the variables employed in the study. We estimate a firm's performance by the ratio market to book value of common equity (ME/BE) and by the ratio of operating income to total assets (ROA). Most of the U.S. studies use Tobin's Q as a measure of market performance, but calculating this ratio is problematic using Spanish data. Firms in Spain have been able to reevaluate their fixed assets at different moments of time, while in the algorithm proposed by Linderberg and Ross (1981) it is implicit an assumption that no

reevaluation has taken place. In this case, updating revaluated assets would lead to an underestimation of the value of Tobin's Q. Another possible measure is the one proposed, for example, by Chung and Pruitt (1994), who find that 96.6 percent of the variability of the Linderberg and Ross (1981) Tobin's Q ratio is explained by their approximation. In a previous study we calculated for the Spanish data all three measures: Tobin's Q following Linderberg and Ross (1981) algorithm, Chung's and Pruitt (1994) approximation of Tobin's Q and the ratio of market to book value of common equity. We found that the value of the coefficient of determination R^2 did not differ when comparing the relation between Tobin's Q and its approximation proposed by Chung and Pruitt (1994), or the relation between Tobin's Q and the market to book value of common equity. Moreover, the results of the analysis between different corporate governance variables and firm performance were similar when using the three measures as dependent variables (Fernández et al., 1998). Previous studies demonstrate that industry factors affect firm performance (King, 1966; Livingston, 1977). To take into account this fact, and in order to avoid multicollinearity problems that could arise if we included dummy variables representing firms' industry, we use the industry-adjusted ratio market to book value of common equity (AME/BE) and the adjusted ratio operating income to total assets (AROA). Both measures are computed by subtracting the industry mean ratio from each company's ratio.

Table 3. Description of variables

Variables	Description
<i>Dependent variables</i>	
ME/BE	Market to book value of equity
AME/BE	Adjusted Market to book value of equity (ME/BE - industry median each year)
ROA	Operating income before interest taxes and depreciation and amortization to total assets (EBITDA/TA)
AROA	Adjusted operating income before interest taxes and depreciation and amortization to total assets (EBITDA/TA - industry median each year)
<i>Corporate governance explanatory variables</i>	
MAN	Percentage of shares held by the firm's top executives and their families
MAN2	Quadratic of the percentage of shares held by the firm's top executives and their families
MAN3	Cubic of the percentage of shares held by the firm's top executives and their families
BLOCK	Percentage of shares held by the largest shareholder
DBANKS	Dummy variable that takes value 1 if a bank holds more than 5% of the firm's shares
DINSTINV	Dummy variable that takes value 1 if an institutional investor holds more than 5% of the firm's shares
DNONFIN	Dummy variable that takes value 1 if a non-financial enterprise holds more than 5% of the firm's shares
BANKS	Percentage of shares owned by banks
INSTINV	Percentage of shares held by institutional investors
NONFIN	Percentage of shares held by non-financial enterprises
<i>Control variables</i>	
SIZE	Logarithm of the firm's total assets
LEV	Long term debt to total assets
INCRTA	Percentage of Increase in total assets (annual)

Ownership variables include managerial ownership and ownership concentration, as well as the ownership held by different types of investors. Spanish quoted companies are required to disclose the names of the board members and the proportion of shares held directly and indirectly by directors. The managers who are not members of the Board are only subject to the ordinary disclosure rule of 5 percent or above. Thus, we define managerial ownership as ownership by actual and past executive directors and their families (MAN). This definition is similar to the one used by Morck *et al.* (1988) and Short and Keasy (1999), although we do not include ownership of non-executive directors. The percentage of shares owned by these group is really small (less than 1 percent) and we checked that their inclusion did not influence the results of the study. The presence of large shareholders is considered through a variable that measures the proportion of shares held (directly and indirectly) by the three largest shareholders (BLOCK). As additional definitions for blockholders we collect data of the proportions of shares held by the largest and the five largest shareholders, but the results did not vary. Besides, we differentiate among different types of large shareholders: banks, institutional investors and non-financial companies, by defining variables that measure the proportion of shares held by these shareholders (BANKS, INSTINV, NONFIN). When we analyse the joint influence of the presence of these large shareholders along the blockholders' ownership variable (BLOCK), we use dummy variables that take value one when banks, institutional investors or non-financial companies hold more than 5 percent of the firm's shares and zero otherwise (DBANKS, DINSTINV, DNONFIN). Besides these variables we include different control variables in the study. We account for differences in size in the sample's firms using the log of total assets (SIZE). As measure of leverage we use the ratio of long-term debt over total assets (LEV). Variable INCRTA is defined as the increase in the firm's total assets. All variables are defined at the end of each year.

4.3. Methodology

To analyse the influence of a firm's ownership structure on its performance we first estimate the models using OLS estimates and "within" estimates (fixed firm effects). This last methodology takes account for the unobserved firm heterogeneity, avoiding potential misspecifications. That means that if some of the unobserved determinants of the firm performance are also determinants of the explanatory variables of the model, these variables might spuriously appear to be a determinant of firm value.

As argued by Demsetz (1983) and demonstrated by Demsetz and Lehn (1985) ownership structure should be considered an endogenous outcome of the firm's decisions.

Therefore, after comparing the results obtained using both methodologies, we consider the possibility of endogeneity of the regressors, in particular of managerial ownership, by using 2SLS estimates. First we estimate the relation between managerial ownership and other corporate and firm's related variables, and afterwards, the relation between firm value and ownership structure is estimated using the instrumental variable for managerial ownership derived from the first regression.

4.4. Summary statistics

Table 4 presents descriptive statistics for the variables employed in the analysis. The average firm's market ratio (ME/BE) amounts to 1.40 and the average adjusted market to book value of common equity ratio (AME/BE) to 0.27. As a mean, sample firms present a ratio of operating income to total assets (ROA) of 7.71 percent, while this ratio, once adjusted by the industry's mean, amounts, as a mean, to -0.07 percent. The mean (median) managerial ownership is 3.92% (0.08%). This holding ranges between 0 and 48.49%. The average holding is much smaller than the one reported in US and U.K. studies. For the U.S., for Fortune 500 firms, the average holding ranges between 10.6 percent and 12.4 percent (Jensen and Warner, 1988; Morck *et al.*, 1988 and Cho, 1998) and for middle-size firms it amounts to 20% (Denis and Kruse, 1999). For the U.K. the average managerial ownership ranges between 13.3% and 16.7% (Short and Keasy, 1999; Faccio and Lasfer, 2000). The mean blockholder's ownership is 51.25 percent, a higher figure than the one reported in studies for the U.S. (32.4 percent for McConnell and Servaes, 1990), or for the U.K. (around 35 percent for Faccio and Lasfer, 2000 and Hillier and McColgan, 2001). Among blockholders, the major shareholders are non-financial companies who own as a mean 41.63 percent of the shares. For more than 87 percent of the observations non-financial companies own more than 5% of the firms' shares. Banks do not hold important shareholdings in median, although the average banks' shareholdings amount to 7.16 percent. They own more than 5 percent of the firms' shares for 36 percent of the observations. Finally, institutional investors do not represent an important shareholdings group. They own, on average, 0.29 percent of the firms' shares and are only present, as large shareholders, in 14 observations. The descriptive statistics of the size of our sample's companies shows an average (median) value of total assets of 645.42 (209.38) millions euros. The sample includes very small companies (3.35 millions euros), as well as large companies (11,502.56 millions euros). Thus, our study is not restricted to large firms. Besides, the proportion of long-term debt to total assets amounts, as a mean, to 13.30 percent.

Table 4. Summary statistics

Variables	Mean	Median	Minimum	Maximum	Standard deviation
ME/BE	1.40	1.10	0.00	8.27	1.17
AME/BE	0.27	0.00	-1.86	6.72	1.08
ROA	7.71%	7.69%	-40.56%	38.01%	7.64%
ARO	-0.07%	0.00%	-51.78%	29.23%	6.94%
MAN	3.92%	0.08%	0.00%	48.49%	8.81%
BLOCK	51.25%	52.69%	0.00%	99.70%	24.79%
BANKS	7.16%	0.00%	0.00%	96.57%	11.89%
INSTINV	0.29%	0.00%	0.00%	42.79%	2.42%
NONFIN	41.63%	38.98%	0.00%	100%	30.10%
TOTAL SIZE (millions €)	645.42	209.38	3.35	11,502.56	1,306.92
LEV	13.30%	7.62%	0.00%	73.50%	14.41%
INCRTA	4.64%	2.27%	-66.38%	149.60%	20.31%
N	593	593	593	593	593

<i>Other variables</i>	<i>Percentage/(number) of observations</i>		
DBANKS	36.42% (216)		
DINSTINV	2.36% (14)		
DNONFIN	87.52% (519)		

Table 5 presents the correlation matrix of the variables employed in the study. As can be observed, the variables that refer to a firm's ownership characteristics are strongly interrelated. Managerial ownership (MAN) correlates negatively with the percentage of large shareholdings, as well as with the percentage of shares owned by non-financial companies. Variable BLOCK correlates negatively with banks shareholdings and positively with non-financial companies' shareholding. Ownership variables are also correlated to the variables that represent a firm's characteristics. Variable MAN correlates negatively to a firm's size (SIZE), while the presence of non-financial companies as shareholders (DNONFIN) correlates positively to a firm's size. The variables representing a firm's performance are correlated to different ownership variables, as well as with the increment in total assets. The accounting performance variable, ROA, is also correlated to firm size (positively) and to leverage (negatively).

5. The relationship between ownership structure and firm value

Tables 6 and 7 present the regression models that relate, respectively, both firm market and accounting performance to the ownership structure's variables and to the control variables. The results of these

regression models differ when using OLS and panel data (within-effects) estimates. For instance, some variables that turn out to be significant in the OLS estimations, are not significant when the models are estimated using the within-effects estimation that takes account of unobserved heterogeneity (i.e. variables DBANKS, DNONFIN or INCRTA in Table 6 and variables MAN2, MAN3, SIZE and LEV in Table 7).

Other variables that do not influence significantly a firm's performance when using the OLS estimates, turn out to be significant when applying the panel data estimations (i.e. variable BANKS or NONFIN in Table 6).

These results suggest that the unobserved firm characteristics are correlated with the observed characteristics, and therefore bias the estimated coefficients in the OLS or pooled regressions. In this sense, our results support the idea that firm performance is determined by some characteristics that are unobservable to the econometrician (Himmelberg et al. (1999). Considering this fact, we will from now on just refer to the results of the within-effects estimations.

Table 5. Correlation matrix

	ME/B E	AME/ BE	ROA	ARO A	MAN	BLO CK	BAN KS	DBANK S	INSTI NV	DINST INV	NONFI N	DNON FIN	SIZE	LEV
AME/BE	0.642 (0.000))**													
ROA	0.197 (0.000))**	0.112 (0.006))**												
MAN	0.031 0.450	0.010 0.811	-0.088 0.032											
BLOCK	0.03 (0.449)	0.050 (0.224)	0.115 (0.005)**		-0.317 (0.000)**									
BANKS	0.105 (0.011)*	0.027 (0.506)	0.022 (0.595)		-0.051 (0.211)	-0.088 (0.033)*								
DBANK S	0.191 (0.000)**	0.105 (0.011)*	0.024 (0.562)		0.035 (0.396)	-0.223 (0.000)**	0.721 (0.000)**							
INSTIN V	-0.054 0.189	-0.010 0.801	-0.036 0.380		0.015 0.711	-0.023 0.577	-0.023 0.581	-0.019 0.649						
DINSTI NV	-0.034 0.413	0.010 0.805	-0.031 0.458		-0.012 0.770	-0.061 0.138	0.034 0.414	0.044 (0.286)	0.760 0.000					
NONFIN	-0.087 (0.035)*	-0.069 (0.092)	0.054 (0.188)		-0.217 (0.000)**	0.476 (0.000)**	-0.264 (0.000)**	-0.267 (0.000)*	-0.037 (0.374)	0.007 (0.857)				
DNONFI N	-0.090 (0.029)*	-0.067 (0.103)	-0.066 (0.106)		-0.111 (0.007)**	0.222 (0.000)**	-0.158 (0.000)**	-0.160 (0.000)*	-0.067 (0.104)	-0.009 (0.836)	0.497 (.000)*			
SIZE	0.066 (0.111)	0.009 (0.822)	0.289 (0.000)**		-0.252 (0.000)**	0.106 (0.010)*	-0.011 (0.780)	-0.025 (0.538)	0.062 (0.130)	0.044 (0.284)	0.078 (0.056)	0.085 (0.038)*		
LEV	-0.045 (0.278)	-0.014 (0.735)	-0.104 (0.011)*		0.048 (0.245)	-0.028 (0.502)	0.089 (0.030)*	0.018 (0.655)	0.075 (0.069)	0.050 (0.224)	-0.033 (0.425)	0.081 (0.050)*	0.217 (0.000)**	
INCRTA	0.102 (0.013)*	0.083 (0.044)*	0.219 (0.000)*		-0.018 (0.669)	0.015 (0.713)	0.063 (0.124)	0.067 (0.105)	0.081 (0.048)*	0.102 (0.013)*	-0.047 (0.255)	-0.058 (0.156)	0.147 (0.000)**	-0.124 (0.002)**

As reported in Table 6, a firm's market performance depends on its ownership structure and other firm's characteristics. For instance, a firm's market performance increases with the percentage of shares held by large shareholders (Reg. 2 and 4). Banks, as shareholders, also increase firm value and so do non-financial companies (Reg. 6 and reg. 8). These findings seem to suggest that the presence of banks and non-financial companies increase a firm's market value. In that which relates to banks, this evidence is similar to the one reported by Cable (1985) for Germany, or by Zoido (1998) for Spain. Besides, smaller firms and firms with a higher level of long-term leverage present higher market values. The link between large shareholdings and firm performance is not supported by the results shown in Table 7. When we estimate the regressions using as dependent variable the adjusted ratio of operating income to total assets no significant influence of the variables representing the shares held by large investors, or the type of investor, is found. For both specifications of a firm's performance (market and accounting), managerial ownership does not turn out to be significant for the monotonic specification. For the non-monotonic specification, a significant influence of the linear term of managerial ownership

is found. These findings do not allow us to assert the existence of a non-monotonic relation between managerial ownership and firm market value. In this sense, our results differ from the ones reported by Morck et al. (1988) and McConnell and Servaes (1990) for the U.S., or by Short and Keasy (1999) for the U.K. These results may vary depending on the firm's size. Kole (1995) reports that the different breakpoints reported in the studies that analyze the relation between ownership structure and firm value are due to the different samples employed. Our sample contains both small and large firms, allowing us to study the link between ownership structure and firm value for different sizes of firms. Thus, we next re-estimate the models for the sub-samples of smaller and larger firms. The sub-sample of smaller firms is composed by the 177 observations with a firm size below the 30th percentil, that is 784.22 millions euros, while the sub-sample of large firms is composed by the 177 observations with a firm size above the 70th percentil, that is 1533.5 millions euros. Smaller firms are, to a larger extent, family controlled firms and present higher levels of managerial ownership. Managerial ownership in small firms presents a mean value of 5.45% compared to 0.54% for the large firms sub-sample.

Table 6. Regression models without instruments: dependent variable market performance

	OLS	Within effects	OLS	Within effects	OLS	Within effects	OLS	Within effects
Constant	-0.382 (-1.082)		-0.683 (-1.778)*		-0.119 (0.736)		-0.451 (-1.261)	
MAN	0.006 (1.099)	0.012 (1.382)	0.069 (2.021)**	0.104 (2.429)**	0.004 (0.669)	0.011 (1.334)	0.053 (1.624)	0.088 (2.059)**
MAN2			-0.004 (-1.614)	-0.005 (-1.881)*			-0.003 (-1.255)	-0.004 (-1.572)
MAN3			0.477E-04 (1.337)	0.608E-04 (1.582)			0.349E-04 (0.983)	0.512E-04 (1.329)
BLOCK	0.004 (1.880)*	0.007 (2.500)**	0.005(2.414) **	0.008 (2.828)***				
DBANKS	0.350 (3.739)***	0.117 (1.125)	0.342 (3.638)***	0.111 (1.071)				
DINSTINV	0.006 (0.019)	-0.136 (-0.514)	0.061 (0.212)	-0.076 (-0.287)				
DNONFIN	-0.269 (-1.951)*	-0.096 (-0.752)	-0.249 (-1.809)*	-0.119 (-0.931)				
BANKS					0.005 (1.381)	0.006 (1.728)*	0.006 (1.445)	0.006 (1.755)*
INSTINV					-0.011 (-0.592)	0.0004 (0.035)	-0.009 (-0.466)	0.002 (0.154)
NONFIN					-0.002 (-1.195)	0.003 (1.926)*	-0.001 (-0.882)	0.003 (1.837)*
SIZE	0.055 (1.784)*	-0.442 (-3.467)***	0.071 (2.212)**	-0.505 (-3.890)***	0.055 (1.756)*	-0.400 (-3.180)***	0.069 (2.123)**	-0.445 (-3.487)***
LEV	-0.373 (-1.180)	0.749 (1.878)*	-0.295 (-0.930)	0.807 (2.025)**	-0.439 (-1.368)	0.752 (1.880)*	-0.376 (-1.165)	0.796 (1.989)**
INCRTA	0.426 (1.926)*	0.282 (1.578)	0.367 (1.650)*	0.304 (1.704)*	0.484 (2.169)**	0.255 (1.436)	0.437 (1.948)*	0.269 (1.514)
R2	3.80	54.90	4.08	55.25	1.52	54.74	1.69	54.92
F	3.89 (0.000)***	8.28 (0.000)***	3.52 (0.000)***	8.24 (0.000)***	2.30 (0.025)**	8.31 (0.000)***	2.13 (0.025)**	8.21 (0.000)***
Hausman test		22.95 (0.003)***		24.78 (0.006)***		21.87 (0.002)***		22.82 (0.006)***
N	593	593	593	593	593	593	593	593

Table 7. Regression models without instruments: dependent variable accounting performance

	OLS	Within effects	OLS	Within effects	OLS	Within effects	OLS	Within effects
Constant	-0.088 (-3.955)***		-0.1067 (-4.397)***		-0.095 (-4.539)***		-0.110 (-4.941)***	
MAN	0.397E-03 (1.169)	0.897E-03 (1.577)	0.005 (2.174)**	0.005 (1.726)*	0.496E-03 (1.491)	0.952E-03 (1.675)*	0.005 (2.243)**	0.005 (1.745)*
MAN2			-0.263E-03 (-1.863)*	-0.201E-03 (-1.140)			-0.252E-03 (-1.846)*	-0.193E-03 (-1.102)
MAN3			0.374E-05 (1.653)*	0.232E-05 (0.880)			0.358E-05 (1.618)	0.216E-05 (0.820)
BLOCK	0.554E-04 (0.448)	-0.263E-03 (-1.334)	0.135E-03 (1.038)	-0.210E-03 (-1.054)				
DBANKS	0.004 (0.766)	-0.007 (-0.937)	0.004 (0.718)	-0.007 (-0.982)				
DINSTINV	-0.014 (-0.789)	0.002 (0.100)	-0.011 (-0.609)	0.005 (0.263)				
DNONFIN	-0.003 (-0.375)	0.004 (-0.493)	-0.002 (-0.255)	-0.005 (-0.613)				
BANKS					0.379E-03 (1.567)	0.503E-04 (0.198)	0.404E-03 (1.670)*	0.535E-04 (0.211)
INSTINV					-0.002 (-1.406)	0.202E-03 (0.215)	-0.001E-02 (-1.277)	0.307E-03 (0.327)
NONFIN					0.109E-03 (1.130)	0.106E-03 (1.016)	0.139E-03 (1.415)	0.101E-03 (0.962)
SIZE	0.009 (4.437)***	0.006 (0.725)	0.009 (4.770)***	0.003 (0.356)	0.009 (4.513)***	0.003 (0.402)	0.009 (4.854)***	0.637E-03 (0.073)

Table 7 continued

LEV	-0.068 (-3.402)***	0.009 (0.335)	-0.063 (-3.137)***	0.012 (0.453)	-0.069 (-3.491)***	0.009 (0.329)	-0.065 (-3.245)***	0.012 (0.448)
INCRTA	0.057 (4.095)***	0.023 (1.864)*	0.054 (3.801)***	0.024 (1.948)*	0.058 (4.172)***	0.025 (2.081)**	0.055 (3.901)***	0.026 (2.145)**
R2	7.43	49.44	7.77	49.55	8.18	49.34	8.53	49.47
F	6.94 (0.000)***	6.85 (0.000)***	5.98 (0.000)***	6.76 (0.000)***	8.53 (0.000)***	6.88 (0.000)***	7.13 (0.000)***	6.80 (0.000)***
Hausman test		15.96 (0.043)**		15.89 (0.100)*		16.58 (0.020)**		16.43 (0.058)*
N	593	593	593	593	593	593	593	593

Table 8. Regression models without instruments for different firms' size: dependent variable market performance

	Small firms				Large firms			
	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5	Reg. 6	Reg. 7	Reg. 8
MAN	0.021 (0.672)	0.002 (0.030)	0.031 (0.954)	0.004 (0.049)	0.0616 (2.272)**	2.196 (2.825)***	0.057 (2.163)**	2.249 (2.950)***
MAN2		0.513E-03 (0.103)		0.001 (0.266)		-0.434 (-1.379)		-0.455 (-1.482)
MAN3		0.381E-05 (0.047)		-0.136E-04 (-0.164)		0.011 (1.263)		0.011 (1.362)
BLOCK	0.007 (1.303)	0.007 (1.289)			0.009 (1.399)	0.009 (1.378)		
DBANKS	0.341 (1.896)*	0.345 (1.904)*			0.015 (0.057)	-0.027 (-0.107)		
DINSTINV	0.296 (0.560)	0.289 (0.541)			-0.425 (-0.716)	-0.301 (-0.527)		
DNONFIN	-0.468 (-2.116)**	-0.463 (-2.071)**			0.083 (0.288)	0.061 (0.219)		
BANKS			0.007 (1.245)	0.007 (1.208)			0.011 (0.978)	0.014 (1.198)
INSTINV			0.004 (0.078)	0.003 (0.051)			-0.007 (-0.318)	-0.004 (-0.220)
NONFIN			0.002 (-0.798)	-0.002 (-0.739)			0.007 (2.043)**	0.006 (2.078)**
SIZE	-0.574 (-2.484)**	-0.535 (-2.129)**	-0.614 (-2.560)**	-0.576 (-2.210)**	0.065 (0.155)	0.220 (0.542)	0.004 (0.011)	0.151 (0.379)
LEV	0.410 (0.732)	0.383 (0.671)	0.320 (0.541)	0.297 (0.496)	3.1798 (2.915)***	3.296 (3.142)***	3.115 (2.891)***	3.289 (3.180)***
INCRTA	0.181 (0.665)	0.166 (0.585)	0.237 (0.854)	0.215 (0.746)	0.575 (1.241)	0.452 (1.012)	0.548 (1.237)	0.452 (1.061)
R2	63.62	63.13	61.39	60.85	56.11	59.46	57.13	60.59
F	8.33 (0.000)***	7.85 (0.000)***	7.83 (0.000)***	7.36 (0.000)***	6.77 (0.000)***	7.30 (0.000)***	7.17 (0.000)***	7.77 (0.000)***
N	177	177	177	177	177	177	177	177

The results of the regressions models suggest that the size of the firm influences significantly the relation between ownership structure and firm value. For large firms, managerial ownership influences positively firm market value, which is not the case for small firms (Table 8). Thus, the significant coefficient of variable MAN, found for the non-monotonic relation, when running the regressions for the whole sample, seems to be driven by the percentage of ownership held by the managers for the sub-sample of large firms. For larger firms, managerial ownership presents a positive and statistically significant coefficient, both for the monotonic and the non-monotonic specification. Besides, ownership concentration (BLOCK) does not seem to influence firms' market value for neither sub-sample of firms, but for the sub-sample of small

firms the presence of banks as shareholders (DBANKS) does seem to increase firm market value, while the presence of non-financial companies decreases firm market value (DNONFIN). On the contrary, the percentage of shares held by non-financial companies (NONFIN) increase firm market value for large firms. The relation between the control variables employed in the study and firm market value also differs for both sub-samples of firms. For the sub-sample of smaller firms, firm size influences negatively firm market value, while for the sub-sample of larger firms, higher leverage ratios derive in increases in firms' market value. Nevertheless, we must point out, that when considering, as dependent variable, the firm's accounting performance, no significant influence of ownership structure variables on the adjusted ratio of

operating income to total assets was found (Table 9). These results suggest that the link between ownership structure and firm value varies depending on the size of the firms and the measure of performance employed. In this sense our results

differ from those reported by Morck *et al.* (1988), or by Short and Keasy (1999), who document a significant influence of ownership structure on firm value regardless of the proxy variables used for a firm's performance.

Table 9. Regression models without instruments for different firms' size: dependent variable accounting performance

	Small firms				Large firms			
	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5	Reg. 6	Reg. 7	Reg. 8
MAN	0.929E-03 (0.262)	0.011 (1.175)	-0.001 (-0.353)	0.009 (1.005)	0.746E-03 (1.191)	0.0067 (0.359)	0.583E-03 (0.948)	0.002 (-0.089)
MAN2		-0.574E-03 (-1.025)		-0.654E-03 (-1.177)		0.003 (0.363)		0.007 (0.889)
MAN3		0.712E-05 (0.786)		0.894E-05 (0.998)		-0.840E-04 (-0.412)		-0.187E-03 (-0.940)
BLOCK	-0.701E-03 (-1.109)	-0.625E-03 (-0.974)			0.279E-03 (1.820)*	0.258E-03 (1.670)*		
DBANKS	-0.004 (-0.211)	-0.005 (-0.229)			-0.006 (-1.066)	-0.007 (-1.126)		
DINSTINV	0.010 (0.168)	0.015 (0.250)			-0.005 (-0.340)	-0.004 (-0.284)		
DNONFIN	0.007 (0.287)	0.005 (0.200)			-0.008 (-1.236)	-0.008 (-1.126)		
BANKS			0.275E-03 (0.439)	0.351E-03 (0.555)			-0.506E-03 (-1.846)*	-0.535E-03 (-1.943)*
INSTINV			0.005 (0.555)	0.004 (0.650)			0.208E-03 (0.434)	0.194E-03 (0.406)
NONFIN			0.434E-03 (1.359)	0.398E-03 (1.233)			0.923E-04 (1.229)	0.864E-04 (1.154)
SIZE	-0.009 (-0.375)	-0.022 (-0.785)	-0.003 (-0.131)	-0.015 (-0.535)	-0.035 (-3.649)***	-0.034 (-3.523)***	-0.033 (-3.386)***	-0.032 (-3.313)***
LEV	0.028 (0.440)	0.039 (0.608)	0.045 (0.697)	0.297 (0.496)	0.014 (0.552)	0.015 (0.611)	-0.517E-03 (-0.021)	0.002 (0.073)
INCRTA	0.051 (1.648)	0.060 (1.882)*	0.053 (1.758)*	0.062 (1.999)**	-0.002 (-0.231)	-0.004 (-0.335)	-0.006 (-0.625)	-0.007 (-0.685)
R2	42.63	42.37	43.23	43.03	75.43	75.47	75.74	75.92
F	4.11 (0.000)***	3.94 (0.000)***	4.27 (0.000)***	4.09 (0.000)***	14.86 (0.000)***	14.20 (0.000)***	15.46 (0.000)***	14.87 (0.000)***
N	177	177	177	177	177	177	177	177

Next, we consider the possible endogeneity of managerial ownership using 2SLS within-effects estimators (Table 10). We estimate two equations. In the first equation managerial ownership depends on other ownership related variables and firm's characteristics. The second equation, the firm performance equation, is similar to the one employed when using the OLS and within-effects estimations. It just includes the instrumental variable of managerial ownership. Consistent with Demsetz and Lehn (1985), the managerial ownership regressions show that managerial ownership is a function of firm's size. The firm market value regressions evidence the relation between large investors' shareholdings, in particular, between non-financial companies' shareholdings, and firm market value.

Similarly to the results obtained when using within-effects estimations, firm's size and leverage also influence significantly firm market value. No variables seem to influence firm performance when using as dependent variable the accounting measure ROA. The results also do not support that managerial ownership affects firm performance. This finding contradicts the results of the estimations that do not consider the endogeneity of a firms' ownership structure. In this sense our results are consistent with the evidence reported by Loderer and Martin (1997), Cho (1999) or Demsetz and Villalonga (2001). These authors report the non-existence of any relation between managerial ownership and firm value once the potentiality of endogeneity is considered.

Table 10. Regression models when considering managerial ownership as instrument

MAN	Instrumental variable equation (dependent variable MAN)		Dependent variable market performance		Dependent variable accounting performance	
			0.105 (1.057)	0.073 (0.828)	-0.001 (-0.038)	-0.002 (-0.072)

Table 10 continued

BLOCK	-0.016 (-1.058)		0.009 (2.416)**		-0.294E-03 (-0.369)	
DBANKS	0.222 (0.395)		0.096 (0.810)		-0.006 (-0.503)	
DINSTINV	-0.355 (0-.248)		-0.103 (-0.344)		0.002 (0.077)	
DNONFIN	-0.627 (-0.906)		-0.038 (-0.241)		-0.009 (-0.354)	
BANKS		0.007 (0.345)		0.006 (1.511)		0.879E-04 (0.261)
INSTINV		0.005 (0.061)		0.197E-03 (0.014)		0.308E-03 (0.300)
NONFIN		-0.004 (0-.476)		0.003 (1.934)*		0.887E-04 (0.368)
SIZE	2.039 (2.983)***	1.894 (2.809)***	-0.633 (-2.558)**	-0.517 (-2.433)**	0.014 (0.165)	0.012 (0.187)
LEV	-2.045 (0-.949)	-2.062 (-0.955)	0.941 (1.916)*	0.879 (1.916)*	0.004 (0.034)	0.002 (0.018)
INCRTA	0.382 (0.394)	0.496 (0.516)	0.247 (1.208)	0.225 (1.167)	0.022 (0.899)	0.025 (1.015)
R2	80.36	80.315	43.33	49.68	45.38	43.33
F	25.72 (0.000)***	25.90 (0.000)***	5.57 (0.000)***	6.96 (0.000)***	5.84 (0.000)***	5.50 (0.000)***
N	593	593	593	593	572	572

6. Conclusions

This paper contributes to the open debate about the link between ownership structure and firm value. Ownership structure is defined as managerial ownership and the shares held by different types of investors: banks, institutional investors and non-financial companies. Firm performance is considered using a market and an accounting measure. The analyses of the relationship between a firm's ownership structure and its performance were undertaken using different methodologies. First, we compare, for a sample of Spanish quoted companies, the link between ownership structure and firm value using OLS estimates and panel data estimates. This last methodology avoids possible biases associated to the existence of unobservable heterogeneity. The results show that firm value may be influenced by some unobservable characteristics and that this fact should be considered in studies that analyze the relation between ownership structure and firm value.

Previous studies considering a non monotonic relation between managerial ownership and firm value report different breaking points, probably due to differences in the samples used (Kole, 1995). According to that, we estimate our models for samples of small-sized and large firms. Our results show a positive and statistically significant relationship between managerial stock ownership and firm value for the sample of large firms, while non significant relation is found in the small sized sample. Our results suggest that the relationship between managerial stock ownership and firm value depends on the firm's size.

Finally, considering the potential endogeneity of a firm's ownership structure, and in particular, of managerial ownership, as suggested by Demsetz and Lehn (1985) we estimate the regressions using 2SLS panel data estimates. In this sense, our study follows

the suggestions of Demsetz and Villalonga (2001) who advise that ownership "should be modelled not only as an endogenous variable, but, simultaneously, as an amalgam of shareholdings owned by persons with different interests". The results of the study show no consistent relation between ownership structure and firm value. Although, managerial ownership influences significantly firm value for the within-effects estimates, this result does not hold once the endogeneity of managerial ownership is taken into account. Besides, we find a significant influence of large shareholdings, in particular, of the shareholdings held by non-financial companies, on firm market value, but not on the firms' accounting performance. Thus, these findings do not support the existence of a conclusive relation between ownership structure and firm value. The relations observed depend on the methodology employed and the measure of firm performance used. In this sense, our results contribute to recent literature which reports that no relation between managerial ownership and firm value is observed, once the endogeneity of ownership structure is taken account of (Loderer and Martin, 1997; Cho, 1999; Demsetz and Villalonga, 2001). Demsetz and Villalonga (2001) argue that the existence of a market for corporate control helps explain this evidence. We find that in a different institutional setting, without an active corporate control market, a similar behaviour is observed.

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