CORPORATE OWNERSHIP IN SPAIN

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Abstract

In this paper we analyse the structure of ownership in non-financial Spanish listed companies in the period 1996-2002, focussing on the control chain methodology. The results obtained show that the main shareholder's control threshold stands at about 29% of the voting rights and that in 2002 families were the ultimate owners in 52.7% of the firms. On the other hand, the use of pyramid structures continues to increase. In 2002, 29.1% of the companies were controlled in this way, which means that the ratio of voting rights to cash flow rights for this year was 0.89.

Keywords: ultimate owner, civil law, pyramid, family firm, corporate governance

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1. Introduction

Much of the literature on corporate governance and in particular on structures of ownership in large listed companies has developed to a great extent around Berle and Means' (1932) image of ownership. However, several studies (e.g., Demsetz, 1983; Demsetz and Lehn, 1985; Shleifer and Vishny, 1986; Holderness and Sheehan, 1988; Galve and Salas, 1992; Holderness, Kroszner and Sheehan, 1999, and Pedersen and Thomsen, 1999) show that even in large corporations in the most developed countries, widely held ownership structures are not as widespread as Berle and Means' findings suggest.

Recently, special attention has been paid to the extent to which the legal protection of external investors' interests influences the prevailing ownership structure in a particular country. Thus, Bebchuk's research (1999) predicts that closely held ownership is more common in those countries where the external shareholders' income is poorly protected by the legal system, since this author considers the private benefits of control to be a function of this protection. In relation to this, Shleifer and Wolfenzon (2002) focus their study on the capital market structure. The basic premise of their model as it refers to ownership structures is as follows: the better the legal protection of the shareholders' interests, the lower the concentration of ownership. Burkart, Panunzi and Shleifer (2003) take the family origin of the firms as their starting point and argue that the crucial factor encouraging families' to delegate management and sell shares is the extent to which external shareholders are legally protected. They point out the existence of widely held companies and the delegation of control to professional managers in countries with a high level of protection, delegation of management functions while retaining a significant share of the ownership in countries with a medium level of protection, and finally, the continuation of families in management and ownership in countries which offer scant legal protection of minority shareholders. Following on from these ideas, and regarding Spain, where mercantile legislation is part of civil law, and as such, offers weak defence of the external shareholders'[1] interests, we could predict that the corporate governance paradigm will be determined, with respect to ownership structure, by the existence of a high concentration of ownership and the prominence of family businesses, this being practically universal among the non-listed corporations, and prevalent among those listed, at least with regard to the continuation of a family in the ownership structure.

The existence of closely held ownership structures does not limit the importance of the corporate governance system, since conflicts between ownership and control continue to exist, but it does alter the parties involved in the agency relationship. The conflict between shareholders and management that must be limited by the corporate governance system becomes a conflict between majority and minority shareholders, the former attempting to expropriate the wealth of the latter. The existence of

[1] La Porta, López-de-Silanes, Shleifer and Vishny (1998) analyse at an international level the extent to which the external investors' interests are protected by legislation. They distinguish between two legal families: *common law*, originating from Anglo-Saxon law, and *civil law*, based on the principles established in Roman law. The latter has three branches: French (including Spain), German and Scandinavian. Their study reveals that countries with an Anglo-Saxon legal system offer better protection, while those with a *civil law* system offer poorer protection. Among the latter, the poorest protection is afforded by French legislation.

large shareholders in the companies' control chains justifies the analysis of their nature, since the use of power conferred by ownership can differ significantly depending on who possesses it (Thomsen and Pedersen, 2000). In relation to this, Cuervo (2002) states that the qualitative dimension of the so-called 'core shareholders' can have a considerable influence on the firm's behaviour and objectives.

Thus, accurately identifying who exercises the control in decision making is very useful for better understanding and studying the agency conflicts which the system of governance must face in those corporations with a high concentration of ownership. Consequently, with the aim of precisely tracing the ownership relationships of large listed companies, La Porta, López-de-Silanes and Shleifer (1999) use a sample of the listed firms for each of the 27 most developed countries to analyse the ownership of their voting rights via the definition of the so-called 'control chains'. In this way, they identify the 'ultimate owner', the final link in the ownership structure of the companies. These authors conclude that such structures are characterised by a high concentration of control, the predominance of family groups as main shareholders and the use of complex ownership structures, such as pyramids. In line with these authors, Claessens, Djankov and Lang (2000) focus on the control chains methodology to analyse the ownership structure of listed firms in East Asia. Their research reveals how a small number of families are the ultimate owners of a significant share of the total capitalisation of the corporations studied. Recently, Faccio and Lang (2002) defined the control chains in listed European companies, finding that widely held ownership and family-controlled firms predominate, widely held ownership being more widespread among finance companies and the largest firms, while family control is more common among non-financial organisations and the smallest firms.

In this paper we aim to further the analysis of ownership structure in Spanish firms. Our objective is to answer two questions that have been left unanswered by previous research into Spanish listed companies. The first question is related to the period of time analysed in the studies carried out by La Porta *et al.* (1999) and Faccio and Lang (2002). In these, data for the end of 1995 and 1997 was used, thereby analysing the ownership in only one period under the premise that ownership structures do not change significantly over time. However, we find it relevant to study whether, in the Spanish case, the control of listed firms really does or does not change significantly, since previous research refers to a period of time prior to the wave of privatisations among state-owned companies as well as the quotation of a remarkable number of corporations on the Spanish stock market. For this reason, in this paper the ownership structure of a sample of Spanish listed companies between the years 1996 and 2002 is analysed.

The second question refers to the methodology used by Faccio and Lang. These authors categorise a firm as family-controlled when it is controlled by an unlisted company, assuming then that it must be controlled by an individual or a family[2]. However, we consider it appropriate to identify the main shareholders of unlisted companies when these are the largest shareholders of listed firms. In so doing, we aim to trace a company's complete control chain and thereby categorise it more accurately as family-controlled.

The answers to the above questions have allowed us to offer a more accurate view of control in Spanish listed firms, not only in relation to the share of voting rights and the identity of majority shareholders, but also the type of ownership structure used and the identification of divergences between voting and cash flow rights through the use of pyramid structures by large owners.

The remainder of the paper is organised as follows. In the second section we describe the methodology and the data sources used as well as the sample selection. In the third section, the results regarding the stake and identity of the main shareholders of Spanish listed firms are presented. In the fourth section, we analyse the ownership structures used as well as the divergences found between ownership rights and control. Finally, in the fifth section, the main conclusions of the research are stated.

2. Methodology: definition of control chains

Ultimate owner typology

The methodology begins by classifying the companies into two main groups: those with widely held ownership and those with an ultimate owner. Within this second group the following types have been identified:

Families: a family or an individual. In both cases it is necessary that they sit on the board of directors[3].

Widely held non-financial companies: non-financial firms with no ultimate owner of the voting rights.

Banks: widely held banks, that is to say, no ultimate owner of the voting rights exists.

Funds and investment banks: domestic as well as foreign.

[2] About 90 percent of the Spanish companies categorised as family-controlled in their study are unlisted.

[3] We should mention that in previous research, companies controlled by individuals are automatically categorised as family-controlled, while in this paper this categorisation is made when the individual's ownership is represented on the board of directors. We consider it opportune to make this distinction since the sporadic participation of an individual in the ownership of a company cannot be compared to that of a family, as this usually implies the involvement of the family in the ownership and decision-making.

State: a national government (domestic or foreign), local authority (county, municipality, etc.), or government agency.

Miscellaneous: workers or other individuals who are sporadically the main shareholders in a corporation, etc.

In this paper, following La Porta *et al.* (1999), Claessens *et al.* (2000) and Faccio and Lang (2002), we consider that a company has an ultimate owner when the main shareholder directly or indirectly owns a stake in the voting rights equal or superior to an established control threshold, in our case that used in previous studies, namely, 10 and 20 percent.

Types of ownership structures

Firms controlled by ultimate owners can be classified according to their control structures. We suggest the following classification:

Direct ownership structure: when no corporation exists between the ultimate owner of the voting rights and the company under study.

Complex ownership structure: when at least one firm exists between the ultimate owner and the company under study. This structure can in turn be classified according to what extent it creates discrepancies between voting and cash flow rights. Thus, we can distinguish between:

> *Non-pyramid structures*: when, despite the existence of one or more companies between the one under study and the ultimate owner, the latter has the same voting and cash flow rights. This structure can be formed by one or more control chains.
>
> *Pyramid structures*: when the existence of companies between the one under study and the ultimate owner makes it possible that the latter has voting rights in excess of his cash flow rights. Therefore, a discrepancy between both rights will exist in at least one 'link' of the chain when the ultimate owner controls less than 100 percent. A pyramid structure can be made up of one or more control chains.

Cross-holding: when a cross-holding exists or when a company holds its own shares, in both cases for the established control thresholds.

In this way, if a family is the main shareholder in firm A with 16 percent of its voting rights, and firm A also owns 20 percent of company B, we can say that company B is family-controlled at a control threshold of 10 percent, since it has an ultimate owner who indirectly controls B via another company. However, at a control threshold of 20 percent, we can say that B is directly controlled by widely held firm A.

The previous example shows a complex ownership structure at the 10 percent control threshold, a pyramid structure to be more precise. Therefore, pyramid structures exist when there is an ultimate owner who indirectly controls a company via the non-absolute control of an intermediary firm. The use of this structure implies a discrepancy between the majority shareholder's voting and cash flow rights. In the previous example, the family owns 3.2 percent of the cash flow rights of B, that is the product of its ownership stakes along the chain (0.16*0.2). However, following the methodology proposed by Claessens *et al*. (2000) and Faccio and Lang (2002), it has 16 percent of the voting rights of B, which is the weakest link in the control chain [Min (0.16, 0.2)]. Therefore, if the family owned 100 percent of the voting rights of A, we could not define the structure as a pyramid since a discrepancy between control and cash flow rights is required. Both rights would represent 20 percent in the case described above.

Sometimes a firm is controlled by 'multiple control chains'. This occurs when an ultimate owner controls it via a multitude of control chains. Thus, if in the previous example the family directly owned 6 percent of the voting rights of B, then this family would hold 9.2 percent of the cash flow rights of B (0.16*0.2 + 0.06) and 22 percent of its voting rights (Min (0.16, 0.2) + 0.06).

On the other hand, Faccio and Lang (2002) establish that a firm A is controlled via a cross-holding at a control threshold of 20 percent if a company B owns at least a 20 percent share of A, and A owns at least 20 percent of the voting rights of B, or if firm A directly owns at least 20 percent of its own shares.

Sample selection and data sources

In order to select the sample of corporations to be analysed in this work, we started with 117 non-financial companies listed on the Spanish stock market on December 31 2002, of which we excluded one firm that had suspended trading and was going into liquidation, and later six more that were not based in Spain, resulting in a final sample of 110 non-financial companies[4]. For each of the sample firms, the ownership structures on December 31, between 1996 and 2002, were analysed.

To complete the control chains we used the information about large shares held by the Spanish Stock Exchange Commission. This revealed information about the direct and indirect stake of those shareholders with more than 5 percent of the stock, as well as the ownership held by the directors, irrespective of the percentage they owned. This information was complemented using the Informa database, which offers data about the ownership and the board of directors in listed and non-listed Spanish corporations. All this information was necessary to met our objective: to fully trace the control chain for each firm. On the other hand, the company reports were also analysed in order to study the composition of the board of directors and determine the influence that individual or family control had on them. Finally,

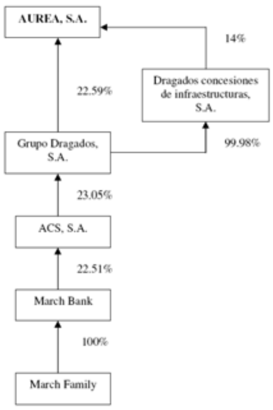
[4] The companies in the sample represent, according to the report of the Spanish Stock Exchange Commission for 2001, 85.11 percent of the capitalisation of the non-financial listed companies on the Spanish Stock Market.

in those cases where we found corporations not based in Spain as shareholders in Spanish firms, their ownership structures were completed using company reports obtained from their web pages. We also contacted them via e-mail to resolve any doubts we had when tracing their control chain.

Example

With the aim of illustrating the methodology described above, we present an example which reveals the identity of the ultimate owner of the voting rights of a Spanish firm. Figure 1 shows Aurea's control chain on December, 31, 2002. This is an example of a pyramid structure, since, on the one hand, an ultimate owner of the voting rights at the established control thresholds – 10 and 20 percent – was found, and on the other, Aurea is controlled via the non-absolute control of intermediary firms. Thus, the March family is the ultimate owner of this company since it owns 100 percent of the shares in March Bank; this financial corporation being the main owner of ACS, which is in turn the main shareholder in Grupo Dragados, the main shareholder in Aurea. Likewise, the board of directors in each of the companies which form the control chain include a director or top managers of the following link and members of the March family sit on the board at March Bank. This pyramid structure allows the March family to own 22.51 percent of the voting rights [Min (36.59, 23.05, 22.51, 100)], and 1.89 percent of the cash flow rights [(0.2259+ (0.9998*0.14))* 0.2305*0.2251*1].

Figure 1. Aurea's control chain on December 31 2002.



3. The ultimate owner of Spanish listed companies

Following the methodology laid out above, Table 1 shows the main shareholder's voting rights as well as those owned by the second and third largest shareholders of the sample companies in the period 1996-2002. It also illustrates that all the measures of control used followed a stable trend during the seven years studied.

Table 1. Main shareholders' voting rights

	1996	1997	1998	1999	2000	2001	2002
A1							
Mean-Deviation	35.9-22.8	34.1-22.1	33.7-21.4	33.8-22.4	35.2-23.2	35.2-23.9	35.5-24.2
Median	28.1	29.5	29.5	28.4	29.3	30	30.1
Min.-Max.	0-91	0.2-91	1-91	1-91	1.2-92.2	1.2-93.3	1.3-99.5
A2							
Mean-Deviation	43.3-24	40.7-23.2	41-22.1	41.4-23.2	43.4-23.4	43.3-24	43.6-23.9
Median	41.2	35.1	38	37.9	39.8	38.9	40.6
Min.-Max.	0-92.2	0.2-92.2	1.8-92.2	1.8-91	1.5-97.8	2-97.5	2.1-99.5
A3							
Mean-Deviation	46.1-23.7	43.3-23.2	43.9-22.1	44.9-23.6	47.3-23.1	47.1-23.7	47.1-23.6
Median	46.1	40.5	43.6	44.6	47.9	43.8	46.1
Min.-Max.	0-93.5	0.2-92.2	2.1-92.2	1.9-96.2	1.7-98.2	2.3-98.1	2.3-99.5
Controlling owner alone	74.1	76.9	70.8	62.6	68.1	67	64.3

A1: Main shareholder's voting rights, A2: Two main shareholders' voting rights, A3: Three main shareholders' voting rights
Controlling owner alone: percentage of companies with an ultimate owner in which there is no other shareholder with at least 10 percent of the voting rights

The table shows that the control held by the main shareholder stands at about 29 percent if we use the median as a reference, and the voting rights owned by the second largest shareholder reach, on average, 10 percent. In this way, the two largest shareholders control approximately 40 percent of the ownership in Spanish listed firms. This approaches, on average, 45 percent of the voting rights if the next largest shareholder is taken into consideration.

On the other hand, the existence of sole owners is also illustrated in the table above. These are corporations in which an ultimate owner exists and no other shareholders with at least 10 percent of the voting rights are found. Thus, in 1996 it is observed that in 74.1 percent of the companies with an ultimate owner his/her power is not counteracted by the existence of another large shareholder, while in 2002 the percentage of firms with a sole majority shareholder fell to 64.3 percent. This reflects a greater equilibrium in the control of Spanish listed companies during the period studied.

Table 2 also shows the identity of the ultimate owner of Spanish listed firms, at a control threshold of 10 percent, in the period 1996-2002 *(We show the results at a control threshold of 10 percent since at 20 percent economically significant differences were not found).* In 2002, 52.7 percent of Spanish listed companies were controlled by family groups, a growing tendency during the period studied. An opposite trend is observed when banks are the ultimate owners, these controlling around 18 percent of the sample firms in 2002. In order of importance, funds and investment banks stand out as main shareholders alongside widely held non-financial companies, which represent on average 8 percent of the sample. A more stable trend is observed for non-financial firms, while the growing tendency followed by funds and investment banks as ultimate owners changed in 2002, perhaps as a consequence of the stock market trend in this period and the fact that objectives related to the management of portfolios, as opposed to control, are more important for this type of investor.

Table 2. Identity of the ultimate owner of Spanish listed firms

	1996	1997	1998	1999	2000	2001	2002
Family	40.3	46.6	51.8	50	50	49	52.7
Banks with widely held ownership	24.2	19.2	14.1	14.6	15.7	19.8	18.2
Funds or investment banks	8.1	6.8	5.9	7.3	9.8	10.4	6.4
Non-financial companies with widely held ownership	8	9.6	9.4	9.4	8.8	8.5	8.2
State	11.3	5.5	1.2	3.1	2.9	1.9	1.8
Miscellaneous	1.6	1.4	2.3	2.1	2	1.9	1.8
Widely held ownership	6.45	10.9	15.3	13.5	10.8	8.5	10.9
Total no. of companies	62	73	85	96	102	106	110

Likewise, a marked decrease in the number of State-controlled listed firms is shown as a result of the privatisation policy. Its weighting drops from 11.8 percent in 1996 to 1.8 percent in 2002. Finally, we can see that about 11 percent of the ownership structures are widely held in 2002 as no shareholders with more than 10 percent of the shares were found. Moreover, the trend towards widely held ownership is the opposite to that followed by funds and investment banks as ultimate owners. This is due to the fact that in most cases a company's move from widely held to concentrated ownership or vice-versa is determined by the changes in a fund or investment bank's stake.

In comparison with Faccio and Lang's research, this paper shows equivalent results with regards to the quantitative dimension of the ownership structure. However, the complete tracing of the control chains justify the differences found in relation to the importance of family control among Spanish listed corporations. Consequently, following Faccio and Lang's study, 62 percent of the non-financial companies were family-controlled in 1997, while in our case 46.6 percent of the firms for that year were categorised as family-controlled. This discrepancy may be due to differences in the samples used. However, another possible reason may be found in the methodology followed by Faccio and Lang, which categorises non-listed companies as family-controlled when the main shareholder cannot be identified. In our research we have been able to identify the owners of all the non-listed corporations found in the intermediate links in the control chains. In the majority of the cases these companies are in fact family-controlled, but their owners are often financial organisations or widely held non-financial firms, which explains the larger number of shareholders of this type in the results obtained in our research, at the expense of less family control. Moreover, these arguments justify the discrepancies found between both studies with regard to the importance of the companies controlled by a single large owner. In the Spanish case, according to the results of Faccio and Lang's study, 44.3 percent of the companies analysed were of this type in 1997, while in our study this figure reaches 76 percent of the companies analysed for the same year. This difference reveals how the simultaneous control of various non-listed corporations in the intermediate links in the control chains is widespread among the majority shareholders.

Size and identity of the owner

In order to analyse the distribution of the ultimate owners according to the size of the sample companies, the firms have been classified into three groups. One of them comprises the first 20 firms in terms of capitalisation and the other two were formed by dividing the rest into two equal groups of medium-sized and small companies. We used this distribution for the years 1996, 1999 and 2002, aiming to analyse whether economically significant changes exist in this period. The results obtained are presented in Table 3.

Table 3 shows that firms with the highest capitalisation have seen important changes with regard to the identity of their majority shareholders. Thus, while the State and banks were the main shareholders of large listed companies in 1996, the tendency in recent years reflects an increasing predominance of family groups in the control of these firms. Likewise, it shows a decrease in bank and State ownership, in favour of widely held non-financial companies and widely held ownership structures. Funds and investment banks are rarely the ultimate owners of this type of firms.

Among the firms with moderate capitalisation, family groups stand out as the main shareholders along with greater involvement from banks. At the same time a decline in the importance of widely held ownership structures is observed, perhaps due to the fact that the smaller the companies are the easier it is to own a significant block of shares.

Regarding firms with lower capitalisation, family control increases, possibly as a consequence of the greater ease with which families can allocate resources to maintaining control. Furthermore, funds as opposed to banks are more likely to be the main shareholders of this type of company, which may result from the investment power of these institutional shareholders to manage the portfolio strategy followed. On the other hand, the decline of funds' and investment banks' stake in the last year explains the greater importance of widely held ownership in relation to the firms with moderate capitalisation.

Family control

Family control in Spanish listed companies is not only revealed by the number of firms in which the main shareholder is a family, but also by the stake that the stock market value has in this control, as is shown in table 4. Thus, within the largest listed companies, the value of family-controlled firms' capitalisation rose from 3.1 percent in 1996 to 18.1 percent in 2002. This trend is not observed in medium-sized and small firms in which the market value of family control has suffered a decline in the first group and remains relatively stable in the second, although in both cases the stake of family companies in the total capitalisation of these groups is significant.

The relevance of family control in Spanish listed companies can also be analysed through the percentage resulting from the importance of the largest family firms' capitalisation with respect to the total market value. Thus, Table 4 shows an increasing percentage of family capitalisation for all the groups of family companies analysed. From the data shown, we can see how the fifteen largest family firms' value of capitalisation increased by 183.8 percent during the 7 years studied, a figure which reaches 407 percent if we analyse this trend for the largest family company in the same period.[5].

The results obtained in relation to family control differ significantly from those gathered by Faccio and Lang. In their work the percentage of capitalisation of the largest, the top 5, the top 10 and the top 15 families with respect to the total market value is 1.66, 6.97, 10.92 and 13.48 percent respectively. However, in our case these figures are about half those noted by Faccio and Lang (except in the case of the largest family firm where capitalisation is similar) if we take the first year of our study as a reference. A possible explanation for this divergence can be found in the lack of identification of the owners of non-listed companies in Faccio and Lang's work, since this type of firm is often used as a portfolio holding company with the aim of drawing together banks' industrial shares, these owners being characterised by their investment power.

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[5] The growth of global capitalisation in the sample companies in the 7 years analysed is 152.5 percent.

Table 3. Percentage distribution of the ultimate owner according to company size

	1996			1999			2002		
	Large	Medium	Small	Large	Medium	Small	Large	Medium	Small
Average capitalisation (thousands of euros)	3.891.520	252.917	48.830	11.283.576	660.991	90.745	8.606.027	811.808	86.748
Family	15	52.4	52.4	30	47.4	63.2	35	51.1	56.5
Banks with widely held ownership	45	14.3	14.3	25	21.1	2.6	25	24.4	8.8
Funds or investment banks	0	9.5	14.3	5	7.9	7.9	10	6.7	13.3
Non-financial companies with widely held ownership	15	0	9.5	15	10.5	5.3	20	8.9	2.2
State	25	9.5	0	5	5.3	0	0	4.4	0
Miscellaneous	0	4.8	0	0	0	5.3	0	0	4.4
Widely held ownership	0	9.5	9.5	20	7.9	15.8	10	4.4	15.5
No. of companies	20	21	21	20	38	38	20	45	45

Table 4. Family control

	1996	1999	2002
Family control and size			
Large	3.1	8.5	18.1
Medium	59.2	37.4	44.1
Small	49.5	55.8	55.7
Family control and total capitalisation			
Top family	1.3	2.4	6.6
Top 5 families	3.9	6.8	12.6
Top 10 families	5.8	9.1	16.8
Top 15 families	6.8	10.1	19.3

Family control and size: this shows the family-controlled companies' percentage of capitalisation in relation to the total capitalisation of each size category
Family control and total capitalisation: this presents the percentage of capitalisation for the largest, the top 5, the top 10, and the top 15 families in relation to the total market capitalisation

4. Separation between ownership and control

Having identified the ultimate owners of Spanish listed companies, in this section we analyse the ownership structures used in the control of firms traded on the Spanish market. Likewise, we study the discrepancy between voting and cash flow rights held by majority shareholders. The typology of the traced ownership structures is shown in Table 5. Along with the trend followed by widely held structures previously analysed, this table illustrates how the ultimate owners' control through their direct stake in the voting rights, that is to say, without using any intermediate firms, has seen a decline during the studied period. Thus, this type of control was used by 19.4 percent of the companies in 1996, but only by 12.7 percent in 2002. On the other hand, with respect to complex non-pyramid structures (those in which, despite the use of intermediary corporations, no divergence exists between voting and cash flow rights), a reasonably stable trend can be observed whether a single control chain is used or various ownership relationships with the same ultimate owner. Finally, it should be mentioned that a reverse trend was followed by pyramid structures, that is, those in which a discrepancy between voting and cash flow rights exists. Thus, the use of pyramid structures through multiple control chains shows a decline (17.7 percent of the companies exhibited this structure in 1996 but only 8.2 percent in 2002), while the use of a single pyramid chain increases (from 9.7 percent to 20.9 percent for the same years). Due to this divergent trend, the predominance of pyramid structures among Spanish listed firms stands at about 25 percent, the global trend growing slightly from 27.4 percent in 1996 to 29.1 percent in 2002. If we compare the predominance of pyramid structures in our paper with the results obtained in Faccio and Lang's study, a difference of ten percentage points can be observed in 1997 (16 percent in Faccio and Lang's work as opposed to 26 percent in our research). This fact again justifies the need, at least in the Spanish case, to completely trace the control chains, since the lack of identification undermines the use of structures aimed at creating a discrepancy between the ownership and voting rights.

Table 5. Types of ownership structures

			Ultimate owner structures						
				Complex structures					
				Non-pyramid structures			Pyramid structures		
	No. of companies	Widely held	Direct	Total	Multiple chains	One chain	Total	Multiple chains	One chain
1996	62	6.45	19.4	46.8	24.2	22.6	27.4	17.7	9.7
1997	73	10.9	21.9	41.1	23.3	17.8	26	13.7	12.3
1998	85	15.3	16.5	41.2	24.7	16.5	27.1	11.8	15.3
1999	96	13.5	17.7	44.8	27.1	17.7	25	9.4	15.6
2000	102	10.8	15.7	50	31.4	18.6	24.5	10.8	13.7
2001	106	8.5	15.1	50	31.1	18.9	26.4	10.4	16
2002	110	10.9	12.7	47.3	26.4	20.9	29.1	8.2	20.9

In relation to the ownership structures used by the ultimate owners, Table 6 shows the structures through which families and banks control their companies since these two groups are the main shareholders on the Spanish market. It is shown that the structures used by both owners differ. Thus, despite there being a decline in the use of direct control by these groups, families employ it less often than financial institutions. 6.9 percent of the families in 2002 used direct control, as opposed to 18.8 percent of the firms directly owned by financial institutions. This could be a consequence of the lack of transparency that characterises family groups, at least with regard to the way in which they control their companies, which is to say families are more likely to hide their ownership through the use of intermediary corporations.

Table 6. Ownership structures and identity of ultimate owner

Family									
			Complex structures						
			Non-pyramid structures			Pyramid structures			
	No. of companies	Direct	Total	Multiple chains	One chain	Total	Multiple chains	One chain	Sole owner
1996	25	12	60	40	20	28	16	12	68
1997	33	15.1	57.6	36.4	21.2	27.3	12.1	15.2	75.8
1998	44	11.4	59.1	38.6	20.5	29.5	13.6	15.9	70.5
1999	48	8.3	58.4	39.6	18.8	33.4	14.6	18.8	68.8
2000	51	7.8	60.8	43.1	17.7	31.4	15.7	15.7	72.6
2001	52	7.7	61.5	44.2	17.3	30.9	13.5	17.4	71.2
2002	58	6.9	58.6	37.9	20.7	34.5	8.6	25.9	69
Banks									
			Complex structures						
			Non-pyramid structures			Pyramid structures			
	No. of companies	Direct	Total	Multiple chains	One chain	Total	Multiple chains	One chain	Sole owner
1996	15	26.7	40	26.7	13.3	33.4	26.7	6.7	86.7
1997	14	28.6	35.7	28.6	7.1	35.7	28.6	7.1	78.6
1998	12	33.3	33.3	25	8.3	33.3	25	8.3	75
1999	14	21.4	57.1	35.7	21.4	21.4	14.3	7.1	57.1
2000	16	18.8	62.6	31.3	31.3	18.9	12.6	6.3	50
2001	20	15	60	25	35	25	10	15	50
2002	16	18.8	62.6	18.8	43.8	18.8	18.8	0	50

These divergences found in the use of direct control are also observed in the case of pyramids, where the trend in both groups mentioned above is different. Families use pyramid structures more often and this is an increasing tendency. 28 percent of the family-controlled companies used this type of structure in 1996, while in 2002 this figure rose to 34.5 percent. With respect to firms controlled by financial institutions, 33.4 percent of them were controlled through a pyramid in 1996 and only 18.8 percent in 2002. Moreover, it is observed that this greater use of pyramid structures by families is found alongside an increasing prevalence of sole owners, that is the lack of another shareholder with a significant stake. Thus, data for the end of the period studied shows that 69 percent of the family firms have sole owners, as opposed to 50 percent of the companies controlled by financial institutions.

In relation to the ownership structures used by family firms, our findings contrast with those shown in Faccio and Lang's work. They establish that 11.97 percent of Spanish family-controlled corporations used pyramid structures in 1997 and, moreover, these were sole owners in 39.32 percent of the cases. These figures differ considerably from 27.3 percent of pyramids and 75.8 percent of ultimate owners shown in this paper for family firms for 1997, which once again demonstrates the need to complete the control chains to more accurately identify the ownership relationships in Spanish listed corporations.

The use of pyramid structures by ultimate owners implies the existence of a discrepancy between the voting and cash flow rights in the hands of these majority shareholders. Table 7 shows the main shareholder's cash flow and voting rights as well as the ratio of cash flow over voting rights.

Table 7. Discrepancy between ownership and control

Cash flow					
	Mean	Median	Deviation	1st Quartile	3rd Quartile
1996	32.5	25	22.5	13.6	50.3
1997	31.3	25	21.4	14.7	47.5
1998	30.6	26	21.4	12.9	49.1
1999	31	26.3	22.2	11.7	50.4
2000	32.1	26.9	22.8	12.1	50.4
2001	31.9	27.1	23.5	10.9	49.7
2002	32.1	25.4	24.9	10.5	49.7
Voting rights					
	Mean	Median	Deviation	1st Quartile	3rd Quartile
1996	35.9	28.1	22.8	15.9	51.6
1997	34.1	29.5	22.1	16.3	50.5
1998	33.7	29.5	21.4	15.3	50.5
1999	33.8	28.4	22.4	14.7	52.9
2000	35.2	29.3	23.2	14.8	54
2001	35.2	30	23.9	13.8	51.3
2002	35.5	30.1	24.2	15.3	51.3
Cash flow/Votes					
	Mean	Median	Deviation	1st Quartile	3rd Quartile
1996	0.92	1	0.19	0.99	1
1997	0.93	1	0.18	1	1
1998	0.91	1	0.2	0.99	1
1999	0.92	1	0.18	1	1
2000	0.91	1	0.19	0.99	1
2001	0.9	1	0.21	0.98	1
2002	0.89	1	0.24	0.95	1

Our findings show the main shareholder owns about a quarter of the cash flow rights, as opposed to 29 percent of the voting rights. This situation implies that the average for all the years of the ratio that relates both variables is 1, despite the declining tendency shown by the average falling from 0.92 in 1996 to 0.89 in 2002. The results offered in this case do not diverge from the relationship between both rights obtained in Faccio and Lang's study in which Spain is shown as the European country in which there is a smaller discrepancy between ownership and voting rights.

5. Conclusions

In this paper we analyse the ownership structures of Spanish listed companies between 1996 and 2002, focussing on the determination of control chain methodology. The results presented are in line with the theoretical implications of the importance of closely held ownership structures and the prominence of families as majority shareholders in countries with poor legal protection for external investors' interests, as is the case with Spain.

The results reveal the existence of high levels of concentration, since in each year analysed the main shareholder has, on average, 29 percent of the voting rights. Moreover, about two thirds of the firms are controlled by a single owner, that is to say, by a single controlling owner without the existence of another large shareholder. The stability shown by the quantitative dimension of the ownership structure during the period does not apply to its qualitative dimension, since the predominance of family groups follows a growing trend, controlling 52.7 percent of the listed companies in 2002. Financial corporations or the State were less often the main shareholders in these companies. The importance of family control is not only observed in smaller firms, which suggests the significant stake that family groups have in the value of the Spanish stock market. Thus, the percentage of capitalisation in the hands of the families controlling the largest Spanish companies in 2002 was 18, and the market value controlled by the 15 largest family firms 19.3 percent of the global market capitalisation for the same year.

The use of pyramid structures by the ultimate owners of Spanish listed companies has followed a slightly growing trend during the period studied, going from 27.4 percent of the ownership structures in 1996 to 29.1 percent in 2002. This greater use of pyramids implies larger discrepancies between voting and cash flow rights. As a consequence, the average ratio of ownership to control varied from 0.92 in 1996 to 0.89 in 2002. With regard to the use of this type of structure by different owners, families increasingly tend to use pyramids in the control of their firms, while financial institutions use them less in the period 1996-2002. This fact, alongside the lack of other large shareholders in the case of family companies, allows us to categorise the control exercised in the family-controlled firms as absolute.

Our findings demonstrate, on the one hand, the need to identify all the ownership links that could exist in the listed companies in order to obtain a more precise image of their control relationships and, on the other, the importance of the temporal analysis of the ownership structures, especially given the significant changes undergone by the stock markets, such as those which have occurred in Spain in the last decade.

Finally, in the light of the results, an in-depth study into the impact that family groups could have on the corporate governance of Spanish listed companies seems necessary since the family system can influence the contractual relationships defined in the corporate framework, particularly those established between minority and majority shareholders.

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