THE EFFECT OF BOARD AND AUDIT COMMITTEE INDEPENDENCE ON EARNINGS MANAGEMENT IN SPAIN

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Abstract

This paper investigates the role played by the board and the audit committee as a mean to improve the quality of financial statements' information in Spanish firms. We use abnormal accruals as a measure of earnings management and therefore as a proxy of the quality of financial statements. Additionally, we analyse from an agency theory perspective whether the ownership structure affects the managerial incentives to manipulate the firms' results. Results show that the board and audit committee independence mitigates accounting manipulation practices. However, we find no evidence that the ownership structure affects the extent of corporate earnings management. We have also found that financial leverage is an incentive for the managers to manipulate accounting figures. Our findings are in line with the Spanish authorities' recommendations to foment the formation of independent mechanisms of control.

Keywords: Board of directors; Audit committee; Ownership structure; Earnings management; Abnormal accruals

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1.Introduction

In the last years, there has been an intense debate about the mechanisms to improve the quality of financial information and avoid accounting manipulation by the managers. The economic scandals derived from accounting fraud have damaged the investors' trust on the financial markets worldwide. Managers can alter the firms' accounting results positively or negatively, being nearly impossible for investors to detect the discretional component of these variations. Among the mechanisms designed to improve the market transparency, the audit committee becomes especially important because it is responsible of the financial statements' verification. In this sense, the Stock Exchange Commission (SEC) recommends the U.S. listed companies to form audit committees from 1972, being this a necessary requisite to be listed from 1978 (Goddard and Masters, 2000).

However the persistence of accounting scandals, even in companies that have formed an audit committee, have lead to a full reconsideration relating the functioning of the audit committees, with special attention to their composition and independence from the managerial team. Consequently, the Treadway Commission (1987), the Cadbury Report (1992), the American Law Institute (1994) and the Blue Ribbon Committee (1999) recommend that the audit committees should be composed by independent directors with an adequate background to perform auditing activities. Moreover, the Sarbanes-Oxley Act (2002), additionally to their independence, establishes that at least one of the members of the audit committee should have a broad experience in the area of finance.

A large body of academic literature has examined the relationship between corporate governance and accounting manipulation, being focused on the board and audit committee independence (Beasley, 1996; Peasnell et al., 2000 and 2005; Klein, 2002; Xie et al., 2003), the expertise of the audit committee members (Xie et al., 2003; Bédard et al., 2004; Choi et al. 2004) and the formation of the audit committee (DeFond and Jiambalvo, 1991; Dechow et al., 1996; Peasnell et al., 2005).

These studies have been mainly conducted in the Anglo-Saxon economies. However, the Spanish context is characterised by an institutional framework that clearly differs from that of the Anglo-Saxon markets. The investors' protection and the supervision exerted by the external mechanisms of control are more intense in the Anglo-Saxon context than in Continental European economies (La Porta *et al.,* 1998).

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Similarly to the U.S. market, Spanish companies have experienced in the last years an intensification of financial control by promoting the formation of independent audit committees. In this sense, the Spanish Code of Best Practices (Código Olivencia, 1998) recommends the formation of such audit committees to verify the financial statements and the internal audit system of the companies. Later, the promulgation of the Law for the Reform of the Financial System (Ley de Medidas de Reforma del Sistema Financiero, 2002) made the formation of audit committees mandatory for all listed companies from January of 2003. Finally, the Aldama Report (2003) recommends forming the audit committees entirely composed by outside directors (independent directors and representatives of large shareholders) in a proportion similar to the board of directors. It is also recommended to choose an independent president for the audit committee.

Being the audit committee a key element to improve the market transparency and return the confidence to the investment community, we analyse the effect of board and audit committee independence on the magnitude of abnormal accruals by the firm (proxy for earnings management). Although we recognize that both independence and expertise of audit committee members are important characteristics for an audit committee to effectively monitor the financial reporting and audit processes, we only study the first feature, that is the independence, due to the lack of information relating the background of the audit committee members for most Spanish listed firms (We have only been able to collect information about the audit committee members' background for 23 Spanish listed firms in year 2003. The scarce available information does not allow us to perform a statistical analysis considering the audit committee competency). Finally, considering that the control of managerial actions is jointly performed by several mechanisms, we also investigate whether abnormal accruals are affected by the firm's ownership structure.

The uniqueness of this paper is that while previous studies are conducted for Anglo-Saxon markets, ours examines the audit committee monitoring activity in a different legal institutional environment. The legal context of the Spanish market based on the civil law provides investors with a weaker protection than the common law characteristic of the Anglo-Saxon financial markets. Therefore, we test whether the variables that affect the audit committee in the Spanish market are effective in constraining earnings manipulation, as previously documented in the U.S. and the U.K. Consequently, our study contributes to extend the empirical research about the relationship between the audit committees and earnings management in a global international context.

Using a sample of publicly traded Spanish firms, we find evidence that the magnitude of earnings management is lower when firms have independent boards and audit committees. The independence may be the key factor to mitigate accounting manipulation practices. The results don't show that the ownership has a significant effect on the extent of corporate earnings management. Finally, financial leverage seems to be an incentive for the managers to manipulate financial statements.

Consequently, our findings are consistent with the Aldama Report recommendation (Spain) and with the Blue Ribbon Panel (U.S.), indicating that a lower level of earnings management is linked to a greater independent outside representation on the board and the audit committee.

The remainder of the paper is organized as follow. Section 2 reviews previous literature and develops our hypothesis about the expected association of the outsiders monitoring activity, and the ownership structure with earnings management. Section 3 analyses the sample and database used. Section 4 describes the statistical methodology and the variables. The results are presented in section 5 and section 6 concludes.

2. Control mechanisms and earnings management

The Spanish Accounting Standards, similarly to the Financial Accounting Standards Board (FASB), impose the use of accrual basis accounting instead of cash basis accounting. Accrual accounting reports income when earned and expenses when incurred, rather than in the periods when cash is received or paid by the firm. Under the accrual method, managers have some discretion as to when income and expenses are recognized[1]. Therefore, financial results can be altered to a certain extent, that is, managers can incur in "earnings management" just by changing the timing of expenses and revenues.

Although managers can use earnings management as a mean to signal private information to investors (Healy and Wahlen, 1999), we focus on its potential negative aspects. The capability of the managers to alter accounting figures increases the information asymmetry between the insiders and the outside shareholders, which damages the interests of the latter. The control activity performed by mechanisms such as the audit committee or the board becomes crucial to alleviate these conflicts.

However, the supervisory activity of the audit committee could be related to other factors that affect the firms' corporate governance process. There are numerous studies that have found evidence of the existence of a relationship between the firms' ownership structure and the intensity of the agency

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[1] For example advancing sales revenue recognition through credit sales or delaying looses by waiting to establish loss reserves (Teoh et al., 1998).

conflicts[2]. There is also a wide range of studies that verify the influence of the board composition and its delegated committees on their capability to mitigate the managerial opportunistic behaviour[3].

Therefore the audit committee efficiency can be reasonably affected by the composition of the board and its committees and the ownership structure of the firms. In this sense, we analyse the possible influence of these variables on the extent of earnings management. Unlike previous studies conducted in Anglo-Saxon markets, we specifically focus on the effect of the ownership structure on the audit committee functioning as a main differential characteristic of the Spanish market compared to the so-called common law countries.

2.1. Board and audit committee composition

After several well-known accounting scandals, such as Enron and WorldCom, the independence of the board and audit committee has been stressed in many cases as one of the most important attributes to preserve the quality of the accounting information.

The composition of the board is a fundamental characteristic that affects its capability to control managerial actions (Fama and Jensen, 1983). There has been considerable evidence supporting the hypothesis that independent directors protect shareholders when there is an agency problem (Weisbach, 1988; Bird and Hickman, 1992).

A board dominated by the managers presents a severe limitation to control the managerial decisions against the shareholders' interests, including the manipulation of accounting figures. According to that, Beasley (1996) and Dechow *et a*l. (1996) find that the board independence is related to a lower incidence of financial fraud. Similarly, Klein (2002), Xie et al. (2003) and Peasnell et al. (2005) obtain evidence of a negative association between the board independence and abnormal accruals.

The interests of the managers, mainly remuneration and security in their jobs, would lead the inside directors to extend their influence to the board committees that take decisions relating to those matters. The main aim of the audit committee is to guarantee the reliability of the accounting information issued by the firms. There are numerous evidences about the existence of a negative association between the firm's results and the probability of managerial turnover both in Anglo-Saxon markets (Coughlan and Schmidt, 1985; Beatty and Zajac, 1987; Watts and Wruck, 1988) and in Continental European markets (Kaplan, 1994; Lausten 2002). Therefore, it seems plausible that the managerial team serving their

security interests would try to influence in the audit committee decisions.

The dominance of the board by the insiders, extended also to the audit committee, could therefore hinder the efficiency of the latter to control the audit process. In this sense, Klein (2002) and Bédard *et al*. (2004) Choi *et al.* (2004) report evidence relating the reduction of the earnings management practices achieved by independent audit committees.

Taking into account the positive effect that independent members could have to deter managers from manipulating earnings, we analyse if the inclusion of independent directors in these control mechanisms (board and audit committee) results in the decreasing of earnings management.

2.2. Managerial stock ownership

The managerial stock ownership is an instrument that contributes to reduce agency costs (Bearle and Means, 1932; Jensen and Meckling, 1976). When the managers of a company have a large amount of their company's shares there is an interest alignment between the managers and the rest of the shareholders. The managers benefit directly from their own professional efforts and suffer the negative consequences of their opportunistic actions through the respective positive and negative variations of their shares' market value. Morck et al. (1988) and McConnell and Servaes (1990) find evidence of the alignment effects linked to managerial stockholdings.

Consequently, we expect that the managers, with significant block-holdings, would favour the issue of reliable accounting figures, given the positive wealth effects derived from an improvement of the financial statements' quality and the market transparency. According to that, Warfield *et al.* (1995) obtain evidence of a negative relationship between the managerial stockholings and the absolute value of discretionary accruals.

2.3. The large shareholders

The dispersed ownership structure of the large companies could generate free rider problems, that is, it could hinder the direct managerial supervision by the shareholders (Grossman and Hart, 1980). However, the large shareholders may have incentives to supervise managerial actions given that the increase of their shares' value derived form the direct supervision can compensate the monitoring costs directly incurred. There is evidence of this supervisory role of the large shareholders in the adoption of anti-acquisition amendments (Brickley *et al.,* 1988; Pound, 1988). In the same vein, Kaplan and Minton (1994), Kang and Shivdasani (1995) and Franks *et al.* (1996) find evidence of a positive influence of the large shareholders on the substitution of the top managers of underperforming companies.

Therefore, given the incentives of the large shareholders to supervise managerial actions, and

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[2] See Holderness (2003) for a review of the literature relating the relationship between the ownership structure and the agency conflicts.
[3] See Hermalin and Weisbach (2003) for a review of the literature relating the supervisory role of the board.

taking into account that this type of shareholders are mainly large corporations and institutional investors with monitoring expertise, we expect a positive influence of such shareholders on the quality of financial statements.

2.4. Hypothesis

In the previous epigraphs of this paper, we have argued that the earnings management could be affected by (1) the composition of the board and the audit committee (2) the managerial stock ownership and (3) the dispersion of the ownership structure. According to the theoretical background and empirical evidence exposed, we propose the following hypothesis:

Hypothesis 1: The proportion of independent directors in both the board and the audit committee are negatively associated with the degree of earnings management.

Hypothesis 2: The managerial stockholding is associated with a reduction in the level of earnings management.

Hypothesis 3: Large shareholders are more effective in monitoring the corporate financial accounting process, being more likely a negative relationship with the earnings management.

3. Sample and data

The initial sample contains 116 companies listed on the Madrid stock exchange in year 2003. Table 1 summarizes how the final sample is constructed. We exclude 15 financial services firms because of the differences in accounting methods an the format of financial statements between these companies and non financial firms. We also eliminate from the sample 11 firms due to insufficient data about the board and audit committee structure. The abnormal component of total accruals is estimated with the modified Jones (1991) cross-sectional model (Teoh et al. 1998). The model's parameters are estimated for each 2-digit SIC industry using at least thirty observations. We remove 25 firms from the final sample because the size of the industrial group was not large enough to estimate the modified Jones cross sectional model. In total, these requirements leave 65 observations for the calculation of abnormal accruals.

Table 1 goes about here

Data about boards and audit committees composition were collected from the firms' corporate governance report[4] displayed on their web sites and also from the registers of the CNMV (Spanish SEC). The stock ownership data necessary to calculate the

managerial and the large shareholders' stock ownership have been extracted from the CNMV files. Finally, the accounting data relating the firms' size and financial leverage have been consulted in the files of financial reports of the CNMV.

To summarize the characteristics of the 65 firms that composed our final sample, we have calculated a set of descriptive statistic indicators shown in table 2.

Table 2 goes about here

The audit committees of our sample have an average size of 3.61 members, being 43.89% independent directors, 45,94% representatives of large shareholders and 10.15% executive directors. These data suggest that the listed firms follow the recommendations of the Aldama Report relating the exclusion of the executive members from the audit committee, however a relevant weight of representatives of the large shareholders is observed. The percentage of independent members is lower than the 79.6% and 85% reported by Klein (2002) and Xie *et al.* (2003) for the U.S. market. However, these data can't be compared directly, because in the Anglo-Saxon context the category of outsider representative of a large shareholder (dominical in Spain) is not considered and in the Spanish context the category of affiliated outsider is not considered either.

The audit committees of our sample are fairly active and meet on average 4.84 times in year 2003. This meeting frequency is slightly higher than the 4 meetings per year recommended by the Foundation of Financial Studies (Fundación de Estudios Financieros, 2003), or the two meetings recommended by the Cadbury Report or the Mertzanis Report.

The boards of the sample firms have an average size of 12.44 members, being 22.88% executives, 31.44% independents and 45.67% representatives of the large shareholders. These values are similar to those reported in the Spencer Stuart Board Index for the Spanish listed firms in 2003. In this report, based on a sample of 78 Spanish listed firms, the average board size is 12.6 members with a 20% of executive directors, 36% of independent directors and 44% of representatives of the large shareholders.

In relation to the ownership structure, the mean managerial stock ownership is 10.20%. However, the distribution of this variable is highly dispersed, being its median value only 0.10%. These values clearly differ from the mean of 5.09% and median 0.00% reported by Deli and Gillan (2000) for the U.S. market. The concentration of the ownership structure, represented by the joint stock ownership of the three largest shareholders has an average value of 43.42%. This value is similar for the whole set of firms listed on the Spanish continuous market[5].

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[4] Following the recommendations of the Aldama Report (2003), the article 116 of the Law of Transparency of the Stock Market requires the listed companies to publish an annual corporate governance report. This report has also to be published on the Spanish Security Exchange web site (www.cnmv.es).

[5] The mean value for the stock ownership of the largest and the three largest shareholders for the whole sample of firms listed on the Spanish continuous market are respectively 30.30% and 44.49%. These data point out to the existence in the Spanish market of a highly concentrated ownership structure similar to most Continental European economies.

4. Methodology and variables

To gauge earnings management, we use an extension of the cross-sectional Jones (1991) model used in Teoh et al. (1998)[6]. We label this model as the extended Jones model. We employ discretionary current accruals (DCA) as proxy for earnings management. Teoh et al. (1998) find that discretionary current accruals are most likely to be manipulated. Current accruals (CA) are defined as the change in non-cash current assets minus the change in operating current liabilities[7]: Teoh et al. (1998) decompose current accruals into a non-discretionary component and a discretionary component using the cross-sectional modified Jones model[8](1991).

To identify the non-discretionary current accruals for a given firm observation, we estimate ordinary least square regressions of current accruals on the change in sales from the previous year for all non sample firms with the same two-digit SIC code. At least 30 firm observations are required in a two-digit SIC industry. We use all available firms excluding sample firms. Discretionary current accruals are the residuals from the regression. The book value of total assets of the previous period is used as a deflator to reduce heteroskedasticity:

$$\frac{CA_{jt}}{TA_{j,t-1}} = \alpha_0 \frac{1}{TA_{j,t-1}} + \alpha_1 \frac{\Delta Sales_{jt}}{TA_{j,t-1}} + \varepsilon_{jt}$$

(1)

where j firms belong to estimation sample, $TA_{j,t-1}$ is total assets in year t-1, and $\Delta Sales_{jt}$ is the change in sales in year t for firm j.

The estimates for regression parameters, α_0 and α_1, obtained from this regression are then used to estimate non-discretionary current accruals for the sample firms (NDCA). We use the Dechow et al. (1995) modification and we adjust the change in sales for the change in accounts receivable to avoid the possibility that managers manipulate sales by changing credit terms.

$$NDCA_{it} = \hat{\alpha}_0 \frac{1}{TA_{i,t-1}} + \hat{\alpha}_1 \frac{\Delta Sales_{it} - \Delta REC_{it}}{TA_{i,t-1}}$$

(2)

where ΔREC_{it} is the change in trade receivables in year *t* for sample firm *i*.

Finally, the discretionary current accruals (DCA) is the portion of current accruals subject to manipulation by managers:

$$DCA_{it} = \frac{CA_{it}}{TA_{i,t-1}} - NDCA_{it}$$

(3)

Table 3 provides summary statistics for the discretionary and non-discretionary current accruals for the entire sample. The mean and median values of the discretionary component are respectively –0.0040 and 0.0002. A 50.76 percent of the discretionary current accruals are positive. We have found no evidence of systematic upward or downward earnings management activity[9]. This finding most likely is due to our sample being a relatively random sample with respect to the incentive of managers to manipulate financial statements. In order to capture the combined effect of income increasing and income-decreasing accruals, we use the unsigned discretionary current accruals as a proxy of earnings managements[10]. This variable is employed as the dependent variable in all the subsequent empirical analysis.

Table 3 goes about here

The mean value of the unsigned abnormal accruals is 0.076, being statistically different from zero at the 99% level. This fact suggests the existence of accounting manipulation in Spanish listed firms, although this practice is not systematically aimed to increase or decrease the firms' results.

The independent variables included in our analysis are those considered in the hypothesis proposed. The effect of the board and audit committee composition as a potential determinant of abnormal accruals is considered using the proportion of independent members present in both mechanisms of control (%INDBD and %INDAUD). The second hypothesis analyses the possible effects of the managerial stock ownership (INOWN) on the level of earnings management. To capture the relationship between the dispersion of the firms' ownership structure and the practice of distorting the true financial performance of the company, we have included in our analysis the joint stock ownership of the three largest shareholders (LARGE3). In order to control if the separation of the titles of CEO and president of the board affects the degree of earnings management, we also include a dummy variable (CHAIRCEO) that takes value one when the same person holds the titles of CEO and Chairman of the board and zero otherwise. The separation of the roles of CEO and Chairman of the board is persistently recommended in numerous corporate governance codes[11].

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[6] For a detailed description of this method see Teoh et al. (1998) and Jones (1991).

[7] CA = Δ[current assets – cash] -Δ[current liabilities – current maturity of long-term debt].

[8] Dechow et al. (1995) provide evidence that the modified Jones model is the most powerful to detect earnings management among the alternative models to measure discretionary accruals.

[9] The mean value of the discretionary abnormal accruals for the whole sample is -0.004, being not statistically different from zero (the p value of the t test is 0.83).

[10] Some previous earnings management studies that employ this measurse are Warfield et al. (1995), Becker et al. (1998) and Klein (2002).

[11] This recommendation is included in the Cadbury Report (1992), Dey Report (1994), Cardon Report (1998), Mertzanis Report (1999) and Preda Report (1999). However, in the Spanish case, the Olivencia Code and

We have also included in our analysis controls of size and gearing. Regarding the firm size, Park and Shin (2004) argue that larger firms are more closely scrutinized than smaller firms. Thus, big firms are less likely to be able to hide opportunistic earnings management than smaller firms. Therefore, we would expect a negative relationship between the firm's size and the abnormal accruals. To control this possible effect, we have included in the regression models the log of the book value of the firm's total assets (SIZE).

The use of debt financing could also affect the degree of earnings management, given the accounting certification requirements imposed by the lenders. The interest conflicts between the shareholders and the lenders could make the latter to amplify their supervisory activity in order to avoid any wealth expropriation attempt from the shareholders or the managers (Jensen and Meckling, 1976). Thus, highly leveraged firms may be less able to practice earnings management because they are under close scrutiny of the lenders. The financial leverage of the firm is considered by the inclusion in our analysis of the ratio of total debt to total assets (LEV).

5. Results

5.1 Univariate analysis

Once defined the variables employed in our study, we estimate the Pearson correlation coefficients for all them, as a first approach to test our hypothesis. The correlations are reported in table 4.

Table 4 goes about here

There is a negative and highly significant correlation between the abnormal accruals (AbsDCA) and the proportion of independent directors within the board (%INDBD). This result could suggest that boards structured to be more independent of the managers and the large shareholders are more effective in monitoring the financial accounting process and reducing the ability of the managers to distort the financial statement figures.

We also observe a positive and statistically significant correlation between the abnormal accruals (AbsDCA) and the financial leverage (LEV). Contrarily to what we expected, this result suggests that the existence of a high leverage ratio incentives the managers to manipulate the accounting figures in an attempt to improve the position of the firm to contract new debt or to renegotiate the old one. As far as the financial statements are one of the main information sources to evaluate de solvency of the firm, the managers of highly leveraged firms may have strong incentives to make up the firm's accounts.

Finally, we have found a positive correlation between the board and the audit committee independence (%INDBD and %INDAUD) and a negative correlation between the board independence

(%INDBD) and the large shareholders (LARGE3). A high weight of the independent members in the board entails a high weight of the same kind of members in the audit committee. This result suggests that an independent board would be prone to form an independent audit committee. Additionally the large shareholders with a seat on the Board have also presence on the audit committee decreasing therefore the proportion of independent members on this control mechanism.

As an additional univariate analysis of our hypothesis, we have split our sample in the quartiles of the variables representing the ownership structure of the firm and the composition of the board and the audit committee. We have calculated the mean values of the absolute discretionary accruals for the resulting sub-samples. In order to test the influence of each independent variable on earnings management, we calculate the difference of the absolute discretionary accruals' means between the first and the forth quartile.

The results of the Mann-Whitney's U test show that there is no evidence of a significant impact of the ownership structure on the magnitude of the unsigned discretionary accruals. So, our a priori arguments, about the alignment effects linked to the managerial stock ownership and the supervisory role of the large shareholders do not have sufficient strength to cause measurable effects.

Similarly to our covariance matrix results, we have found evidence of a significant positive effect of the leverage indicator on the extent of earnings management at a confidence level of 99%. This result, as discussed previously, could be due to managerial incentives to improve the solvency image of highly leveraged firms.

Finally, we have obtained lower values of the abnormal accruals in the forth quartile of both the proportion of the board and audit committee independent members, than in the first quartile. These results could support our hypothesis about the supervisory role of independent directors. However, we must be cautious because these differences are not statistically significant at standard levels.

Table 5 goes about here

5.2. Multivariate analysis

In order to achieve a better understanding about the effect of the board and audit committee independence and the ownership structure over the extent of earnings management in the Spanish market, we have estimated the multivariate regression models (1) and

$$ADCA_j = \alpha_j + \beta_1 PAE_j + \beta_2 3GRAND_j + \beta_3 PORICO_j + \beta_4 LNAT_j + \beta_5 FAPT_j + \beta_6 PEJECUTIVO_j + \varepsilon_j$$

(1)

$$ADCA = \alpha + \beta_1 PAE + \beta_2 3GRAND + \beta_3 PORICAUD + \beta_4 LNAT + \beta_5 FAPT + \varepsilon_j$$

(2)

Equation (1) examines the relationship between the board independence and earnings management, while the equation (2) analyses the relationship between the audit committee independence and

Aldama Report admit that the suitability of this separation depends on the specific firm's characteristics.

earnings management. Both models consider the effect of the ownership structure.

The empirical results using equations (1) and (2) are reported in table 6. In this table, the third column reports the results using equation (1) and the sixth (rightmost) column reports those using equation (2). The second and forth columns show the expected signs of the coefficients according to our hypothesis.

Table 6 goes about here

As predicted, the coefficients for the variables representing the percentage of independent members (%INDBD and %INDAUD) in both the board and the audit committee are significantly negative at the 0.10 level. This implies that the proportion of independent directors decreases earnings management, which is consistent with the results of Peasnell et al. (2000, 2005), Klein (2002), Xie et al. (2003). Thus, the board and audit committee composition are related to abnormal accruals, suggesting that the extent of earnings management is lower in firms with a significant proportion of independent members in both mechanisms. These findings support the recommendations about the independence of the board and the audit committee made by most corporate governance codes. Specifically, in the Spanish case, the Aldama report (2003) recommends the formation of audit committees entirely composed by outside directors as a mean to improve the quality of the financial statements.

None of the variables used to measure the ownership structure resulted statistically significant. Similarly to the results of the correlation analysis, we have not obtained a statistically significant relationship between the ownership stock of the large shareholders and the abnormal accruals. This result suggests that the large shareholders do not exert an effective control on the managerial capability to manipulate the accounting information. In this sense, we can't conclude that the high concentration of the ownership structure of the Spanish listed firms provides the small shareholders with an active protection against the manipulation of the financial statements by the managers.

Among the control variables, the financial leverage presents a positive relationship with the earnings management. This result confirms our previous univariate analysis and is consistent with the findings of Klein (2002). This negative relationship suggests that managers may have incentives to make up the accounting figures for their creditors. The managers of highly leveraged firms manipulate earnings in an attempt to favour both the contracting process of new debt and the renovation conditions of the old one.

6. Conclusions

This study analyses the existence of earnings management practices among the Spanish listed firms. This first step allows us to investigate whether the

board and audit committee independence and the ownership structure affect to this practice. The motivation behind this paper is to determine if the recommendations of good governance practice have a positive impact on the quality of the accounting information.

A negative association is found between board or audit committee independence and the extent of earnings management. This result suggests that the inclusion of independent directors in both the board and the audit committee may improve the corporate governance process. Our findings largely support the Aldama Report (2003) and Blue Ribbon Report (1999) recommendations about the formation of audit committees entirely composed by independent members.

Nevertheless, we do not find evidence that the ownership structure restrain abnormal accruals in the Spanish market. Firstly, the managerial ownership stake does not tend to align their interests with those of the shareholders relating the accuracy of the accounting information. Secondly, the concentration of the ownership structure does not reduce managerial manipulation of the firm's results.

An interesting result contrary to the expected control activity performed by the lenders is the positive impact of financial leverage on the extent of earnings management. The assessment of the firm's solvency by the lenders could induce creative accounting practices in highly leveraged firms. This result has been strongly confirmed in the whole set of analysis performed.

We conclude that board and audit committee independence may be an important factor in constraining the propensity of the managers to engage in earnings managements. This evidence has several important implications for regulatory bodies in Spain. The lack of a positive effect of the ownership structure on the corporate governance process and the fact that the external control mechanisms are weak in the Spanish market, stress the importance of fostering the independence of internal mechanisms of control such as the board and the audit committee.

Finally, it seems clear that the independence of the audit committee members is necessary for an efficient control. However, committee members without accounting, finance or business experience may not be skilful enough to detect earnings management practices. Thus, a natural extension of this paper is to examine if the presence of directors with a financial background could deter managers from manipulating financial statements.

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Appendices

Table 1. Sample selection procedure

Initial sample size	116
Financial services companies (banks and insurance)	(15)
Non available information about the board and audit committee structure	(11)
Insufficient observations in the estimation sample	(25)
Final sample size	65

The initial sample is composed by all companies listed on the Madrid Stock Exchange in 2003.

Table 2. Descriptive statistics on a sample of 65 firms

	Obs.	Mean	Median	Maximum	Minimum	St. Deviation
Firm's book value of total assets (in thousands of Euros)	65	2,985,099	769,039	49,189,551	36,510	7,352,364
Gearing ratio (total debt/total assets)	65	0.5488	0.5739	1.1612	0.1428	0.2105
Stock ownership of directors representing large shareholders (%)	65	14.8078	5	76.513	0	20.6152
Stock ownership of executive directors (%)	65	10.2054	0.1070	84.1170	0.0000	21.3559
Stock ownership of independent directors (%)	65	0.3493	0.01	13.761	0	1.7208
Stock ownership of the three largest shareholders (%)	65	43.4214	45.9400	99.2000	0.2201	25.5242
Board size	65	12.44	12	30	5	4.81
Board's proportion of directors representing large shareholders (%)	65	45.67	45.45	91.66	0	21.07
Board's proportion of executive directors (%)	65	22.88	20	62.50	0	13.09
Board's proportion of independent directors (%)	65	31.44	30	78.57	0	18.81
Audit committee size	65	3.61	3	6	2	0.84
Audit committee's proportion of directors representing large shareholders (%)	65	45.94	50	100	0	28.85
Audit committee's proportion of executive directors (%)	65	10.15	0	40	0	15.03
Audit committee's proportion of independent directors (%)	65	43.89	33.33	100	0	28.79
Meeting frequency of the audit committee	52	4.84	5	13	0	3.08

Table 3. Current accruals description

	Mean	Median	Maximum	Minimum	Std. dev.	% Positive
Total accruals	-0.0106	-0.0002	0.3310	-0.4540	0.0861	46.15
Non-discretionary accruals	0.1353	0.1654	0.4999	-0.4084	0.1716	50.76
Discretionary accruals	-0.0040	0.0002	0.6114	-0.8298	0.1577	50.76
Abs. discretionary accruals	0.0765	0.0284	0.8298	0.0002	0.1376	100

Total current accruals (CA) are deflated by the book value of total assets from the prior year. The current accruals' indicators are calculated for our final sample of 65 observations.

Table 4. Correlation matrix

	AbsDCA	INOWN	LARGE3	%INDBD	%INDAUD	SIZE	LEV
AbsDCA	1						
INOWN	-0.100 (0.430)	1					
LARGE3	0.042 (0.742)	0.134 (0.287)	1				
%INDBD	-0.266 (0.032)**	0.027 (0.833)	-0.271 (0.029)**	1			
%INDAUD	-0.194 (0.122)	0.033 (0.792)	-0.160 (0.204)	0.716 (0.000)***	1		
SIZE	-0.069 (0.585)	-0.275 (0.026)**	-0.038 (0.763)	0.181 (0.149)	0.068 (0.593)	1	
LEV	0.321 (0.009)***	-0.044 (0.728)	0.007 (0.959)	-0.075 (0.551)	-0.034 (0.788)	0.219 (0.080)*	1
AbsDCA	Absolut value of discretionay accruals						
INOWN	Stock ownership of executive directors (%)						
LARGE3	Stock ownership of the three largest shareholders (%)						
%INDBD	Board's proportion of independent directors (%)						
%INDAUD	Audit committee's proportion of independent directors (%)						
SIZE	Log of the book value of total assets						
LEV	Debt to total assets ratio (book values)						

Pearson correlation coefficients.
*, **;*** significant at the 10%, 5% and 1% levels respectively.

Table 5. Univariate analysis

	1st quartile	2nd quartile	3rd quartile	4th quartile	*Difference Test*
	Mean	Mean	Mean	Mean	U de Mann Whitney
INOWN	0.068135	0.050166	0.135182	0.041129	117 (0.937)
LARGE3	0.034742	0.114506	0.107257	0.043135	111 (0.722)
%INDBD	0.149330	0.048066	0.069675	0.034472	91 (0.105)
%INDAUD	0.092079	0.098389	0.071705	0.019881	96 (0.234)
SIZE	0.042781	0.101922	0.088224	0.072185	124 (0.939)
LEV	0.029863	0.034556	0.048998	0.162448	51 (0.004)

This table reports the mean absolut discretionary accruals for the subsamples originated by splitting the sample in the four quartiles for each independent variable. The last column shows the Mann Whitney's U and its p values that test the absolute abnormal accruals mean's difference between the first and last quartile for each independent variable.

Table 6. The effect of board and audit committee characteristics on abnormal accruals

Board variables	Expected sign	Model 1	Audit. committee variables	Expected sign	Model 2
Constant		0.167 (1.172)	Constant		0.069 (0.661)
INOWN	–	-0.001 (-0.755)	INOWN	–	-0.001 (-0.848)
LARGE3	–	-0.00008 (-0.123)	LARGE3	–	0.000 (0.505)
%INDBD	–	-0.158 (-1.703)*	%INDAUD	–	-0.069 (-1.672)*
SIZE	–	-0.010 (-0.962)	SIZE	–	-0.006 -0.746
LEV	–	0.218 (2.730)***	LEV	–	0.180 (3.118)***
CHAIRCEO	–	-0.023 (-0.679)			
Adjusted R^2		0.106	Adjusted R^2		0.125
F		(2.269)**	F		(2.799)**

Ordinary least squares (OLS) regressions are calculated for our final sample of 65 observations. The dependent variable is the absolute value of discretionary current accruals (AbsDCA).
*, **;*** significant at the 10%, 5% and 1% levels respectively.