

# CORPORATE GOVERNANCE, LEGAL INVESTOR PROTECTION, AND PERFORMANCE IN SPAIN AND THE UNITED KINGDOM

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## Abstract

This paper studies the influence of ownership concentration, board size, and debt in firm performance of a sample of 216 companies from Spain and the United Kingdom, over a four-year period (2000-2003), with the aim of uncovering evidence on the influence of the legal environment in the design of governance mechanisms. Our findings show that the legal protection offered to investors in each country determines the use of internal governance mechanisms. The results show that ownership concentration and investor protection are substitutive mechanisms when increasing firm value, and that the latter mechanisms determine the use of the remaining governance mechanisms.

**Keywords:** corporate governance, legal investor protection, value creation, institutional framework

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## 1. INTRODUCTION

The study of corporate governance has passed through various stages ever since Adam Smith proposed, for the first time, the potential conflict of interests between owners and managers, when both roles are not exercised by the same people. Denis and McConnell (2003) distinguish two clearly different stages that they have referred to as the first and second generation of works on corporate governance. In the first generation, that lasted throughout the 70s and 80s, research centred on corporate governance in North American firms. It was at the start of the 90s, when literature on firm governance in countries other than the United States started to appear, giving rise to the second generation of this type of research also referred to as international corporate governance. At first it dealt with significant economies in countries such as Japan, Germany or the United Kingdom and later on in developing countries and emerging markets such as those in South-Eastern Asia or Eastern Europe (Denis and McConnell, 2003).

La Porta *et al.* (1998) provide a new analytical perspective on corporate governance, grounded in the idea that the protective laws relating to investor rights and their enforcement are the principal determining factors in the way in which corporate governance develops in each country. As from that moment on,

the need became clear to study corporate governance in a country and its legal system jointly, as a representative variable of the institutional framework.

Throughout all these years of research and despite the many studies carried out, it can not be said that consensus exists over a commonly accepted definition of corporate governance and its scope. For Roe (1997), corporate governance can be defined in several ways, a convenient one being the means of decision-making and power allocation among shareholders, senior managers, and boards of directors. A central goal for the governance system could be to make firms operate as well as they can.

Therefore, one of the most significant reasons for studying and for comparing international differences in corporate governance is to highlight the multiple paths that lead to the same end: to make firms operate as well as they can. Our work brings to the fore the importance of studying the interrelationship of corporate governance mechanisms, as it is by no means certain that those mechanisms operate independently of each other (Rediker and Seth, 1995). To do so, we propose a model that enables us to perform a comparative study on two countries from different institutional environments that have developed two patterns of governance with very different characteristics: Spain and the United Kingdom. The model allows us to analyse the

relationship between legal investor protection and internal mechanisms such as ownership structure, the board of directors and debt, as well as the impact that such relationship can have on firm value in each of these institutional frameworks.

Both models of corporate governance present advantages and disadvantages. The problems and conflicts of interest that have to be confronted in each country are different. They are produced between managers and shareholders in the Anglo-Saxon world and, in the Continental European model, which is the case of Spain, between large and small shareholders.

The United Kingdom shares a model of corporate governance with other Anglo-Saxon countries; for the most part with the United States, but also with such countries as Australia and New Zealand (La Porta *et al.*, 1998). This model is characterised by a legal system based on common law that to a great extent protects investors, but remains indifferent, however, to the other stakeholders. This legislation, together with the existence of a well-organized and liquid market, encourages the predominance of dispersed ownership structures, in which the existence of large shareholders that supervise management decisions is unnecessary. Instead, any control over management is left in the hands of the market, given the very limited incentives available to minority shareholders and institutional investors<sup>1</sup>. These companies are financed by the stock market, and the economic weight of the bank, both as a supplier and as a shareholder, is insignificant in comparison with the European and Japanese markets. The board of directors is monist, and outside directors are key to the efficient control of managerial performance.

In contrast to the Anglo-Saxon model, the Continental European legal system based on Roman law, in which Spanish legislation may be included, offers weak legal protection to the investor. The low level of legal investor protection, together with the existence of capital markets that are less liquid, means that ownership becomes concentrated so as to defend its interests. It is the larger shareholders, who do have incentives to monitor and control managers. Likewise, the predominance of cross-holdings and close relations with banks, highlight the existence of implicit trust-based contracts, which can only be maintained in a pluralist model of the firm. In Spain, the tradition is for firms to have a monist board of directors, although since the entry into force of the law that regulates the European public company, firms registered in Spain under this legal person are allowed to have a dual board.

The arguments for or against either of the two governance models have varied over time and continue to do so in relation to the relative success of the economies in which they have emerged. In the 1980s, the model in continental Europe won greater

acceptance as a consequence of the growth in the German and Japanese economies in comparison with the North American economy, only to be called into question at the end of the 1990s, when the investor protection was revealed as one of the great advantages of the Anglo-Saxon model (Hansmann and Kraakman, 2000; Becht *et al.*, 2002). In short, any assessment of the effectiveness of the different models of corporate governance tended to vary according to the state of the economy in each country (Carlin and Mayer, 1998).

## 2. CORPORATE GOVERNANCE AND FIRM VALUE: DIFFERENT PATHS TO THE SAME OBJECTIVE

Numerous studies analyse the relationship between corporate governance and firm value. A great part of the empirical works in this area are focus on how corporate governance mechanisms have been unilaterally designed in order to motivate managers to take decisions leading to the creation of value in the firm.

Thus, we find a wide range of literature that examines a positive correlation between governance variables and *proxies* of firm value (Chidambaran *et al.*, 2006). These mechanisms that are described in the literature include elements whose design is in the hands of each individual firm, such as ownership concentration, board composition and the level of debt. Numerous studies (Morck *et al.*, 1988; Jensen and Murphy 1990; Yermack 1996; Gompers *et al.*, 2003; among others) suggest that changes in these internal governance mechanisms could generate a greater alignment of interests between managers and shareholders, which would amount to greater firm value.

### Ownership Concentration and Firm Value

The relationship between ownership structures and firm value has been the subject of an important and ongoing debate in the literature on corporate governance. Berle and Means (1932) have previously suggested an inverse correlation between dispersed ownership and firm performance, as a high concentration of shares tends to put greater pressure on managerial behaviour in a way that maximises shareholder value.

Large shareholders have a general interest in maximizing the value of the company, and sufficient control over its assets to ensure that their interests prevail (Shleifer and Vishny, 1986, 1997; Morck *et al.*, 1988; La Porta *et al.*, 2002; Claessens *et al.*, 2002; Gorton and Schmid, 1996; Himmelberg *et al.*, 1999; Holderness *et al.*, 1999). However, the majority of these authors also defend the idea that above and beyond a certain level of concentration, the relation can once again become negative.

As may be appreciated from the earlier paragraphs, evidence on the role of the shareholders

<sup>1</sup> In the 1990s, approximately two thirds of the capital of quoted firms in the United Kingdom were owned by institutional investors (Franks and Mayer, 1997).

in corporate governance starts to become more extensive, nevertheless, no definitive conclusions have been reached. On the one hand, we find works that lend support to the idea that the large shareholders play an active role in firm governance, the results of which support the hypothesis that the large shareholders contribute positively to value creation. However, on the other hand, some authors find no significant relation between firm value and the presence of a dominant shareholder within it (Renneboog, 2000; Holderness and Sheehan, 1988; Denis and Denis, 1994; Bergström and Rydqvist; 1990; Prowse, 1992).

Due to this, despite shareholder concentration being presented as a natural supervisory mechanism in the firm, the debate over the existence of an optimal ownership structure remains open. The benefits arising from an improvement in management may be compensated by the costs arising from loss of liquidity, from less diversification or from the private benefits obtained by the majority shareholder through their expropriation of the wealth of minority shareholders. In consequence, a greater or lesser degree of shareholder concentration becomes a significant factor in firm value.

This lack of consensus in the conclusions may be due to the fact that a single variable of corporate governance is being studied in isolation, in this case ownership concentration, without taking into account its possible relationship with other governance mechanisms or the institutional framework where firm is embedded.

### Size Board and Firm Value

Board is considered a key mechanism on corporate governance. It is through the board that shareholders exercise control over managerial performance. There are a great number of empirical studies that explore the relation between various aspects of the board of directors and firm performance. The central core of these works stresses the effectiveness of the board as a supervisory body in the process of maximising shareholder value. Some of the most-studied aspects of the board as determining factors in value creation is board size.

The greater part of the empirical evidence shows a negative relation between board size and firm value. Thus, authors such as Jensen (1993) and Eisenberg *et al.* (1998), find that small boards correlate positively with high firm value. Equally, Yermack (1996) provides evidence that points towards a clear inverse relation between firm value and board size. Moreover, Andrés *et al.* (2005) study a sample of 450 non-financial firms from 10 developed countries, and find an inverse relation between firm value and board size. Fernández *et al.* (1998) find a non-linear relation between board size and Tobin's q value as a measure of firm value. Initially, it appears to have been proven that an increase in the size of board of director aid the effectiveness of the board and increase Tobin's q

value, however, after a certain point the reverse was found to be true, suggesting that coordination and communication problems appear to outweigh the benefits arising from greater oversight and control by numerous directors.

### Debt and Firm Value

Debt is also considered a key factor in corporate governance to monitor managerial performance. The debt involves periodic payments over time, agreed interest and repayment of the principal, which reduce the freely available funds for managers since an amount must be set aside to pay the installments and the behaviors of discretionary type (Jensen, 1986; Grossman and Hart, 1980). Thus, firm value depends to a great measure on the use to which management makes of free *cash flow*. Management will resort to self-financing instead of undertaking new capital or debt emissions, because it neither wishes to be subject to the control of capital markets, nor to increase the probability of a business failure, whereas the shareholder, on the contrary, will prefer that *cash flow* is not retained and is paid out in the form of dividends. Thus, as may be seen, the sharing out of free *cash flow* can pit managers against owners that, as a consequence, can give rise to a problem of over-investment, as emphasized by Jensen (1986) in his free *cash flow* theory. Financing in the form of debt obliges the management to free up those resources, reducing the quantity of *free cash flow* available to undertake non-value-creation activities by management. Thus, funding in the form of debt should have a positive effect on firm value.

### 3. THE COMBINED EFFECT OF CORPORATE GOVERNANCE MECHANISMS

The interdependence of corporate governance mechanisms is a fact that is highlighted in the study of the existing governance models. It is borne out by numerous theoretical and empirical works on the subject, in which we see how the degree to which external mechanisms are developed, such as the capital markets, is associated with greater or lesser use of certain internal control mechanisms (John and Kedia, 2008).

The greater part of this literature considers the relation between two variables relating to firm governance, such as the correlation between ownership structure and takeovers or between certain control mechanisms and firm performance. However, there are an increasing number of works that do not limit their analysis to the unilateral effect of each governance mechanism. Instead, they attempt to examine their possible interaction in greater detail, highlighting the capacity of firms to design efficient corporate governance systems, through the selection of different mechanisms (Coles *et al.*, 2001), which are substitute or complementary, as it is not certain

whether these mechanisms function independently of each other (Rediker and Seth, 1995; Bhagat and Jefferis, 2002).

Agrawal and Knoeber (1996) defend the idea that a greater use of one of the control mechanisms is not necessarily related to a better yearly result, as when a mechanism is used more another is used less, and the result will be equally acceptable. It is a question of different alternative ways of trying to control and to incentivize managers, such that both mechanisms may be used in a complementary way, if the relation between them is positive, or in substitution, if that relation is negative.

Interaction existing between corporate control mechanisms corroborates the heterogeneity of the results in those works that centre on the relation between firm value and the use of a single governance mechanism, such as we have seen in the preceding section with ownership structure, size board or debt.

Internal and external corporate governance mechanisms, firm value and the characteristics of the institutional framework are different pieces of one and the same puzzle. Firm value will depend on the choice of governance mechanisms that are made by the organisations on the basis of the determining factors present in the institutional environment. The use of external corporate governance mechanisms is not a decision of the firm but is determined by external agents, therefore, the use of internal mechanisms that are available to the organization will be affected by the type and degree to which those external mechanisms are applied. In short, the choice made by the firm over its corporate governance system will be determined by the external mechanisms and the rest of the institutional framework that affect it.

This fact highlights the non-existence of, let us say, a common optimal or efficient system of governance for all firms and all countries it leads us to ask what the characteristics of a country are that make the systems optimal.

#### 4. INFLUENCE OF THE INSTITUTIONAL FRAMEWORK

The study and practice of corporate governance cannot be separated from the cultural, socio-political and economic contexts where firms are embedded.

It is logical enough to suppose that the system of corporate governance of a particular country and the predominance of certain supervisory mechanisms over others, whether of an internal or external nature, would be strongly influenced by the institutional framework of that country. It is a view confirmed by such works as (Roe, 2000; Francis *et al.*, 2001; Denis and McConnell, 2003), within the line of research initiated by Rajan and Zingales (1995) and La Porta *et al.* (1997, 1998, 2000, 2002), which highlight the differences existing between the international economic environments, as well as the relevance of the institutional framework when taking decisions within the firm. The conflict between managers and

shareholders differs from one country to another, it might not prove worthwhile to use the same tools to solve it.

In the words of Aldo Olcese (2005:49-50), 'for good corporate governance to exist, an institutional framework is needed that creates the conditions that are necessary for the development of firms and personal expectations, which are the fundamental cells of a market economy. This institutional framework should enable firms to approve their own rules on internal governance and should make managers and directors answerable for their actions to their shareholders'.

There are, therefore, specific elements in the institutional framework that influence governance systems, the apparent variability of which is greater between countries or areas of influence (Anglo-Saxon countries, Asia, Central Europe) than between firms in the same country (Salas, 2002).

The legal system of a country has been considered a key component of its institutional framework, as it serves as the basis for the subsequent interpretation of each regulation that enters into force. For La Porta *et al.*, (1997, 1998, 2000) who are pioneers in the joint analysis of legal investor protection of the investor and ownership concentration in almost fifty countries, the various legal traditions between countries are possibly the main cause of diversity between different forms of corporate governance.

Each country's legislation determines the specific rights and investor protection in their relations with firms, thus influencing the predominant forms of ownership structure and financing. It also gives rise to various conflicts and agency problems, specific to each institutional environment, which have to be resolved through different arrangements and combinations of corporate governance mechanisms (La Porta *et al.*, 1997). In concrete, higher investor protection will determine board behaviour, limiting the acquisition of private control benefits by insiders, limiting the diversion of the firm's wealth to those with a capacity to influence business decisions, at the same time as mitigating possible incentives to smooth income (Leuz *et al.*, 2002; Djankov, *et al.*, 2005).

Traditionally, two basic legal systems may be distinguished from which other branches have emerged, civil law and common law, the former practiced in European continental countries, and the latter in the Anglo-Saxon countries. In countries where common law prevails, legal investor protection is higher than in those based on Roman Law (La Porta *et al.*, 1997, 1998). These differences in the degree of investor protection are the source of others with a more corporate nature, such as those existing in the degree of ownership concentration, which in turn generated different agency problems that have to be resolved in different ways through governance mechanisms.

Given that the agency problems to be resolved in each case depend on the business setting, the

corporate governance model that is designed to mitigate them, will also be determined in the same way. In the Anglo-Saxon countries, where there is higher dispersion of ownership, the conflict of interests arises between shareholders and managers; on the contrary, in countries where a legal system based on Roman law prevails and where the concentration of ownership is higher, conflict arises when the interests of the large shareholders clash with those of the minority shareholders<sup>2</sup> (La Porta *et al.*, 1997; Johnson *et al.*, 2000).

Having come this far, we can not affirm that one model of corporate governance is better than another, that dispersed ownership is better than concentrated ownership, or that financing through the market is better than financing through banks. Nevertheless, what is really important is the way in which firms design their own systems of corporate governance according to the history, the culture and the politico-legal tradition of the countries in which they have their head office (Olcese, 2005). For Shleifer and Vishny (1997), German, Japanese and Anglo-Saxon systems of corporate governance are equally effective at monitoring managers, and they contribute in similar ways to the economic success of each of these nations. The interaction between external corporate governance mechanisms and those used internally by the firm compensates the initial shortcomings of those which are present in each institutional framework, resulting in the search for an efficient system of corporate governance, on the basis of the social, political and legal circumstances where firm is embedded.

## 5. COMPARATIVE ANALYSIS OF CORPORATE GOVERNANCE IN SPAIN AND THE UNITED KINGDOM: METHODOLOGY, VARIABLES AND SAMPLE

Having set out the theoretical framework that explains international differences in corporate governance, we move on to the methodological aspects of the comparative empirical study performed in this work, together with its results. Thus, we firstly present the explanatory model for our work, in order subsequently to detail the sources of information and the sample that is used, before continuing in the next section with the results obtained from the descriptive analysis and the multivariate regression analysis.

The objective of the empirical analysis is to test, through an Ordinary-Least-Squares (OLS) regression, the association between value creation and governance mechanisms practiced by firms in two different institutional frameworks. To do so, we shall

use two sample firms, one of Spanish firms and the other of firms belonging to the United Kingdom. With a view to condensing the characteristics that belong to each institutional framework we introduce into our analysis the legal protection received by investors in each country.

### Regression model and variables

Ordinary-Least-Squares (OLS) regression is used to confirm the association between a dependent variable and set of explanatory variables. In our case, value creation constitutes the dependent variable, and the variables relating to the governance structure of the firm and the institutional framework in which the firm operates, the independent variables. We used a group of firms belonging to two countries of the European Union, Spain and the United Kingdom, for the analysis that took place over 2000-2003. Two models are proposed: one, which we refer to as the global model, in which the regression analysis is performed on the entire sample, and another, referred to as the individual one, in which a regression analysis is performed on the sample segmented by the institutional framework, which is to say, noting the differences between Spanish firms and UK firms, with a view to confirming whether the results change in a significant way. The multiple regression model is as follows:

$$VC_{it} = \beta_0 + \beta_1 OWN_{it} + \beta_2 DEBT_{it} + \beta_3 B\_SIZE_{it} + \beta_4 IP_{it} + \beta_5 QUOTED_{it} + \beta_6 SIZE_{it} + \beta_7 AGE_{it} + \epsilon_{it}$$

The dependent variable in our model is value creation in the firm (VC), measured as operating *cash flow* over total assets. Some clarification is necessary with regard to the measurements of value creation, as previous studies have used very different yardsticks to arrive at an approximation of value creation, which may be divided into two groups: on the one hand those works that centre their analysis on accounting measures, and, on the other, those that use an approximation to Tobin's q value. In this work, we focus on the former, specifically, on accounting yardsticks as a *proxy* for value creation. In line with Healy *et al.* (1992), Kothari *et al.* (2005) and Tehranian *et al.* (2006), value creation is measured as *cash flow* operations over total assets, which the latter authors refer to as CFROA<sup>3</sup>. The reason for estimating value creation through this accounting ratio, rather than with the now traditional Tobin's q value used in the majority of the literature on this topic, is fundamentally because the availability of market data is restricted to the set of firms that are listed on the stock exchange. However, as our sample includes listed as well as non-listed firms, it makes the estimation of Tobin's q value more complex. However, it is worth noting that this financial measure

<sup>2</sup> The problem between large and small shareholders was defined by Johnson *et al.*, (2000) as *tunnelling*, referring to the transfer of assets and benefits from the firm to the benefit of the shareholders that exercised control over the management.

<sup>3</sup> This measure of value creation is what Tehranian *et al.*, (2006) refer to as *cash flow* ROA, which includes depreciation and net benefit on the numerator.

offers certain advantages over Tobin's q value, in addition to being an alternative yardstick for value creation. In accordance with Tehranian *et al.* (2006), whereas Tobin's q value reflects opportunities for growth –and in a more general way, expectations about future investment projects– and the impact of these factors on the market value of the company, our value creation yardstick is a measure that concentrates more on current performance. For example, Tobin's q for a firm with a low value creation or performance threshold might be inflated by the expectations of a high bid in a takeover, whereas these kinds of considerations do not affect our measurement as a *proxy* of value creation. Nevertheless, despite it being possible to list various advantages and disadvantages relating to the trustworthiness and efficacy of an accounting-based system of indicators as against a market-based one, we use accounting indicators as yardsticks for value creation given the impossibility of obtaining market values for all of the firms in our sample.

Corporate governance variables are ownership concentration, size board and debt. Ownership structure (OWN) is determined by the percentage of ownership that is in the hands of the main shareholder. This variable has been included so as to analyse the incentives that might motivate the principal shareholders to assume supervisory tasks and to monitor the operation of the firm. Board size (B\_SIZE) is defined by the logarithm of the total number of members that make up the board of directors. Financial leverage (DEBT) is defined as current and non current liabilities over total assets. It represents the external financing of the firm and is, therefore, an extra control mechanism that helps to monitor managerial performance.

Investor protection (IP) is based on the work of Djankov *et al.*, (2005) in which the authors develop a new measure for investor protection related in a much more direct way to the monitoring of self-dealing transactions. This new measure is established by the *anti-self-dealing Index*, which is an index that measures the degree to which self-dealing transactions may be legally avoided to the benefit of those in control of the firm. It is measured from 0 to 1, indicating higher investor protection as it approaches 1. This variable has been included owing to the different countries from which the sample is drawn; given that the institutional framework and, as a consequence, the legal protection of the investor is different in each one of them, the variable might influence the design of other control mechanisms available to the firm and might have an important impact on firm performance.

In line with the previously discussed literature, we have included the firm size (SIZE) that is defined as the logarithm of the total assets of the company, as well as its age (AGE). We have, furthermore, included an additional control variable referred to as the stock-exchange listing (QUOTED), which is defined by a binary variable that takes a value of 1 if

the firm is listed on the stock exchange and 0 if it is not. It was decided to include this variable due to the sample having both listed and unlisted firms, which allows us to study whether the fact of being listed on the stock exchange has any effect on performance.

## Sources of Information and Sample

The main source of information used in this research work is the *Amadeus* database, which provided us with the economic and financial information, as well as that relating to the ownership and control of the firms in our sample.

Our sample was constructed by taking a set of listed and unlisted Spanish and UK firms, belonging to the industrial manufacturing sector, with a size equal to or over 50 workers and with total assets equal to or over 27,000 euros for each year under analysis (2000-2003). Table 1 shows the number of firms by country as well as the total number of observations in the sample.

### (INSERT TABLE 1 HERE)

At the outset, there were 290 firms, 74 of which were removed as their financial statements did not contain sufficient information, or owing to their lack of continuity and there not being enough information available on the years that comprise the period under analysis. The 216 firms that make up the final sample can be considered as representative of the business life of the countries under study.

## 6. RESULTS OF THE EMPIRICAL ANALYSIS

### Descriptive Analysis

The descriptive statistics of the variables used for the empirical estimation are presented in Table 2, separated by countries.

### (INSERT TABLE 2 HERE)

As may be seen, the value creation variable average (VC) presents similar values for both countries, at 0.121 for Spanish firms and at 0.123 for UK firms. It does not appear, therefore, that there are any significant differences between the levels of value creation.

With regard to the internal mechanisms of corporate governance available to the firm to exercise greater control over managerial performance, we see that ownership concentration, measured through the participation of the main shareholder averages 90% for Spanish firms, whereas for the United Kingdom it is only 36%, which highlights the important differences in the role played by ownership concentration in each of the two institutional frameworks. DEBT averages are 0.68 for Spanish firms and 0.63 for UK firms, which suggests to us that,

on average, the Spanish firms in the sample present a similar although slightly higher indebtedness ratio than the UK firms. Board size variable (B\_SIZE) tells us that the boards of Spanish firms are on average larger than the boards of UK firms.

In relation to the institutional framework, the index of legal investor protection (IP), which represents the degree to which self-dealing transactions to the benefit of those in control of the firm can be legally prevented, which implies greater protection for other investors, averages 0.37 for Spain and 0.93 for the United Kingdom. Considering that this index fluctuates between values of 0 and 1, it allows us to see, in general terms, that the legal protection available to Spanish firms, which is based on Roman law, is weaker than that extended to UK firms, which operate in a Common Law environment.

Finally, the logarithm of total assets of the firm (SIZE) is similar for both samples of firms: 13.09 for Spanish firms and 12.74 for British firms. AGE reflects the fact that UK firms are longer-lived than their Spanish counterparts; their average life spans being 33.27 years for Spanish firms and 43.04 years for UK firms.

We can conclude from this first exploratory analysis that there are no apparent differences in value creation between the Spanish and UK firms, but there are differences in the legal protection offered by the institutional framework and in the way these firms design their governance mechanisms. We might ask whether the legal protection offered to investors, which constitutes the different starting points for these firms in the design of such mechanisms, does not in fact mean that the other mechanisms compensate or substitute this higher or lower control through a higher or lower use of such mechanisms, arriving in the end at the same objective or result.

### Correlation analysis

In accordance with the descriptive statistics shown in Table 2, we present in Annex I a table of Spearman correlations<sup>4</sup>, which indicates that ownership concentration presents a positive association with value creation. This result is coherent with the hypothesis that higher supervision of the managerial performance stemming from a concentrated ownership structure will result in higher firm value. In the same way, investor protection shows a positive correlation with value creation. In the first instance, that the presence of ownership concentration and investor protection are relevant elements for value creation and that both can have a substitutive effect.

The association between board size and firm value shows a negative relation, which is consistent with the hypothesis that smaller boards lead to higher

value creation. In the same way, debt is shown to have a negative association with firm performance. Finally, the control variables for stock exchange listing (QUOTED), firm size (SIZE) and age (AGE) present positive associations with firm value.

### Regression Analysis Results

The Stata 8 Software Programme was used to estimate the proposed models. Two models were estimated: one that we refer to as global, in which the regression analysis was performed by relating value creation with the explanatory variables of the model that considers the entire sample together, without differentiating between Spanish and UK firms, with the aim of determining the impact of the explanatory variables of the dependent variable. A second model segments the sample by countries, with the objective of examining whether the influence of these governance mechanisms on firm value is different according to the characteristics of institutional framework.

We then proceeded to estimate the effect of ownership structure, board size, debt and legal investor protection on performance, along with the control variables, setting out the results in Table 3. Moreover, Table 4 shows the results of the regression analysis on the sample divided between Spanish firms and UK firms.

### (INSERT TABLE 3 AND TABLE 4 HERE)

As shown in Table 3, the results are consistent with the evidence presented, given that the ownership concentration variable (OWN) presents a positive influence on firm value (VC). This statistically significant result suggests that higher ownership concentration is a factor that is associated with an improvement in the firm's performance, which supports the traditional hypothesis that ownership concentration reinforces the control over managers, leading to higher firm value. Equally, the positive sign still holds true when we estimate the separate model that considers only the Spanish firms (Table 4). However, when we consider the firms from the UK, the sign becomes negative, indicating a drop in firm value in this country as ownership concentration becomes more concentrated (Table 4).

Against this backdrop, the results obtained show that the ownership structure acts in a different way depending on the firm's institutional environment. This fact might have its *raison-d'être* in the legal investor protection. We observe a significant ownership concentration in the case of the Spanish firms that compensates the lower levels of protection that investors have under the prevailing institutional framework. Whereas, on the other hand, for the UK firms that fall within the Anglo-Saxon model, the higher legal protection available to investors in this institutional framework means that ownership concentration becomes a redundant governance

<sup>4</sup> The table of correlations includes Spanish and UK firms. The separated correlation analysis does not differ greatly from the result obtained in the global analysis for which reason only this analysis is presented.

mechanism, which may even lead to a fall in the firm's value.

Thus, the evidence shows us that the significant relation between ownership structures and firm value in countries that do not belong to the Anglo-Saxon environment may be due to the prevailing institutional framework, specifically, the existence of weak legal systems. In other words, without strong legal investor protection, ownership concentration becomes necessary. The negative relation between ownership structure and firm value in countries such as the United Kingdom can simply mean that the strong investor protection allows the firms to function efficiently avoiding the need to resort to additional control mechanisms, such as ownership concentration. In countries such as Spain that are characterized by weak investor protection, it seems that only ownership concentration can counter the lack of protection.

The earlier result is consistent with that obtained for investor protection variable (IP) that presents, for the global model, a positive and significant relation with firm value. Thus, the evidence appears to show that increases in the legal protection of investors is a factor associated with improvements in firm performance.

Likewise, the results show a negative relation that is statistically significant between board size (B\_SIZE) and firm value. We therefore have strong evidence that the higher board size, the low firm value, suggesting that for boards with a high number of members, the relative benefits of a greater range of opinions are counteracted by the costs relating to less operationality and flexibility when taking decisions. Equally, the results obtained in the individual model for Spanish and UK firms also present a negative and significant relationship between board size and firm value (table 4).

With respect to the influence of debt, the results presented in Table 3 and Table 4, highlight the negative and statistically significant relation between this variable and firm value. This provides us with evidence to support the idea that high levels of debt lead to lower levels of firm value, both in the global and in the individual models for Spanish and UK firms.

The explanation that might be attributed to the similar behaviour of debt in different institutional frameworks might be related to agency problems and informational asymmetries that differ in accordance with the firm's institutional environment. As we have seen in the case of Spain, ownership structure plays a fundamental role as control mechanism, who do not require the help of other stakeholders to carry out this task. As a result, far from generating a positive impact on firm value, higher levels of debt will reduce its value, leading to a greater probability of not being able to meet the contracted obligations. However, in the United Kingdom one of the mechanisms that plays a fundamental role is precisely the institutional framework itself and the higher levels of investor

protection that are associated with it. Thus, this higher level of investor protection is what allows the firms to function in an efficient way without the presence of additional governance mechanisms such as ownership concentration or debt, which, in accordance with the evidence obtained, reduces firm value instead of stimulating it. Different relations are therefore confirmed between corporate governance mechanisms and firm value, which depend on the institutional framework. Debt has lesser relevance in firm value in the presence of ownership concentration, on the one hand, and in the presence of higher investor protection, on the other. A substitutive effect occurs between these governance mechanisms (Rediker and Seth, 1995; Coles *et al.*, 2001)

Finally, with respect to the control variables included in the model, the results obtained are principally of interest with respect to the stock-exchange-listing variable, as this variable correlates positively with firm value in the global model, which shows the beneficial effects that entry to the stock exchange can generate for the firm. Likewise, the positive sign of this variable is maintained when we move to the individual model for firms in the UK and the sign changes from positive to negative when we consider Spanish firms. These results appear to demonstrate the presence of differences in the capital markets of both countries, such that in a highly liquid market such as the UK market, the listing of a firm on the stock exchange has a beneficial effect on its value, whereas entry into the stock exchange does not appear to have positive effects on firm value in the Spanish market, which is less organised and less liquid, and in which less protection is available to investors. Finally, with respect to the two remaining control variables, SIZE and AGE, they both present positive significant relations with firm value, as we can see in the global model and in the case of the UK firms, whose greater size and age have a positive influence on value creation.

## 7. CONCLUSIONS

Nowadays, a new way of conceiving governance begin to emerge, which is based, on the one hand, on the comparative analysis of corporate governance systems in different countries and, therefore, on different institutional frameworks (La Porta *et al.*, 1997, 1998, 2000; Francis *et al.*, 2001; Leuz *et al.*, 2002; Denis and McConnell, 2003) and, on the other hand, on the explicit recognition of interaction among governance mechanisms, revealing the capacity of the firm to design an efficient system of corporate governance (Agrawal and Knoeber, 1996; Rediker and Seth, 1995; Coles *et al.*, 2001; Bushman and Smith, 2001; Bhagat and Jefferis, 2002; John and Kedia, 2008). Accordingly, our work falls into this research line, which seeks to analyse the relations that exist among ownership structure, board size and debt, as well as their effect on firm value, considering at the



same time the institutional environment where firm is embedded.

To do so, we have analysed a sample of 216 firms in Spain and the UK over the period 2000-2003. In the first place, we considered the total combined sample, with the aim of obtaining some primary conclusions on the ownership structure, board size, debt, the institutional framework and its impact on firm performance. Secondly, the model was estimated once again on the basis of the institutional framework, by separating out the firms operating in Spain from the firms in the UK, with a view to finding out whether there were any significant changes in the results.

The results obtained seem to corroborate previous evidence by showing that government mechanisms function in a different way depending on the institutional framework: for example, ownership concentration does not function in the same way in Spain as it does in the United Kingdom, as a significant relation is shown with a positive sign in the former country and a negative one in the latter. The positive sign between ownership concentration and firm value for Spain might be due to lower levels of legal investor protection in that country. Lower investor protection leads Spanish firms to concentrate property so as to have greater control over the company, seeking to participate in an active way in its management, and orienting it towards value creation. On the other hand, the negative relation in the UK between these two variables is due to the higher legal investor protection, which allows the firms to function in a satisfactory way without the intervention of shareholders. In this context, ownership concentration becomes a redundant governance mechanism, which far from contributing value to the firm actually reduces it.

On another note, it was observed that small boards of directors contribute in a significant way to firm value, as the results of both the global and the individual models show an inverse relation between board size and performance. This allows us to see that the possible benefits of greater supervision over the management by numerous board members are outweighed by the problems of coordination and information that can arise in the decision-making process.

Furthermore, we find that the relation between financial leverage and firm value is negative in all the estimations undertaken, regardless of the institutional framework that is considered. The reasoning for the similar behaviour of debt in both institutional frameworks may be found in the relationship governance mechanisms. In the case of Spain, this work of monitoring managerial performance is exercised by the main shareholders, as a result of which increases in the level of debt, far from contributing to improvements in firm performance, actually reduce them. If we look at the UK, institutional framework and legal investor protection assume the leading role as a supervisory and control

mechanism over the managerial performance. Thus, investor protection is what allows the company to operate in a satisfactory way without the need to resort to additional control mechanisms such as ownership concentration or high levels of debt, which reduce, instead of contributing to firm value.

In short, we are talking about governance mechanisms that are substituted in accordance with the prevailing institutional framework, as even though the initial studies considered ownership concentration and debt to be governance mechanisms that contributed to value creation, the empirical evidence appears to show that both mechanisms promote value creation, depending on the institutional framework. As pointed out by Rediker and Seth (1995) and Coles *et al.* (2001), a substitutive effect occurs between these governance mechanisms, such that the firm that does not use debt, will not do so because it places emphasis on mechanisms such as ownership concentration or investor protection, depending on the institutional framework.

Based on these results, it is of enormous interest to mature the idea of interaction between mechanisms and institutional framework, as it opens up new inroads into research on governance in the firm, given that it has been demonstrated that governance mechanisms do not function independently of each other, and that their application is determined to a great extent by the prevailing institutional framework in each country.

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**Annex I.** Table Spearman Correlations

	VC	OWN	DEBT	B_SIZE	IP	QUOTED	AGE	SIZE
VC	1.00	0.03	-0.057	-0.01	0.04	0.05	0.02	0.08
sig.	---	0.31	0.09	0.78	0.19	0.09	0.49	0.00
OWN	0.03	1.00	0.09	-0.05	0.03	-0.043	0.02	-0.06
sig.	0.31	---	0.00	0.09	0.339	0.199	0.402	0.05
DEBT	-0.05	0.09	1.00	0.155	-0.10	-0.10	-0.04	-0.30
sig.	0.09	0.00	---	0.00	0.00	0.00	0.17	0.00
B_SIZE	-0.01	-0.05	0.155	1.00	0.15	0.15	0.05	0.03
sig.	0.78	0.09	0.00	---	0.00	0.00	0.10	0.25
IP	0.04	0.03	-0.10	0.15	1.00	0.17	-0.14	-0.01
sig.	0.19	0.339	0.00	0.00	---	0.00	0.00	0.61
QUOTED	0.05	-0.043	-0.10	0.15	0.17	1.00	0.00	-0.09
sig.	0.09	0.199	0.00	0.00	0.00	---	0.94	0.00
AGE	0.02	0.02	-0.04	0.05	-0.14	0.00	1.00	0.01
sig.	0.49	0.402	0.17	0.10	0.00	0.94	---	0.73
SIZE	0.08	-0.06	-0.30	0.03	-0.01	-0.09	0.01	1.00
sig.	0.00	0.05	0.00	0.25	0.61	0.00	0.73	---

Table of correlations of the 8 variables analysed for the overall global sample of firms.

**Table 1.** Sample by Countries

COUNTRY	Years	Num. of Firms
<b>SPAIN</b>	2000	111
	2001	111
	2002	111
	2003	111
	<b>Total Spanish Firms</b>	<b>444</b>
<b>UNITED KINGDOM</b>	2000	105
	2001	105
	2002	105
	2003	105
	<b>Total UK Firms</b>	<b>420</b>
<b>Total Sample</b>		<b>864</b>

This table reports the number of firms by countries that make up the sample used to estimate the model.

**Table 2.** Descriptive Statistics of the regression analysis variables

<i>Spanish Firms</i>				
Variable	Average	Standard Deviation	Minimum	Maximum
VC	0.121	0.096	-0.169	0.526
OWN	0.90	0.989	0.01	0.99
DEBT	0.68	0.276	0.11	2.68
B_SIZE	7.04	4.036	1	17

IP	0.37	0	0.37	0.37
QUOTED	0.038	0.191	0	1
AGE	33.27	21.254	6	89
SIZE	13.09	0.798	10.75	15.23
<i>UK Firms</i>				
<b>Variable</b>	<b>Average</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
VC	0.123	0.134	-0.648	0.668
OWN	0.36	0.189	0.01	0.99
DEBT	0.63	0.216	0.08	1.06
B_SIZE	5.90	2.243	2	13
IP	0.93	0	0.93	0.93
QUOTED	0.17	0.377	0	1
AGE	43.042	26.194	2	96
SIZE	12.74	0.724	10.73	14.74

This table reports the descriptive statistics for the 8 variables separated out for the two samples of Spanish and UK firms.

**Table 3.** Results of the Estimation of the Global Model

	<b>VC</b>
OWN	0.173 (14.35)**
DEBT	-0.251 (3.57)**
B_SIZE	-0.015 (2.84)*
IP	0.119 (21.74)**
QUOTED	0.195 (25.64)**
AGE	0.009 (8.48)**
SIZE	0.758 (8.13)**
Constant	0.189 (5.02)**
R <sup>2</sup>	0.02

Absolute value of the t statistic between brackets

+ Significant at 10%

\* Significant at 5%

\*\* Significant at 1%

This table reports OLS regression for the global sample of firms, in which value creation (VC) is the dependent variable. Independent variables are ownership concentration by the main shareholder (OWN), level of debt (DEBT), size board (B\_SIZE), and legal investor protection (IP). Control variables are Stock Exchange listing (QUOTED), firm age (AGE), and firm size (SIZE).

**Table 4.** Results of the Estimation of the Individual Model

<i>Spanish Firms</i>		<i>UK Firms</i>	
	<b>VC</b>		<b>VC</b>
OWN	0.015 (28.89)**	OWN	-0.069 (9.80)**
DEBT	-0.162	DEBT	-0.178

	(9.95)**		(13.58)**
B_SIZE	-0.002	B_SIZE	-0.054
	(2.30)*		(4.37)**
QUOTED	-0.015	QUOTED	0.010
	(1.77)+		(0.89)
AGE	0.002	AGE	0.005
	(1.69)+		(3.66)**
SIZE	0.002	SIZE	0.049
	(0.61)		(16.72)**
Constant	0.243	Constant	0.818
	(5.28)**		(21.00)**
R <sup>2</sup>	0.13	R <sup>2</sup>	0.23

Absolute value of the t statistic between brackets

+ Significant at 10%

\* Significant at 5%

\*\* Significant at 1%

This table reports OLS regression for the separate samples of Spanish and UK firms, in which value creation (VC) is the dependent variable. Independent variables are ownership concentration by the main shareholder (OWN), level of debt (DEBT), and size board (B\_SIZE). Control variables are Stock Exchange listing (QUOTED), firm age (AGE), and firm size (SIZE).