Board characteristics and audit fees: why ownership structure matters?

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Abstract

Analyzing 247 French and Spanish listed companies, we evaluate the influence of the ownership structure and the board of directors on the demand for external audit services. We argue that controlling shareholders influence the priorities of the board to focus on the provision of resources rather than monitoring. In contrast, boards in widely–held firms have a stronger focus on monitoring. To test our arguments, we explore how the relationship between the board of directors and the demand for audit is contingent on the firm’s ownership structure. Our results show that the ownership structure has a significant influence on the board’s priorities and the demand for audit. In addition, we uncover that for widely–held firms, board independence and CEO duality are positively related to the audit fees. In contrast, for closely–held firms, the relationship between board characteristics and the demand for external audit becomes insignificant.

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ABSTRACT

Analyzing 247 French and Spanish listed companies, we evaluate the influence of the ownership structure and the board of directors on the demand for external audit services. We argue that controlling shareholders influence the priorities of the board to focus on the provision of resources rather than monitoring. In contrast, boards in widely-held firms have a stronger focus on monitoring. To test our arguments, we explore how the relationship between the board of directors and the demand for audit is contingent on the firm’s ownership structure. Our results show that the ownership structure has a significant influence on the board’s priorities and the demand for audit. In addition, we uncover that for widely-held firms, board independence and CEO duality are positively related to the audit fees. In contrast, for closely-held firms, the relationship between board characteristics and the demand for external audit becomes insignificant.

Key Words: ownership structure, board of directors, audit demand, monitoring, provision of resources

JEL classification: G3; G32; G34
BOARD CHARACTERISTICS AND AUDIT FEES: WHY OWNERSHIP STRUCTURE MATTERS?

INTRODUCTION

External statutory auditors are a critical piece of the corporate governance puzzle because they are an essential tool to guarantee the protection of investors’ rights. More precisely, they attest that all shareholders are equally treated and that financial statements are in conformity with contractual commitments. Thus, audit quality may improve the confidence of investors in financial reporting, facilitate the assessment of the objective situation of the firm, and increase fund-raising possibilities. The auditor considers the board, who reviews the overall planned audit scope and the proposed audit fee, as its client (Blue Ribbon Committee, 1999). Furthermore, OECD Principles of Corporate Governance (2004) state that board members should act on a fully informed basis, in good faith, with due diligence and care, and in the best interests of the company and the shareholders. In most jurisdictions (e.g., Canada, France, Germany, Italy, Mexico, Spain, Switzerland, the UK and the US), these fiduciary duties take the form of statutory obligations, with some of them (e.g., Canada, the US) having extensive case law and jurisprudence on their actual application (Aguilera and Cuervo-Cazurra, 2009). In this sense, Carcello et al. (2002) argue that the board of directors may seek to protect its reputational capital to avoid legal liability and to promote shareholders’ interests by putting pressure on CEOs and management in requesting more audit services. They find that independent boards are successful at enhancing the audit scope, while boards dominated by executives are more dormant and demand fewer external audit services.

Although, an extensive body of literature has emerged examining the level and nature of audit fees in organizations (e.g. O’Sullivan, 2000; Carcello et al. 2002, Abbott et al. 2003), Hay, Knechel and Wong (2006) conducted a meta-analysis of audit research over the last 25 years and
revealed that 134 out of 147 studies focus on firms from countries with an Anglo-Saxon legislation. These authors also suggest that, on the basis of their observations about anomalies, inconsistencies, and gaps in the previous literature, future research should study how different forms of ownership and local institutional structures affect audit fees across companies. In addition, recent comparative studies on boards of directors (Aguilera, 2005, Pugliese et al., 2009) emphasize the development a broader view of corporate governance that accounts for the different national institutions in which corporate governance practices are embedded. For example, Aguilera (2005) argues that national institutions, such as the ownership structure or the enforceability of corporate regulations, tend to enable as well as constrain diverse corporate governance mechanisms, and that a better understanding of the role of boards of directors in different institutional settings is needed to properly address how to increase board accountability.

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Insert Table 1 about here

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Our study focuses on French and Spanish firms and investigates how board characteristics affect the demand for external audit, and how firm ownership structure moderates this relationship between board and audit fees (see Figure 1). In 2007, the total audit fees paid by the French CAC-40 firms were $1029 million, while the Ibex-35 firms paid a total of $443 million. The main objective of statutory auditors is to protect investors’ rights. A comparison with previous studies, using mainly U.S. data, proves especially interesting given the peculiarities of these Continental European economies. Despite the integration of financial markets, corporate financing and governance practices remain very different in the US or the UK.
compared to Continental European countries, like France or Spain (Aguilera et al. 2008; Enriques and Volpin, 2007).

The role of the market forces in monitoring managers’ behavior is certainly weaker in France and Spain than in Anglo-American countries. Indeed, the contribution of financial markets in corporate financing is lower, and external monitoring mechanisms such as takeovers, the market for managers and nonexecutive directors, remain marginal in the corporate governance process. The French and Spanish environments are characterized by entrepreneurship culture and high managerial power: most public companies exhibit concentrated ownership and are controlled by a large single shareholder (Goyer, 2006a, 2006b; Aguilera, 2005; Crespi and Garcia-Cestona, 2001; De Miguel, Pindado and de la Torre, 2004). Controlling shareholders directly monitor managers’ actions and the accounting production process. Therefore, drawing on a sample of large French and Spanish firms allows us to investigate the board of directors’ demand for external audit in the context of a non-Anglo-Saxon institutional environment where firm ownership is generally much more concentrated and shareholder rights are weak (La Porta et al. 1997). Additionally, focusing on companies from countries with a tradition of low litigation risk also permits testing the importance of the director’s legal liability on the demand for audit.

Previous studies on audit fees typically use samples of large US or UK listed firms (O’Sullivan, 2000; Carcello et al. 2002, Abbott et al. 2003), which are comprised of mostly firms with dispersed ownership. Although a few studies have included ownership type to explain differences in audit fees (e.g., O’Sullivan and Diacon, 2002), the empirical results about the influence of ownership control on audit fees are mixed (Hay et al., 2006). While these studies focus on a direct relationship between audit fees and measures of ownership, we are unaware of
any study that investigates whether the ownership structure moderates the demand for audit through the functions of the board of directors. Furthermore, the studies considering the link between board characteristics and audit fees invoke an agency approach, which assumes that the board’s main objective is always to monitor management. The strategic management literature has conceptualized more broadly the role of the board of directors. Zahra and Pearce (1989) and Hillman and Dalziel (2003) identify the two main functions of the board of directors as monitoring and providing resources (e.g., legitimacy, advice and counsel, links to other organizations, etc.). Specifically, scholars drawing on the resource dependency perspective argue that boards can link the organization with its environment by establishing important contacts and providing access to timely information through personal and professional networks (Pfeffer and Salancik, 1978; Boyd, 1990; Hillman, Cannella and Paetzold, 2000; Van Ees, Gabrielsson and Huse, 2009).

In practice, boards both monitor and provide resources (Korn/Ferry, 1999). However, the priorities of the board of directors are not independent from the context in which the company operates. In this paper, we argue that (1) ownership structure directly influences the characteristics and the priorities of the board of directors, and (2) that the demand for external audit services by the board of directors depends on the board’s primary focus. First, the monitoring role of the board is most important when ownership is diffused. Shareholders in firms with dispersed ownership have, collectively, a greater need to draw on the board of directors to monitor that indeed the managers are fulfilling their fiduciary duties. In contrast, when ownership is concentrated, large shareholders, who are already motivated to monitor management, have more influence beyond the board as well as access to valuable information and alternative corporate governance mechanisms to discipline the managers if necessary. In fact, a
A recent study by Fernández Méndez and Arrondo García (2007) shows a negative effect of large shareholders on audit committee activity, possibly as a result of substitution between alternative control mechanisms. In addition, Brunninge and Nordqvist (2004) reveal that family firms are more reluctant to involve independent directors on their boards than non-family firms and that ownership has an impact on board roles. Second, boards with a strong focus on monitoring are more likely to favor a higher demand of audit services relative to boards with a focus on providing resources to management.

Our results show that the ownership structure has a moderating effect on the relationship between the demand for audit and board characteristics. For firms with dispersed ownership, we find that both board independence and CEO duality (i.e., the CEO also serves as Chairman of the Board) are significantly related to audit fees, similar to the findings for Anglo-American companies. In contrast, for closely held firms, the relationship between board characteristics and the demand for external audit is insignificant. These findings are in line with our argument that a firm’s ownership structure has an important influence on the behavior of the board of directors.

This paper contributes to the corporate governance literature by offering greater insight into the influence of ownership structure on corporate governance mechanisms. In particular, we find that the influence of the board of directors on the demand for external audit is contingent on the ownership structure. In addition, our results add to the comparative corporate governance literature by showing how the ownership structure may help to explain cross-national differences in governance practices. This paper also has implications for policymakers and the corporate governance reforms made after the accounting scandals in the United States (Enron, WorldCom, Adelphia) and in Europe (Parmalat). It shows that regulation with respect to board independence may not be effective since a similar degree of board independence may lead to different behavior.
depending on the board’s priorities. Therefore, corporate governance recommendations with respect to the board composition may need to consider the influence of ownership structure. Furthermore, our study shows that even in countries with a lower risk of lawsuits against board members, non-executive board members tend to demand for more audit services. This indicates that the higher demand for audit by outside board members is not only driven by the fear of facing a lawsuit. Finally, this research adds to the auditing literature by introducing the resource provision argument to explain total audit fees.

PRIOR RESEARCH AND THEORETICAL FRAMEWORK

Research on drivers of audit fees has traditionally explained the determinants of audit fees from a production-based view. The stream of literature shows that audit fees are influenced by factors related to the size of the organization, complexity, inherent risk, and litigation risk amongst others. In other words, more hours will be put into an audit to assure the accounting numbers presented reflect reality, leading to a higher audit fee, when a company is large, complex and has a high risk of accounting errors. Recently, studies focusing on the relationship between audit fees and corporate governance have introduced a new approach. Following a production-based approach, good corporate governance practices, such as the existence of independent board members, are expected to improve the control mechanisms and reduce the need for external auditing, leading to lower audit fees. However, Hay and Knechel (2004) highlight the importance of the demand effect which may lead to the opposite result: independent directors may demand more auditing in order to fulfill their responsibilities, to protect their reputations and to discharge their responsibility of due diligence. Specifically, Hay and Knechel (2004) argue that the demand for auditing is a function of the set of risks faced by individual stakeholders in an organization (management, shareholders, creditors, etc.) and the set of control
mechanisms available for mitigating those risks. Because individual decisions concerning control processes and procedures may shift both benefits and costs across groups of stakeholders, the net investment in auditing may increase (Knechel and Willekens, 2006). Empirical research has confirmed that the board of directors behaves in accordance to the demand-effect for audit (Hay et al., 2006; Carcello et al., 2002).

**Board Independence and External Audit Fees**

Researchers studying the monitoring function have coalesced in their general preference for boards dominated by independent outside directors (Barnhart, Marr, and Rosenstein, 1994; Daily, 1995; Daily and Dalton, 1994a, b; Weisbach, 1988). They argue that boards consisting primarily of insiders (current or former managers/employees of the firm) or those outsiders who are not independent of current management or the firm (because of business dealings, family/social relationships, etc.) have less incentive to monitor management, due to their dependence on the CEO/organization. Boards dominated by outside, nonaffiliated directors, however, are thought to play more effective monitoring roles because of their fiduciary duty towards shareholders and their independence from management.

Hay and Knechel (2004) state that an independent board will be more concerned about discharging its monitoring role and, therefore, will put pressure on management to enhance the external audit function. Clearly, independent board members may be more concerned about their personal exposure if managers misbehave and, therefore, they are more interested in an extensive audit testing in order to minimize the risk of managerial misbehavior that could affect their personal liability. Furthermore, independent board members reduce their responsibilities, without bearing the costs (Carcello et al., 2002). This suggests that companies with greater board independence will seek a more comprehensive audit.
**CEO duality and external audit fees**

CEO dominated boards are likely to exist when the CEO and chairman of the board are the same person, i.e. CEO duality. The CEO duality breaks the balance of powers between the top management team and the board, potentially restricting the board's effectiveness in controlling managerial initiatives and actions (Boyd et al., 2005). Furthermore, CEO duality increases information asymmetry between the CEO and the board, which may become a primary source of agency problems (Eisenhardt 1989). Presumably, CEOs have unparalleled superior knowledge regarding the industry and the firm's internal conditions and dual CEOs as board chairpersons can more easily tailor content and information to the boardroom. As a result, CEO duality can influence on the board decision-making processes. Therefore, combining the positions of CEO and board chairperson weakens boards' effectiveness in controlling and monitoring functions (Aguilera 2005).

Research on corporate governance suggests that less effective boards may be associated with more powerful CEOs (Daily and Dalton 1994; Kosnik 1987; Pearce and Zahra 1991). McNulty and Pettigrew (1999) have found that the boards most actively and widely involved in governance are those where power is more widely dispersed, rather than concentrated in the CEO. In addition, Gul and Leung (2004) show that CEO duality is associated with lower voluntary disclosure. Since the audit report can be considered to be an instrument of supervision over the managers, the latter may be assumed to have powerful incentives to limit this external
supervision exercised by the auditors. This is especially the case when the opinion of the auditors may indicate inefficiencies or irregularities in the managers’ performance with respect to the use of company resources. Therefore, managers may impose limits on the supervision by the auditors, restricting the scope of the auditors’ investigations and scrutiny. In the presence of a dominant CEO, non-executive directors are expected to have reduced influence in seeking an intensive audit, and consequently companies with CEO duality are more likely to request a lower demand for external audit (O’Sullivan, 2000).

**H2: The demand for external audit is negatively related to CEO duality**

**Ownership structure and external audit fees**

According to the production-based view, the amount of audit fees charged by the audit company will be a function of the ownership structure if the perceived risk of the task, or the amount of work related to the task, is higher in one ownership structure compared to another. The three most common metrics used to proxy for ownership are dichotomous variables for public versus private companies, stock versus mutual companies, and the presence of a large shareholder. In the latter case, the existence of a dominant shareholder could either indicate higher agency costs or stronger control (Amit and Villalonga, 2006), with potentially conflicting effects on audit fees.

Chan et al. (1993) suggest that shareholders in companies with widely dispersed ownership are more likely to rely on auditing as one of the means of monitoring managerial behavior (in addition to other mechanisms such as an independent board or lack of CEO duality). Essentially, as ownership becomes more dispersed, direct monitoring by shareholders becomes
more costly and greater reliance on the audit as a mechanism of governance is expected. In the case of companies with more concentrated ownership, block shareholders possess a greater incentive to actively monitor managerial behavior due to the size of their equity holdings and the likely cost to them of any non-value-maximizing behavior by managers, hereby reducing the need for external auditing (sometimes at the expense of minority shareholders). For a sample of UK listed companies, O’Sullivan (2000) shows that audit fees are negatively related to the proportion of equity owned by executive directors, but finds no evidence that ownership by large blockholders (institutional or otherwise) has a significant impact on audit fees. Mitra et al. (2007) study U.S. listed firms and find evidence of a significantly positive relationship between diffused institutional stock ownership (i.e., having less than 5 percent individual shareholding) and audit fees, and a significantly negative relationship between institutional blockholder ownership (i.e., having 5 percent or more individual shareholding) and audit fees. The authors also document a negative relationship between managerial stock ownership and audit fees. In light of the corporate governance mechanism and previous research in the context of the Anglosaxon institutional environment, we propose that:

\[ H3: \text{The demand for external audit is lower for closely held firms relative to widely held firms.} \]

**Moderating effect of the ownership structure**

Our conceptual arguments are in line with research done in the context of the Anglo-Saxon governance system with high minority shareholder protection rights and high director liability (Shleifer and Vishny, 1997; Aguilera, 2005). Although as discussed above, several studies have demonstrated a positive relationship between board independence and the demand
for external audit (O’Sullivan, 2000; Carcello et al., 2002; Abbott et al., 2003; Hay and Knechel, 2004), we would like to propose that this positive relationship between independent boards and auditing fee services might be moderated by the firm’s ownership structure. In particular, we argue that ownership structure directly influences the characteristics and priorities of the board and that the relationship between board independence and audit fee is influenced by the priorities of the board of directors.

The monitoring role of independent directors is most important when ownership becomes diffuse. Shareholders in firms with dispersed ownership have, collectively, a greater need to draw on the board of directors to monitor the managers. In contrast, when ownership is concentrated, large shareholders, who are already motivated to monitor management, have more influence beyond the board as well as access to valuable information and alternative corporate governance mechanisms to discipline the managers if necessary (Heflin and Shaw, 2000). In addition, these shareholders can also engage with management in setting corporate policy (Bhagat et al., 2004). It is also important to note that the proportion of truly independent board members is likely to be smaller in companies with controlling majority owners, giving truly independent directors less leverage to stand against management or the controlling owners’ interests. In this context, Brunninge and Nordqvist (2004) reveal that family firms are more reluctant to involve independent directors on their boards than non-family firms and that ownership has an impact on board roles. Fernández Méndez and Arrondo García (2007) also show a negative effect of large shareholders on audit committee activity. Therefore, a board of directors may, on the one hand, serve the purpose of controlling shareholders better when focusing on the provision of resources, by bringing in directors with expertise in the industry or political power to help maximize firm value, rather than focusing on monitoring. On the other
hand, we can expect firms without controlling shareholders to have boards acting very similarly to Anglo-Saxon boards, where the monitoring role is crucial to reduce the agency conflict between dispersed shareholders and management.

Boards with a strong focus on monitoring are more likely to favor a higher demand of audit services relative to boards with an emphasis on providing resources to management for a number of reasons. First, board members are hired taking into consideration their abilities or resources they can potentially offer. Hence, boards with a focus on the provision of resources are likely to have a higher proportion of board members with strategic skills or resources and fewer board members with financial expertise and monitoring skills. Second, boards in companies with controlling shareholders generally have a larger proportion of board member representing controlling shareholders, who are better informed, have direct access to management and a lesser need to rely on external audit. Third, the relationship between management and the board members is likely to be less hostile when the focus is on resource provision compared to monitoring. In addition, when a board is considered to be a tough monitor, the CEO may be reluctant to share information with it. Therefore, with more information available and better communication, independent board members may have less need to rely on the external auditor.

In a related context, Randøy and Jenssen (2004) argue that firms in highly competitive industries will already be ‘monitored’ by the market and, therefore, they should have fewer independent board members. In effect, they find a negative relationship between board independence and firm performance in industries with highly competitive product markets among publicly traded Swedish firms. They attribute this detrimental effect on the predominance of the director’s resource function over the monitoring function. We argue that the demand for audit by independent board members will be stronger in firms where dispersed owners rely
strongly on the board of directors to monitor management than in firms where controlling owners.

**H4:** *The demand for external audit by independent board members is significantly lower for closely held firms relative to widely held firms.*

According to agency theory, dual CEO role creates a strong individual power base, which could impair board independence and the effectiveness of its governing function may thus be compromised. However, Maitlis (2004) shows that an influential CEO can be a positive force in organizational governance, and may even increase a board’s effectiveness. The argument is that because an independent board is a tougher monitor, the CEO may be reluctant to share information with it. If the board of directors is designed to improve managerial decision making, the presence of the CEO on the board could improve the information flow towards the board members, as well the interactions and discussions, leading to more valuable advice (Desender, 2009).

We argue that firm’s ownership structure has a moderating effect on the relationship between the CEO duality and the audit scope. Independent board members will more easily enhance the audit scope when the board is not dominated by the CEO, and we suspect this effect to be weaker when the focus of the board of directors is on the provision of resources rather than on monitoring because of two reasons. First, when independent board members are pushing hard to enhance the audit scope, the CEO duality is likely to play a more important role compared to when the demand by board members is lower. Second, Adams and Ferreira (2007) argue that the CEO faces a trade-off in disclosing information to the board because if she reveals her
information, she gets better advice but a better informed board will also monitor the CEO more intensively. Therefore, the CEO may enhance the information flow towards the board members when the board’s priority is to assist management strategically rather than monitor its actions. Better communication and increased levels of disclosure could reduce the need for external auditing and increase the understanding between management and board members (Forbes and Milliken, 1999; Van hees et al., 2009). This effect is likely to be stronger when the CEO is also chairman of the board of directors. Therefore, the relationship between the demand for audit and CEO duality may be different depending on the priorities set by the board of directors.

**H5:** The demand for external audit by boards with CEO duality is significantly lower for closely held firms relative to widely held firms.

**SAMPLE DESCRIPTION AND METHODOLOGY**

To test our proposed hypotheses we consider all non-financial firms listed on the Madrid stock exchange (Spain) and the large and mid-sized non-financial firms on the Paris stock exchange (France). Financial institutions are excluded because their accounts and the auditing process are significantly different. The data is collected for fiscal year 2007. The audit fee data and the control variables relating to balance sheet information and complexity of operations come from Worldscope. The corporate governance data was manually collected from company annual reports and corporate governance reports. Finally, the data on ownership structure comes from the Spanish database Sabi (Bureau Van Dijk) and the French database COFISEM.

**French and Spanish audit context**
Compared with the United States, French regulations on auditing display at least three specific and unique features. First, auditors in France are appointed for a six-year mandate. The auditors are not supposed to change during this six-year period; they cannot resign and cannot be dismissed during this six-year period, except under exceptional circumstances. The audit mandate can be renewed without limitation for additional six-year periods, except for listed companies for which a law on financial security (*Loi de Sécurité Financière*) introduced in 2003 a mandatory partner rotation every six years. Second, non-audit activities by statutory auditors are restricted. The average amount of non-auditing services is less than 5 percent for CAC-40 firms (AMF, 2008). Third, every listed French company which reports consolidated financial statements has to hire at least two auditors, in accordance with Article L.823-2 of the French commercial Code. This French specific feature, called joint-auditing, was instituted to allow a dual control. In practice, in case of joint-auditing, the audit report is signed by the two audit partners from different audit firms, which are jointly liable for the issued opinion. Liability cannot be capped by law or by contract. Legal action against a statutory auditor can be undertaken within three years after the issue of the auditor’s report, although compared with the United States, litigation rates in France are low (Piot and Janin, 2005).

The Spanish audit market also presents some peculiarities that differentiate it from markets in other countries. Spanish legislation permits hiring the auditor for a minimum of three years and a maximum of nine. In any case, when the initial contract has expired, the company can again hire the same auditor renewing his contract on a yearly basis. Additionally, the engagement can be broken when the company wishes. The only requirement is the existence of a “just cause”, but the law does not clarify what this just cause may be. A company can, therefore, hire and fire the auditor without any time limitation. Non-audit services are also relatively small
in Spain, although legal restrictions are less severe than in France. For an average Ibex-35 firm, less than 25 percent of the total audit fee stems from non-audit fees. Finally, Spanish listed firms typically have only one auditor.

The audit market in France and Spain consists currently of the international Big 4 audit firms (KPMG, Ernst & Young, PricewaterhouseCoopers, Deloitte), plus several second-tier firms and numerous small accounting firms.

**French and Spanish corporate governance context**

As noted in the World Bank's 2008 “Doing Business Report”, investor protection in both Spain and France is below the average achieved by member states of the OECD. The Investor Protection Index is a subcomponent of the World Bank's 2008 Doing Business Indicators, and consists of three dimensions of investor protection: transparency of transactions (Extent of Disclosure Index), liability for self-dealing (Extent of Director Liability Index) and shareholders' ability to sue officers and directors for misconduct (Ease of Shareholder Suits Index). The indexes range from 0 to 10, with higher values indicating greater disclosure, greater liability of directors, greater powers of shareholders to challenge the transaction, and better investor protection. France scores 10, compared to a score of 5 for Spain, in the disclosure index (US scores 7, while the OECD average is 6.4). With respect to the Director Liability Index, France scores 1 while Spain scores 6 (US scores 9, while the OECD average is 5.1). Finally, France scores 5 in the Shareholder Suits Index, compared to a score of 4 for Spain (US scores 9, while the OECD average is 6.5).

The Spanish corporate governance is characterized by a single board structure, which is often dominated by the representatives of large shareholders. Concerning French companies, they have historically (since 1966) been given the choice between the one-tier model with the
board of directors (conseil d’administration) on top and the two-tier model with the Supervisory board (conseil de surveillance) as the second board was introduced. The two-tier structure, which is closely tied to the German supervisory model, is infrequent, only two to three percent of all stock corporations and only twenty percent of the CAC 40 companies have opted for a two-tier structure. Recently, the *Loi Nouvelle Régulations Economique* (NRE), adopted in 2001, offers a third option which relies on the traditional one-tier structure but breaks with the formerly mandatory concentration of powers in the hands of the CEO, who took both the position of chairman of the board and of the CEO. This last adjustment makes the French and Spanish one-tier boards very similar. We focus our analysis on firms with a single board structure to maintain a homogeneous sample and to be able to relate the results to prior findings from Anglo-American studies. Our final sample consists of 126 Spanish-listed firms and 118 French-listed firms in 2007.

**Model specification**

To test our hypotheses, we estimate the following model using OLS regression (similar to the model specified in Carcello et al. 2002 and Hay et al., 2006):

**Regression model I (direct effects):**

\[
\text{Lnfee} = \beta_0 + \beta_1 \text{Bod-i} + \beta_2 \text{Ceo-d} + \beta_3 \text{Disp} + \beta_4 \text{Rec&Inv} + \beta_5 \text{Lnta} + \beta_6 \text{F_sales} + \beta_7 \text{n_sic} + \beta_8 \text{big4} + e
\]

**Regression model II (direct and interaction effects):**

\[
\text{Lnfee} = \beta_0 + \beta_1 \text{Bod-i} + + \beta_2 \text{Ceo-d} + \beta_3 \text{Disp} + \beta_4 \text{Disp*Bod-i} + \beta_5 \text{Disp*Ceo-d} + \beta_6 \text{Rec&Inv} + \beta_7 \text{Lnta} + \beta_8 \text{F_sales} + \beta_9 \text{n_sic} + \beta_10 \text{big4} + e
\]

The first regression is initially run for the entire sample. Afterwards, we run the first regression for firms with dispersed ownership and firms with controlling owners separately, to
give an idea of how the relationship between audit demand and board composition differs. Finally, we run the second regression model, which includes interaction terms between ownership and board composition, to test our hypotheses 4 and 5. The variables used in the regression models are defined as follows:

\textit{Lnfee}. Consistent with recent studies on audit fees (e.g., see Craswell, Francis, and Taylor, 1995; Carcello et al., 2002, Hay and Knechel, 2004), we use the natural log of audit fees as dependent variable. The variable considers the total fee paid to all auditors for both audit and non-audit services. The disclosure of audit fees has only recently become compulsory in Spain and France (2003).

\textit{Bod-i}. We define board independence as the proportion of non-executive board members over the total board size, to compare our results to previous studies using US data (e.g. Carcello et al., 2002, Hay and Knechel, 2004). Hay and Knechel (2004) argue that independent board members will be more supportive of the external audit function because they seek to reduce their responsibility and liability and because they do not bear the cost of the audit.

\textit{Ceo-d}. A second element of board composition is the CEO duality. This variable takes the value 1 if the two positions are taken by the same person and value 0 if there is a separation. As mentioned earlier, CEO duality is generally perceived as compromising the independence of the board since one individual possesses a great amount of power and authority (Jensen, 1993). In the presence of a dominant CEO, non-executives are expected to face difficulties in effectively monitoring management.

\textit{Disp}. We categorize firms, in line with La Porta et al. (1999) and Faccio et al. (2001), as a firm with controlled ownership if a person, a family group or a firm has a total stake of at least 20% of the shares. Firms without large controlling shareholders are classified as firms with
dispersed ownership. We use two alternative measures to account for the ownership structure: SH1 and SH3, measuring the total shareholdings of the largest and the three largest shareholders respectively.

Rec&Inv. Receivables and Inventories scaled by total assets captures partially the complexity of the audit process (Hay et al., 2006). Receivables and inventories constitute risk categories whose evaluation is complex and requires more in-depth inspection (physical observation, etc.) as well as relatively stronger involvement on the part of the most experienced and expensive auditors. In previous studies, this variable allowed researchers to measure companies’ complexity, and turned out to be useful in illustrating how audit fees are determined (Cobbin, 2002; Hay et al., 2004).

Lnta. Since the pioneering publication of Simunic (1980) on this subject, as well as in other international studies (e.g., see Craswell et al., 1995; Simon and Francis 1988; Carcello et al. 2002), company size appears to be the central explanatory feature when studying audit fees. This result is rather intuitive, since auditors’ fees are paid according to the amount of time spent completing a given job. By and large, the bigger companies are involved in a greater number of transactions that necessarily require longer hours for an auditor to inspect.

F_Sales. Foreign sales scaled by total sales captures partially the complexity of the audit process (Hay et al., 2006). Foreign sales constitute a risk category whose evaluation is complex and requires more in-depth inspection (physical observation, travel, etc.) as well as relatively stronger involvement on the part of the more experienced and expensive auditors.

N_sic. The number of business segments has been used (e.g., Simon 1985, Carcello et al. 2002) to provide a measure of the complexity of the entity’s operations. The more business
segments a company has entered, the higher the need to use more experienced and expensive auditors with industry specific knowledge.

*Big4.* Higher audit fees are expected when an auditor is recognized to be of superior quality to other firms (Hay et al., 2006). The variable captures whether the client firms are working with one of the 4 large auditors (i.e. KPMG, Deloitte, PwC or EY) or not. For French firms this means the variable takes value 1 if both auditors are Big4, while for Spain the variable takes value 1 if the sole auditor is a Big4. For the French sample considered, all companies have at least one Big4 auditor.

**RESULTS**

In this section we first provide descriptive statistics of our data and we later test the proposed hypotheses. Table 1 gives an overview of the descriptive statistics for the variables used in this study. The first column shows the mean values for the entire sample, while columns 2 and 3 columns show the mean values for the Spanish and French subsamples, and columns 4 and 5 show the mean values for firms with controlled ownership (Disp=0) and firms with dispersed ownership (Disp=1). The total sample consists of 244 firms, 126 Spanish and 118 French firms, of which roughly 2/3 have controlled ownership and 1/3 dispersed ownership. The average audit fee for the entire sample is $10.2 million (median of €2.1 million), with an average of $13.8 million for the French firms of and $7.05 million for the Spanish firms. Part of this difference can be explained by the difference in firm size between our French and Spanish subsamples. The highest fee in the sample is $75.64 million, paid by Véolia, while the smallest fee is $0.29 million, paid by Inypsa. Firms with dispersed ownership pay on average $8.5 million, while firms with controlled ownership pay $14.2 million. Again part of these differences can be explained by the difference in firm size between the two samples. In addition, considering the
entire sample 34 percent of the firm’s assets are receivables and inventory, 36 percent of its sales are made in a foreign market and firms operate in 4.5 different industries segments. Furthermore, there is a large disparity between France and Spain concerning the Big4 variable. This is explained by the differences in their respective audit regimes. All French firms have at least one Big4 auditor, but only 62% of the firms are working with two Big4 auditors, i.e. 38% of the firms have one Big4 auditor and one non-Big4 auditor. Furthermore, the results show the high degree of ownership concentration. For the entire sample, the average shareholdings by the largest shareholder are almost 40% and the shareholdings by the three largest is 52%. It is remarkable how similar the Spanish and French ownership structure data are. The most important differences between the firms with dispersed ownership and firms with controlling owners are found in audit fees, firm size and board composition. Firms with dispersed ownership pay higher audit fees, are larger in size, have more independent board members and present a lower CEO duality rate.

The correlations between the variables considered in this study are presented in Table 2. All correlations between the audit fee and the independent variables show the expected sign, except for the proportion of receivables and inventory. In line with previous literature, the highest correlation coefficient is found for firm size. Furthermore, the CEO duality is negatively correlated with audit fees, ownership structure is only weakly correlated (p<0.1) and board independence is not correlated with the audit fees.
Next, we discuss the multivariate analysis to test the hypotheses. Table 3 presents the results obtained from regression model 1. The first regression (ALL1) only takes into account the control variables. Consistent with previous literature, the control variables explain a large proportion of the audit fee variance. Firm size, foreign sales and having a Big4 auditor is associated with higher audit fees. The results from this first regression provide evidence to support our hypothesis 3, demonstrating that firms with dispersed ownership have higher audit fees. The second regression (ALL2) introduces the board characteristics into the model. Both board independence and CEO duality are significantly related to the audit fees. Board independence is positively related to audit fees, while CEO duality is negatively associated with audit fees. This is in line with previous studies and provides support for our hypotheses 1 and 2. For robustness purposes, the following models in Table 3 show the same analysis (ALL2) with the board characteristics but for each country separately. The results for the Spanish and French firms are consistent with those obtained from the full sample confirming that the support for hypotheses 1 and 2 are not driven by one particular country.

Although the results show a significant direct link between ownership and audit fees (Table 3), the main purpose of our study is to investigate whether ownership moderates the relationship between the board characteristics and external audit fees. Hypotheses 4 and 5
describe how boards in firms with dispersed ownership behave differently with respect to the demand for external audit compared to firms with controlled ownership. Table 4 presents the regression results for the entire sample (ALL) and for each of the countries individually (ESP, FRA), and more importantly for each type of ownership separately (DISP=0, DISP=1). Considering the French and Spanish firms together (ALL), the relationship between characteristics of the board of directors and external audit fees is different for the two types of firm ownership. In particular, the results for the firms with dispersed ownership are in line with previous literature, i.e., a significant positive relationship between board independence and audit fees and a significant negative relationship between CEO duality and audit fees. The results for firms with controlling ownership are different. We find no significant relationship between either board independence or CEO duality and the audit fees for firms with concentrated ownership. Our results are consistent for both the Spanish (ESP) and the French (FRA) firms, where the relationship between board characteristics and audit fees is only significant for firms with dispersed ownership. Furthermore, our results show that the overall negative relationship between board independence and audit fees on the one side and positive relationship between CEO duality and audit fees on the other side (Table 3) is strongly driven by the subsample of firms with dispersed ownership.

Finally, we test hypotheses 4 and 5 using regression model II. The results from Table 4 show that the relationship between board characteristics and audit fees is contingent on the ownership structure. Using interaction terms, we are able to test whether the relationship
between the board characteristics and audit fees is significantly different between the types of ownership of the company. Table 5 displays the results of regression model II and shows significant interaction terms, providing support for both hypotheses 4 and 5. Our results demonstrate that the demand for external audit by independent board members and by boards with CEO duality is significantly lower for closely held firms compared to widely held firms. To test the robustness of our results, we repeat the analysis for each country separately and find support for hypotheses 4 and 5 for both Spanish and French companies individually.

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Insert Table 5 about here
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CONCLUSIONS AND LIMITATIONS

The aim of this paper is to offer greater insight into how corporate governance mechanisms may function differently depending on the ownership structure of the company. In this study, we argue that 1) the ownership structure directly influences the characteristic and the priorities of the board of directors, and 2) that the demand for external audit services by the board of directors is contingent on the board’s primary focus. First, the monitoring role of the board is most important when ownership is diffused. Shareholders in firms with dispersed ownership have, collectively, a greater need to draw on the board of directors to monitor that indeed the managers are fulfilling their fiduciary duties. In contrast, when ownership is concentrated, large shareholders, who are already motivated to monitor management, have more influence beyond the board as well as access to valuable information and alternative corporate governance mechanisms to discipline the managers if necessary. Second, those boards with a
strong focus on monitoring are more likely to favor a higher demand of audit services relative to boards with a focus on providing resources to management.

To assess our arguments, we examine whether the relationship between board characteristics and the demand for external audit is different for firms with dispersed ownership relative to firms with concentrated ownership. We uncover that the ownership structure has a significant influence on the relationship between the demand for external audit and board characteristics. For firms with dispersed ownership, we find that both board independence and CEO duality are significantly related to the total audit fees. This is in line with previous literature which typically considers large US or UK companies. In contrast, for closely held firms, more common of the Continental and Asian corporate governance systems such as those of France and Spain, the relationship between board characteristics and the demand for external audit is insignificant. This result is consistent with the argument that a board focusing less on monitoring and hence more on the provision of resources will care less about enhancing the audit scope. Furthermore, our analysis show support for our hypotheses that the relationship between board characteristics and external audit demand is significantly different between the different types of ownership (i.e., concentrated vs. dispersed). The relationship between board independence and audit fees as well as the relationship between CEO duality and audit fees is significantly different for firms with dispersed ownership in comparison to firms with controlled ownership. Finally, the study shows that even in countries without a high risk of lawsuits against board members, outside board members demand for more audit, indicating that the higher demand for audit by outside board members is not only driven by the fear of facing a lawsuit.

Our results complement nicely the existing research conducted in the context of dispersed firms and highlight the importance of considering ownership structure patterns for policymakers,
since a similar degree of board independence may lead to a different behavior contingent on the priorities set by the board of directors. For future research, it may be interesting to look at the interaction between ownership and other corporate governance practices. Ownership control may have a similar influence on voluntary disclosure, compliance with corporate governance codes or the adoption of risk management practices. Finally, our findings interestingly confirm that widely held companies in a different corporate environment behave similar to UK/US firms. It may, therefore, be interesting to explore in the future whether the reverse would also hold. Are closely held firms in the US/UK behaving similar to closely held firms in Continental Europe?

Our study has several limitations. First it focuses on listed companies with a single board structure. It is therefore possible that the results may not be generalized to non-listed companies or firms with a dual board. Second, the inclusion of other countries with a corporate governance setting different from both the US and France or Spain, could further improve the analysis. A third limitation of the study is that, due to data constraints, we cannot disentangle the total audit fee into audit serves fee and non-audit fee data for the French sample, to demonstrate the robustness of the results. Nevertheless, this data is available for the Spanish case and the results do not vary for different specifications of the dependent variable. In addition, the average non-audit fees are relatively small in France (less than 5 percent for CAC40 firms). Finally, our research could gain from the addition of audit committee data to the analysis. However, audit committees in the board of directors are a relatively recent phenomenon in both France and Spain and are probably less important in a Continental Europe corporate governance setting, compared to an Anglo-American corporate governance setting. Furthermore, the audit committee is an advisory instrument of the board of directors and its composition is decided by the board of directors.
To conclude, our study shows that some corporate governance mechanisms to run firms effectively hold across corporate governance systems but that it is important to understand what makes firms different within governance systems. We have demonstrated that patterns of ownership are an important characteristic to take into account.
References


AMF. 2008. *Study of fees paid by French companies listed in the CAC 40 index to statutory auditors and their networks in respect of financial year 2007*. Autorité Marché Financier


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directors: Strategic adaptation of board composition in response to environmental change.


Jensen, M. C. 1993. The modern industrial revolution, exit, and the failure of internal control

Knechel, R. & M. Willekens. 2006. The Role of Risk Management and Governance in
determining Audit Demand. Journal of Business Finance and Accounting, 33, (9-10): 1344-
1367.


La Porta, R., F. López-de-Silanes, A. Shleifer and Vishny, R. 1997. Legal Determinants of

La Porta, R., F. López-de-Silanes and Shleifer, A. 1999. Corporate ownership around the world. 

Maitlis, S. 2004. Taking it from the Top: How CEOs Influence (and Fail to Influence) their


**Table 1**

Descriptive statistics: differences of means

<table>
<thead>
<tr>
<th></th>
<th>ALL</th>
<th>ESP</th>
<th>FRA</th>
<th>DISP=0</th>
<th>DISP=1</th>
</tr>
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<td><strong>N</strong></td>
<td>244</td>
<td>126</td>
<td>118</td>
<td>171</td>
<td>73</td>
</tr>
<tr>
<td><strong>Rec&amp;inv</strong></td>
<td>33.90%</td>
<td>36.28%</td>
<td>31.37%</td>
<td>34.66%</td>
<td>32.12%</td>
</tr>
<tr>
<td><strong>F_Sales</strong></td>
<td>35.84%</td>
<td>27.06%</td>
<td>45.23%</td>
<td>34.10%</td>
<td>28.49%</td>
</tr>
<tr>
<td><strong>N_sic</strong></td>
<td>4.50</td>
<td>4.13</td>
<td>4.90</td>
<td>4.47</td>
<td>4.56</td>
</tr>
<tr>
<td><strong>Big4</strong></td>
<td>76.63%</td>
<td>90.48%</td>
<td>61.86%</td>
<td>74.26%</td>
<td>82.19%</td>
</tr>
<tr>
<td><strong>Disp</strong></td>
<td>29.91%</td>
<td>29.37%</td>
<td>30.51%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SH1</strong></td>
<td>39.38%</td>
<td>39.37%</td>
<td>39.40%</td>
<td>51.43%</td>
<td>11.16%</td>
</tr>
<tr>
<td><strong>SH3</strong></td>
<td>51.94%</td>
<td>52.47%</td>
<td>51.36%</td>
<td>63.69%</td>
<td>24.39%</td>
</tr>
<tr>
<td><strong>Bod-i</strong></td>
<td>76.63%</td>
<td>79.58%</td>
<td>73.50%</td>
<td>76.00%</td>
<td>78.11%</td>
</tr>
<tr>
<td><strong>Ceo-d</strong></td>
<td>55.74%</td>
<td>42.86%</td>
<td>69.49%</td>
<td>57.89%</td>
<td>50.68%</td>
</tr>
</tbody>
</table>

Lnfee: Natural logarithm of total audit fee
Rec&inv: receivables and inventory scaled by total assets
Lnfa: Natural logarithm of total assets
F_Sales: foreign sales scaled by total sales
N_sic: number of different sectors the company operates in
Big4: Dummy variable indicating if all auditors (1 in Spain, 2 in France) are Big4 or not
Disp: dummy variables, 1 if largest shareholder < 20% shares, 0 otherwise
SH1: total shareholdings by largest shareholder
Sh3: total shareholdings by three largest shareholder
Bod-i: number of non-executive board members over total board size
Ceo-d: dummy variables, 1 if CEO=chairman, 0 otherwise
Table 2
Correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>Infee</th>
<th>Rec&amp;inv</th>
<th>Inta</th>
<th>F_Sales</th>
<th>n_sic</th>
<th>big4</th>
<th>Disp</th>
<th>Bod-i</th>
<th>Ceo-d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infee</td>
<td>1.00</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rec&amp;inv</td>
<td>-0.20</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inta</td>
<td>0.73**</td>
<td>-0.28*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F_Sales</td>
<td>0.43**</td>
<td>-0.10*</td>
<td>0.31*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n_sic</td>
<td>0.39**</td>
<td>-0.08</td>
<td>0.47**</td>
<td>0.15*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>big4</td>
<td>0.24*</td>
<td>-0.07</td>
<td>0.23*</td>
<td>-0.07</td>
<td>0.07</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disp</td>
<td>0.23</td>
<td>-0.06</td>
<td>0.02</td>
<td>0.10</td>
<td>0.02</td>
<td>0.09</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bod-i</td>
<td>-0.02</td>
<td>-0.13*</td>
<td>-0.02</td>
<td>-0.04</td>
<td>-0.01</td>
<td>0.11</td>
<td>0.08</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Ceo-d</td>
<td>-0.13*</td>
<td>0.01</td>
<td>-0.09</td>
<td>-0.01</td>
<td>-0.09</td>
<td>-0.20*</td>
<td>-0.07</td>
<td>0.04</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Significance level of 0.05: *; Significance level of 0.01: **; Significance level of 0.001: ***

Lnfee: Natural logarithm of total audit fee
Rec&inv: receivables and inventory scaled by total assets
Lnta: Natural logarithm of total assets
F_Sales: foreign sales scaled by total sales
N_sic: number of different sectors the company operates in
Big4: Dummy variable indicating if all auditors (1 in Spain, 2 in France) are Big4 or not
Disp: dummy variables, 1 if largest shareholder < 20% shares, 0 otherwise
Bod-i: number of non-executive board members over total board size
Ceo-d: dummy variables, 1 if CEO=chairman, 0 otherwise
Table 3
Regression results – Direct effects – full sample

<table>
<thead>
<tr>
<th></th>
<th>ALL(1)</th>
<th></th>
<th>ALL(2)</th>
<th></th>
<th>ESP</th>
<th></th>
<th>FRA</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>t-stat</td>
<td>Coef.</td>
<td>t-stat</td>
<td>Coef.</td>
<td>t-stat</td>
<td>Coef.</td>
<td>t-stat</td>
<td>Coef.</td>
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<tr>
<td>cons</td>
<td>2.276**</td>
<td>3.03</td>
<td>1.418</td>
<td>1.51</td>
<td>3.444*</td>
<td>2.54</td>
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<tr>
<td>country</td>
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<td>4.75</td>
<td>1.196***</td>
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<td></td>
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<tr>
<td>recinv</td>
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<td>0.69</td>
<td>0.448</td>
<td>1.04</td>
<td>0.315</td>
<td>0.52</td>
<td>0.276</td>
<td>0.50</td>
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</tr>
<tr>
<td>lnta</td>
<td>0.667***</td>
<td>11.68</td>
<td>0.659***</td>
<td>11.74</td>
<td>0.530***</td>
<td>5.77</td>
<td>0.839***</td>
<td>13.40</td>
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<tr>
<td>F_Sales</td>
<td>1.390***</td>
<td>4.05</td>
<td>1.301***</td>
<td>3.86</td>
<td>1.258*</td>
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<td>1.489***</td>
<td>4.44</td>
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<td>-0.67</td>
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<td>big4</td>
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<td>0.888***</td>
<td>4.01</td>
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<td>1.54</td>
<td>0.885***</td>
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<td></td>
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<tr>
<td>Disp</td>
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<td>4.83</td>
<td>0.833***</td>
<td>4.58</td>
<td>0.984**</td>
<td>3.23</td>
<td>0.208</td>
<td>1.03</td>
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<tr>
<td>bodi</td>
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<td>2.060</td>
<td>1.83</td>
<td>1.718*</td>
<td>2.10</td>
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<tr>
<td>Ceo-d</td>
<td></td>
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<td>-0.498**</td>
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<td>-0.722*</td>
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<tr>
<td>N</td>
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<td>0.000</td>
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<tr>
<td>R²</td>
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<td>0.6777</td>
<td>0.4819</td>
<td>0.8252</td>
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<tr>
<td>Adj R²</td>
<td>0.6541</td>
<td>0.6653</td>
<td>0.4465</td>
<td>0.8124</td>
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Significance level of 0.05: *; Significance level of 0.01: **; Significance level of 0.001: ***

Lnfee: Natural logarithm of total audit fee
Country: dummy variable, 1 if company is French, 0 if Spanish
Rec&inv: receivables and inventory scaled by total assets
Lnta: Natural logarithm of total assets
F_Sales: foreign sales scaled by total sales
N_sic: number of different sectors the company operates in
Big4: Dummy variable indicating if all auditors (1 in Spain, 2 in France) are Big4 or not
Disp: dummy variables, 1 if largest shareholder < 20% shares, 0 otherwise
Bod-i: number of non-executive board members over total board size
Ceo-d: dummy variables, 1 if CEO=chairman, 0 otherwise
### Table 4
Regression results: by type of ownership

<table>
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<tr>
<th></th>
<th>ALL (Disp=0)</th>
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<th>ALL (Disp=1)</th>
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<th>ESP (Disp=0)</th>
<th></th>
<th>ESP (Disp=1)</th>
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<th>FRA (Disp=0)</th>
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<th>FRA (Disp=1)</th>
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<tbody>
<tr>
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<td>t-stat</td>
<td>Coef.</td>
<td>t-stat</td>
<td>Coef.</td>
<td>t-stat</td>
<td>Coef.</td>
<td>t-stat</td>
<td>Coef.</td>
<td>t-stat</td>
</tr>
<tr>
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<td>-0.03</td>
<td>4.370***</td>
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<td>1.425</td>
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<td>0.906</td>
<td>0.85</td>
<td>-0.191</td>
<td>-0.31</td>
<td>0.662</td>
<td>0.40</td>
<td>-0.446</td>
<td>-0.71</td>
<td>1.721*</td>
<td>1.88</td>
</tr>
<tr>
<td>Inta</td>
<td>0.702***</td>
<td>10.43</td>
<td>0.743***</td>
<td>6.77</td>
<td>0.608***</td>
<td>6.23</td>
<td>0.396</td>
<td>1.91</td>
<td>0.729***</td>
<td>8.92</td>
<td>0.784***</td>
<td>9.24</td>
</tr>
<tr>
<td>F_Sales</td>
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<td>5.00</td>
<td>1.369*</td>
<td>2.06</td>
<td>0.556</td>
<td>0.89</td>
<td>2.250</td>
<td>1.50</td>
<td>2.019***</td>
<td>4.78</td>
<td>0.382</td>
<td>0.84</td>
</tr>
<tr>
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<td>0.116</td>
<td>1.11</td>
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<td>-0.85</td>
<td>-0.043</td>
<td>-0.23</td>
<td>0.139*</td>
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**N** | 171          |       | 73           |       | 89           |       | 37           |       | 82           |       | 36           |       |

Prob > F | 0.000        |       | 0.000        |       | 0            |       | 0            |       | 0            |       | 0            |       |

R² | 0.6255 |       | 0.6970 |       | 0.5012 |       | 0.5490 |       | 0.8026 |       | 0.9255 |       |

Adj R² | 0.6094 |       | 0.6644 |       | 0.4580 |       | 0.4402 |       | 0.7839 |       | 0.9068 |       |

---

Significance level of 0.05: *; Significance level of 0.01: **; Significance level of 0.001: ***

Lnfee: Natural logarithm of total audit fee  
Rec&inv: receivables and inventory scaled by total assets  
Lnta: Natural logarithm of total assets  
F_Sales: foreign sales scaled by total sales  
n_sic: number of different sectors the company operates in  
Big4: Dummy variable indicating if all auditors (1 in Spain, 2 in France) are Big4 or not  
Bod-i: number of non-executive board members over total board size  
Ceo-d: dummy variables, 1 if CEO=chairman, 0 otherwise
Table 5
Regression results – Interaction effects – full sample

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Significance level of 0.05: *; Significance level of 0.01: **; Significance level of 0.001: ***

Lnfee: Natural logarithm of total audit fee
Country: dummy variable, 1 if company is French, 0 if Spanish
Rec&inv: receivables and inventory scaled by total assets
Lnta: Natural logarithm of total assets
F_Sales: foreign sales scaled by total sales
N_sic: number of different sectors the company operates in
Big4: Dummy variable indicating if all auditors (1 in Spain, 2 in France) are Big4 or not
Disp: dummy variables, 1 if largest shareholder < 20% shares, 0 otherwise
Bodi: number of non-executive board members over total board size
Ceo-d: dummy variables, 1 if CEO=chairman, 0 otherwise
Figure 1
The relationship between ownership structure, board composition and external audit services

Board Composition and priorities

Ownership structure

Audit fees