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Board Turnover and Firm Performance in Spanish Companies

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BOARD TURNOVER AND FIRM PERFORMANCE IN SPANISH COMPANIES

ABSTRACT:

In this paper we investigate the relationship between board turnover and firm performance, on a sample of Spanish firms listed on the Stock Exchange for the period 1989-1995. The paper shows that: (1) there exist a significantly negative relationship between firm performance, measured by accounting earnings as well as by shareholder returns, and turnover of members of the board of directors; (2) the relative presence of outsiders does not increase the turnover of the executive directors in firms with poor performance (as opposed to that observed in other countries), which reveals that their role in Spanish firms is not disciplinary and, (3) board turnover is less strongly related to firm performance when ownership concentration is greater, suggesting that a high concentration diminishes the disciplinary effect on the board.

1. INTRODUCTION

The separation of ownership and control is one of the characteristics of large firms in capitalist economies. The investors delegate the management of their capital to managers in hopes of obtaining positive returns. Corporate governance deals with the ways through which the suppliers of finance to the firms are assured these returns (Shleifer and Vishny, 1997). Two conditions are needed for the establishment of this governance in an organisation to come about: first, an agency problem or a conflict of interests among the different members of the organisation (owners, managers, workers,...) and, secondly, the presence of transaction costs sufficiently high so that this agency problem cannot be solved by means of a complete contract (Hart, 1995). The agency costs, which are inevitably derived from the relationship between owners and managers, can be a serious obstacle for the development of common projects. Thus, one can say that the primary objective of corporate governance is to minimise these types of costs in order to protect against the result of a separation of ownership and control in the firms.

The relationship between shareholders and managers is thus governed by a collection of norms and institutions which function as instruments for regulating potential conflicts between both parties and for minimizing the agency costs which this relationship signifies. These mechanisms can be external, and be exercised by markets (public stock acquisition offers or competition in the products market), or internal, such as the supervisory role given to large shareholders or by means of the board of directors.¹

In Spain, since there are no external markets which are so developed as in, for example, The United States and Great Britain, it is basically the internal mechanisms which work to oversee the performance of the managers in the large public corporations. Large Spanish firms are characterised by a high concentration of ownership, which favors the possibility of large shareholders having a disciplinary role over managers (Galve y Salas, 1993). These main shareholders have, besides great voting power, an incentive for assuming the

¹ In some countries, such as The United States and Great Britain, outside mechanisms predominate, while in others (Germany, Japan) inside mechanisms hold sway. Although, in theory, one model of optimum governance could be thought of, the result is that both models coexist, with similar results for both. See Bengochea (1996) for a more complete discussion upon the theme. Also Moerland (1995), and Shleifer and Vishny (1997).

cost of supervision, since they will keep the largest portion of any earnings, thus overcoming the problem of the free-rider.²

Several empirical studies in other countries confirm the hypothesis that the large shareholders play an active role. For example, Franks, Mayer and Renneboog (1995) for Great Britain, and Kaplan and Minton (1994) for Japan, confirm that firms with large shareholders discipline directors and managers with more probability in response to poor performance. Banks are present in German and Japanese firms, and the presence of institutional investors is usual in American and Anglo-Saxon firms. This presence can reduce agency problems, but not eliminate them (Hart, 1995). According to Hart, this is due to the fact that the large shareholders may not represent the interests of the small shareholders; they may use the firm for their own private benefits and they may even become the managers and thus have the double role of controller and controlled. So, the existence of a board of directors which represents the interests of all of the shareholders helps to overcome the limitations of other mechanisms and completes the supervision of the firm's management.

The objective of this paper is to present empirical evidence of the Spanish firms' corporate governance and its effectiveness. More specifically it is proposed to analyse whether the system of governance adopted allows the disciplining of members of the board of directors as a response to poor firm performance, to evaluate the role of boards of directors as mechanisms of internal control, and it is also proposed to analyse the impact of ownership concentration in disciplining the board.

The principal contribution of this work is to analyse the boards of directors in an institutional background in which large shareholders are present, as opposed to what has been done in other countries with share dispersion. Additionally, empirical evidence upon the composition, performance and turnover of the directors in large Spanish firms is shown during a specific period of time.

The first result indicates that poor performance of a firm, measured by earnings and by share returns, causes a higher turnover of managers. This result shows the role of

² For more details, Shleifer and Vishny (1986) explore a model in which the presence of large shareholders offers a partial solution to the problem of the free-rider.

governance structure in the large Spanish firm. That is to say, mechanisms exist which substitute the directors in the event of poor performance: the shareholders receive information about the performance of the managers, lose trust in the directors appointed by them, and the system allows for their dismissal.

Proof is also brought forth of the importance of the board's composition in order to exercise supervision and discipline. It has not been possible to determine whether the executive directors are disciplined with more probability in boards where there is a more relative presence of non-executive directors, which indicates that the presence of outsiders does not affect the executive discipline in the event of poor performance, as opposed to that which occurs in Anglo-Saxon firms (Weisbach, 1988).

Thirdly, the results also show that the ownership concentration and the nature of largest shareholder are relevant in linking board turnover and performance. Thus, total board turnover is less strongly related to firm performance when ownership concentration is higher, although ownership concentration has no significant direct effect in turnover. This result suggest that a high concentration diminishes the disciplinary effect on the board. This result varies according to the type of largest shareholder, which gives evidence of the different roles played by different types of shareholders.

In the following sections a revision of the literature upon the role of boards of directors (Section 2) is made, data, variables and the methodology used are explained (Section 3), the results obtained are shown and commented upon (Section 4), and finally conclusions are given (Section 5).

2. THEORY

2.1. The Board of Directors and the Agency Theory

Jensen and Meckling (1976) define an agency relationship as a contract under which one or more individuals (the principal) engage another individual (the agent) to perform some service on their behalf, which involves delegating some decision-making authority to the agent. The causes and consequences of the divergence of interests between one side and the other is the central point of the agency theory. This theory offers a useful conceptual scheme for analysing the relations among the shareholders, the board of directors and top management.

The boards of directors of public corporations have the function of serving as a nexus between the managers and the shareholders. They are basically instruments of the shareholders to supervise and discipline the managers' performance when there is a separation between ownership and control. According to the agency theory, the board of directors is one of several mechanisms for limiting the opportunistic behaviour of the managers, besides the mechanisms of the labour market, the capital market and the product market.

The effectiveness of this mechanism is not very clear. Some authors believe that it is not an effective mechanism since, in practice, the decisions which can be made are few and not of great importance (Mace, 1971). Other authors feel, however, that market pressure and worry over one's reputation oblige directors to satisfy their obligations and to effectively exercise the role of controllers of managers (Fama, 1980).

In any case, the shareholders do not overcome the agency problem with the inclusion of a board of directors because the directors are, at the same time, agents of the shareholders and their interests do not necessarily have to coincide. Thus, a delegation of the shareholders' functions to the members of the board of directors is produced, who also delegate decisions to the operative executives of the firm (Fama and Jensen, 1983).

Because of this, an agency relationship at three levels can be considered to exist: shareholders-directors-managers. The board of directors acts as principal in its relationship with management and as agent in its relationship with the shareholders.

2.2. The Board of Directors as a Governance Structure

As has already been said, the governance structures of corporations can be understood as a body of institutional agreements for aligning the interests of the managers with those of the shareholders. The board of directors is understood as one of these elements of the governance structure since it serves for overcoming some of the problems of the delegation of the shareholder's control over the manager. This element is especially significant in situations where there are no large shareholders and, because of this, supervision of management is entrusted to the members of the board.

2.2.1 Dispersed Ownership

According to Baysinger and Butler (1985), the board of directors is defined as that which has the power to hire, fire and compensate management, as a specialised governance structure which economises transaction costs for a particular group of contracts between the manager and the shareholders. This represents an important economic function because, in being used to resolve conflicts of interest between those who make decisions and those who must bear the residual risk, it economises the agency costs associated with the separation between ownership and control which is a characteristic of large firms. Williamson (1985) also affirms that the principal function of the board is to facilitate a governance structure that protects the shareholders. Fama (1980) equally considers that the role of the board consist in supplying a mechanism of relatively low cost for changing top management.

One point dealt with by the literature is what the composition of the board must be to guarantee that the agents delegated with the power of decision act in order to maximize the wealth of the shareholders and to impede opportunistic behaviour.

The majority of the studies classify the members of the board into two types: the insiders, who are those which form part of the firm's management team and, thus, work full-time there, and the outsiders, whose members frequently work in other firms with other responsibilities, and who are chosen based upon their prestige or reputation.³

The insiders are expected to be more aligned with the interests of management than with those of the shareholders. Their professional careers are tied up at the side of upper management, and it does not seem too probable that they can directly confront them in the event of poor management, but rather that they will soon tend to collude to avoid competition and will expropriate the wealth of the shareholders (Fama, 1980). But, on the other hand, the insiders bring knowledge and experience in management to the firm (Weisbach, 1988)

³ Some authors (for example, Hermalin and Weisbach, 1988) have introduced the concept of the "grey" director for referring to those who, although not working in the firm, are nevertheless linked to it in such a way that their independence can be questioned (for example, the independent lawyers the firm has). Other classifications, less common, are that proposed by Daily and Dalton (1994), which distinguishes between independent directors (they are the outsiders who have been appointed before the current CEO) and interdependent directors (they are the outsiders appointed after the CEO and the insiders), or that proposed by Baysinger and Butler (1985), who consider that there are three differentiated components in the boards: executive, supervisory and instrumental.

The outsiders are supposed not being aligned with management, and they are expected to be, on the one hand, the best delegates of the shareholders because their reputations in the work they perform are at stake and, on the other hand, that they act as professional referees who monitor the competition among the senior directors (Fama, 1980). Thus, the presence of outsiders appears to be the guarantee for the shareholders that the board will effectively exercise an efficient monitoring.

Some authors (Fama, 1980; Fama and Jensen, 1983) consider that reputation and the addition of laws motivate the outsiders to represent the shareholders. But, on the other hand, (Jensen, 1993; Mace, 1971) consider that outsiders will most probably align themselves with management since it has more influence in their appointment. Also, according to Milgrom and Roberts (1992), it is supposed that the board of directors represents the interests of the shareholders; however, the real question is to what extent can they do so when the shareholders' interests are opposed to those of the CEO (Chief Executive Officer). The outsiders will even have a close relationship with top executives. Outsiders must trust them because are the provides of information and, in most cases, the CEO appoints them.

Empirical studies, which relate the composition of the board with different management variables, consider the question. The results appear to indicate a positive relationship between the percentage of outsiders and the wealth of the shareholder, which confirms that outsiders effectively carry out their function of aligning themselves on the side of the shareholder.⁴

2.2.2. Concentrated Ownership

Corporate governance systems with dispersed ownership (e.g. Anglo-Saxon system), monitor managers through external market controls and by outsider-dominated board of directors. In Continental Europe and Japan ownership of large firms is more concentrated, and thus there are added incentives for supervisory role of large shareholders.

In this context, it is common that shareholders appoint their own directors to represent their interests. One would expect internal and direct discipline to those directors in the case of poor performance by the firm. Furthermore, if the outsiders represent the interests of large

⁴ Some of these studies are: Brickley, Coles and Terry (1994); Byrd and Hickman (1992), Kini, Kracaw and Mian (1995), and Weisbach (1988).

and identified shareholders, one can also think that the outsiders will discipline the insiders in the event of poor performance.

A number of studies upon the role of boards of directors make reference to the US or UK where the concentration of ownership is lower and, even though the institutional investors ultimately take over prominence, the model of analysis is notably different from the Continental or Japanese cases. Empirical studies for different countries like Germany (Kaplan, 1994 or Franks and Mayer, 1997), Japan (Kaplan and Minton, 1994 or Kang and Shivdasani, 1995) and Belgium (Renneboog, 1995), are characterized by concentration of ownership ratios higher.

For Japan, Kang and Shivdasani (1995) find that the main bank system performs an important governance function, and, in contrast to the evidence from US, they report that the presence of outside directors on the board has no effect on board turnover. On the other hand, Kaplan and Minton (1994) find that top executive turnover increases substantially in years of outside appointments, and that banks and corporate shareholders play a role that is similar to that of takeovers and proxy fights in the US.

For Germany, Kaplan (1994) find that turnover of the management board increases with poor stock performance, and that new appointments of the supervisory board are also related to poor stock performance. Franks and Mayer (1997) also find a robust relationship between poorly performing companies and turnover of their executive boards.

For Belgium, Renneboog (1995) shows that major shareholders play an important role in monitoring and disciplining poorly performing companies. A high number of non-executive directors increases turnover of executive directors of underperforming companies.

In general, the empirical results do not differ from those found for Anglo-Saxon firms. Thus, neither the control of the boards of directors nor their supervisory role of non-executives presents important differences in the two models. The difference is about who exercises the ultimate control: shareholders in firms with concentrated ownership via active role in boards (or banks in Japan) or a disciplinary role of the markets in firms with dispersed ownership.

In sum, we should consider these two differences between both systems of government: on the one hand, in the Continental system, the outsiders represent an important part of the ownership, and they are appointed by large shareholders, and one would expect a different

role from cases with dispersed ownership. The incentives also differ, since the control on their activity comes from different sources according to the interests that represent. On the other hand, the large shareholders play an active role in the government of the company, monitoring the management or doing executive tasks, so the control on the managerial activity doesn't come so much from external markets but of the internal structure of the company.

Spanish firms are characterised by a structure of concentrated ownership where control is principally exercised by large shareholders.⁵ The management of the firm, however, is normally carried out by persons who have been delegated by the shareholders with the responsibility of performing tasks in accordance with the interests of the shareholders. These persons make up the board of directors, which is the one in charge of the management of the firm. Management can be delegated to an executive commission, or to one or various delegated directors. All must be members of the board. The board can also bestow powers of management to any person not a member of the board.

In this way, the Spanish system of delegation of decisions follows the conceptual scheme of the agency relationship, giving the shareholder the power to appoint and dismiss the directors, who in their turn can do the same with the de facto managers of the firm,⁶ but the institutional environment is different from the Anglo-Saxon system.

Therefore, in front of the absence of a market of corporate control in Spain, we expect that the large shareholders discipline the board and the management in case of poor performance. We also expect that the outsiders take on the role of representatives of the large shareholders and their presence contributes to discipline the executive members of the board in case of poor performance of the company.

⁵ On average, the largest shareholder of firms which are listed in the Stock Exchange has approximately 45% ownership of the shares, and the top 5 shareholders roughly 55% (non-financial firms)

⁶ We see that a system of board of directors is followed which is similar to that of Anglo-Saxon firms: the board bestows powers of management to members of the board itself (inside directors).

3. DATA, VARIABLES AND METHODOLOGY

3.1 Data

A sample of firms which are listed in the Spanish Stock Exchange from 1989 to 1995 has been used for this study.⁷ A significant part of the data (accounting, listings, ownership, directors) comes from the Comisión Nacional del Mercado de Valores (CNMV), with the information which these firms are obliged to turn every trimester. The information upon the post of the directors has been obtained from Fomento 2500 and from companies' annual reports. The reports and the stock market pages of newspapers have also been checked to complete some data not included in the CNMV files. By legal obligation, all listed firms must give out this information, but in practice many firms do not satisfy this requirement fully, or provide partial data. Because of this, the selection criteria has been to have complete data in at least 5 of the 8 years possessed. The final selection consists of 113 firms, distributed in 9 economic sectors according to the CNMV classification. The selected firms being compared with the market total can be seen in Table 1. Despite representing only 29% of the total number of firms which are listed in the stock exchange (1995), their contribution to total capitalisation is 79%. This means that, in relative terms, there are a few in number, but a lot in importance.

[INSERT TABLE 1]

3.2 Variables

In this study we basically relate performance variables, as explanatory variable, with board turnover. Other explanatory variables are also included, such as the percentage of outsiders and ownership concentration. A description of these variables and their principal reference values are shown in Table 2. In Table 3 the matrix of correlations between the most relevant endogenous and exogenous variables can be seen.

[INSERT TABLE 2 AND TABLE 3]

⁷ The fact of excluding the firms which are not listed is due to two reasons: firstly, the separation between ownership and control is more significant in large firms, and which are listed, and, thus, the role of the directors is more relevant, and secondly, difficulties for obtaining data of the firms which are not listed exist, besides those for the lack of market evaluation.

Two types of measurements have been used as proxy of the performance of the firm: accounting data and market returns.

The accounting measure consists of total earnings before taxes divided by the total assets (B). This measure permits us to compare it among the selected firms. As a market return, we use the market return corrected by dividends and capital increases (R), and is calculated by the following formula:⁸

$$R_t = \ln \left(\frac{P_t + DIV_t + DPS_t}{P_{t-1}} \right)$$

In this way the change of the stock prices between to consecutive years is taken in, corrected by possible new capital issues and dividends payment. This measure of performance is similar to others proposed by Murphy (1985) and Conyon (1996). This allows us compare results homogeneously .

The principal difference between the two types of indicators of firm's performance is the temporal dimension. While earnings are a short-term measure, return incorporates the market's valuation of discounted future earnings, which means a much larger temporal horizon. As a consequence we expect that the market will detect firm's poor performance early, reflected later via poor earnings.

Both measurements have been used with a delay of one and two years before the turnover year, and they have been corrected to the relative level of the sector where the firm is competing. The variation of earnings as well as return is also used as an explanatory variable (VAR_B and VAR_R) of t-1 year with respect to t-2 year.

As far as director's turnover is concerned, since the CNMV's data identify directors by name and their date of appointment and of dismissal, turnover has been defined in the following way: replacements of directors during the year divided by the average number of directors during the year.⁹ The data upon directors are only available beginning with 1989. A limitation which exists is that in the great majority of the cases the causes for dismissal are unknown , which does not allow us to eliminate those replacements which are

⁸ . P=share price (listing), DIV=dividend per share, DPS= subscription right.

⁹ We have also calculated using appointments, but the results do not significantly vary. We have used dismissals since we believe that it is a better indicator of the disciplining effect.

considered “natural”, that is, those caused by retirement or death. It is thus supposed that these natural replacements are evenly distributed across firms all the periods.¹⁰

A summary of the number of directors and turnover per sector in the 113 sample firms during the 6 years of the study can be seen in Table 4. The results indicate that the number of directors is similar to firms which are listed in the Stock Exchange in other countries of continental Europe,¹¹ and slightly inferior to American firms, situated at about 12 directors on average.¹² It can be seen that, in general, sectors where the largest firms are have more directors than the average and a smaller turnover of executive directors.

[INSERT TABLE 4]

The temporal evolution of the board size and turnover of directors for all of the chosen firms is presented in Table 5. One can observe how the number of directors has been increasing since 1989 (with a slight decline in 1993 and 1994). A significant fact is the decline, in number and percentage, of insiders of the total. The total board turnover has also increased in recent years (except 1994).

[INSERT TABLE 5]

In general, it can be said that boards of directors follow a duality model, where there is a minority part which exercises the management of the firm (24% as an average) itself, and a majority part (the outsiders) who are not in charge of the direct management of the company.

3.3. Methodology

A regression analysis is done to relate our endogenous variable (turnover) with a set of explanatory variables. As the dependent variable is only defined by positive values or zero, this brings us to consider it a censored variable, and the Tobit model will be used in the estimation of the relation by means of maximum likelihood. If ordinary least squares

¹⁰ Recently, Conyon (1996) calculated similar situations considering natural replacements and then not considering them, without finding significant differences.

¹¹ For example, Belgium has an average of 9.91 for the same period (Renneboog, 1996).

¹² One can see, for example, Rosenstein and Wyatt (1990) and Brickley, Coles and Terry (1994).

(OLS) were used to calculate the model, biased and inconsistent estimates would be obtained (Maddala, 1983).

The general model can be defined as:

$$\begin{aligned}
 &TURN^*_i = X_{ij} ' \beta + u_i && \text{where } i=1, \dots, 678 && [1] \\
 &TURN_i = TURN^*_i && \text{if } TURN^*_i > 0 \\
 &TURN_i = 0 && \text{if } TURN^*_i \leq 0
 \end{aligned}$$

The data have been taken in and pooled, that is, joining the observations per firm and year. In this way 678 observations (113 multiplied by 6) have been obtained.

$TURN^*_i$ is considered to be a latent variable which follows a normal distribution. The dependent variable ($TURN_i$) is only observed for positive values of the latent variable, while in other cases we only know that $TURN^*_i \leq 0$, and the dependent variable will have the value of 0. X_{ij} is a vector of explanatory variables and β is a vector of parameters. It is supposed that regression residues, u_i , are distributed normally and independently with 0 average and σ^2 variance.

In calculating a Tobit model as the one above, it is supposed that the same model explains both the existence of turnover and the magnitude of this turnover. That is, it jointly explains the decision to discipline the directors or not and, in the case of deciding to discipline them, the decision of the relative number of dismissed directors there will be. But this supposition cannot be certain, and there can be different explanations for one decision or another. In this case, the correct procedure would be to make a calculation combining Probit (for the first decision) with Tobit (for the second).¹³

[INSERT TABLE 6]

To find out if this supposition is correct or not, it will be statistically contrasted in the following way:¹⁴

¹³ In Table 6, the number of cases where turnover is 0 (Probit application) and where turnover is positive (Tobit application) is seen.

¹⁴ This methodology is taken from the work by Arrazola, De Hevia and Mato (1992).

The dichotomous variable I_i is defined, with a value of 1 if there is turnover and 0 if there is not, and a model is formulated which allows us to calculate the probability of the firm firing its directors

$$I^*_i = X_{i2}' \gamma + \varepsilon_i \quad [2]$$

$$I_i = 1 \quad \text{if } I^*_i > 0$$

$$I_i = 0 \quad \text{if } I^*_i \leq 0$$

In the event that the same model functions for both decisions, the following two conditions must be satisfied: calculating model [1] as Tobit, and model [2] as Probit:¹⁵

$$A) X_{i1} = X_{i2}$$

$$B) \hat{\gamma} = \frac{\hat{\beta}}{\hat{\sigma}_u}$$

Restriction A is satisfied since the same explanatory variables have been used in both models. To find out whether restriction B is also satisfied, the null hypothesis which states that the calculation of the parameters is equal has been contrasted, and in neither case, using the different dependent variables and the different explanatory variables, we have been able to reject it with a significance level of 5%.

Thus, in this study only the Tobit model will be used since:

- a) It allows the achievement of consistent estimates when the dependent variable is censored, unlike the OLS.
- b) Both the decision to discipline the directors as well as the decision of the relative magnitude of the discipline are explained. The two decisions follow an identical model as has been statistically contrasted.

¹⁵ See, for example, Greene (1993).

4. RESULTS

4.1. Board Turnover and Firm Performance

The hypothesis which is the starting point here is that the poor performance of the firm, measured by poor accounting performance or a fall in the shareholder's returns, will bring about a change in the board members, understanding that the directors are the ones who are in charge of management.

In any case, the directors' responsibilities vary according to whether they have executive responsibilities or not. Thus, executive directors have a more direct responsibility in management, while outsiders play more of a role of supervision.

Turnover has been defined as a function of the performance of the directors, and a different regression for each type of directors and for each type of performance measure has been calculated. Values of one year and of two years before turnover have been used in the performance measures, in this way understanding that poor performance the previous year or two years before cause the firing of directors in the current year, as also with values corrected and non-corrected per sector, understanding that a turnover can be due to the relative performance of the firm in the market where it competes. Finally, the variation in accounting earnings and in the shareholders return which has been produced the year previous to the turnover has also been used as an explanatory variable.¹⁶

The results of the regressions, with pooled data, are presented in Table 7.

[INSERT TABLE 7]

The initial hypothesis is strongly supported by the results. A significantly negative relationship exists between board turnover (ROTCONBA) and diverse performance measures of the firm. This means that a firm with bad performance (reflected by accounting indicators as well as by stock market returns) will discipline its directors. That is, the results of regressions confirm that the managers are penalised with dismissal if the firm has poor performance. The firm reacts in front of accounting indicators that show low

¹⁶ We have also corrected for size, introducing the ln (asset) variable, without finding significant differences (not shown).

earnings (in relative terms) or before poor increases in its stock returns (also in relative terms), disciplining board members of the firm.

The difference of results derived from the accounting indicators and from the market have is important. On the one hand, the calculated parameter in the accounting measures is much higher one year before dismissal as opposed to two years before, while the parameter in the stock market return measure is the opposite. This would confirm that the market measurements, in a certain way, anticipate future earnings.¹⁷ Additionally, Tobit's calculation considers the parameters of earnings of the two years before as not significant.¹⁸

The calculation of the constant in Tobit also brings us information upon the behaviour of the dependent variable. The null hypothesis that the constant is 0, with a margin of error of less than 5%, in no instance can be rejected. This tells us that turnover of directors will begin to take place beginning with negative values of the independent variables. That is, a turnover of 0 is expected for positive earnings, and also for positive returns. Thus, it is expected that turnover will begin to occur from the moment in which either the earnings or the returns (individual or the difference with the sector) are negative.

As far as the turnover of the different types of directors (ROTINTBA and ROTEXTBA) is concerned, the hypothesis is also valid. It could be thought that discipline should be exercised only over insiders since they are the ones who are most directly in charge of management or, conversely, that only the outsiders should be disciplined since they have not performed their role as supervisors efficiently. However, the results confirm that poor performance will affect the continuance not only of insiders, but of outsiders as well.

In any event, however, the results show that turnover of the insiders is more sensitive to changes in performance, observing how the calculated parameters are slightly superior to those of outsider turnover, which means that the insiders are considered "more responsible" for poor performance. However, in the case of the insiders, a significant and negative value of the constant is also superior to the significant and negative estimation of the constant in the case of outsider turnover. One possible interpretation is that the disciplining of the insiders will not begin while there is no clear, negative performance, and once this occurs, it

¹⁷ In any case, there are no statistically significant differences between the calculated parameters of returns one and two years before turnover, but there are statistically significant differences between the calculated parameters of earnings one and two years before turnover.

¹⁸ In the corrected measurements per sector, we have only shown earnings one year before and returns two years before.

will be stronger than in the case of the outsiders. That is, it is more difficult for executive directors to be disciplined than outsiders (perhaps due to entrenchment mechanisms they have), but the disciplinary effect is felt more powerful after a certain point of negative performance has been reached.

In general, the variables of performance variation do not explain the turnover of directors (except the rotconba case), since the null hypothesis saying that the calculated parameters are equal to 0 cannot be rejected. For this reason this variable is not included in the following regressions.

It is also important to state that no significant differences are detected between the estimated parameters of the industry's relative and absolute performance variables. This would mean that the absolute and relative results with respect to the sector are equally important for deciding turnover.

Thus, it can be concluded that exists a significantly negative relationship between total board turnover, both insider and outsider, and the firm's performance, at the aggregate level. This tells us that the internal control mechanisms serve to discipline the managers of the firm in cases of poor performance, which is an indicator of poor management.

4.2. Board Turnover and Board Composition

It has previously been commented upon that, according to theory and several empirical studies, the presence of outsiders appears to be the guarantee for the shareholders that the board will effectively exercise efficient monitoring.

Since the boards of directors of Spanish firms are made up of executive directors and outsiders, it could also be expected that the function of the latter be that of supervising the performance of the former, aligning themselves more with the interests of the shareholders than with those of management. It could thus be expected that the board composition is a relevant variable for disciplining management in the event of poor performance. The hypothesis to be tested states that the higher the proportion of outsiders is, the better the supervision of the executive directors will be and the higher the turnover of this last group will be in the event of poor performance.¹⁹ Validation of this hypothesis would mean that the composition of the board is an important and relevant variable for exercising discipline

¹⁹ This hypothesis is general in any case, since the possibility that there could be an optimum number of directors at which point supervision is more diffuse has not been taken into account. See Yermack (1996).

over those in charge of management: if the firm performs badly, there will be more dismissals of insiders the higher the proportion of outsiders is. This result would tell us that in the Spanish firms which are listed on the Stock Exchange, the separation of the board into two groups of directors is an efficient mechanism for controlling and disciplining management, reducing agency costs which the relationship implies.²⁰

This could be interpreted as the alignment of outsiders with the interests of the shareholders, either because the market pressures or reputation oblige them to make good on their obligations (Fama, 1980), or because, in the case of Spanish firms, they are directly appointed by and respond to the largest shareholders.

To contrast this hypothesis, the regression model shown in Table 8 has been used. The result does not allow us to reject the null hypothesis that the percentage of outsiders does not affect executive director turnover, as opposed to what had been proposed in the earlier hypothesis, and as also opposed to the results which empirical studies in other countries have yielded.²¹ The results do not permit us to assure that the board's composition is a relevant variable in explaining insider turnover.

[INSERT TABLE 8]

An explanation to the result could be that the concentrated ownership in the Spanish companies brings about that there is not distinction between insiders and outsiders. Both types of directors could represent the same group of shareholders. In a more dispersed ownership we would expect that the role of the outsiders would be the foreseen by the Anglo-Saxon model.

We have contrasted this explanation calculating the effect of the proportion of outsiders on the insider turnover controlling for the ownership concentration. That is to say, we have

²⁰ Other studies performed in other countries have brought forth the same proof: for example, Renneboog (1996) for Belgium; Kaplan and Minton (1994) for Japan; Weisbach (1988) for The United States, and Franks, Mayer and Renneboog (1996) for Great Britain and Franks and Mayer (1997) for Germany.

²¹ One possible reason for the difference is the method of estimation. In other empirical studies the OLS have been used, and the calculated parameter which corresponds to the outsider percentage variable has resulted positive and significant. We have also calculated using OLS (not shown) and the results also indicate a positive and significant relationship between the outsider percentage and insider turnover, which does not vary with respect to the aforementioned studies. The fact of having used Tobit could perhaps be the cause of the difference in the estimation of the parameters and, thus, in the interpretations. In any case, we have stated that when the dependent variable is limited, Tobit is the correct method of calculation since OLS gives rise to biased and inconsistent estimates.

checked if the ownership concentration is related with the effect of the outsiders on the insider turnover, without finding a significant relationship..

One conclusion that can be derived from these results is that the presence of outsiders in the board does not affect the disciplining of insiders. Intuition points toward the boards of directors being controlled by the insiders, and it is difficult to discipline them. Also, the calculation of the constant offers us this view, which has already been previously commented upon.

An alternating explanation is that, following the theory, increments in the percentage of outsiders in the board will implicate increments in the supervision. The larger supervision is not translated in dismissals of insiders in case of poor performance, but rather it is translated into a greater information on the behavior or the true effort of the insiders, where the discipline is minor upon existing a variable of information. This fact could offset the disciplining function of outsiders.

Anyway, this result is important to the recommendation of governance policy. It is promoted the importance of outsider independent director in Spanish companies, following the Cadbury (1992) recommendation, but this evidence suggests no relevance of the role of the outsiders as disciplinary device.

4.3. Board Turnover and Ownership Concentration

In this section, the extend at which the shareholders intervene to discipline members of the board in the event of poor performance is questioned. In a Spanish system it is supposed that the main shareholders have an important role in the actions which motivate them to exercise supervision of the managers and, thus, that the problem of free-rider is smaller than in Anglo-Saxon system.

The question would be if turnover is more or less strongly related to performance in firms with large shareholders, and also if ownership concentration is related to board turnover. This would indicate that the variable of ownership structure has significant effects upon the discipline of the managers and, thus, it is an important element at the time of designing governance structures of firms.

A positive relationship between concentration and turnover would indicate that large shareholders exercise a disciplinary role toward managers of poor performance companies,

while a negative relationship would indicate that there is an alignment with managers separately of the minority shareholders. Another interpretation could be that although upon existing a greater monitoring also exists greater information on the true behavior of the managers, and for this reason some poor firm performance could not be attributed to a bad manager performance. In the Spanish case, to the being the large shareholders mainly parent companies or holdings, instead of individual shareholders, we consider that the second interpretation is more valid.

We have estimated the model presented in table 9. We consider two dependent variables: on one hand, the total board turnover, that would be more directly related with the monitoring of the large shareholders, and on the other hand the insider turnover. We have estimated the model with full data (panel A) and according to the nature of the largest shareholder (panels B to E), to appreciate differences according to the type of shareholder.

[INSERT TABLE 9]

The main and general result is that it is not observed a direct significant relationship between concentration and rotation ($\hat{\beta}_2 = 0$), although a positive and significant relationship exists between performance and board turnover for the concentrated companies ($\hat{\beta}_3 > 0$).

Starting from the results in the panel A, we could interpret that the concentration diminishes the weight of the performance in the decision of disciplining the board members. That is to say, for the companies with concentrated ownership, some poor performance won't be translated in a greater discipline of the board. On the other hand, for the companies less concentrated, the relationship between performance and board turnover will be higher. This could be due, as we have already said previously, to a better quality of monitoring that allows getting a better information on the true efforts of the managers.

However, this positive relationship is not significant when disciplining insiders. Therefore, a greater concentration doesn't mean changes neither in the insider turnover neither in the weight of the performance variable in order to decide their substitution. One possible interpretation is that the positive and negative effects offset each other, as occurs in the German case (see Kaplan, 1994)

Analyzing the relationship according to the type of largest shareholder, the results are slightly different. We have observed that in the subsidiary foreign companies the relationship is not significant. A possible explanation is that the physical distance of the parent company prevents from making an effective board monitoring. Therefore, in the foreign companies, the director's turnover doesn't depend significantly of ownership concentration.

Also the impact of the concentration is different from the general tendency in the insider turnover for the non-financial companies.²² It is observed that the concentration has a temperate effect of the insider turnover independently of the performance achieved. So, in this type of companies we could interpret that a greater supervision involves greater information. This is logical for shareholders that operate in companies in the same sector of activity that the subsidiary (to difference of the financial companies). The consequence would be that greater concentration tends to minor the discipline of the insiders.

Therefore, ownership structure affects board turnover, but with limitations. A high ownership concentration diminishes the disciplinary effect on the board in case of poor performance. The supervision improves the information on the management behavior and for this reason is less disciplined.

5. CONCLUSIONS

This paper has examined the relationship between board turnover and firm performance in Spain. from a sample of 113 firms listed on the Stock Exchanges during the period 1989-1995.

The principal contribution has been the analysis of the corporate governance adopted in the large Spanish firms, characterised by a structure where there is separation of insider and outsider directors and presence of large shareholders. The effectiveness of the shareholders monitoring towards the managers and also the effectiveness of the boards of directors as mechanisms of internal control has been focussed upon. The objective has been to provide some empirical evidence of these governance structures according to the methodology of similar studies in other countries.

²² Also in the individual case, but this can be due to the few number of observations.

Three principal results have been obtained. First, a significantly negative relationship between firm performance, measured by accounting earnings as well as by shareholder returns, and turnover of members of the board of directors is found. This result strongly indicates that a successful or efficient governance system penalizes managers of firms with poor stock returns or poor accounting earnings. A similar result is found in Germany, Belgium, Japan, GB and US.

Second, as opposed to that observed in other countries, the relative presence of outsiders does not increase the turnover of the executive directors in firms with poor performance, which reveals that their role in Spanish firms is not disciplinary. An explanation could be that the insiders dominate the boards of directors, and it is difficult to discipline them. An alternative explanation could be that outsider monitoring is not translated in insider turnover in case of poor firm performance, but rather it are translated in a greater direct information on the insider performance; therefore under poor results it is easier to separate bad performance and bad luck. This fact could offset the disciplining function of outsiders.

Finally, board turnover is less strongly related to firm performance when ownership concentration is greater, suggesting that a high concentration diminishes the disciplinary effect on the board. The explanation could be that a high concentration involves high supervision, and this improves the information on the management performance. For this reason is less disciplined in case of poor firm performance.

In sum, these results do not significantly differ from those obtained in other countries with concentrated ownership: the large shareholders play an important monitoring and disciplinary role in Spain. The main difference is in the role of outsider directors. In the design of board of directors the adoption of the Cadbury recommendations has not been translated in a greater discipline for the executives. Future research about the nature and specific role of outsiders in Spanish companies is necessary.

TABLE 1: Sample relative importance (1995)

INDUSTRY	SAMPLE		FULL STOCK EXCHANGE MARKET		SAMPLE RELATIVE IMPORTANCE	
	Firms	Market Value (10 ⁹ pts.)	Firms	Market Value (10 ⁹ pts.)	Firms (rate)	Market Value (rate)
Energy, utilities	18	5318	30	6428	0,600	0,827
Mining, basic metals, cement	22	838	39	1093	0,564	0,767
Metal manufacturing	14	375	41	409	0,341	0,917
Other manufacturing	13	483	98	1122	0,133	0,430
Construction	4	157	14	356	0,286	0,441
Commerce and services	7	520	34	1065	0,206	0,488
Transport and communications	5	2114	20	2272	0,250	0,930
Property	5	242	62	412	0,081	0,587
Banks	25	4610	48	5402	0,521	0,853
Agriculture and fishing	0	0	4	4	0,000	0,000
TOTAL	113	14657	390	18563	0,290	0,790

Source: CNMV, own calculations

TABLE 2: Descriptive statistics

Variable	Description	Mean (90-95)	Standard Dev.	Max	Min
Rotconba	Board turnover (full board)	0.1235	0.2183	1.727	0
Rotintba	Insider turnover	0.1252	0.3546	2	0
Rotextba	Outsider turnover	0.1399	0.2995	4.4	0
Ext_tot	Proportion of outsiders	0.7679	0.2038	1	0
B	Earnings before taxes/total assets	0.0295	0.1187	0.5688	-1.6370
B_CS	Earnings before taxes/total assets, corrected for industry	0.0023	0.1139	0.5090	-1.7080
R	Shareholder return	0.0004	0.4918	1.4414	-3.446
R_CS	Shareholder return, corrected for industry	-0.0674	0.4302	1.7803	-3.736
CI	Percentage of direct and indirect shares owned by the largest shareholder	45.17	29.84	99.96	0.001

Source: CNMV, Bolsa de Madrid, own calculations

TABLE 3: Correlation between key variables

In this table we show the Pearson correlation coefficient between key variables, for the full sample. P-value in in parentheses.

	Rotconba	Rotintba	Rotextba	Ext_tot	CI	B _{t-1}	R _{t-2}
Rotconba	1						
Rotintba	0.5134 (0.000)	1					
Rotextba	0.8909 (0.000)	0.2447 (0.000)	1				
Ext_tot	-0.0692 (0.074)	0.1543 (0.000)	-0.2187 (0.000)	1			
CI	0.0022 (0.958)	0.0406 (0.358)	0.0056 (0.892)	0.1075 (0.010)	1		
B _{t-1}	-0.1854 (0.000)	-0.0964 (0.028)	-0.1284 (0.002)	-0.0546 (0.183)	0.0590 (0.177)	1	
R _{t-2}	-0.1811 (0.000)	-0.0897 (0.035)	-0.1478 (0.000)	0.0373 (0.348)	-0.0011 (0.979)	0.4364 (0.000)	1

TABLE 4: Board size and board turnover by industry

INDUSTRY	n	<i>Number of directors (89-95)</i>	<i>Annual board turnover (90-95)</i>	<i>Number of insiders (89-95)</i>	<i>Proportion of insiders</i>	<i>Annual insider turnover (90-95)</i>
		Mean standard dev.	Mean standard dev.	Mean standard dev.	Mean standard dev.	Mean standard dev.
Energy, utilities	18	12,62	0,13	3,76	0,27	0,06
		5,99	0,17	4,13	0,22	0,16
Mining, basic metals, cement	22	8,63	0,12	1,76	0,21	0,17
		3,49	0,21	2,14	0,22	0,42
Metal manufacturing.	14	8,12	0,15	1,43	0,18	0,21
		3,21	0,25	1,22	0,16	0,49
Other manufacturing.	13	8,91	0,09	1,16	0,14	0,16
		4,48	0,19	1,26	0,15	0,39
Construction	4	9,93	0,19	3,11	0,32	0,18
		2,48	0,22	1,10	0,11	0,33
Commerce, services	7	6,02	0,11	1,85	0,38	0,11
		2,83	0,21	1,03	0,29	0,36
Transport, communications	5	13,49	0,13	3,38	0,25	0,05
		6,18	0,17	3,64	0,18	0,16
Property	5	12,80	0,11	2,68	0,20	0,07
		5,94	0,21	2,48	0,11	0,22
Banks	25	13,03	0,12	3,60	0,31	0,11
		6,93	0,26	3,80	0,27	0,35
TOTAL	113	10,46	0,12	2,54	0,24	0,13
		5,60	0,22	3,02	0,22	0,35

Source: CNMV, annual report, Fomento 2500 and own calculations.

TABLE 5: Board size and board turnover by year

	1989	1990	1991	1992	1993	1994	1995	Mean
Number of directors	9.32 (5.24)	10.03 (5.81)	10.35 (5.49)	10.90 (5.99)	10.73 (5.83)	10.57 (5.48)	11.17 (5.21)	10.46 (5.59)
Board turnover		0.076 (0.142)	0.106 (0.169)	0.116 (0.199)	0.152 (0.252)	0.194 (0.292)	0.094 (0.198)	0.123 (0.218)
Number of insiders	2.45 (2.60)	2.33 (2.94)	2.60 (3.14)	2.76 (3.37)	2.65 (3.26)	2.52 (2.92)	2.46 (2.82)	2.54 (3.02)
Proportion of insiders	0.253 (0.23)	0.278 (0.27)	0.272 (0.25)	0.237 (0.21)	0.234 (0.20)	0.228 (0.19)	0.211 (0.20)	0.244 (0.22)
Insider turnover		0.061 (0.26)	0.125 (0.38)	0.119 (0.35)	0.149 (0.34)	0.144 (0.33)	0.148 (0.43)	0.125 (0.35)

Source: CNMV, annual report, Fomento 2500 and own calculations.

All values are means. Standard deviation in parentheses.

TABLE 6: Turnover cases.

	Turnover = 0	Turnover > 0	Missing values	Total
ROTCONBA	339	329	10	687
ROTINTBA	464	116	98	687
ROTEXTBA	369	295	14	687

TABLE 7: Board turnover and firm performance in 1990-95 (pooled data)

We estimate, using Tobit, the follow model:

$$\text{TURNOVER} = \alpha + \beta * \text{PERFORMANCE} + \varepsilon$$

We regress three endogenous variables: total board turnover (rotconba), insider turnover (rotintba) and outsider turnover (rotextba) with several performance measures. Standard error is in parentheses.

	n°obs.	α	β	Log L
ROTCONBA				
Bt-1	594	0.0399 (0.017)	-0.4920*** (0.119)	-300.0
Bt-2	573	-0.0104 (0.019)	-0.1787 (0.142)	-307.3
Rt-1	641	-0.0246 (0.018)	-0.0674** (0.032)	-343.6
Rt-2	634	-0.0265 (0.017)	-0.1191*** (0.031)	-331.2
Bt-1_CS	594	-0.0811 (0.017)	-0.3972*** (0.124)	-302.7
Rt-2_CS	631	-0.0340 (0.018)	-0.1080*** (0.039)	-333.9
VAR_B	539	-0.0559 (0.018)	-0.2838** (0.139)	-277.6
VAR_R	615	-0.0203 (0.018)	0.0298 (0.029)	-326.8
ROTINTBA				
Bt-1	518	-0.9248*** (0.117)	-1.0710** (0.456)	-319.9
Bt-2	499	-0.9189*** (0.119)	-0.5502 (0.533)	-305.5
Rt-1	557	-0.9669*** (0.116)	-0.3471*** (0.139)	-338.5
Rt-2	551	-0.9617*** (0.116)	-0.2824** (0.130)	-330.8
Bt-1_CS	518	-0.9510*** (0.118)	-1.0368** (0.468)	-320.3
Rt-2_CS	549	-0.9777*** (0.118)	-0.2258 (0.165)	-331.9
VAR_B	472	-0.9223*** (0.121)	-0.5822 (0.499)	-293.8
VAR_R	536	-0.9619*** (0.118)	-0.0226 (0.096)	-326.7
ROTEXTBA				
Bt-1	592	-0.0507** (0.023)	-0.4539*** (0.156)	-363.5
Bt-2	570	-0.0986*** (0.029)	-0.1787 (0.218)	-397.7
Rt-1	637	-0.1152*** (0.027)	-0.0774* (0.048)	-438.4
Rt-2	630	-0.1186*** (0.027)	-0.1496*** (0.047)	-424.6
Bt-1_CS	591	-0.0614*** (0.023)	-0.3259** (0.162)	-365.1
Rt-2_CS	627	-0.1288*** (0.027)	-0.1403*** (0.058)	-426.2
VAR_B	537	-0.0548** (0.024)	-0.2229 (0.174)	-336.0
VAR_R	611	-0.1110*** (0.028)	0.0433 (0.034)	-418.3

*** p<0.01

**p<0.05

*p<0.1

TABLE 8: Impact of board structure on insider turnover in 1990-95 (pooled data)

We estimate, using Tobit, the follow model:

$$\text{ROTINTBA} = \alpha + \beta_1 * \text{PERFORMANCE} + \beta_2 * \text{EXT_TOT} + \varepsilon$$

Standard error is in parentheses.

	Dependent variable: Insider turnover (ROTINTBA)			
	(1)	(2)	(3)	(4)
n° observ.	518	518	551	549
const.	-0.8419*** (0.265)	-0.8689*** (0.264)	-0.8664*** (0.253)	-0.8811*** (0.256)
Bt-1	-1.078** (0.458)			
Bt-1_CS		-1.0437** (0.471)		
Rt-2			-0.2798** (0.131)	
Rt-2_CS				-0.1869 (0.166)
EXT_TOT	-0.1211 (0.351)	-0.1202 (0.350)	-0.1392 (0.333)	-0.1357 (0.337)
Log L	-319.9	-320.2	-330.7	-327.6

*** p<0.01

**p<0.05

*p<0.1

TABLE 9: Impact of largest shareholders on board turnover and insider turnover for 1990-1995 (pooled data)

We estimate, using Tobit, the follow model:

$$\text{TURNOVER} = \alpha + \beta_1 * \text{PERFORMANCE} + \beta_2 * C1 + \beta_3 * (\text{PERFORMANCE} * C1) + \varepsilon$$

We use Bt-1 as a measure of performance.

Standard error is in parentheses.

Dependent variable	obs. (log L)	α	β_1	β_2	β_3
PANEL A: ALL COMPANIES					
ROTCONBA	521 (-245.6)	0.0162 (0.028)	-0.9532*** (0.256)	-0.0071 (0.052)	1.5114*** (0.542)
ROTINTBA	465 (-283.7)	-0.7672*** (0.143)	-1.6566 (1.092)	-0.1290 (0.226)	2.9569 (2.235)
PANEL B: LARGEST SHAREHOLDER FINANCIAL COMPANY					
ROTCONBA	248 (-108.1)	0.0821* (0.045)	-1.5016*** (0.557)	-0.0388 (0.080)	1.5605* (0.943)
ROTINTBA	217 (-115.1)	-0.7595*** (0.262)	-6.9621* (3.968)	0.1475 (0.392)	6.5222 (5.973)
PANEL C: LARGEST SHAREHOLDER NON FINANCIAL COMPANY					
ROTCONBA	112 (-35.9)	0.1011** (0.047)	-1.9979*** (0.474)	-0.1196 (0.089)	2.3573* (1.211)
ROTINTBA	107 (-64.8)	-0.1917 (0.212)	-0.0688 (2.110)	-1.0854** (0.469)	-1.9629 (5.719)
PANEL D: LARGEST SHAREHOLDER FOREIGN COMPANY					
ROTCONBA	113 (-64.0)	-0.0499 (0.080)	0.0091 (0.569)	0.0125 (0.130)	0.6327 (1.095)
ROTINTBA	106 (-75.3)	-0.6509** (0.284)	-0.3459 (1.944)	-0.2425 (0.442)	3.4149 (3.498)
PANEL E: LARGEST SHAREHOLDER INDIVIDUAL					
ROTCONBA	48 (-17.9)	-0.0691 (0.072)	-1.5275** (0.704)	-0.2837 (0.572)	4.3349* (2.664)
ROTINTBA	35 (-16.9)	-1.0315 (0.811)	-17.723 (22.095)	-1.7710 (4.650)	35.992 (45.834)

*** p<0.01, **p<0.05, *p<0.1

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