Institutional framework, concentration of ownership and results of large family corporations in Latin America and Spain

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Abstract

Purpose – *This paper aims to clarify the relationship between institutional framework, concentration of ownership in family firms and results.*

Design/methodology/approach – *Data comprises two samples of family firms from eight Latin American countries and Spain in the year 2010. The first sample contains the largest 20 corporations from each country. The second comprises the 20 largest listed family corporations in each country. To test the hypothesis, the study uses ordinary least squares.*

Findings – *First, firms located in countries with a higher than average quality of the institutional and regulatory frameworks are less concentrated in ownership than firms located in countries with lower than average quality and development of institutional and regulatory framework. Second, the influence of the concentration of the ownership in the performance is more important in countries with higher developed institutional and regulatory frameworks. Finally, first-generation large family firms obtain higher results than large family firms in second generation or beyond.*

Research limitations/implications – *The study is limited to one year and there are few family firms in Latin American countries. The study only considers some features of ownership, and there is no information about board of directors' composition.*

Practical implications – *Institutional framework determines concentration of ownership in family firms and the influence of concentration of ownership in performance.*

Originality/value – *The study provides new evidence in areas of corporate governance and family firms, analysing a sample of Latin American and Spanish firms, representatives of the civil legal system and a weaker institutional framework. The study uses the corruption perception index like a control variable.*

Keywords *Performance, Corporate governance, Institutional framework, Family firms, Ownership concentration, Spain and Latin America*

Paper type *Research paper*

1. Introduction

Interest has grown in the past few years regarding the governance of firms and the implications of different ownership and control structures for economic and social efficiency. Indeed, the financial crisis has generated growing interest in learning whether a firm's family ownership and control has a positive or negative impact on its value. Family firms present highly concentrated ownership in the hands of a small number of shareholders/managers; their management is oriented to the long term, they are deeply rooted in their local communities and reputation is of the highest value, so they pay considerable attention to stakeholder relations. On the other extreme is the type of firm that characterises financial capitalism. We find the maximum expression of financial capitalism in firms characterised by effective separation between the owners and those who control management decisions; these companies have their origin in the high degree of dispersion of ownership and in the delegation of decision-making to professional managers. The separation between ownership and control can lead to a loss of efficiency if there is any discrepancy between shareholders' and managers' interests.

There is considerable literature about the relationship between family ownership-control and firm value from the perspectives of different theories (institutional economics, transaction costs, ownership and governance and agency), finding positive (Anderson and Reeb, 2003; Gomez-Mejia *et al.*, 2007; Habbershon and Williams, 1999), negative (Fama and Jensen, 1983; Schulze *et al.*, 2001, 2003) and null (Daily and Dalton, 1992; Miller *et al.*, 2007) effects, so there are, therefore, no conclusive results. There are several possible reasons for such contradictory conclusions. Firstly, economic research on family firms has repeatedly shown the sensitivity of the conclusions reached about family firm behaviour and results in comparison with non-family enterprises, depending on how a family firm is defined; Anderson and Reeb (2003), Miller *et al.* (2007) and Villalonga and Amit (2006) show that a family link to a firm largely creates value when the founder manages the firm. These results appear to be due to the quality of the founder's entrepreneurial skills, which other firms are unable to replicate.

Other authors explain diverging results by focusing on the institutional framework (Gedajlovic and Shapiro, 1998; La Porta *et al.*, 1998; Aguilera and Jackson, 2003; Young *et al.*, 2008; Peng and Yiang, 2010), which they see as moderating the relationship between ownership structure and firm value. However, despite growing consensus that the institutional setting is very important, there are few institutional analyses of corporate governance (Heugens *et al.*, 2009; Peng and Yiang, 2010). Studying the institutional framework as a possible explanation of divergent results is justified because the empirical evidence shows that ownership structure differs considerably from one country to another. In the USA, for instance, families control their firms with much less shares than those required to control corporations in other countries in continental Europe and Asia (La Porta *et al.*, 1999; Anderson and Reeb, 2003; Villalonga and Amit, 2006; Pascual *et al.*, 2012).

Other collective of authors explain diverging results by focusing on the methodological framework. Specifically, they argue that empirical research often overlooks an important source of endogeneity that arises because the relations among a firm's observable characteristics are likely to be dynamic (Harris and Raviv, 2008; Wintoki *et al.*, 2012; Flannery and Hankins, 2013).

The objectives of this study are to provide empirical evidence of the concentration of ownership of the largest family corporations and listed family firms in a sample of Latin American countries and Spain, and to check if the companies analysed show differences in the relationship between ownership concentration and performance that can be attributed to differences in the institutional frameworks of the countries where these companies are established. In other words, we aim to answer the following question: Does the impact of concentration of ownership on family firm value depend on the institutional framework of the country in which the firm is established? Furthermore, the study is also justified by the following reasons. Firstly, in most of the Latin American countries analysed (Chile, Costa Rica, Argentina, Honduras, Peru, Mexico, Brazil and Colombia), there is no empirical evidence in this respect. Secondly, this study contributes to the few institutional analyses of corporate governance. Finally, the study is of empirical added value because it contributes to explain the inconsistency of existing results related to the relationship between family ownership and control and firm value. Studies such as these open new avenues for agency, transaction cost and ownership theories to include variables related to the institutional framework of the country in which firms are established to explain the results of family firms, together with the concentration of ownership, organisation, resources and technology variables that they usually consider.

As part of our aim to help to provide empirical evidence, the second section of the paper examines the relationship between concentration of ownership and institutional framework, anticipating the hypotheses to be tested. The third section contains a description of the sample and the variables used in the study (related to concentration of ownership, size, family generation in management, profitability and institutional framework) and the hypothesis testing results. Finally, the fourth section contains the study's conclusions.

2. Theoretical background and hypotheses

Traditional research studies corporate governance from the perspective of agency theory, seeing modern corporations as a nexus of contracts between principals (shareholders, who support the risk) and agents (managers with special skills). Corporate governance arises to minimise agency problems (Shleifer and Vishny, 1997), guaranteeing a return on shareholders' investment. In the USA and the UK, for instance, where shareholders are generally highly dispersed (Anderson and Reeb, 2003; Villalonga and Amit, 2006; Miller *et al.*, 2007; Franks *et al.*, 2004), and face the risk that managers could work to benefit themselves in the detriment of their own interests (shareholders–managers agency problem) (Fama and Jensen, 1983; Jensen and Meckling, 1976), the market for corporate control, legal regulations and contractual incentives are key governance mechanisms (Gillan, 2006; Walsh and Seward, 1990). In continental Europe and Asia, however, where concentration of ownership is usually high (La Porta *et al.*, 1999; Morck *et al.*, 2000; Claessens *et al.*, 2000; Faccio and Lang, 2002), leading shareholders are more able to have direct control and a direct impact on management to ensure that firms are managed to benefit their shareholders (Bolton and Von Thadeden, 1998; Coffee, 1991; Maug, 1998; Shleifer and Visnny, 1986); concentrated ownership provides investors with powerful incentives to supervise management (David *et al.*, 2007).

However, when high concentration of ownership involves significant asymmetry in shareholder distribution, there could be a risk that majority shareholders, in pursuit of their own interests, could harm the interests of minority owners (majority shareholders–minority shareholders agency problem), in which case, the country's legal system could provide protection against opportunism or expropriation by controlling shareholders (Gillan, 2006; Walsh and Seward, 1990).

Given the inconsistency in the results obtained by different studies of the relationship between concentration of ownership and performance of the firm, the empirical literature on corporate governance does not provide an unequivocal response concerning the benefits and costs of concentrated ownership. La Porta *et al.* (2000) find a positive relationship, Loderer and Martin (1997) find a negative relationship, Morck *et al.* (1988) find a curvilinear relationship and Demsetz and Lehn (1985) find no relationship between these variables. On the other hand, as mentioned in the introduction, neither does the empirical literature provide an unequivocal response about the benefits and costs of family control versus other forms of governance. This study aims to learn more and be able to explain the inconsistency of these results, attempting to answer the following question: As different nations have different institutional settings as a result of their different development processes, is concentration of ownership and the relation between concentration of ownership and the performance of family firms mediated by the institutional framework in the country where the firm is established?

Institutions play a key role in economic development, as they are responsible for ensuring social peace, guaranteeing individual freedom for investment and purchasing decisions, establishing safe and transferrable property rights and guaranteeing contract compliance by means of their legal systems (North, 1990). These social capitalism institutions that protect investors' and society's rights tend to vary considerably from one country to another, so the relationship between concentration of ownership and firm performance also varies between jurisdictions (Aguilera and Jackson, 2003; Hollingsworth and Boyer, 1997).

From an institutional perspective, concentration of ownership and the relationship between family ownership concentration and performance can vary according to the institutional (legal and regulatory) framework applicable to the firm. According to Rediker and Seth (1995) and Walsh and Seward (1990), a firm's value depends on the efficiency of a series of corporate governance mechanisms. The authors specifically evaluate whether firms' external governance mechanism (legal and regulatory framework affecting the degree of protection afforded to minority shareholders) can replace the internal governance

mechanism (concentrated ownership structure) in its contribution to the quality of corporate governance. In general, in countries with underdeveloped legal and regulatory frameworks, the controlling family shareholder or group of shareholders will play a more important role in maintaining or increasing a firm's value (and hence the wealth it creates for the country) than in highly developed countries where minority shareholders are afforded greater protection.

According to Peng and Yiang (2010), there are two ways in which concentration of ownership and investors' legal protection can be related in a corporate governance regimen. In some, concentrated ownership and legal protection can be complementary governance mechanisms and we should expect a positive impact on performance by the iteration of these two variables. However, concentration of ownership and legal protection can also be substitutive rather than complementary mechanisms. In this context, the presence of one of the two characteristics is necessary for positive interaction in performance which, nonetheless, will be little affected by adding the other characteristics.

In some countries, contract clauses referring to shareholder protection can be avoided by dominant shareholders by means of corruption or merely because the countries concerned are unable to supervise corporate governance and combat white-collar crime (Claessens and Fan, 2002). In countries that pursue highly efficient corporate governance, the benefits of opportunistic behaviour by majority shareholders (results of tunnelling practices) who are also managers will be minimal. In this context, the association between concentrated ownership and performance is probably stronger (with the rest remaining constant) because there are few opportunities for tunnelling. However, when governance regimens provide majority shareholders with tunnelling opportunities, the relationship between concentration of ownership and performance will be weaker because controlling shareholders are more likely to transfer wealth from firms to their own bank accounts. We therefore submit the following hypotheses:

H1. Degree of concentration of ownership in family firms is negatively related to quality and degree of development of the country's institutional and regulatory framework.

H2. The association between concentration of ownership and performance in family firms is positively affected by the quality and development of the country's institutional and regulatory framework.

3. Methodology

3.1 Sample

This study is for 2010, based on two samples of family firms from eight Latin American countries and Spain. The first sample contains the largest 20 family corporations from each country, making a total of 180. The second comprises the 20 largest listed family corporations in each country. However, as we can see in Table I, in some countries, a smaller number of family firms are analysed, due to their less developed capital markets.

A company is considered as a family firm if the sum of the shareholding (direct and indirect) held by leading family shareholder or by two or more related (consanguineous or not) members is the largest block holder among all other block holders of shares in the company. At the same time, two or more related members who own shares must control the firm's strategy. We followed the definition used by the European Group of Owner Managed and Family Enterprises (GEEF) (2012) and by Davis (2001).

Table I Sample of listed companies by country

Country	*Argentina*	*Brazil*	*Colombia*	*Costa Rica*	*Chile*	*Spain*	*Honduras*	*Mexico*	*Peru*	*Total*
N	20	13	10	7	20	20	–	16	20	126

The information (about ownership structure, size and performance) required to test our hypotheses has been taken for Spain from the reports published by the National Stock Market Commission (for the sample of listed firms) and from the SABI-Informa database and *Actualidad Económica* magazine (for the sample of the largest Spanish corporations). Information for the eight Latin American countries was obtained as result of a research seminar "Network of Interdisciplinary Research in Family Firms (NIRFF)" at the University of Barcelona.

The information about the quality of the different countries' institutional and regulatory framework was obtained from the "Transparency International" publication about the corruption perception index in 2010 and 2011. This index shows that when basic institutions are weak or non-existent, corruption grows out of control and the plunder of public resources increases insecurity and impunity. Corruption also generates growing mistrust in such institutions and the governments responsible for guaranteeing stability, institutional transparency and accountability. The information used to edit the index includes information about bribes to public servants, irregular public contract payments, embezzlement of public funds or aspects that confirm solid anti-corruption policies, including administrative and political corruption. The corruption perception index measures perceived corruption in the public and private sectors of a given country on a scale from 0 (perceived as highly corrupt) to 10 (perceived as corruption-free). It is a global indicator calculated from data from 17 sources provided by 13 renowned institutions. All the sources measure overall scope of corruption (frequency and/or magnitude of bribes) based on experts' perceptions and they represent a combination of business surveys and commercial risk analyses by country experts at international institutions. The evaluation is summarised by answering two questions:

Q1. To what extent are public services that use their power to commit acts of corruption penalised?

Q2. To what extent does the government have clear institutionalised mechanisms to combat corruption?

The study assumes that when the corruption perception index is low, the quality of the country's institutional and regulatory framework is very poor; likewise, when the index is high, the institutional and regulatory framework guarantees social peace, individual freedom to make investment and purchasing decisions, safe, transferrable property rights and contract performance. The differences between countries in the corruption index (as a proxy of a country's institutional and regulatory framework) result in differences in concentration of ownership and its relation to performance.

3.2 Methodology and variables

As this is a cross-sectional study conducted for 2010, the regressions are presented using ordinary least squares (OLS) controlling for both multicollinearity and heteroscedasticity. To establish the presence of multicollinearity, we estimate the variance inflation factor (VIF) values of the respective multiple linear regression and observe the tolerance and VIF values. If they are less than 0.1 or more than 10, respectively, it shows the existence of multicollinearity (Pallant, 2007). The absence of multicollinearity was checked in all the regressions in this study. The Breusch–Pagan test was also performed to check for heteroscedasticity. In the presence of heteroscedasticity, OLS estimators are consistent and unbiased, so they were calculated with consistent robust standard errors. The statistical analysis was performed with SPSS 15.0 and STATA 10.1.

1. Endogenous variables used in our research:
   - Concentration of ownership, measured by the percentage of shares owned by the five leading shareholders (C5).

- Performance, measured by return on investment (ROI), defined as the ratio between profit before interest and tax and the firm's total assets, expressed as a percentage.

2. Independent variables used in our research:
   - *Corruption perception index (CPI)*: Index edited by Transparency International. It measures perceived corruption in each country's public sector on a scale from 0 (very corrupt) to 10 (no corruption).
   - *Corruption dummy (DCPI)*: Variable whose value is 1 when the country has a higher than average corruption index for the nine analysed countries, and 0 otherwise.
   - *Concentration of ownership (C5)*: Measured by the percentage of shares owned by the five leading shareholders (only included as an explanatory variable in the models testing *H2*).
   - *Multiplicative (C5 × DCPI)*: Multiplicative variable representing concentration of ownership of the five leading shareholders in countries whose CPI is above average.
   - *First-generation dummy (GENERATION)*: Dummy variable whose value is 1 when leadership and decision-making is in the hands of the firm's founder, and 0 otherwise.
   - *Group dummy (GROUP)*: Dummy variable whose value is 1 when the family firm is part of a business group, and 0 otherwise.
3. Control variables:
   - *Firm size (SIZE)*: Measured as total net assets (TAct) and total sales (TVtas) in logarithms.
   - *Listed dummy (LISTED)*: Variable whose value is 1 when the family firm is listed on the stock exchange, and 0 otherwise.
   - *Sectoral variables*: Dummy variables representing the firm's principal activity, distinguishing between primary, secondary and tertiary sectors.
   - *Country dummy variables*.

4. Empirical results

Tables II and III show a description of the database for large and listed firms, respectively, with the mean values of the variables per country (concentration of ownership, size, age, ROI and corruption perception index) used in the analyses of the determinants of concentration and its relation to business performance; they also show the mean differences in the different variables between countries. To examine the differences between countries, we use ANOVA whenever possible, or the test for equality of variances (Welch and Brown–Forsythe). Thus, following the methodology proposed by Pallant (2007), we first perform Levene's homogeneity of variances test, presenting the ANOVA *F*-statistic if it is passed. If there is no homogeneity of variances, we use the test for equality of variances (Welch and Brown–Forsythe). We also perform the Kruskal–Wallis non-parametric test to determine differences between the analysed countries.

Tables II and III show statistically significant differences between countries in the mean values of the variables used for large and listed firms. With regards to the concentration of ownership in the hands of the principal shareholder (C1), of the first three (C3) and first five shareholders (C5), the data show the following. Firstly, concentration of ownership is high for all the firms, irrespective of the country, except for Costa Rica firms (when calculating concentration of ownership in the largest firms of Costa Rica, there is only information available about two firms, so the result of very low concentration of ownership is not representative of the country's family enterprises). The mean percentage of shares owned

Table II Mean differences in ownership concentration, size, age and performance between the largest family firms in Latin America and Spain

	Country										Statistics		
Variables	*Argentina*	*Brazil*	*Colombia*	*Costa Rica*	*Chile*	*Spain*	*Honduras*	*Mexico*	*Peru*	*Total*	*ANOVA[b] (F statistics)*	*Welch[b]*	*Brown–Forsythe[b]*	*Kruskal–Wallis*
C1	79.79	n.d.	53.32	19.67	62.82	54.74	57.86	54.54	53.11	59.42	–	21.345***	3.624***	21.081***
C3	87.81	n.d.	78.58	19.67	71.85	68.38	85.40	66.86	73.20	75.25	–	38.372***	5.097***	26.117***
C5	88.61	n.d.	87.39	19.67	76.87	71.16	90.78	69.90	79.12	79.72	–	45.816***	7.246***	30.332***
TAct[a]	3.227	8.593	687	205	9.083	3.919	206	4.375	915	4.118	–	9.593***	7.590***	74.270***
TVtas[a]	1.764	5.263	562	130	3.595	3.719	n.d.	8.750	1.038	2.995	–	30.359***	11.382***	115.518***
Age	62	53	42	43	57	37	32	46	48	47	–	2.311**	2.076**	12.39
ROI (%)	7.30	9.26	15.26	2.90	10.18	7.52	5.27	20.93	25.99	12.40	8.783***	–	–	52.008***
CPI	3	3.8	3.4	4.8	7.2	6.2	2.6	3	3.4	4.15	–	–	–	–

Notes: [a]In millions of dollars; [b]previously has been calculated Levene test for homogeneity of variances; *significant at 10% level; **significant at 5% level; ***significant at 1% level

Table III Mean differences in ownership concentration, size, age and performance between largest listed family firms in Latin America and Spain

	Country									Statistics		
Variables	*Argentina*	*Brazil*	*Colombia*	*Costa Rica*	*Chile*	*Spain*	*Mexico*	*Peru*	*Total*	*ANOVA[b] (F statistics)*	*Welch[b]*	*Brown–Forsythe[b]*	*Kruskal–Wallis*
C1	65.75	–	54.26	37.20	59.91	48.81	54.54	56.42	56.08	–	1.366	1.189	7.759
C3	73.93	–	81.09	53.46	69.35	58.94	66.86	74.21	69.24	–	2.195*	1.711	12.810**
C5	75.33	–	89.60	57.06	74.73	61.21	69.90	81.97	73.69	–	3.979***	2.694**	22.399***
TAct[a]	2.253	10.865	1.139	111	8.658	3.712	3.861	792	4.157	–	11.625***	7.780***	56.594***
TVtas[a]	1.353	5.838	689	48	3.545	1.358	9.193	877	2.536	–	23.727***	12.995***	72.738***
Age	61	49	56	33	59	43	47	52	62	1.084	–	–	6.523
ROI (%)	7.69	10.24	10.31	4.1	10.61	4.07	50.24	27.82	12.11		16.662***	17.096***	59.941***
CPI	3	3.8	3.4	4.8	7.2	6.2	3	3.4	4.35	–	–	–	–

Notes: [a]In millions of dollars; [b]previously has been calculated Levene test for homogeneity of variances; *significant at 10% level; **significant at 5% level; ***significant at 1% level

by the principal family owner (C1) in the large firms (Table II) is at least 53.1 per cent, with the highest percentage found in Argentinean and Chilean firms (79.8 and 62.8 per cent, respectively) and the lowest in Costa Rica (19.7 per cent). Secondly, the participation of the leading shareholder in listed firms in Spain, Argentina and Chile is also very significant (48.8, 65.8 and 59.1 per cent, respectively), although less than in the same countries' largest corporations (Table III). This is to be expected if we consider that the decision to list a firm on the stock exchange pursues attracting new shareholders to finance investments. However, unexpectedly, the mean participation of leading family shareholders in Costa Rica (37.2 per cent) is considerably greater than in the country's largest corporations (19.7 per cent). Finally, if we consider the percentage of shares in the hands of the five leading shareholders, firms in Honduras (Honduras is not in the sample of listed firms, as none of its firms are listed on the stock exchange). Argentina and Colombia show the highest concentration (with nearly 90 per cent participation in the largest firms and over 75 per cent in listed firms in Argentina and Colombia).

With regards to firm size (referred to total net assets and turnover), the data also confirm differences between countries, with mixed results. The mean size, measured as total assets, of the largest firms of Chile and Brazil is considerably larger than the mean size of the largest firms of Honduras, Costa Rica, Peru and Colombia, with Spain, Mexico and Argentina in an intermediate position. Interestingly, these results change when firm size is measured by turnover, and the mean size of Mexican firms is considerably larger than those of other countries. In this respect, Mexico is followed by Brazil, Chile, Spain and Argentina (Tables I and II). If we consider the age variable (Age), years since the firm was established, for the largest firms, the data show that the oldest are in Chile and Argentina, with mean values of more than 55 years, and the youngest are in Honduras and Costa Rica, with less than 40 years. In listed firms, there are no statistically significant differences between countries in this variable. Comparing mean profitability values leads to highly heterogeneous results. For instance, ROI (profit before interest and tax divided by net assets) is considerably greater in Peru, Mexico and Colombia (26, 20.9 and 15.3 per cent, respectively) and lower in Costa Rica (2.9 per cent); in the other countries, it ranged from 5.3 to 10.2 per cent (Table I). In listed firms, Table III shows how the firms from Mexico and Peru are the most profitable (with mean values of 50.2 and 27.8 per cent, respectively). The listed firms from Spain and Costa Rica present the lowest ROI (4.1 per cent), with the other countries ranging from 7.7 and 10.6 per cent (Table II).

Tables IV and V show the matrices of bilateral correlations between study variables for the largest and listed family enterprises, respectively. The correlations between the variables show that, as expected, concentration of ownership is negatively related to the CPI (with statistical significance), showing that the higher the index (less corruption, and therefore better institutional and regulatory framework), the lower the concentration of ownership (Table IV). The table also shows that concentration of ownership is not significantly related to the family generation managing the firm; first-, second- and third-generation family firms present a similar concentration of ownership, with no significant dispersion or fragmentation. Finally, economic returns are positively related to the first generation. This shows that family firms in which the founder is present perform better than second- or third-generation enterprises; this could be because of the unique quality of the founder's entrepreneurial resources. ROI is also inversely related (with statistical significance) to the corruption perception index, showing that firms in countries with better institutional and regulatory frameworks obtain less returns than those where there is little protection for investors.

On Table V, the bilateral correlations between variables for listed firms are different for concentration of ownership, which is unrelated to the corruption perception index. However, ROI continues to be inversely related to the CPI, but is unrelated to first-generation management. The differences between the largest and listed firms can be explained by the fact that the latter are required to present greater transparency and

Table IV Correlations between the main variables of the largest family firms in Latin America and Spain

Variables	*1 Gen*	*2 Gen*	*3 or more Gen*	*C1*	*C3*	*C5*	*Ln TAct*	*Ln TVtas*	*Age*	*ROI*	*CPI*	*DCPI*
1 Gen	1											
2 Gen	−0.384 (**)	1										
3 or more Gen	−0.237 (**)	−0.590 (**)	1									
C1	0.064	−0.048	0.011	1								
C3	0.15	−0.061	−0.023	0.776 (**)	1							
C5	0.162	−0.048	−0.049	0.655 (**)	0.954 (**)	1						
Ln TAct	−0.061	−0.119	0.157	0.128	−0.058	−0.115	1					
Ln TVtas	0.093	−0.006	0.203 (*)	0.005	−0.082	−0.138	0.753 (**)	1				
Age	−0.121	−0.177 (*)	0.313 (**)	0.096	−0.013	−0.025	0.191 (*)	0.035	1			
ROI	0.254 (**)	−0.105	−0.168	0.03	0.001	0.013	−0.137	−0.048	−0.099	1		
CPI	0.062	0.028	−0.056	−0.044	−0.209 (*)	−0.234 (**)	0.379 (**)	0.046	0.041	−0.216 (*)	1	
DCPI	−0.035	0.039	−0.107	−0.07	−0.248 (**)	−0.293 (**)	0.255 (**)	−0.228 (**)	−0.019	−0.262 (**)	0.902 (**)	1

Notes: *Significant at 5% level; **significant at 1% level

Table V Correlations between the main variables of the largest listed family firms in Latin America and Spain

Variables	*1 Gen*	*2 Gen*	*3 or more Gen*	*C1*	*C3*	*C5*	*Ln TAct*	*Ln TVtas*	*Age*	*ROI*	*CPI*	*DCPI*
1 Gen	1											
2 Gen	−0.421 (**)	1										
3 or more Gen	−0.268 (**)	−0.678 (**)	1									
C1	0.071	−0.199*	0.164	1								
C3	0.109	−0.219 (*)	0.168	0.811 (**)	1							
C5	0.37	−0.190 (*)	0.111	0.666 (**)	0.940 (**)	1						
Ln Tact	−0.043	0.074	0.012	0.096	−0.087	−0.132	1					
Ln TVtas	0.018	−0.090	0.121	−0.016	−0.097	−0.092	0.775 (**)	1				
Age	−0.067	−0.184*	0.276 (**)	0.077	0.054	0.022	0.085	0.107	1			
ROI	0.127	−0.051	−0.124	0.095	0.134	0.192	−0.127	0.149	−0.037	1		
CPI	0.066	0.254 (**)	−0.285 (**)	−0.069	−0.175	−0.187	0.277 (**)	0.014	−0.006	−0.302 (**)	1	
DCPI	0.013	0.287 (**)	−0.292 (**)	−0.122	−0.243 (*)	−0.276 (**)	0.098	−0.197 (*)	−0.057	−0.380 (**)	0.940 (**)	1

Notes: *Significant at 5% level; **significant at 1% level

minimal returns. However, the information available tells us nothing about the effect of the quality of the institutional framework on concentration of ownership and its relationship to ROI, as the bilateral correlation tables do not consider other variables, such as industrial effects, that could have an impact in this respect.

Tables VI and VII contain, for the largest and listed firms, the results of the estimates of the different regressions, corresponding to the four models for the analysis of concentration of ownership (Table VI) and the three used to study the relationship between concentration of ownership and performance (Table VII), enabling us to test our hypotheses.

Table VI shows the estimations of concentration of ownership among the five leading shareholders. It presents four progressive models; the only difference between them is that the first includes all the explanatory variables except the dummies representing whether the firm's founder is its manager (first generation) and whether the firm belongs to a business group or not. Models 2, 3 and 4 add variables to Model 1: group dummy (Model 2), first generation (Model 3) and both (Model 4). For both the largest and listed firms, our hypothesis is confirmed; the coefficient of the "Corruption Perception Index" variable (as a proxy of the quality and development of the country's institutional framework) is negative and statistically significant, showing that concentration of ownership in family firms is negatively related to the quality and development of the country's institutional framework. Firms in countries with a higher than average CPI (less corrupt) present less concentration of ownership than firms in countries with a less than average CPI (more corrupt), consistent with the conclusions of Walsh and Seward (1990). For the largest family enterprises, Table VI also shows that concentration of ownership of the largest listed firms is statistically lower than in non-listed companies; this could be because listed firms are subject to greater requirements of transparency and commitment to minority shareholders. The results also detect that concentration of ownership is greater among large firms with first-generation managers.

Table VII shows the estimations of the regressions analysing the relationship between concentration of ownership and performance. It presents three progressive models, with Models 2 and 3 including more variables than Model 1. For the largest firms, the results show that both concentration of ownership and the CPI dummy have a negative impact on ROI, consistent with the results obtained by Peng and Jiang (2010). Secondly, our second hypothesis is confirmed. "Corruption Perception Index × Concentration of ownership CPI × C5" (as a proxy of the quality and development of the country's institutional framework) is positive and statistically significant, showing that concentration of ownership has more impact on performance in countries with more highly developed regulatory frameworks (countries with an above average CPI); concentration of ownership and the country's institutional framework act as complementary, not substitutive, governance mechanisms, also consistent with Peng and Jiang (2010). The results also show that, on the one hand, the largest first-generation family firms perform better than second- and other-generation enterprises (possibly due to the founder's entrepreneurial skills) and, on the other, that the largest listed firms also perform better than unlisted enterprises.

However, when we consider listed firms, the results show that the quality of the institutional and regulatory framework has no effect on the impact of concentration on ROI; this could be due to the greater transparency and accountability demanded of such firms, which partially replace other governance mechanisms.

5. Conclusions and limitation

The empirical literature about corporate governance does not provide unequivocal information about the relationship between concentration of ownership and performance. La Porta *et al.* (2000) find a positive relationship, Loderer and Martin (1997) find a negative relationship, Morck *et al.* (1988) find a curvilinear relationship and Demsetz and Lehn (1985) find no relationship between these variables. However, neither does the empirical

Table VI Influence of institutional and regulatory framework on ownership concentration for the 20 largest family firms and 20 largest listed family firms in Latin America and Spain

	20 largest family firms (ownership concentration)				*20 largest listed family firms (ownership concentration)*			
Variables	*(1) β- standardized*	*(2) β- standardized*	*(3) β- standardized*	*(4) β- standardized*	*(1) β- standardized*	*(2) β- standardized*	*(3) β- standardized*	*(4) β- standardized*
Constant	61.3299** (2.61)	60.3544** (2.55)	56.2864** (2.27)	54.9761** (2.19)	93.126*** (3.35)	93.7357*** (2.88)	89.2076*** (2.69)	89.9235*** (2.70)
DCPI	−0.3095*** (−2.94)	−0.3169*** (−2.98)	−0.3089*** (−2.79)	−0.3179*** (−2.84)	−0.2699** (−2.56)	−0.2693** (−2.55)	−0.2783** (−2.64)	−0.2779** (−2.63)
Size	0.1234 (1.10)	0.1227 (1.09)	0.1349 (1.15)	0.1343 (1.14)	−0.0480 (−0.42)	−0.0484 (−0.42)	−0.0416 (−0.36)	−0.0419 (−0.36)
Listed	−0.2842*** (−2.85)	−0.2835*** (−2.83)	−0.2802*** (−2.83)	−0.2792*** (−2.81)				
Group		0.0530 (0.575)		0.0650 (0.71)		−0.0163 (−0.18)		−0.0108 (−0.12)
Generation			0.1852** (2.59)	0.1894** (2.62)			0.1471* (1.98)	0.1460* (1.96)
R^2	0.1399	0.1426	0.1722	0.1762	0.0848	0.0851	0.1051	0.1052
F	3.32***	2.80**	4.54***	3.95***	2.85**	2.26*	2.70**	2.76**

Notes: *t*-statistics in parentheses. Does not exist multicollinearity (VIF < 10); all estimates are corrected by sectorial dummy variables, but the coefficients are not presented in the table; in the presence of heteroscedasticity, we estimated the model with robust standard errors; SIZE: Ln Tact; *significant at 10% level; **significant at 5% level; ***significant at 1% level

Table VII Influence of institutional and regulatory framework in the relationship between ownership concentration and performance for the 20 largest family firms and 20 largest listed family firms in Latin America and Spain

	20 largest family firms (performance)			*20 largest listed family firms (performance)*		
Variables	*(1) β- standardized*	*(2) β- standardized*	*(3) β- standardized*	*(1) β- standardized*	*(2) β- standardized*	*(3) β- standardized*
Constant	49.5398*** (3.00)	50.7648*** (4.10)	50.8076*** (4.00)	8.2347 (0.46)	6.4055 (0.34)	7.8336 (0.43)
C5	−0.1251 (−1.01)	−0.1981* (−2.12)	−0.1985** (−2.07)	0.1568 (0.90)	0.1083 (0.62)	0.1313 (0.74)
DCPI	−0.7796* (−2.10)	−0.9297*** (−3.55)	−0.9315*** (−3.51)	−0.1215 (−0.32)	−0.3083 (−0.85)	−0.1807 (−0.47)
C5 × DCPI	0.4810 (1.33)	0.6130** (2.37)	0.6147** (2.29)	−0.2588 (−0.74)	−0.0828 (−0.25)	−0.2150 (−0.61)
Size	−0.2014* (−1.78)	−0.2019** (−2.43)	−0.2023** (−2.34)	0.0265 (0.29)	0.0307 (0.33)	0.0314 (0.35)
Listed	0.2175** (2.15)	0.2168** (2.34)	0.2168** (2.32)			
Group	−0.0307 (1.37)		0.0025 (0.03)	−0.1437 (−1.45)		−0.1368 (−1.39)
Generation		0.2578** (2.11)	0.2581** (2.11)		0.1180 (1.12)	0.1095 (1.105)
R^2	0.2564	0.3153	0.3153	0.2717	0.2658	0.2826
F	3.88***	8.30***	7.62***	7.40***	6.88***	6.32***

Notes: *t*-statistics in parentheses. Does not exist multicollinearity (VIF < 10); all estimates are corrected by sectorial dummy variables, but the coefficients are not presented in the table; in the presence of heteroscedasticity, we estimated the model with robust standard errors; SIZE: Ln Tact; *significant at 10% level; **significant at 5% level; ***significant at 1% level

literature provide conclusive results about the relationship between family ownership/control and firm value, from the perspectives of transaction costs theory and agency theory, finding positive effects (Anderson and Reeb, 2003; Gomez-Mejia *et al.*, 2007; Habbershon and Williams, 1999), negative effects (Fama and Jensen, 1983; Schulze *et al.*, 2001, 2003) and zero effects (Daily and Dalton, 1992; Miller *et al.*, 2007).

Along these lines, this paper provides some reasons that could explain the inconsistency of these results. Firstly, in line with La Porta *et al.* (1998, 1999, 2002), Aguilera and Jackson (2003), Young *et al.* (2008), Peng and Jiang (2010) and Heugens *et al.* (2009), we find that concentration of ownership and its relationship to performance in family-controlled firms is mediated by the country's institutional setting. Secondly, in line with Anderson and Reeb (2003), Villalonga and Amit (2006) and Miller *et al.* (2007), we find that the diversity of results of studied of the relationship between family ownership and performance can be explained by differences in the family firm concept (first generation, with the founder leading and making decisions, versus subsequent generations).

The paper specifically explores choice of corporate governance (concentration of ownership versus institutional and regulatory framework) in Latin America and Spain, focusing on the largest firms and listed firms, respectively. The characteristic in the Hispanic world is that investors massively prefer the concentrated ownership strategy. Concentration of ownership in a family group can provide shareholders with the best protection when legal protection is weak (Denis and McConnell, 2003). However, although concentrated ownership is an endemic feature of family firms in nearly all Latin American countries, the levels of protection afforded to shareholders differ enormously from one country to another, so it is interesting to analyse whether there are differences in degree of concentration of ownership and its impact on performance according to differences between the different countries' institutional and regulatory frameworks.

Firstly, the results show that firms in countries with above-average institutional frameworks present less concentration of ownership that those in countries with less-than-average frameworks. Secondly, they show that the impact of concentration of ownership on performance in the largest firms is greater in countries with more highly developed institutional frameworks. They also show that the largest first-generation family firms perform better than those managed by subsequent generations, which could be because of the founder's entrepreneurial skills.

The study's limitations are largely related to the limitations in the available information. Firstly, we have only information for the year 2010. Secondly, we only consider the 20 largest corporations and 20 listed firms for each country. Thirdly, we only consider some features of ownership, such as degree of concentration, and we have no information about other internal corporate governance mechanisms such as the structure (size and independence) of the board of directors and general shareholders' meeting. Finally, we use information about the corruption perception index as a proxy for the country's institutional framework.

The above limitation related to the lack of information available to complete the study confronts us with another limitation related to endogeneity and dynamics of internal corporate governance. Wintoki *et al.* (2012) argue that empirical research often overlooks an important source of endogeneity that arises because the relations among a firm's observable characteristics are likely to be dynamic. For example in the context of board structure, current performance will affect future governance choices and these may, in turn, affect future firm performance. Wintoki *et al.* (2012) argue that the cross-sectional variation in observed governance structures is driven by both unobservable heterogeneity and the firm's history; as such, any attempt to explain the determinants of governance or its effect on performance that does not recognise these sources of endogeneity may be biased.

However, with this limitation in mind, the problem of endogeneity and dynamics of internal corporate governance may not be so important in the present study. We use as the

corporate governance variable, the degree of concentration of ownership in family firms. The most defining feature of the "family firm" is the will to maintain ownership and control of the firm and its resources in family hands over time. The desire of the family to have control of the firm comes from the private non-pecuniary benefits of control. As a result of the preference to keep control of the firm within the circle of family ties, the unique financial constraint for family firms resulting from such preference is that the family is willing to get less pecuniary benefits to avoid losing control of the firm. In family firms, there are trade-offs between pecuniary benefits and control of the firm. That means that the degree of ownership concentration in family firms will be explained on the basis of exercise and maintaining effective control in the hands of the family rather than for the performance of the previous period [see Appendix 1, where we show the influence of performance on ownership concentration for the 20 largest family firms and 20 largest listed family firms in Latin America and Spain (Table AI)].

We recognise that ignoring the dynamic nature of the structure performance relationship in empirical work can present significant concerns. To deal with this issue, we have as objective for a future research: gather information about the study variables for a period relevant enough to allow us to apply the dynamic panel GMM estimator (proposed by Wintoki *et al.*, 2012) to study the effect of ownership concentration on firm performance and the determinants of ownership concentration.

The results of the paper could be also extended to test the effects of differences in board composition in the performance, controlling the determinants of such composition and in an environment of higher ownership concentration as it is the case in Spain and in Latin American countries.

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Appendix

Table AI Influence of performance on ownership concentration for the 20 largest family firms and 20 largest listed family firms in Latin America and Spain

	20 largest family firms (ownership concentration)			*20 largest listed family firms (ownership concentration)*		
Variables	*(1) β-standardized*	*(2) β-standardized*	*(3) β-standardized*	*(1) β-standardized*	*(2) β-standardized*	*(3) β-standardized*
Constant	62.614* (1.88)	62.761** (2.15)	62.898* (1.91)	97.829*** (2.84)	92.907** (2.63)	94.460*** (2.69)
ROI	−0.028 (−0.86)	−0.078 (−0.70)	−0.077 (−0.86)	0.122 (0.89)	0.107 (0.80)	0.101 (0.75)
DCPI	−0.328*** (−2.83)	−0.345*** (−3.02)	−0.347*** (−3.08)	−0.218* (−1.73)	−0.237* (−1.88)	−0.240* (−1.88)
Size	0.106 (0.78)	0.102 (0.88)	0.099 (0.75)	−0.073 (−0.62)	−0.063 (−0.53)	−0.064 (−0.54)
Listed	−0.280** (2.54)	−0.261** (2.49)	−0.261** (2.38)			
Group	0.009 (0.10)		0.025 (0.26)	−0.036 (−0.40)		−0.034 (−0.37)
Generation		0.177* (1.75)	0.179** (2.17)		0.128* (1.82)	0.127* (1.80)
R^2	0.1505	0.1780	0.1786	0.1037	0.1175	0.1186
F	3.27***	2.81**	3.87***	2.33**	3.12***	2.67**

Notes: *t*-statistics in parentheses. Does not exist multicollinearity (VIF < 10); all estimates are corrected by sectorial dummy variables, but the coefficients are not presented in the table; in the presence of heteroscedasticity, we estimated the model with robust standard errors; SIZE: Ln Tact; *significant at 10% level; **significant at 5% level; ***significant at 1% level

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