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El Consejero Dominical y el Gobierno Corporativo

Institutional Directors and Corporate Governance

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EL CONSEJERO DOMINICAL Y EL GOBIERNO CORPORATIVO

INSTITUTIONAL DIRECTORS AND CORPORATE GOVERNANCE

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A MIS PADRES

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INDEX

RESUMEN

El consejo de administración es el principal órgano de toma de decisiones en las empresas españolas. Entre los consejeros que componen el consejo de administración cabe destacar a los consejeros dominicales, nombrados por los inversores institucionales, considerados los accionistas dominantes más importantes en el contexto español. Estos consejeros juegan un papel importante en el gobierno corporativo de las empresas en cuyos consejos de administración participan. Así pues, el objetivo del presente trabajo es analizar cómo la presencia de los consejeros dominicales en los consejos de administración de las empresas españolas influyen sobre el gobierno corporativo de las mismas. En particular, estudiamos cómo los consejeros dominicales influyen en la remuneración del director ejecutivo (CEO) y en la divulgación de información sobre Responsabilidad Social Corporativa (RSC) de las empresas. Para ello, consideramos a los consejeros dominicales como un único grupo, además de distinguir dentro de este grupo entre consejeros sensibles a la presión y consejeros resistentes a la presión, atendiendo a si además de la relación de inversión, mantienen o no, respectivamente, una relación comercial con la empresa en cuyo consejo de administración participan. Proponemos una relación cuadrática entre la presencia de estos consejeros y las variables mencionadas, lo que supone que los consejeros dominicales pueden desempeñar dos roles opuestos (control y atrincheramiento), dependiendo de su nivel de representatividad en el consejo de administración. Los resultados obtenidos evidencian que los consejeros dominicales y los consejeros resistentes a la presión (aquellos que sólo mantienen una relación de inversión con la empresa) influyen en el gobierno corporativo de la compañía y pueden desarrollar dos roles opuestos, dependiendo de su nivel de participación en el consejo de administración. Sin embargo, los consejeros sensibles a la presión (aquellos que representan a inversores institucionales que mantienen una relación de inversión y comercial con la empresa en cuyo consejo participan) no influyen en el gobierno corporativo de las empresas españolas.

ABSTRACT

Board of directores is the main decision-making body in Spanish companies. Among the directors who make up the board of directors, it is worth mentioning institutional directors, who are are appointed by institutional investors, the most important dominant shareholders in the Spanish context. These directors play an important role in corporate governance of the companies in whose boards they are involved. Therefore, the aim of this research is to analyse how the presence of institutional directors on boards of Spanish companies influences their corporate governance. Specifically, we study how institutional directors affect CEO compensation and CSR disclosure. To do so, we consider instituional directors as a homogenous group. Additionallhy, we also classify them into directors who are sensitive or resistant to pressure, according not only to the investment relationship of their represented, but also if they mantain or not a commercial relationship with the company on whoso board these institutional investors are represented. We hypothesise a quadratic relationship between the presence of these directors on boards and the variables above mentioned, which means that institutional dirctors may play two opposite roles (control and entrenchment), depending on their level of representation on the board of directors. The findings evidence that institutional directors and pressure-resistant directors (those who represent institutional investors that only mantain an investment relationship with the company) influence on the coroprate governance of companies and they may perform two opposite roles, depending on their level of participation on boar of directors. However, pressure-sensitive directors (those who represent institutional investors that maintain both an investment and commercial relationship with the company in whose board they participate) do not affect corporate governance of Spanish companies.

INDEX OF TABLES

CHAPTER 1

CHAPTER 2

INTRODUCCIÓN

En las últimas décadas, el aumento de acciones en manos de los inversores institucionales ha adquirido una gran importancia en la estructura accionarial de las empresas reemplazando, de este modo, a los inversores individuales (Khan et al., 2005). En este sentido, una peculiaridad del nuevo contexto financiero es la aparición de una nueva clase de agentes financieros: los inversores institucionales. Así pues, en el contexto español los inversores institucionales constituyen un elemento esencial del sistema financiero español. En este sentido, el volumen de activos de estos inversores era de 9.000 millones de euros en 1990 frente a los 280.000 millones a finales del 2005 (Rabadán, 2009), lo que su patrimonio representaba, en 2005, un 40% del PIB español (Fundación Inverco, 2007).

El hecho que el volumen de paquetes accionariales en manos de los inversores institucionales haya aumentado, ha provocado que estos inversores no puedan desprenderse de dichos paquetes con facilidad y sin experimentar pérdidas al deshacerse de los mismos. Esta situación ha provocado que los inversores institucionales hayan abandonado un papel pasivo en el gobierno de las empresas en las que poseen acciones (abandonar el accionariado de la empresa en caso de no estar de acuerdo con la gestión llevada acabo) y hayan empezado a desempeñar un papel activo en la gestión de las mismas, convirtiéndoles como el mecanismo más eficaz para influir en el gobierno corporativo de las empresas (Wilcox, 2001).

Así pues, estudios previos ponen de manifiesto la capacidad de estos inversores en influir en asuntos empresariales tales como el rendimiento de la empresa (Jiao and Ye, 2013), el endeudamiento (García-Meca et al., 2013) o las decisiones estratégicas (Neubaum and Zahra, 2006), entre otros, evidenciando la importancia que los inversores institucionales están adquiriendo en el gobierno corporativo de las empresas (Ferreira y Matos, 2008; Gillan y Starks, 2003; Ruiz-Mallorquí y Santana-Martín, 2009; 2011).

La mayor parte de la investigación llevada a cabo se ha centrado en el estudio de los inversores institucionales como accionistas, a pesar de la capacidad que estos inversores

tienen para nombrar consejeros en los consejos de administración (Boyd, 1994), en adelante consejeros dominicales. El principal motivo puede deberse a que la mayor parte de trabajos realizados, hasta el momento, se hayan centrado en el contexto anglosajón, en el que este tipo de consejeros es menos frecuente. Sin embargo, la presencia de los consejeros dominicales en los países europeos, y en especial en España, cobra importancia debido a la importante representación que tienen estos consejeros en el consejo de administración (Heidrick y struggles, 2011). La baja protección que los pequeños inversores tienen en España explica por qué los inversores institucionales desempeñan un papel activo e importante en el gobierno de la empresa y en el consejo de administración (Faccio y Lang, 2002; La Porta et al., 1999), uno de los órganos más importantes en España para controlar al equipo ejecutivo (Gillan, 2006).

Entre los temas que preocupan a los inversores institucionales con respecto a las empresas en las que participan cabe destacar las retribuciones de los directivos de las mismas (Georgeson, 2013). En este sentido, hay que señalar que pese a la crisis económica-financiera mundial, los fraudes financieros y la quiebra de las compañías, las retribuciones de los directivos han sido desmesuradas y el aumento de las mismas no ha sido acorde con el rendimiento de las compañías. Por tanto, con el fin de evitar unas retribuciones excesivas, el Código Unificado de Buen Gobierno Corporativo (CUBG, 2015) ha realizado recomendaciones tales como mejorar las transparencia respecto a la remuneraciones de ejecutivos y directores, o la separación de la comisión de nombramientos y retribuciones en dos comisiones diferentes. En esta misma línea, el Gobierno Español también ha promulgado diversas leyes con el fin de evitar unas remuneraciones exorbitantes. Así pues, dado que el valor de la empresa puede verse afectado por las políticas retributivas, éstas han sido ampliamente objeto de estudio por parte del ámbito académico. Respecto a cómo los inversores institucionales influyen sobre la retribución de los ejecutivos los resultados no son concluyentes. Mientras hay autores que evidencian que estos inversores reducen la compensación de los ejecutivos y directores (e.g. Hartzell and Starks, 2003; Khan et al., 2005; Ozkan, 2007), otros evidencian que estos inversores influyen positivamente en sus retribuciones (e.g. Croci et al., 2012; Fernandes et al., 2012).

Por otro lado, el comportamiento de las sociedades, no sólo respecto a sus accionistas, sino también respecto a sus grupos de interés (e.g. clientes, proveedores,

empleados, etc.), en particular, y respecto a la sociedad y medioambiente, en general, ha adquirido una notable importancia en los últimos años. En este sentido, mientras existen trabajos que indagan sobre los beneficios que aporta la responsabilidad social corporativa (RSC) (e.g. Baron, 2001; Maxwell et al., 2000; Reverte, 2012), otros intentan averiguar qué características empresariales promueven un comportamiento responsable. En el ámbito institucional, tanto las instituciones europeas como las españolas, han promulgado normas para promover un comportamiento más responsable por parte de las empresas. En este sentido, el CUBG (2015) también recomienda el fomento de una política responsable por parte de las empresas. Respecto a los inversores institucionales, los resultados de investigaciones previas no son concluyentes (e.g. Arora y Dhawadkar, 2011; Dyck et al., 2015; Fernández-Sánchez et al., 2011), evidenciando una relación tanto positiva como negativa entre estos inversores y la RSC.

Así pues, el objetivo de este trabajo es estudiar cómo la presencia de consejeros que representan a los inversores institucionales en el principal órgano de decisión de las empresas cotizadas españolas, el consejo de administración, influyen sobre las decisiones empresariales, en concreto sobre la retribución del director ejecutivo (CEO) y la divulgación de información sobre responsabilidad social corporativa.

Para alcanzar este objetivo, en primer lugar analizamos cómo los consejeros dominicales, en general, influyen sobre la retribución del director ejecutivo (CEO) y la divulgación de la RSC. A continuación, y dado que los inversores institucionales engloban un amplio grupo de entidades (bancos, compañías de seguros, fondos de inversión, fondos de pensión, etc.), clasificamos a los consejeros dominicales en dos grupos, atendiendo a si representan inversores institucionales que mantienen únicamente una relación de inversión con la empresa en cuyo consejo de administración participan (consejero dominical resistente a la presión), o representan inversores institucionales que no sólo mantienen una relación de inversión, sino también una relación comercial con la empresa (consejero dominical sensible a la presión). El motivo de esta clasificación se debe a que no todos los inversores institucionales pueden tener los mismos incentivos en participar en el gobierno de la compañía, y las relaciones comerciales son consideradas un elemento clave que puede afectar al control por parte de los consejeros dominicales (Brickley et al., 1988). Por último, proponemos que los consejeros que representan a los inversores institucionales en el consejo de

administración pueden llevar a cabo dos roles opuestos (rol de control/rol de atrincheramiento). Para ello, sugerimos que existe una relación no lineal, concretamente cuadrática, entre los consejeros dominicales y las decisiones empresariales, y el papel que desempeñen estos consejeros, dependerá de su nivel de representatividad en el consejo de administración en el que participa.

Para alcanzar el objetivo planteado se ha utilizado una muestra de empresas cotizadas españolas. Dado el doble rol que proponemos que puede ser desempeñado por los consejeros dominicales en el gobierno corporativo, la metodología utilizada para contrastar las hipótesis planteadas es una regresión no lineal.

Este trabajo se estructura en dos capítulos. En el primer capítulo se estudia cómo los consejeros dominicales influyen en la remuneración del CEO. En primer lugar, analizamos el comportamiento de estos consejeros en la remuneración total del CEO, y a continuación, examinamos cómo influyen sobre la estructura de la remuneración del primer ejecutivo (remuneración fija y variable). En el segundo capítulo analizamos cómo estos consejeros repercuten en la divulgación de la RSC. Para ello, medimos la divulgación de la RSC de dos formas distintas: en primer lugar, considerando si las empresas cotizadas informan, o no, acerca de RSC y, en segundo lugar, a través de la construcción de un índice que considera si la empresa informa sobre distintos aspectos sociales, económicos y medioambientales.

INTRODUCTION

In the last decades, the increase of share in the hands of institucional investors has acquired a great importance in the shareholder structure of the companies replacing, in this way, the individual investors (Khan et al., 2005). In this sense, a peculiarity of the new financial context is the emergence of a new kind of financial agents: institutional investors. Thus, in the Spanish context institutional investors are an essential element of the Spanish financial system. So, the assets volume of these investors was 9.000 million euros in 1990 compared to 280.000 million at the end of 2005 (Rabadán, 2009), which in 2005 represented a total of 40% of Spanish Gross Domestic Product (GDP) (Fundación Inverco, 2007).

The fact that the volume of shareholder in hands of institutional investors has increased, has caused these investors can not get rid of of such volume easily and without experiencing losses. This situation has caused institutional investors to have abandoned a passive role in governance of companies in which they own shares (abandoning the shareholding of companies if they do not agree with the management carried out) and have begun to play an active role in the management of these, making them the most effective mechanism to influence on corporate governance of companies (Wilcox, 2001).

Thus, previous research displays the ability of these investors to influence on business issues such as firm performance (Jiao and Ye, 2013), debt (García-Meca et al., 2013) or strategic decisons (Neubaum and Zahra, 2006), among others, evidencing the importance that institutional investors are acquiring in corporate governance of companies (Ferreira y Matos, 2008; Gillan y Starks, 2003; Ruiz-Mallorquí y Santana-Martín, 2009; 2011).

Most of research carried out has focused on the study of institutional investors as shareholders, despite the ability of these investors to appoint directors on boards of directors (Boyd, 1994), hereafter institutional directors. The main reason may be that most of the studies done has, so far, focused on the Anglo-Saxon context, in which this

kind of directors is less common. However, the presence of institutional directors in European countries, and especially in Spain, is important because of the important representation of these directors on the board of directors (Heidrick and Struggles, 2011). The low protection that small investors have in Spain explains why institutional investors play an active and important role in corporate governance on board of directors (Faccio and Lang, 2002; La Porta et al., 1999), one of the most important bodies in Spain to control executive team (Gillan, 2006).

Among the concerns of institutional investors with respect to the companies in which they invest, it is worth mentioning the CEO compensation (Georgeson, 2013). In this sense, it should be noted that despite the global economic and financial crisis, financial fraud and bankruptcy of companies, managers remunerations have been excessives and their increases have not been in line with the performance of the companies. Therefore, in order to avoid excessive remurenations, the Unified Code of Good Corporate Governance (CUBG, 2015) has made recommendations such as improving transparency regarding executives and directors compensations, or the separation of appointments and remuneration committee in two different committees. In the same line, the Spanish Government has also enacted some laws in order to avoid exorbitant compensations. Thus, since company value can be affected by remuneration policies, these have been widely analysed by researchers. Regarding how institutional investors influence executive pay, previous findings are inconclusive. While there are authors who evidence that these investors reduce executives and directors compensation (e.g. Hartzell and Starkds, 2003; Khan et al., 2005; Ozkan, 2007), others display that these investors have a positive influence on their remuneration (e.g. Croci et al., 2012; Fernandes et al., 2012).

On the other hand, the behavior of companies, not only with respect to their shareholder, but also with respect to their stakeholders (e.g. customers, suppliers, employees, etc.), in particular, and with respect to society and environment in general, has acquired a remarkable importance in the last years. In this sense, while there are studies that investigate the benefis of CSR (e.g. Baron, 2001; Maxwell et al., 2000; Reverte, 2012), others try to find out what business characteristics promote responsible behavior. At the institutional level, both European and Spanish institutions have promulgated norms to promote more responsible behavior by companies. In this sense,

CUBG (2015) also recommends the promotion of a resonsible policy by companies. As for institutional investors, findings of previous research are not conclusive (e.g. Arora y Dhawadkar, 2011; Dyck et al., 2015; Fernández-Sánchez et al., 2011), showing a positve and negative relationship between these investors and CSR.

Thus, the aim of this paper is, therefore, to study how the presence of directors representing institutional investors in the main decision-making body of Spanish listed companies, the board of directors, affect business decisions, specially on the chief executive officer (CEO) compensation and the disclosure of CSR information.

To achieve this objective, we firstly analyze how institutional directors influence on CEO compensation and CSR disclosure. Then, since institutional investors include a wide group of entities (banks, insurance companies, mutual funds, pension funds, etc.), we classify them into two groups, considering whether they represent intitutional investors who hold only an investment relaionship with the company on whose board of directors they serve (pressure-resistant directors), or they represent institutional investors who not only mantain an investment relationship, but also a business relationship with the company (pressure-sensitive directors). The reason for this classification is that not all institutional investors may have the same incentives to participate in company governance, and business relatinships are considered a key element that may affect control by institutional directors (Brickley et al., 1988). Finally, we propose that directors representing institutional investors on board of directors can perform two opposite roles (control role / role of entrenchment). To do this, we suggest that there is a non-linear relationship, specifically quadratic, between institutional directors and business decisions, and the role played by these directors will depend on their level of representation on board of directors in which they participate.

In order to achive the proposed aim, a sample of Spanish listed companies has been used. Given the double role we propose that institutional directors can perform in corporate governance, the methodology used to contrast the hypotheses posited is a non-linear regression.

This research is structured in two chapters. The first chapter examines how institutional directors affect CEO compensation. First, we analyze the behavior of these

directors in the total CEO remuneration and, then, we analyse how they imfluence on remuneration structure of CEO (fixed and variable remuneration). In the second chapter, we analyse how these directors impact on CSR disclosure. To do this, we measure CSR disclosure in two different ways: first, considering wheter listed companies report CSR and, secondly, by contructing an index that consider whether company reports on diferent social, economic and environmental issues.

CHAPTER 1

DIRECTORS APPOINTED BY INSTITUTIONAL INVESTORS AND THEIR EFFECT ON CEO COMPENSATION

Abstract

In this chapter, we examine the repercussion of institutional directors on Chief Executive Officer (CEO) compensation (total, fix and variables pay), as well as the impact of pressure-resistant and pressure-sensitive institutional directors, depending on if these directors represent institutional investors who have or not business links with the firm where they have invested. We hypothesise a quadratic association between institutional, pressure-resistant and pressure-sensitive directors and CEO compensation. The results find that institutional and pressure-resistant directorship affects CEO total pay in a non-linear way (a U-shaped): as the presence of institutional and pressure-resistant directors on boards augments, supporting the monitoring hypothesis and, consequently, they get better corporate governance reducing CEO total compensation, but when their presence on boards goes beyond a tinning point, the entrenchment hypothesis prevails, enhancing CEO total compensation. Contrary to our expectations, pressure-sensitive directors do not impact on CEO total compensation. Regarding CEO's compensation structure (fix and variable), the results find that institutional and pressure-resistant directors increase fix compensation and reduce variable pay, while pressure-sensitive directors affect neither fix nor variable pay. This evidence suggests that institutional directors as a whole cannot be treated as a uniform group. and that institutional/pressure-resistant directors on boards might play two opposite roles – a monitoring and collusion role with CEO – resulting in lower and higher CEO pay, respectively.

1.1. INTRODUCTION

Compensation policy is an internal control mechanism that may improve corporate governance in firms as it aligns interests between managers and shareholders, and therefore, may mitigate agency costs between them, reduce managers' discretion and link managers' targets with corporate value (Merino et al., 2009). Effective board monitoring should result in directors using the pay process as a means of aligning management and shareholder interests (Álvarez and Neira, 2006; Ozkan, 2007). Despite being compensation policy and board of directors two different corporate governance mechanisms, they may be used as complementary rather than as substitutive. In fact, executives, several times, control the board of directors, and consequently, it fails to fulfil its role. Thus, board composition is essential to perform good performance, which leads to a suitable CEO compensation.

Boards can be considered one of the most relevant corporate governance mechanism to restrict managerial discretion, specifically when in their composition there are institutional directors appointed by dominant or controlling shareholders (banks and insurance companies), since they perform a significant role on boards and in resolving issues in corporate governance (Crespí et al., 2004). Placing and supervising the company's policies for compensating management is another function of the board (Baixauli-Soler and Sánchez-Marín, 2011), and its features, as the literature argues, can be an element impacting on top managers compensation (Hermalin and Weisbach, 2003).

The disproportionate pays earned by Chief Executive Officers (CEOs) and executives, particularly when these high amounts of pays are not sufficiently associated to the performance of firms, is a factor that drives the recent attention in CEO pay. Extant research has analysed the relationship between the board's characteristics and CEO's compensation, focusing mainly on board composition, and specifically on independent directors (Anderson and Bizjak, 2003; Ayadi and Boujèlbène, 2013; Petra and Dorata, 2008). Nevertheless, previous literature has paid little attention to other board members: directors appointed by institutional investors (from now on institutional directors), since most previous literature bases principally on the association between

institutional shareholding, acting as shareholders, and executive compensation (e.g. Cheng and Firth, 2005; Ezzeddine and Lamia, 2006; Hartzell and Starks, 2003).

Prior research finds that institutional directors have a relevant effect on financial reporting quality (Pucheta-Martínez and García-Meca, 2014), earnings management (García-Osma and Gill de Albornoz, 2007), firm value (Kumar and Singh, 2012) and leverage (García-Meca et al., 2013). Hence, given the importance of institutional directors in allocating capital to firms, as well as their role in company governance, an understanding of how their representation on boards might affect CEO pay merits our attention. Therefore, our research aims to fill this gap in the literature and to demonstrate how it extensively contributes to our knowledge on the repercussion of directors appointed by institutional investors on boards on CEO pay. Given CEOs power, they can control boards, which can be used by them to improve their interests like pay. A firm's compensation policy is able to influence its value (Gerhart and Milkovich, 1990), and the main difficulty in the boardroom is between the CEO and the directors, as the CEO has incentives to influence the board to remain in the post and increase his or her benefits (Hermalin and Weisbach, 2003).

In Europe, mainly in the continental environment, the expropriation of minority investors' wealth by large investors becomes the most important agency problem and, consequently, institutional shareholders are among the most relevant dominating shareholders, compensating for the weaknesses of investor protection laws (De Andrés et al., 2005; Faccio and Lang, 2002). Institutional investors affect corporate governance, being expected to connect with the companies in which they invest in an attempt to guarantee the sustainability of companies in the longer term (Ferrerira and Matos, 2008). This particular agency problem has led to dominant block holders, concretely institutional investors, becoming directors. Accordingly, institutional directors have a significant influence on European Continental boards, accounting for 40% of directorship in Spain (Heidrick and Struggles, 2011) and, therefore, Spain becomes an interesting environment to explore the association between institutional directors and CEO pay.

In this study we follow two steps. Firstly, we analyse the effect of institutional directors sitting on boards on CEO remuneration (total, fix and variable), given that

these directors represent institutional investors, who are large shareholders and, consequently, they might perform a relevant task in supervising managers and in the decision-making process, having an effect on CEO pay. The less prevalence of institutional directors appointed by institutional investors in the US and UK boards may explain the little research focused on how institutional investors impact on CEO pay when acting as directors. Second, we assume that institutional investors do not behave in a uniform way. Recent literature argues that their abilities and motivations to connect in corporate governance and their aims in doing so may be different (Almazán et al., 2005; Cornett et al., 2007; Ferreira and Matos, 2008). Brickley et al. (1988) posit that the type of commercial links between companies and institutional investors describes the role of institutional investors and, consequently, the repercussion of institutional directors on CEO pay. Hence, business ties might raise conflicts of interest, as institutional investors without such relationships are probably to perform more independently and to engage actively in monitoring and, therefore, challenging and imposing controls on corporate managers. So, we distinguish between pressure-sensitive directors, who represent institutional investors that invest and maintain business ties with the firm where they are represented on boards, and pressure-resistant directors, who represent institutional investors that only maintain an investment relation with the company.

The remainder of the paper is structured as follows. Next, the context in which this research is conducted is provided. The theoretical background and hypotheses are described in the third section. The fourth section describes the sample, the variables and the methodology. The results are shown in the fifth section. Finally, the conclusions, the study limitations and future research are provided.

1.2. INSTITUTIONAL SETTING

The features of the corporate governance system may influence compensation policy (Álvarez and Neira, 2006; O'Reilly and Main, 2010). In this vein, the Spanish corporate governance environment is characterized by a low level of shareholder protection, the presence of controlling shareholders due to the high level of ownership concentration (De Andrés et al., 2005), the strong influence of pay practices between firms (Fernández-Alles et al., 2006), that is, firms tend to copy the remuneration practices of

other firms, and a one-tier board system (all directors, non-executives and executives, make up one board). Furthermore, De Miguel et al. (2004) point out that in Spain, in comparison to the US and the UK, the corporate control market is very unusual, and as a result, the expropriation of minority shareholders' wealth by controlling shareholders is the main agency problem. In addition, Spain has a financial system in which the presence of banks has been significant and important, not only as creditors, but also as shareholders and directors on the boards of the firms, as capital markets are less liquid, unlike the UK and US where financial markets play an important role.

Thus, to increase the transparency of firms and the level of protection of minority shareholders, Spain has undergone both legal and institutional changes. Accordingly, several corporate governance codes have been issued. Focusing on compensation policy and given the importance of this issue, CUBG (2006) makes recommendations to improve transparency concerning remunerations both managers and directors, because transparency is essential to avoid excessive remunerations. In the same vein, in 2003 the Spanish Government enacted the Transparency Act (Law 26/2003) aimed at strengthening the transparency of Spanish listed companies. This law was the first to make it mandatory for listed companies to disclose details of directors' compensation. Since 2011, and according to the Sustainable Economy Act (Law 2/2011), listed companies have to submit at the general meeting of shareholders both directors' and senior executives' compensation policy to a non-binding vote. Recently, the ECC/461/2013 Act was issued, whereby listed firms have to disclose the remuneration of their directors and managers individually. Finally, whereas the 31/2014 Act aims at upgrading and improving governance, making the creation of an appointment and remuneration committee mandatory, the last updated CUBG (2015) recommends separating this committee into two: an appointment committee and a remuneration committee.

Three kinds of directors are distinguished in board of directors: executive, independent and institutional. Whereas executive directors are insiders and are directly involved in the management of the firm, both independent and institutional directors are considered outsiders, with different agendas and incentives in terms of controlling managers. Given the high ownership concentration of most European listed firms in continental countries such as Spain, Italy, and Germany, and in an intermediate position

countries such as France, dominant shareholders take important positions on boards, and strongly influence management. Among the dominant shareholders, institutional investors are one of the most important controlling shareholders in Europe (Crespí et al., 2004). Accordingly, given that institutional investors, represented by institutional directors on boards, own most of the main European continental corporations (Spain, France and Italy), it is a meaningful public policy matter how institutional directors take part in the firm's governance.

Therefore, Spain provides a good scenario in which to examine how institutional directors may affect CEO pay. First, given the characteristics of the Spanish corporate governance system, the board is the main mechanism for mitigating the principal Spanish agency conflict (expropriation of minority shareholders' wealth by controlling shareholders). Second, as highlighted above, Spain is the European country with the highest proportion of institutional investors on boards. Concretely, 40% of the board directors in Spain are appointed by institutional investors.

1.3. THEORETICAL BACKGROUND AND HYPOTHESES

Agency theory is one of the main frameworks used to describe the design of compensation policies. According to this theory, the separation between the ownership (principal) and the management (agent) causes information asymmetries and conflicts of interest between them (Jensen and Meckling, 1976). Mechanisms for monitoring the alignment to resolve this conflict of interest between owners and managers are established by agency theory. Among these mechanisms, compensation policy is used to align the CEO's behaviour with the owners' interests (Fama and Jensen, 1983). The managerial power approach posits that CEOs have sufficient power to control the board and set or influence their own remuneration (Bebchuk and Fried, 2003). Hence, the greater the CEOs' power the greater their capacity to increase their income.

The academic literature shows that the monitoring role is played by institutional directors and not by independent directors (e.g. García-Osma and Gill de Albornoz, 2007; Pucheta-Martínez and García-Meca, 2014). In this respect, previous evidence reports that independent directors do not enhance corporate governance and increase or do not affect CEO compensation (e.g. Core et al., 1999; Feng et al., 2010; O'Reilly and

Main, 2010). Consequently, it will be interesting to explore the role of institutional directorship in determining CEO pay.

Institutional investors can influence CEO compensation directly through monitoring activities (Gillan and Starks, 2000). According to Ryan and Schneider (2002), institutional investors are characterised by playing a relevant supervising role. In this regard, David and Kochhar (1996) argue that institutional investors have incentives to perform monitoring activities and affect CEO compensation, due to the larger proportion of shares usually held by them (Ozkan, 2011), making it difficult and costly to sell off their shares as such a move may negatively affect the stock price. Furthermore, institutional investors manage money from other people; hence, they have to safeguard their investment against loss of value through monitoring activities, and promoting changes such as those affecting CEO compensation (David and Kochhar, 1996). Apart from these incentives, monitoring provides benefits such as skills to influence management, potential financial profit from such influence and better information (Chen et al., 2007), but it is highly costly. Therefore, monitoring activities is probably to be only cost-effective for institutional investors and, as a result, these activities are most likely to be borne by institutional investors (Shleifer and Vishny, 1986).

Additionally, institutional investors are convinced that CEOs are overpaid (Bebchuk and Grinstein 2005), and this may affect firm value (Gerhart and Milkovich, 1990). Thus, institutional investors have reasons to sit on the board and actively cooperate in corporate governance problems. Furthermore, institutional shareholders are more effective in influencing the board than dispersed individual ownership (Cubbin and Leech 1983). Accordingly, institutional investor involvement reduces CEOs' influence on boards that set compensation, and their presence on boards is linked with tighter control over CEO compensation (Bertrand and Mullainathan, 2001), as they have the expertise and resources to do so (Lee and Chen, 2011).

Prior literature shows the supervising role performed by institutional investors, concretely how they affect CEO compensation, according to investor interests. Specifically, while greater pay is preferred by the CEO, institutional directors seek lower CEO pay to increase the participation of shareholders in the firm's rents (Werner

et al., 2005). In this vein, Hartzell and Starks (2003) evidence a negative association between institutional ownership concentration and management pay. These same results are obtained by Khan et al. (2005) and Ozkan (2011), who find a negative impact of large institutional investors on CEO compensation, showing the effectiveness of these owners in alleviating likely agency costs by reducing CEO compensation**.** The thesis that institutional investors decrease CEO pay is also suggested by Almazán et al. (2005), Core et al. (1999), Ezzeddine and Lamia (2006), Firth et al. (2007) and Ning et al. (2015). Sánchez-Marín et al. (2011) also report that the monitoring role performed by institutional investors reduces the compensation level of top management. Similarly, Cheng and Firth (2005) report that institutional ownership restrains executive pay and Gómez-Mejia et al. (2003) find that institutional investors reduce the long-term income for CEOs. This evidence supports the monitoring (supervision) hypothesis, which suggests that some directors (institutional directors) have motivations to supervise management teams, and consequently, these directors (institutional directors), when performing their monitoring role, will have a negative impact on CEO pay.

However, authors like Croci et al. (2012), Feng et al. (2010), Fernandes et al. (2012), Khan et al. (2005), Lee and Chen (2011) and Victoravich et al. (2013) find that institutional ownership impacts positively on CEO pay. This may be because institutional owners have sufficient power to make decisions according to their own interests and against those of minority owners to maintain their controlling position (Cornett et al., 2007; Ruiz-Mallorquí and Santana-Martín, 2009). Therefore, institutional shareholders tend to negotiate privately with firms (Carleton et al., 1998) to get their own aims met, and thereby, they may entrench (collude) with management team (Pound, 1988). Accordingly, institutional directors are most probably that take part in tunnelling activities than in performing monitoring activities, namely, the expropriation of wealth from minority investors (Johnson et al., 2000). Other possible reason for this positive relationship between institutional directors and CEO pay may be because institutional directors rather than playing a monitoring role, they do not reduce agency problems, but they bring other benefits such as legitimacy, expertise, access to resources advice and to channels of information as other theoretical perspectives suggest (resource dependence theory and stewardship theory). Thus, CEOs may use their power and influence to get better compensation, according to their preferences, since institutional directors do not perform control activities to mitigate agency

problems. These views are consistent with the entrenchment (collusion) hypothesis, which posits that some directors (institutional directors) might have motivations to align with managers and, as a result, institutional directors will be most likely to support higher CEO pay.

While prior literature demonstrates a linear association between institutional directors and CEO pay, a non-linear relationship between institutional directors and CEO pay has not yet been explored to the best of our knowledge. Nevertheless, a non-linear relationship (may be U or an inverted U shaped) has been evidenced by authors who have analysed the relationship between the largest shareholders, such as institutional investors, and corporate performance (Claessens et al., 2002; Thomsen and Pedersen, 2000; Yeh, 2005). Concretely, Chirinko et al. (1999), Jara-Bertin et al. (2012), Navissi and Naiker (2006) and Zou (2010) show an inverted U-shape association between institutional shareholding and corporate performance. Therefore, the supervising hypothesis may be supported, given that a higher percentage of institutional directors on boards result in a higher corporate performance, but when their presence on boards reaches a tipping point, more institutional directors beyond this point will be negatively associated with firm value because they might, thus, entrench themselves and might achieve absolute control of firms and extract private benefits, confirming the entrenchment hypothesis. This non-linear relationship between institutional shareholding and corporate performance can be extended to the association between institutional directors and CEO compensation.

These arguments and findings are in line with Brewer (1991), who proposes the theory of optimal distinctiveness. This theory posits that the outcomes of a group composition are expected to be non-linear: very low and very high proportions of certain characteristics (institutional directors) within a group (board of directors) result in more negative effects (It will result a higher CEO compensation when it was expected, according to prior research, a lower CEO compensation), while more positive effects (it will result a lower CEO compensation when it was expected, according to prior research, a lower CEO compensation) can occur when a balanced proportion of characteristics exists (a U-shaped). Accordingly, this would suggest that institutional directors not only may affect CEO compensation linearly, but also it is probable that a non-linear relationship could explain the impact. Additionally, a higher concentration of

power with other kinds of directors might be progressively more perceptible, as more institutional directors are appointed by institutional investors, and might, maybe, generate dissatisfaction with those not holding this power, that is, the increasing number of institutional directors in the company. Therefore, this discontent might result in individual effects such as lowered productivity or turnover, whose cooperative result would be adverse to firm performance. The power sharing among few directors limits this power to other directors, and as a consequence, this might have negative effects on company outcomes for having lost occasions to use this power, thus impacting on CEO compensation. In this way, two opposite effects on CEO compensation can be exerted by institutional directors, which cannot be supported by a linear relationship, but by a non-linear (a U shaped).

Consequently, the representation of institutional directors on boards will allow them to perform a more active supervising role, preventing CEOs from controlling the board and behaving opportunistically, receiving a higher pay. However, due to the differences (e.g. legal restraints, investment aims and accountabilities) among institutional directors (Verstegen and Scheider, 2002), conflicts may increase when their representation rises on boards, and consequently, strategic choices, such as CEO compensation, can be affected by such differences (Hoskisson et al., 2002). In this regard, beyond a certain threshold, more institutional directors on boards may generate coordination problems, and thus, efficient monitoring by these directors may be lost; this may be exploited by the CEO to collude with institutional directors. In this way, institutional directors reach their own goals and the CEO increases his/her managerial discretion, gaining greater compensation. These arguments support a non-linear association between institutional directors and CEO pay.

Hence, we posit the following hypothesis:

> *H1a: There is a non-linear association between institutional directorship and the CEO total compensation. Institutional directors affect the CEO total compensation negatively, but when they reach a tipping point, they impact on it positively.*

On the other hand, institutional directors may also affect the structure of CEO compensation (Shin and Seo, 2010). Thus, if institutional directors perform monitoring activities effectively, they will prefer more CEO fix compensation and less CEO variable compensation, because despite the fact that the variable compensation is expected to impact positively on firm value and align manager's and shareholders' interests, variable compensation may boost the opposite behaviour. Thus, variable pay might foster CEO to pay more attention to the short-term stock price (Peng and Röell, 2008) and, then, CEO may have motivations to manipulate earnings (Bergstresser and Philippon 2006). Furthermore, variable components might also promote a higher CEO entrenchment (Croci et al., 2012). Accordingly, if monitoring through institutional directors is possible, the demand of variable compensation by these directors will be lower, as direct monitoring by institutional directors might substitute for variable compensation (Ke at al., 1999).

Thus, based on above arguments, we also posit the following hypothesis:

H1b: Institutional directors influence the CEO fix compensation positively, and the CEO variable compensation negatively

Nevertheless, institutional directors (banks, pension funds, mutual funds or insurance companies, among others) are a heterogeneous group, and as a result, they employ different investment strategies and incentives to participate in corporate governance (Bennett et al., 2003). In this vein, the efficiency of supervising by institutional directors is affected by the commercial ties, limiting both their ability to monitor and their influence. Thus, institutional directors can be classified into two groups: pressure-sensitive institutional directors and pressure-resistant institutional directors (e.g. Almazán et al., 2005; Brickley et al., 1988; Chen et al., 2007; Cornett et al., 2007; López-Iturriaga et al., 2015; Pucheta-Martínez and García-Meca, 2014; Ruiz-Mallorquí and Santana-Martín, 2009).

Pressure-resistant institutional directors (investment funds, mutual funds and pension funds) represent institutional investors that only have an investment relation with companies in which they have invested and, consequently, they do not have to face conflict of interest arising from commercial links. This allows them to be more

independent of the firm, and consequently, it is more probable that they will take an active part in monitoring and exerting pressure to instigate changes (Almazán et al., 2005; Ferreira and Matos, 2008; Jara-Bertín et al., 2012; Pucheta-Martínez and García-Meca, 2014; Ruiz-Mallorquí and Santana-Martín, 2009), thereby mitigating agency problems between shareholders and managers. Additionally, these directors prefer to invest in a long-term horizon (Tihanyi et al., 2003). Therefore, they are more likely to play actively a supervising role and might affect firm operations, according to shareholders' interests, and are less exposed to pressure from companies where they have invested. Hence, from an agency theory perspective, pressure-resistant directors will have less conflict of interest to prevent them from implement monitoring actions, and will, accordingly, have the ability to act as active monitors of the firm management (Brickley et al., 1988) and, as a consequence, they will support to decrease CEO compensation, among others.

In this sense, previous research provides evidence that pressure-resistant institutional directors reduce agency conflict through lowering levels of executive compensation. Accordingly, Parthiban et al. (1998) show a negative relationship between pressure-resistant institutional ownership and CEO compensation. Similarly, Dong and Ozkan (2008) also demonstrate that director pay is constrained by pressure-resistant institutional directors. In the same way, Almazan et al. (2005) and López-Iturriaga et al. (2015) stress that pressure-resistant institutional directors are negatively associated with CEO compensation, and Shin and Seo (2011) find that pension funds, as pressure-resistant directors, have a negative influence on CEO compensation. Furthermore, Shin (2011) highlights that pressure-resistant institutional directors, to reduce agency conflict, prefer to monitor CEO compensation rather than linking it to firm performance, as such pay schemes may encourage the CEO to engage in fraudulent behaviour (Zhang et al., 2008). Therefore, it is probable that pressure-resistant institutional directors will reduce CEO compensation due to their monitoring role. However, Jiao and Ye (2013) extend the non-linear relationship (an inverted U shaped) shown by Jara-Bertín et al. (2012) and Navissi and Naiker (2006) between institutional directors and corporate performance to pressure-resistant institutional directors, showing an inverted U-shaped association between firms' future performance and pressure-resistant institutional investors. Thus, this research shows the monitoring role played by pressure-resistant directors regarding the management team, since their

presence on boards enhances firm value; however, when the percentage of pressure-resistant directors exceeds a certain point, the supervision role performed by them becomes ineffective because their influence on managers decreases. Thereby, the increase of pressure-resistant directors beyond a certain point may lead to divert from value creation, since they pursue their own interests and it is more probable that they may collude or entrench with the management team to extract personal profits. As a consequence, they will impact negatively on firm performance. Hence, we extend the arguments that support a non-linear association between pressure-resistant directors and firm value to the analysis between pressure-resistant and CEO compensation. Thus, we posit, in line with institutional directors as a whole, that efficient monitoring will result in a negative relationship between pressure-resistant institutional directors and CEO compensation to some extent, but when their presence on boards reaches a certain point, both conflicts of interest and coordination problems may appear between pressure-resistant directors, and these may be exploited by CEOs to ensure their own aims are met, for example obtaining greater compensation, since efficient monitoring may be lost, and the CEO may achieve more control and power and may collude with pressure-resistant directors (Jiao and Ye, 2013). Accordingly, there might be a non-linear (a U shaped) influence of pressure-resistant on CEO compensation, rather than a linear relationship.

In contrast, pressure-sensitive institutional directors (banks and insurance companies), are appointed by pressure-sensitive investors, who apart of investing in firms, also have a commercial relation with the firm. Thus, it is possible that the main objective of pressure-sensitive institutional investors, unlike pressure-resistant investors, is not simply to maximize the firm value, but also to expand their own businesses and derive private profits (Cuervo, 2002; Gorton and Schmid, 2000). As a result, pressure-sensitive institutional directors are more likely to face conflicts of interest arising from the business relationships (Almazán et al., 2005; Shin and Seo, 2011), as they may jeopardize the business relationship if they propose changes (Chen et al., 2007). Thus, pressure-sensitive directors may prefer not monitoring firm CEO and it is more likely they support CEO actions (Brickley et al, 1998). Furthermore, pressure-sensitive institutional directors bear higher monitoring costs than pressure-resistant directors, because the effort required from pressure-sensitive investors to monitor managers is greater due to the need to protect their business relationship (Almazan et al., 2005;

Chen, et al., 2007). Hence, this dependent position makes that pressure-sensitive directors may lack of the incentives, motivations and abilities to effectively monitor managers. In this vein, previous research finds that pressure-sensitive institutional directors impact negatively on firm decisions, given the double relation that maintain with the firm, which is opposite to shareholders' interests (e.g. Brickley et al., 1988; Ruiz-Mallorquí and Santana-Martín, 2009, 2011; Tribó and Casasola, 2010). Additionally, another reason that could explain their lack of incentives to monitor managers is that they face fiduciary standards and prefer short-term earnings, whereby they prefer to invest in short-term horizons (see Van der Stede, 2013).

Pressure-sensitive institutional directors, particularly banks, play a much broader role because they act as shareholders, directors and creditors and are, therefore, well-informed investors. Accordingly, they may be an effective mechanism for mitigating agency problems and protecting minority shareholders (Canals, 1995). Nonetheless, given the low level of shareholder protection in civil law countries, their ability to create, dominate and control corporate groups (Morck and Nakamura, 1999) and the use of privileged information to seek enhancing their business, creating alliances with managers or other stakeholders allows pressure-sensitive institutional directors to make private gains or profits at the expense of minority shareholders (Gorton and Schmid, 2000; Roe, 2003). Thus, given that pressure-sensitive directors may face higher costs of extracting private benefits, since most of them are under strict control by regulatory authorities (Maury and Pajuste, 2005), they might collude with the CEO to protect their business ties, supporting the CEO's decisions (the collusion hypothesis). Consequently, the CEO will receive higher compensation. In this regard, David et al. (1998), López-Iturriaga et al. (2015) and Shin and Seo (2011) show that pressure-sensitive directors increase CEO compensation.

Nevertheless, when the representation of pressure-sensitive directors on boards exceeds a tipping point, they may play a more effective role in the firm governance, which may have a negative effect on CEO pay (the supervision hypothesis). Despite pressure-sensitive institutional directors are able to create coalitions to derive private benefits (Bennedsen and Wolfenzon, 2000; Jara-Bertín et al., 2008), they might be interested in preventing the formation of agreements between themselves and the CEO to avoid expropriation activities, as their presence on boards increases. This idea is

supported by De Andrés et al. (2010), who report that when another shareholder can take advantage of a controlling position, the presence of banks on boards is positively associated with firm value. This is because pressure-sensitive directors, concretely banks, acting as shareholders and lenders, may perform more monitoring activities (De Andrés et al., 2010) to mitigate the opportunistic behaviour of a new controlling shareholder (Mahrt-Smith, 2006). Thus, when the presence of pressure-sensitive directors on boards rises beyond a certain point, the monitoring role played by them in contesting the power of other large shareholders is enhanced (Gomes and Novaes, 2005), and thereby, could be used to monitor CEO decisions (e.g. CEO compensation) and prevent the collusion between CEO and other pressure-sensitive directors. As a result, they might influence to challenge the power of controlling owners and dominant shareholders, enhancing corporate governance, which may lead to decrease CEO pay.

The combination of these ideas supports a non-linear relationship (an inverted U shaped) between pressure-sensitive institutional directors and CEO compensation, based on the hypotheses of entrenchment or collusion and supervision. This non-linear relationship is supported by De Andrés et al. (2010) and Morck et al. (2000), who analysed the relationship between pressure-sensitive institutional ownership and firm value (a U shaped).

To the best of our knowledge, a non-linear relationship between pressure-sensitive/pressure-resistant directors and CEO pay has not yet been explored. Therefore, based on above arguments, we propose the following hypotheses:

> *H2a: There is a nonlinear relationship between pressure-sensitive institutional directors and the CEO total compensation. Pressure-sensitive directors influence the CEO total compensation positively, but when they reach a certain threshold, they affect it negatively.*

> *H2b: There is a nonlinear relationship between pressure-resistant institutional directors and the CEO total compensation. Pressure-resistant directors influence the CEO total compensation negatively, but when they reach a certain threshold, they affect it positively.*

As mentioned above, institutional directors might impact on the composition of CEO pay. Hence, pressure-resistant directors are less likely to receive pressure from firms where they have invested, because they do not tend to maintain a business relation with the firm, and are characterised by a long-term orientation and, therefore, they will actively perform monitoring activities and will prefer more CEO fix compensation and less CEO variable pay for the views suggested in prior hypotheses. However, pressure-sensitive institutional directors will prefer more variable than fix compensation, as these directors prefer to invest in short-term horizon and short term earnings and variable component allows CEO to focus on the short-term stock price (Peng and Röell, 2008). Additionally, Croci et al. (2012) report that CEO entrenchment may be enhanced by variable components and, therefore, pressure-sensitive directors will align with the CEO to gain more power in order to not damage their business with the firm where they serve as board members.

Hence, according to above arguments, we posit the following hypothesis:

> *H2c: Pressure-sensitive institutional directors influence the CEO fix (variable) compensation negatively (positively), while pressure-resistant institutional directors influence the CEO fix (variable) compensation positively (negatively).*

1.4. RESEARCH DESIGN

1.4.1. Sample

The sample for the panel data analysis was extracted from the population of Spanish non-financial listed firms for the period 2010–2014. Financial companies have been removed from the sample because of their particular accounting practices, which make it more difficult to compare their financial statements to those of companies in other business activities as they are not homogeneous. Furthermore, financial companies are under stricter supervision by financial authorities, so the role of their boards may be restricted by this control. An unbalanced panel consisting of 553 firm-year observations was drawn. Causes such as mergers, takeovers or other companies going public explain the unbalanced panel. However, Arellano (2003) argues that findings obtained for such panels are as trustworthy as those achieved by balanced panels.

Different sources were consulted to build the database. Financial information was obtained from the "Sistemas de Análisis de Balances Ibéricos" (SABI) database, whereas corporate governance information and the CEO compensation figures were obtained from the public registers of the Spanish Securities Market Commission (CNMV), particularly from the corporate governance and directors' remuneration reports that companies have had to disclose annually since 2003 and 2011, respectively. The annual reports disclose the data for two consecutive years.

1.4.2. Variables

Three dependent variables are defined to test the hypotheses. CEO_PAY is the CEO total compensation, measured as the logarithm of the CEO's total compensation. Authors such as Baixauli-Soler and Sánchez-Marín (2011), Croci et al. (2012), Conyon and He (2016), David et al. (1998), Kanagaretnam et al. (2016), Lin and Lin (2014) and Shin and Seo (2011), among others, also use the logarithm of the CEO compensation as the dependent variable. FIX_CEO_PAY is the proportion of the CEO fix compensation, calculated as the ratio between the total fix CEO compensation and the CEO total compensation, and VAR_CEO_PAY is the proportion of the CEO variable compensation, measures as the ratio between the total CEO variable compensation and the CEO total compensation (López-Iturriaga et al. 2015).

Several independent variables are used to examine how the presence of institutional investors on boards is associated with CEO pay. The variable for institutional directors, who represent institutional investors on boards, is defined as INST and is calculated as the percentage of institutional directors sitting on boards (López-Iturriaga et al., 2015; Pucheta-Martínez and García-Meca, 2014). Institutional directors are also differentiated into pressure-sensitive and pressure-resistant directors. Thus, the variable SENSIT represents the proportion of pressure-sensitive directors on boards and RESIST represents the proportion of pressure-resistant directors on boards (García-Meca et al., 2013; López-Iturriaga et al., 2015; Pucheta-Martínez and García-Meca, 2014). Finally, the square of the proportion of institutional, pressure-sensitive and pressure-resistant directors is used to analyse whether these directors affect CEO compensation in a non-linear way. These variables are defined as $INST^2$, $SENSIT^2$ and $RESIST^2$, respectively.

CEO compensation may be affected by other factors. Thus, several variables are taken into account to control for these factors. First, firm size is included. This is defined as SIZE and measured as the logarithm of total assets (Victoravich et al., 2013). Previous research shows a positive relationship between firm size and CEO compensation (e.g. Baixauli-Soler and Sánchez-Marín, 2011; Core et al., 1999; Lee and Chen, 2011; López-Iturriaga et al., 2015; Ozkan, 2007). Return on assets is also controlled. It is defined as ROA and is measured as operating income before interest and taxes over total assets. Whereas authors like Lee and Chen (2011) and William (2001) find a positive association between ROA and CEO compensation, Mehran (1995) reports a negative relationship between ROA and the CEO compensation. Duality in the position of the CEO and president of the board of directors is also included as a control variable, defined as CEO_DUALITY and measured as a dummy variable equal to 1 if the same person is both CEO and chairman of the board and 0, otherwise. Core et al. (1999), David et al. (1998) and Shin and Seo (2011) show that CEO compensation is greater when the CEO is also the board president, suggesting that when the CEO and chairman are the same person, CEO power increases and he/she is able to exert a positive influence on his/her compensation. The length of time for which the CEO has performed this role is also considered as a control variable, defined as CEO_TENURE and measured as the number of years that CEO has held the position. Chung and Pruitt (1996) suggest the longer the CEO tenure the more he/she may be able to influence the board of directors and his/her compensation, according to his/her interests. This idea is also evidenced by Shin and Seo (2011), who show a positive relationship between the CEO tenure and the CEO compensation. CEO ownership is also controlled, defined as CEO_OWN, and calculated as the percentage of shares held by CEOs. We argue that CEOs who hold a high proportion of firm's stocks have the power to set high compensation level. This view is supported by Wright and Kroll (2002) and Ozkan (2011), who find that CEO or executive shareholdings affect positively CEO pay. The number of meetings held by the board, defined as BDMEET, is also included as a control variable, as the CUBG (2015) suggests that the board should meet as often as necessary to perform its supervisory and controlling role effectively. Hence, the more meetings held by board the more efficient may be its monitoring role and this may reduce CEO compensation. However, there are firms that pay when directors attend meetings (López-Iturriaga et al., 2015), which suggests a positive association between board meetings and CEO compensation. The independence

of the board is also considered, defined as INDP and calculated as the proportion of independent directors on boards. Authors such as Buigut et al. (2014) and Jian and Lee (2015), among others, find a negative relationship between the percentage of independent directors and CEO compensation. Management ownership is also considered, defined as OWNMAN and measured as the proportion of shares held by directors. Ozkan (2007) demonstrates a negative relationship between the stocks held by directors and CEO compensation. Finally, we also consider year fixed effects to control for year effects on CEO compensation.

In Table 1 we provide the description of variables.

Table 1
Variable description

Variables	Expected Sign	Description
CEO_PAY		Logarithm of the CEO's total compensation
FIX_CEO_PAY		The ratio between the total CEO fix compensation and the CEO total compensation
VAR_CEO_PAY		The ratio between the total CEO variable compensation and the CEO total compensation
INST	-	Ratio between the number of institutional directors and the total number of directors on the board
$INST^2$	+	The square of INST
SENSIT	+	Ratio between the number of institutional directors who represent pressure-sensitive institutional investors on the board and the total number of directors on boards
$SENSIT^2$	-	The square of SENSIT
RESIST	-	Ratio between the number of institutional directors who represent pressure-resistant institutional investors on the board and the total number of directors
$RESIST^2$	+	The square of RESIST
SIZE	+	Logarithm of total assets
ROA	+/-	Operate incomes before interests and taxes over total assets
CEO_DUALITY	+	Dummy variable: 1 if the CEO and president of the board are the same and 0, otherwise
CEO_TENURE	+	The years that the CEO has performed the firm's top higher position
CEO_OWN	+	The percentage of shares held by CEO
BDMEET	+/-	Number of meetings held by the board in a year.
INDP	-	Ratio between the number of independent directors and the total number of directors on boards
OWNMAN	-	Proportion of shares held by directors.

1.5. RESULTS

1.5.1 Descriptive Statistics

The mean value, the standard deviation and the 10^{th}, 50^{th} and 90^{th} percentiles are provided in Table 2.

Table 2
Main Descriptive Statistics

Mean, standard deviation and percentiles of the main variables. Panel A and B show the continuous and dummy variables, respectively. CEO_PAY is the logarithm of the CEO total compensation; FIX_CEO_PAY is the ratio between the total CEO fix compensation and the CEO total compensation; VAR_CEO_PAY is the ratio between the total CEO variable compensation and the CEO total compensation; INST is the proportion of institutional directors on board; SENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; RESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; BDMEET is the number of meetings held by the board in a year; CEO_TENURE is the number of years the CEO has held the firm's higher position; CEO_OWN is the percentage of shares held by CEO; INDP is the proportion of independent directors on board; OWNMAN is the proportion of stocks held by directors; ROA is the operate income before interests and taxes over total assets; SIZE is the logarithm of total assets and CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise.

Panel A. Continuous variables

Variables	N	Mean	Std. Dev.	Perc. 10^{th}	Perc. 50^{tf}	Perc. 90^{th}
CEO_PAY	553	4.252	3.184	0.000	5.537	7.712
FIX_CEO_PAY	553	84.883	35.711	51.613	100.000	100.000
VAR_CEO_PAY	553	15.117	35.710	0.000	0.000	22.393
INST	553	44.290	28.322	11.111	44.444	75.00
SENSIT	553	7.580	13.821	0.000	0.000	26.667
RESIST	553	36.710	26.617	0.000	33.333	71.429
BDMEET	553	9.707	3.979	5.000	10.000	14.000
CEO_TENURE	553	1.714	1.514	0.000	1.000	4.000
CEO_OWN	553	5.516	15.243	0.000	0.001	22.393
INDP	553	33.383	18.513	11.111	33.333	60.000
OWNMAN	553	27.726	27.578	0.032	21.193	66.900
ROA	553	-1.445	55.683	-16.208	1.584	14.533
SIZE	553	13.054	2.095	10.608	13.059	15.686

Panel B. Dummies variables

Variable	0	% (0)	1	% (1)
CEO_DUALITY	376	67.993	177	32.007

As can be seen, on average, the CEO total compensation (CEO_PAY) is 4.25 (the logarithm of the CEO total pay). The proportion of the CEO fix compensation accounts, on average, for 84.88%, while the proportion of the CEO variable compensation is, on average, 15.12%. Regarding the composition of boards of directors, 44.29% of the directors represent institutional investors (INST); of these, 36.71% institutional directors are representatives of institutional investors maintaining solely an investment relationship with the firms in which they invest (pressure-resistant directors: RESIST) and 7.58% of institutional directors represent institutional investors maintaining both a business and an investment relationship with the firms (pressure-sensitive directors: SENSIT). Moreover, the proportion of independent directors on boards (INDP) is 33.38%, on average.

With respect to other variables, on average, the profitability (ROA) and the firm size (SIZE) are -1.45% and 13.05 (logarithm of total assets), respectively. The boards of directors held 9.71 meetings per year (BDMEET), on average, a figure that exceeds the recommendation of the CUBG (2015) (eight meetings/year). Finally, 32% of the sample firms have the same person as CEO and chairman of the board of directors (CEO_DUALITY), the average length of CEO tenure is 1.7 years (CEO_TENURE), the percentage of shares held by CEOs (CEO_OWN) is 5.52% and directors hold 27.73% of stocks (OWN_MAN).

1.5.2. Univariate analysis

An analysis of mean differences was performed for the independent variables. Two groups were constructed to study mean differences between the independent variables, depending on whether the firms provide a higher total CEO compensation, a higher proportion of the CEO fix compensation and a higher proportion of the CEO variable compensation, or not. The critical value for creating the two groups was the median of the CEO total compensation, of the proportion of the CEO fix compensation and of the proportion of the CEO variable compensation; thus, firms with these three types of compensation equal to or higher than their medians were included in the first group, whereas companies with these types of CEO compensation amounting to less than their medians were incorporated in the second group.

Table 3, Panel A, shows the mean values of the independent variables, from which it can be seen that the companies with a greater presence of institutional directors (INST) and pressure-resistant directors (RESIST) on boards compensate their CEOs less than companies with a lower presence of such directors. These results, which are statistically significant, show that institutional directors are more likely to reduce CEO total compensation. This finding is consistent with previous research that focuses on institutional directors and CEO total compensation (Almazan et al., 2005; Core et al., 1999; David et al., 1998; Dong and Ozkan, 2008; Ezzeddine and Lamia, 2006; Firth et al., 2007; López-Iturriaga et al., 2015; Ning et al., 2015; Sánchez-Marín et al., 2011). Hence, these results suggest that institutional directors and pressure-resistant directors have a negative impact on CEO total compensation, and therefore, the presence of such directors on boards tends to reduce agency problems, reducing CEO total pay.

Regarding pressure-sensitive directors, CEOs receive higher compensation in firms in which the presence of these directors on boards is greater. Despite this positive relationship between pressure-sensitive directors and CEO total compensation, which is confirmed by David et al. (1998), López-Iturriaga et al. (2015) and Shin and Seo (2011), our findings do not support this association as the mean difference is not statistically significant.

Panel B and C of the Table 3 show the mean values of all independent variables to examine whether there are differences for the proportion of the CEO fix and variable CEO compensation. According to the figures provided by Panel B and C in Table 3, the proportion of institutional and pressure-resistant directors is higher in firms that support an increase in the CEO fix compensation and a decrease in the CEO variable compensation than firms with a lower percentage of such directors, while the percentage of pressure-sensitive directors is higher in companies that prefer to compensate CEOs with more variable compensation and with less fix compensation. This evidence is in line with our expectations and prior evidence (Croci et al., 2012), and all the mean differences are statistically significant.

Table 3
Means comparison test

CEO_PAY is the logarithm of the CEO total compensation; FIX_CEO_PAY is the ratio between the total CEO fix compensation and the CEO total compensation; VAR_CEO_PAY is the ratio between the total CEO variable compensation and the CEO total compensation; INST is the proportion of institutional directors on board; SENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; RESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors.

Panel A. CEO total compensation

Variable	CEO_PAY (>= median) Mean	CEO_PAY (< median) Mean	Mean difference	p-value
INST	42.821	46.571	-3.750	0.059
SENSIT	7.793	7.370	0.423	0.359
RESIST	34.073	39.318	-5.245	0.010

Panel B. Fix CEO compensation

Variable	FIX_CEO_PAY (>= median) Mean	FIX_CEO_PAY (< median) Mean	Mean difference	p-value
INST	46.106	42.175	3.931	0.059
SENSIT	6.860	8.881	-2.021	0.049
RESIST	38.620	33.257	5.363	0.011

Panel C. Variable CEO compensation

Variable	VAR_CEO_PAY (> median) Mean	VAR_CEO_PAY (= median) Mean	Mean difference	p-value
INST	42.118	46.126	-4.008	0.056
SENSIT	8.926	6.840	2.086	0.045
RESIST	33.155	38.661	-5.506	0.010

1.5.3 Multivariate analysis

The correlation matrix to check for multicollinearity is displayed in Table 4. None of the correlation coefficients are sufficiently high (> 0.80) to cause multicollinearity problems (Archambeault and DeZoort, 2001), except the pairs INST-RESIST and FIX_CEO_PAY-VAR_CEO_PAY. However, these pairs are correlated by definition as these are relationships between corporate governance variables and compensation

variables, and these pairs of variables are not incorporated in the model at the same time. Consequently, and according to these results, the models used have no multicollinearity issues.

In Table 5, we provide the results of the hierarchical regression conducted to examine the effect of institutional directors sit on boards on CEO compensation (total, fix and variable compensation), using four models. In model 1, where the impact of institutional directors on the CEO total compensation is analysed, in the first step we enter the control variables, in the second step we enter the linear variable of institutional directors (INST) and in the third step we enter the non-linear variable of institutional directors ($INST^2$). Thus, among the control variables, firm size, CEO duality and CEO tenure exhibit a positive sign, as expected, and are statistically significant, while board independence shows a negative sign, as predicted, and is statistically significant. The linear INST variable is significant and negatively associated to the CEO total compensation, explaining an additional 0.30% of the variance beyond that explained by the control variables. The non-linear $INST^2$ term is positive and significantly associated to the CEO total compensation, explaining an additional 0.50% of the variance beyond that explained by the other two steps. Therefore, this evidence leads us not to reject the hypothesis H1a. The results indicate that the proportion of institutional directors on boards reduces the CEO total compensation, but when the percentage of such directors reaches a certain point, they will be more likely to support a higher CEO total pay. This non-linear relation, specifically a U shaped, is in line with previous studies (Chirinko et al., 1999; Jara-Bertín et al., 2012; Navissi and Naiker, 2006; Zou, 2010), which show that institutional directors may play two opposite roles: at low levels of representation, monitoring activities are undertaken by institutional directors, which reduce CEO compensation (e.g. Almazán et al., 2005; Ezzeddine and Lamia, 2006; Firth et al., 2007; Ning et al., 2015; Sánchez-Marín et al., 2011). However, these directors increase CEO compensation (Croci et al., 2012; Feng et al., 2010; Fernandes et al., 2012) when their presence on boards reaches a certain threshold, and thus, they may collude with the CEO and be used to further the CEO's own ends. Therefore, earlier evidence supports these findings and the presence of a U-shaped relationship between institutional directors and the CEO total compensation. Thereby, these results suggest the validity of both the monitoring and the entrenchment hypotheses.

Table 4
Correlation Matrix

CEO_PAY is the logarithm of the CEO total compensation; FIX_CEO_PAY is the ratio between the total CEO fix compensation and the CEO total compensation; VAR_CEO_PAY is the ratio between the total CEO variable compensation and the CEO total compensation; INST is the proportion of institutional directors on board; SENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; RESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; BDMEET is the number of meetings held by the board in a year; CEO_TENURE is the number of years the CEO has held the firm's higher position; CEO_OWN is the percentage of shares held by CEO; INDP is the proportion of independent directors on board; OWNMAN is the proportion of stocks held by directors; SIZE is the logarithm of total assets; ROA is the operate income before interests and taxes over total assets and CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise. * p<0.1; **p<0.05; ***p<0.01

	CEO_PAY	FIX_CEO_PAY	VAR_CEO_PAY	INST	SENSIT	RESIST	BDMEET	CEO_DUALITY	CEO_TENURE	CEO_OWN	INDP	OWNMAN	ROA	SIZE
CEO_PAY	1													
FIX_CEO_PAY	-0.693***	1												
VAR_CEO_PAY	0.693***	-1.000	1											
INST	-0.145***	0.082*	-0.082*	1										
SENSIT	0.043	-0.109**	0.109**	0.206***	1									
RESIST	-0.151***	0.096**	-0.096**	0.826***	-0.269***	1								
BDMEET	0.182***	-0.156***	0.156***	0.117***	-0.007	0.099**	1							
CEO_DUALITY	0.352***	-0.110***	0.110***	-0.315***	-0.100**	-0.263***	0.028	1						
CEO_TENURE	0.682***	-0.439***	0.439***	-0.228***	-0.046	-0.181***	-0.055	0.378***	1					
CEO_OWN	0.420***	-0.108**	0.108**	-0.274***	-0.072*	-0.223***	-0.092**	0.543***	0.515***	1				
INDP	0.090**	-0.116***	0.116***	-0.683***	-0.192***	-0.527***	0.046	0.154***	0.072*	0.106**	1			
OWNMAN	0.015	0.124***	-0.124***	0.194***	-0.034	0.227***	-0.149***	0.164***	0.143***	0.304***	-0.276***	1		
ROA	0.080*	-0.202***	-0.202***	-0.125***	-0.017	-0.098**	-0.086**	0.010	0.051	-0.047	0.107**	-0.151***	1	
SIZE	0.610***	-0.555***	-0.555***	-0.036	0.194***	-0.116***	0.284***	0.005	0.280***	-0.002	0.131***	-0.255***	0.141***	1

Table 5

Results of the hierarchical regression for institutional directors sit on the board of directors

Estimated coefficients. CEO_PAY is the logarithm of the CEO total compensation; FIX_CEO_PAY is the ratio between the total CEO fix compensation and the CEO total compensation; VAR_CEO_PAY is the ratio between the total CEO variable compensation and the CEO total compensation; INST is the proportion of institutional directors on board; SENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; RESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; BDMEET is the number of meetings held by the board in a year; CEO_TENURE is the number of years the CEO has held the firm's higher position; CEO_OWN is the percentage of shares held by CEO; INDP is the proportion of independent directors on board; OWNMAN is the proportion of stocks held by directors; SIZE is the logarithm of total assets; ROA is the operate income before interests and taxes over total assets and CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise. * p<0.1; **p<0.05; ***p<0.01

Variables	Model 1 CEO_PAY			Model 2 FIX_CEO_PAY		Model 3 VAR_CEO_PAY	
	Step1	Step2	Step3	Step1	Step2	Step1	Step2
Control variables:							
SIZE	0.207***	0.256***	0.326***	0.032***	0.019**	0.022***	0.027***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.011)	(0.000)	(0.000)
ROA	-0.119	-0.095	-0.085	-0.021	-0.028*	0.013	0.016*
	(0.251)	(0.389)	(0.457)	(0.195)	(0.069)	(0.102)	(0.057)
CEO_DUALITY	1.144***	1.075***	0.958***	-0.024	-0.005	0.024	0.017
	(0.000)	(0.000)	(0.000)	(0.514)	(0.878)	(0.405)	(0.562)
CEO_TENURE	1.200***	1.174***	1.130***	-0.040***	-0.033***	0.039***	0.036***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
CEO_OWN	0.005	-0.001	-0.005	0.001*	0.003***	-0.002***	-0.002***
	(0.440)	(0.900)	(0.363)	(0.084)	(0.000)	(0.009)	(0.000)
BDMEET	0.018	0.032	0.043*	0.007**	-0.003	-0.002	-0.001
	(0.449)	(0.208)	(0.095)	(0.030)	(0.302)	(0.346)	(0.687)
INDP	-1.762***	-2.655***	-3.513***	0.326***	0.562***	-0.124**	-0.212***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.014)	(0.001)
OWNMAN	-0.306	0.034	0.402	0.364***	0.274***	-0.185***	-0.152**
	(0.403)	(0.931)	(0.273)	(0.000)	(0.000)	(0.005)	(0.013)
Linear variable:							
INST		-1.305**	-3.822***		0.344***		-0.129***
		(0.043)	(0.000)		(0.000)		(0.001)
Non-Linear variable:							
$INST^2$			1.316***				
			(0.000)				
Observations	553	553	553	553	553	553	553
F	250.63***	236.79***	228.81***	209.33***	203.03***	15.98***	15.17***
R^2	84.40%	84.70%	85.20%	81.90%	82.60%	24.60%	25.00%
ΔR^2		0.30%	0.50%		0.70%		0.40%

In model 2 and 3 in Table 5, we analyse how institutional directors affect the CEO fix and variable compensation, respectively, performing hierarchical regression analyses in two steps. In both models we enter the control variables in the first step, while in the second step we enter the linear INST term. Following the same procedure than in model 1, we consider two steps in model 2 and 3. In model 2 and 3, the proportions of the CEO fix and variable compensation, respectively, are regressed on control variables in step 1, while the linear INST term is entered in step 2 in both models. The linear INST variable is positive and significantly related to the proportion of the CEO fix compensation in model 2, explaining an additional 0.70% of the variance beyond that explained by the control variables in step 1. In model 3, the linear INST variable is negative and significantly associated to the proportion of the CEO variable compensation, explaining an additional 0.40% of the variance beyond that explained by the control variables in step 1. These findings supports the hypotheses H1b, suggesting that institutional directors on boards are most likely to increase the CEO fix compensation and to decrease the CEO variable compensation, in line with previous evidence (Croci et al., 2012; Ke at al., 1999). The CEO variable pay may cause an increase in CEO entrenchment, and as a result, CEO may behave against the shareholder's interest. An effective monitoring role played by institutional directors may imply that they prefer more the CEO fix compensation than the CEO variable compensation, since institutional directors and the CEO variable compensation may be substitute.

In Table 6, we report the findings of the hierarchical regression performed to analyse the impact of pressure-sensitive and pressure resistant directors sit on boards on CEO compensation (total, fix and variable compensation), using eight models. In model 1 and 2, we analyse the effect of pressure-sensitive and pressure-resistant, respectively, on the CEO total compensation. In the first step of the model 1 and 2, the CEO total compensation is regressed on the control variables, in the second step the linear SENSIT and RESIST terms are entered in model 1 and 2, respectively, while the non-linear $SENSIT^2$ and $RESIST^2$ are entered in the third step. The findings evidence that pressure-sensitive do not have any effect on the CEO total pay neither linear nor non-linearly, while pressure-resistant directors behave as institutional directors as a whole, impacting negatively on the CEO total compensation up to a certain threshold, beyond which the addition of more pressure-resistant directors on boards increases the CEO

total pay. Therefore, the hypothesis H2a cannot be accepted, while the hypothesis H2b is accepted. Our evidence is consistent with Jara-Bertín et al. (2012), Jiao and Ye (2013) and Navissi and Naiker (2006), who report an inverted U shaped association between pressure-resistant directors and company value. The findings support the thesis that pressure-resistant institutional directors are an effective mechanism in mitigating agency problems reducing the CEO total pay, but up to a certain critical value, as the incorporation of more pressure-resistant on boards beyond this point will increase the CEO total pay, playing an entrenchment role rather than a monitoring role. The lack of a significant effect from pressure-sensitive directors on the CEO total compensation could be due to several reasons. Firstly, pressure-sensitive directors represent several types of institutional investors (e.g. banks and insurance companies), but their aims differ, and therefore, their abilities and incentives in relation to monitoring the CEO total compensation may not be the same (Shin and Seo, 2011). Secondly, these directors are perhaps more interested in matters such as defining corporate strategies and solving complexity and uncertainty problems rather than colluding with managers or controlling managers. Finally, pressure-sensitive directors might use other corporate governance mechanisms different from the CEO total pay to collude or monitor the CEO, supporting the idea that corporate governance mechanisms substitute each other (Rediker and Seth, 1995).

In model 3 and 4, the effect of pressure-sensitive on the CEO fix and variable compensation is analysed, while in model 5 and 6, the impact of pressure-resistant on the CEO fix and variable pay is examined. The results find that pressure-sensitive directors are associated neither with the fix nor with the variable components of the CEO compensation, while pressure-resistant directors on boards impact positively on the CEO fix pay, but negatively on the CEO variable compensation, in line with institutional directors as a whole. Thus, the hypothesis H2c can partially accepted. Therefore, the arguments provided above to justify the preceding findings can be also used here.

Table 6

Results of the hierarchical regression for pressure-sensitive and pressure-resistant institutional directors sit on the board of directors

Estimated coefficients. CEO_PAY is the logarithm of the CEO total compensation; FIX_CEO_PAY is the ratio between the total CEO fix compensation and the CEO total compensation; VAR_CEO_PAY is the ratio between the total CEO variable compensation and the CEO total compensation; INST is the proportion of institutional directors on board; SENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; RESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; WOM is the proportion of women board directors who are representative of institutional investors; BDMEET is the number meetings held by the board in a year; CEO_TENURE is the number of years the CEO has held the firm's higher position; CEO_OWN is the percentage of shares held by CEO; INDP is the proportion of independent directors on board; OWNMAN is the proportion of stocks held by directors; SIZE is the natural logarithm of total assets; ROA is the operate income before interests and taxes over total assets and CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise. * p<0.1; **p<0.05; ***p<0.01

Variables	Model 1 CEO_PAY			Model 2 CEO_PAY			Model 3 FIX_CEO_PAY		Model 4 VAR_CEO_PAY	
	Step1	Step2	Step3	Step1	Step2	Step3	Step1	Step2	Step1	Step 2
Control variables:										
SIZE	0.207***	0.216***	0.220***	0.207***	0.241***	0.250***	0.032***	0.034***	0.022***	0.021***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ROA	-0.119	-0.115	-0.111	-0.119	-0.103	-0.111	-0.021	-0.021	0.013	0.013
	(0.251)	(0.271)	(0.292)	(0.251)	(0.345)	(0.305)	(0.195)	(0.227)	(0.102)	(0.130)
CEO_DUALITY	1.144***	1.144***	1.136***	1.144***	1.056***	1.041***	-0.024	-0.024	0.024	0.024
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.514)	(0.517)	(0.405)	(0.408)
CEO_TENURE	1.200***	1.193***	1.194***	1.200***	1.184***	1.180***	-0.039****	-0.041***	0.039***	0.039***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CEO_OWN	0.005	0.004	0.004	0.005	0.001	0.000	0.001*	0.001	-0.002***	-0.001**
	(0.440)	(0.508)	(0.515)	(0.440)	(0.888)	(0.943)	(0.084)	(0.152)	(0.009)	(0.028)
BDMEET	0.018	0.017	0.015	0.018	0.034	0.036	0.007**	0.006**	-0.002	-0.002
	(0.449)	(0.491)	(0.536)	(0.449)	(0.180)	(0.154)	(0.030)	(0.030)	(0.346)	(0.348)
INDP	-1.762***	-1.877***	-1.882***	-1.762***	-2.493***	-2.497***	0.326***	0.305***	-0.124**	-0.112**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.014)	(0.014)
OWNMAN	-0.307	-0.301	-0.308	-0.307	0.039	0.093	0.364***	0.365***	-0.185***	-0.186***
	(0.403)	(0.409)	(0.395)	(0.403)	(0.917)	(0.804)	(0.000)	(0.000)	(0.005)	(0.005)
Linear variable:										
SENSIT		-0.671	-1.996					-0.122		0.065
		(0.402)	(0.242)					(0.413)		(0.637)
RESIST					-1.317***	-2.069***				
					(0.001)	(0.000)				
Non-Linear variable:										
$SENSIT^2$			2.806							
			(0.376)							
$RESIST^2$						0.710***				
						(0.003)				
Observations	553	553	553	553	553	553	553	553	553	553

F	250.63***	231.41***	214.83	250.63***	236.91***	220.66	209.33***	193.27***	15.98***	14.76***
R^2	84.40%	84.40%	84.40%	84.40%	84.70%	84.80%	81.90%	81.90%	24.60%	24.50%
ΔR^2		0.00%	0.00%		0.30%	0.10%		0.00%		0.90%

Variables	Model 5 FIX_CEO_PAY		Model 6 VAR_CEO_PAY	
	Step1	Step2	Step1	Step2
Control variables:				
SIZE	0.032***	0.022***	0.022***	0.025***
	(0.000)	(0.001)	(0.000)	(0.000)
ROA	-0.021	-0.026	0.013	0.015*
	(0.195)	(0.124)	(0.102)	(0.077)
CEO_DUALITY	-0.024	0.001	0.024	0.014
	(0.514)	(0.984)	(0.405)	(0.638)
CEO_TENURE	-0.040***	-0.035***	0.039***	0.037***
	(0.000)	(0.000)	(0.000)	(0.000)
CEO_OWN	0.001*	0.002***	-0.001***	-0.002***
	(0.084)	(0.001)	(0.009)	(0.000)
BDMEET	0.007**	0.002	-0.002	-0.001
	(0.030)	(0.410)	(0.346)	(0.748)
INDP	0.326***	0.530***	-0.124**	-0.198***
	(0.000)	(0.000)	(0.014)	(0.006)
OWNMAN	0.364***	0..268***	-0.185***	-0.150***
	(0.000)	(0.000)	(0.005)	(0.005)
Linear variable:				
SENSIT				
RESIST		0.366***		-0.134**
		(0.000)		(0.035)
Observations	553	553	553	553
F	209.33***	204.51	15.98***	15.208***
R^2	81.90%	82.70%	24.60%	25.10%
ΔR^2		0.80%		0.50%

Endogeneity problems may arise in research such as this (Villalonga and Amit, 2006). Accordingly, we also analyse the potential endogeneity between institutional directors on boards and CEO compensation. Concretely, do these directors lead to high/low CEO compensation, or do companies with high/low CEO compensation attract institutional directors to their boards?. Though the causality between institutional directors and CEO compensation is more likely to go from directors to CEO pay, it is also likely that CEO pay could have an effect on board composition. There are alternative approaches to address the endogeneity concerns (Li, 2015). Among these methods, lagged explanatory variables are used in this analysis to mitigate the possible endogeneity problems, in line with Hartzell and Starks (2003), Sasmal and Sasmal (2016) and Ozkan (2011). In Table 7, we provide the findings for institutional directors on boards, while in Table 8 we offer the results for pressure-sensitive and pressure-resistant on boards. As can be appreciated in both tables, the findings are consistent with our main results, corroborating the results previously shown.

Table 7

Results of the hierarchical regression for institutional directors sit on the board of directors

Estimated coefficients. CEO_PAY is the logarithm of the CEO total compensation; FIX_CEO_PAY is the ratio between the total CEO fix compensation and the CEO total compensation; VAR_CEO_PAY is the ratio between the total CEO variable compensation and the CEO total compensation; INST is the proportion of institutional directors on board; SENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; RESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; BDMEET is the number meetings held by the board in a year; CEO_TENURE is the number of years the CEO has held the firm's higher position; CEO_OWN is the percentage of shares held by CEO; INDP is the proportion of independent directors on board; OWNMAN is the proportion of stocks held by directors; SIZE is the logarithm of total assets; ROA is the operate income before interests and taxes over total assets and CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise. * p<0.1; **p<0.05; ***p<0.01

Variables	Model 1 CEO_PAY			Model 2 FIX_CEO_PAY		Model 3 VAR_CEO_PAY	
	Step1	Step2	Step3	Step1	Step2	Step1	Step2
Control variables:							
SIZE	0.207***	0.028***	0.286***	0.032***	0.026***	0.022***	0.023***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ROA	-0.119	-0.084	-0.070	-0.021	-0.025*	0.013	0.014**
	(0.251)	(0.421)	(0.537)	(0.195)	(0.085)	(0.102)	(0.045)
CEO_DUALITY	1.144***	0.810***	0.695****	-0.024***	-0.014	0.024	0.021
	(0.000)	(0.001)	(0.005)	(0.514)	(0.709)	(0.405)	(0.389)
CEO_TENURE	1.200***	1.172***	1.128***	-0.040***	-0.038***	0.039***	0.036***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CEO_OWN	0.005	-0.002	-0.005	0.001*	0.003***	-0.002***	-0.002***
	(0.440)	(0.784)	(0.432)	(0.084)	(0.000)	(0.009)	(0.000)
BDMEET	0.018	0.046	0.058**	0.007**	0.003	-0.002	0.000
	(0.449)	(0.126)	(0.067)	(0.030)	(0.318)	(0.346)	(0.992)
INDP	-1.761***	-2.459***	-3.120***	0.326***	0.487***	-0.124**	-0.166***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.014)	(0.002)
OWNMAN	-0.306	-0.139	0.173	0.364***	0274***	-0.185***	-0.127***
	(0.403)	(0.742)	(0.673)	(0.000)	(0.000)	(0.005)	(0.000)
Linear variable:							
INST_1		-0.948*	-2.998***		0.294***		-0.105***
		(0.056)	(0.000)		(0.000)		(0.000)
Non-Linear variable:							
$INST^2$_1			0.999***				
			(0.000)				
Observations	553	553	553	553	553	553	553
F	250.63***	218.37***	207.13***	209.33***	371.92***	15.98***	42.76***
R^2	84.40%	86.40%	86.70%	81.90%	91.50%	24.60%	54.90%
ΔR^2		2.00%	2.30%		9.60%		30.30%

Table 8

Results of the hierarchical regression for pressure-sensitive and pressure-resistant institutional directors sit on the board of directors

Estimated coefficients. CEO_PAY is the logarithm of the CEO total compensation; FIX_CEO_PAY is the ratio between the total CEO fix compensation and the CEO total compensation; VAR_CEO_PAY is the ratio between the total CEO variable compensation and the CEO total compensation; INST is the proportion of institutional directors on board; SENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; RESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; BDMEET is the number meetings held by the board in a year; CEO_TENURE is the number of years the CEO has held the firm's higher position; CEO_OWN is the percentage of shares held by CEO; INDP is the proportion of independent directors on board; OWNMAN is the proportion of stocks held by directors; SIZE is the logarithm of total assets; ROA is the operate income before interests and taxes over total assets and CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise. * p<0.1; **p<0.05; ***p<0.01

Variables	Model 1 CEO_PAY			Model 2 CEO_PAY			Model 3 FIX_CEO_PAY		Model 4 VAR_CEO_PAY	
	Step1	Step2	Step3	Step1	Step2	Step3	Step1	Step2	Step1	Step 2
Control variables:										
SIZE	0.207***	0.201***	0.201***	0.207***	0.217***	0.224***	0.032***	0.036***	0.022***	0.020***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ROA	-0.119	-0.100	-0.100	-0.119	-0.090	-0.093	-0.021	-0.019	0.013	0.013*
	(0.251)	(0.319)	(0.319)	(0.251)	(0.388)	(0.384)	(0.195)	(0.262)	(0.102)	(0.079)
CEO_DUALITY	1.144***	0.877***	0.877***	1.144***	0.783***	0.770***	-0.024***	-0.034	0.024	0.029
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.002)	(0.514)	(0.348)	(0.405)	(0.242)
CEO_TENURE	1.200***	1.181***	1.181***	1.200***	1.178***	1.172***	-0.040***	-0.043***	0.039***	0.037***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CEO_OWN	0.005	0.001	0.001	0.005	-0.001	-0.001	0.001*	0.002**	-0.001***	-0.002***
	(0.440)	(0.849)	(0.848)	(0.440)	(0.907)	(0.875)	(0.084)	(0.030)	(0.009)	(0.001)
BDMEET	0.018	0.035	0.035	0.018	0.049	0.051*	0.007**	0.006*	-0.002	-0.001
	(0.449)	(0.209)	(0.213)	(0.449)	(0.103)	(0.090)	(0.030)	(0.057)	(0.346)	(0.603)
INDP	-1.761***	-1.993***	-1.993***	-1.761***	-2.384***	-2.403***	0.326***	0.315***	-0.124**	-0.113**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.014)	(0.026)
OWNMAN	-0.306	-0.396	-0.396	-0.306	-0.093	-0.051	0.364***	0.352***	-0.185***	-0.155***
	(0.403)	(0.325)	(0.325)	(0.403)	(0.823)	(0.903)	(0.000)	(0.000)	(0.005)	(0.000)
Linear variable:										
SENSIT_1		-0.625	-0.597					0.016		-0.064
		(0.452)	(0.760)					(0.845)		(0.294)
RESIST_1					-1.036**	-1.559**				
					(0.010)	(0.013)				
Non-Linear variable:										
$SENSIT^2\_1$			-0.061							
			(0.988)							
$RESIST^2\_1$						0.457*				
						(0.076)				
Observations	553	553	553	553	553	553	553	553	553	553
F	250.63***	215.20***	198.07***	250.63***	218.67***	201.88***	209.33***	339.37***	15.98***	41.22***
R^2	84.40%	86.20%	86.10%	84.40%	86.40%	86.40%	81.90%	90.80%	24.60%	53.90%
ΔR^2		1.80%	-0.10%		2.00%	0.00%		8.90%		29.30%

Variables	Model 5 FIX_CEO_PAY		Model 6 VAR_CEO_PAY	
	Step1	Step2	Step1	Step2
Control variables:				
SIZE	0.032***	0.029***	0.022***	0.021***
	(0.000)	(0.000)	(0.000)	(0.000)
ROA	-0.021	-0.023	0.013	0.013*
	(0.195)	(0.144)	(0.102)	(0.074)
CEO_DUALITY	-0.024***	-0.007	0.024	0.022
	(0.514)	(0.840)	(0.405)	(0.396)
CEO_TENURE	-0.040***	-0.040***	0.039***	0.037***
	(0.000)	(0.000)	(0.000)	(0.000)
CEO_OWN	0.001*	0.003***	-0.001***	-0.002***
	(0.084)	(0.002)	(0.009)	(0.001)
BDMEET	0.007**	0.002**	-0.002	-0.000
	(0.030)	(0.046)	(0.346)	(0.983)
INDP	0.326***	0.453***	-0.124**	-0.140***
	(0.000)	(0.000)	(0.014)	(0.009)
OWNMAN	0.364***	0.266***	-0.185***	-0.132***
	(0.000)	(0.000)	(0.005)	(0.000)
Linear variable:				
SENSIT_1				
		0.298		-0.079**
RESIST_1		(0.000)		(0.023)
Observations	553	553	553	553
F	209.33***	369.42***	15.98***	41.92***
R^2	81.90%	91.50%	24.60%	54.40%
ΔR^2		9.60%		29.80%

1.5.4. Analysis of robustness

We have conducted an analysis of robustness in order to check if there is a linear and non-linear relationship between institutional, pressure-sensitive and pressure-resistant directors and the CEO fix and variable compensation. In table 9, the findings of the hierarchical regression are provided. In model 1 and 2, we examine whether there is a linear and non-linear association between institutional directors and the CEO fix and variable compensation, respectively, in model 3 and 4, the same association is analysed for pressure-sensitive directors, and the relationship between pressure-resistant directors and the CEO fix and variable pay is studied in model 5 and 6, respectively. The findings confirm a linear and non-linear association between institutional and pressure-resistant directors and the CEO fix and variable compensation, affecting both positive (negative) and linearly the CEO fix pay (the CEO variable pay), and negative (positive) and non-linearly the CEO fix pay (the CEO variable pay). Regarding pressure-sensitive directors, the results corroborate that they impact negative (positive) and linearly on the CEO fix pay (the CEO variable pay), and positive (negative) and non-linearly on the CEO fix compensation (the CEO variable compensation). However, the positive and linear association between pressure-sensitive and the CEO variable pay is not statistically significant. Therefore, the results corroborate, in general terms, our predictions relating to the role played by institutional, pressure-sensitive and pressure-resistant directors on boards, concluding that the effect of these directors on the CEO total, fix and variable pay is not determined by how CEO pay is measured.

Table 9

Results of the hierarchical regression for institutional, pressure-sensitive and pressure-resistant directors sit on the board of directors

Variables	Model 1 FIX_CEO_PAY			Model 2 VAR_CEO_PAY			Model 3 FIX_CEO_PAY		
	Step1	Step2	Step3	Step1	Step2	Step3	Step1	Step2	Step3
Control variables:									
SIZE	0.032***	0.019**	0.019	0.022***	0.027***	0.030***	0.032***	0.034***	0.035***
	(0.000)	(0.011)	(0.193)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ROA	-0.021	-0.028*	-0.029**	0.013	0.016*	0.016**	-0.021	-0.021	-0.019
	(0.195)	(0.069)	(0.042)	(0.102)	(0.057)	(0.048)	(0.195)	(0.227)	(0.298)
CEO_DUALITY	-0.024	-0.006	0.010	0.024	0.017	0.013	-0.024	-0.024	-0.027
	(0.514)	(0.878)	(0.783)	(0.405)	(0.562)	(0.668)	(0.514)	(0.517)	(0.442)
CEO_TENURE	-0.040***	-0.033***	-0.027***	-0.038***	0.036***	0.034***	-0.040***	-0.041***	-0.041***
	(0.000)	(0.001)	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CEO_OWN	0.001*	0.003***	0.003***	-0.002***	-0.002***	-0.002***	0.001*	0.000	0.001
	(0.084)	(0.000)	(0.000)	(0.009)	(0.000)	(0.000)	(0.084)	(0.152)	(0.169)
BDMEET	0.007**	0.003	0.002***	-0.002	-0.001	-0.001	0.007**	0.006**	0.006**
	(0.030)	(0.302)	(0.000)	(0.346)	(0.687)	(0.820)	(0.030)	(0.030)	(0.047)
INDP	0.326***	0.562***	0.676***	-0.125**	-0.212***	-0.243***	0.326***	0.305***	0.303***
	(0.000)	(0.000)	(0.000)	(0.014)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
OWNMAN	0.364***	0.274***	0.225***	-0.185***	-0.152**	-0.139**	0.364***	0.365***	0.361***
	(0.000)	(0.000)	(0.000)	(0.005)	(0.013)	(0.022)	(0.000)	(0.000)	(0.000)
Linear variable:									
INST		0.344***	0.681***		-0.129***	-0.220***			
		(0.000)	(0.000)		(0.001)	(0.001)			
SENSIT								-0.122	-0.723*
								(0.413)	(0.086)
RESIST									
Non-Linear variable:									
$INST^2$			-0.176***			0.048**			
			(0.000)			(0.013)			
$SENSIT^2$									1.273**
									(0.042)
$RESIST^2$									
Observations	553	553	553	553	553	553	553	553	553
F	209.33**	203.03***	192.38***	15.98***	15.17***	14.15***	209.33***	193.27***	180.88***
R^2	*	82.60%	82.90%	24.60%	25.00%	25%	81.90%	81.90%	82.00%
ΔR^2	81.90%	0.70%	0.30%		0.40%	0.00%		0.00%	0.10%

Variables	Model 4 VAR_CEO_PAY			Model 5 FIX_CEO_PAY			Model 6 VAR_CEO_PAY		
	Step1	Step2	Step3	Step1	Step2	Step3	Step1	Step2	Step3
Control variables:									
SIZE	0.022***	0.021***	0.020***	0.032***	0.022***	0.021***	0.022***	0.026***	0.026***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.004)	(0.000)	(0.000)	(0.000)
ROA	0.013	0.013	0.011	-0.021	-0.026	-0.025	0.013	0.015*	0.015*
	(0.102)	(0.130)	(0.208)	(0.195)	(0.124)	(0.146)	(0.102)	(0.077)	(0.084)
CEO_DUALITY	0.024	0.024	0.027	-0.024	0.001	0.002	0.024	0.015	0.014
	(0.405)	(0.408)	(0.327)	(0.514)	(0.984)	(0.941)	(0.405)	(0.638)	(0.655)
CEO_TENURE	0.039***	0.039***	0.038***	-0.040***	-0.035***	-0.035***	0.039***	0.037***	0.037***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CEO_OWN	-0.002***	-0.001**	-0.001**	0.001*	0.002***	0.002***	-0.002***	-0.002***	-0.002***
	(0.009)	(0.028)	(0.032)	(0.084)	(0.001)	(0.001)	(0.009)	(0.000)	(0.001)
BDMEET	-0.002	-0.002	-0.001	0.007**	0.002	0.002	-0.002	-0.001	-0.001
	(0.346)	(0.348)	(0.490)	(0.030)	(0.410)	(0.474)	(0.346)	(0.748)	(0.779)
INDP	-0.124**	-0.113**	-0.110**	0.326***	0.530***	0.530***	-0.124**	-0.198***	-0.199***
	(0.014)	(0.014)	(0.015)	(0.000)	(0.000)	(0.000)	(0.014)	(0.006)	(0.007)
OWNMAN	-0.185***	-0.186***	-0.183***	0.364***	0.268***	0.260***	-0.185****	-0.150***	-0.148***
	(0.005)	(0.005)	(0.005)	(0.000)	(0.000)	(0.000)	(0.005)	(0.005)	(0.005)
Linear variable:									
INST									
SENSIT		0.066	0.605						
		(0.637)	(0.113)						
RESIST					0.367***	0.471***		-0.135**	-0.165*
					(0.000)	(0.000)		(0.035)	(0.080)
Non-Linear variable:									
$INST^2$									
$SENSIT^2$			-1.144**						
			(0.041)						
$RESIST^2$						-0.099**			0.029
						(0.018)			(0.035)
Observations	553	553	553	553	553	553	553	553	553
F	15.98***	14.76***	14.14***	209.33***	204.51	190.089	15.98***	15.208***	14.109
R^2	24.60%	24.50%	25.00%	81.90%	82.70%	82.70%	24.60%	25.10%	25.00%
ΔR^2		0.90%	0.50%		0.80%	0.00%		0.50%	-0.10%

1.6. CONCLUSION

The fact that compensation policy may affect corporate performance (Gerhart and Milkovich, 1990) and that institutional investors are considered to be an active mechanism for influencing corporate governance (e.g. Brossard et al., 2013; Gillan and Starks, 2000; Shleifer and Vishny, 1986), have led to the relationship between institutional directors and CEO compensation being analysed by earlier literature (e.g. Almazan et al., 2005; Cheng and Firth, 2005; Croci et al, 2012; Gómez-Mejía et al., 2003; Ozkan, 2011). The purpose of this research is to study how the presence of institutional directors on Spanish boards influences CEO compensation (total, fix and variable). First, we have analysed the impact of institutional directors as a whole on CEO compensation (total, fix and variable). Next, the institutional directors have been classified as pressure-resistant directors and pressure-sensitive directors, according to whether they have only an investment relationship with the firm or both a business and investment relationship, respectively. Thus, for pressure-sensitive and pressure-resistant we also conduct the same analysis followed for institutional directors as a whole.

Our results show that institutional directors and pressure-resistant directors on boards may perform two opposite roles, depending on the proportion of their representation on boards. Institutional and pressure-resistant directors decrease CEO total compensation, but when their presence on boards reaches a certain point, they will be more likely to support a higher CEO total pay. This association shows a non-linear relationship (U shape) between institutional and pressure-resistant directors and the CEO total compensation. Opposite to our predictions, pressure-sensitive directors do not affect the CEO total compensation neither in a linear nor non-linear way. Concerning CEO's compensation structure (fix and variable), the findings evidence that institutional and pressure-resistant directors enhance fix compensation and decrease variable pay, while pressure-sensitive directors do not have effect neither on fix nor on variable compensation. Thus, these findings suggest that institutional and pressure-resistant directors might both play a monitoring role and engage in collusion with the CEO, which is associated with the better and worse practices of corporate governance, respectively.

This research contributes to the growing literature on the role of institutional directors in corporate governance in several ways. First, we show that institutional directors as a whole affect CEO compensation, but when they are classified in pressure-resistant and pressure-sensitive institutional directors, the findings show that they do not behave in the same manner in relation to the CEO total compensation: pressure-resistant directors have an effect and pressure-sensitive directors do not. This evidence supports the argument that institutional directors cannot be considered as a uniform group (Almazán et al., 2005; Cornett et al., 2007). Thus, the different ways in which pressure-sensitive and pressure-resistant directors can engage in corporate governance (López-Iturriaga et al., 2015) is evidenced by this research. Second, our results show that the monitoring hypothesis prevails as the presence of institutional and pressure-resistant directors on boards increases, but when they reach a certain point, the entrenchment hypothesis prevails. Third, the outcomes show a link between boards of directors and CEO compensation. Accordingly, compensation is a mechanism for controlling and disciplining CEOs. Therefore, institutional and pressure-resistant directors can enhance CEO monitoring in a substitutive or complementary manner. Fourth, most research on CEO compensation is focused on the US and UK (Conyon et al., 2011; Tosi et al., 2000). Thus, we extend the analysis to Spain because it is characterized by low legal investor protection, a bank-orientated system and one that is based on civil law. Therefore, the conclusions of existing research are not applicable to Spain given the differences between their corporate governance systems. Finally, this research is relevant, on the one hand, because we show the relationship between institutional, pressure-sensitive institutional and pressure-resistant institutional directors and CEO compensation in the Spanish context, and on the other hand, because we extend a non-linear association to such relations.

Some implications for the discussion on corporate governance can be drawn from the results presented here. Firstly, institutional directors affect corporate governance, particularly CEO compensation. However, their impact differs when they are classified as pressure-resistant and pressure-sensitive directors. Therefore, the type of institutional directors must be considered by policymakers when they make recommendations on board composition. Secondly, due to the non-linear relationship, whilst a balanced proportion of institutional and pressure-resistant directors can reduce CEO pay, a high or low percentage of pressure-sensitive directors on boards does not result neither in

higher nor in lower CEO compensation. Thus, our findings suggest that pressure-sensitive directors perhaps perform more of a counselling role rather than a supporting or monitoring role. Thirdly, the findings report that independent directors on boards improve corporate governance, since their presence reduces CEO pay, in contrast with previous research (García-Osma and Gill de Albornoz, 2007), which shows the lack of effect of these directors on corporate governance. Accordingly, policymakers should pay more attention to the role played by these directors when they suggest board composition. Finally, the outcomes point to the potential for a weak corporate governance structure to be used by the CEO for his/her own benefit, thereby impairing the shareholders' wealth.

This paper has one limitation. Various factors have been controlled as they may affect CEO compensation. Such factors have been selected according to theory and earlier empirical research, but it is probable that other unknown features not taken into account in this study may influence CEO compensation.

This research could lead to further investigations in the future. First, the creation of an appointment and remuneration committee has recently become mandatory by law in Spain. Hence, it will be necessary to determine how its composition, particularly in terms of institutional directors, influences CEO compensation. Second, most Spanish investigations have focused on large firms, but the Spanish economy is characterized by smaller and medium-sized companies (SMEs), and thus, how institutional directors exert an impact on corporate governance, specifically regarding CEO compensation, is a matter requiring further study. Third, it would be also interesting to analyse if the more institutional investors a company has, the more reputable/promising a firm is, and consequently, the CEOs of these firms receive a compensation premium. Finally, the effect on CEO compensation of disentangling cases of percentages of institutional directors appointed by one or different institutional investors may also be an engaging issue to address.

CHAPTER 2

INSTITUTIONAL DIRECTORS AS A CORPORATE GOVERNANCE MECHANISM: THEIR IMPACT ON CORPORATE SOCIAL RESPONSIBILITY

Abstract

In this chapter, we examine the influence that institutional directors have on corporate social responsibility (CSR) issues. First, we consider institutional directors as a whole and then classify them as pressure-sensitive or pressure-resistant institutional directors, depending not only on whether they represent institutional investors that become shareholders of firms, but also if they maintain commercial links with the firms in which they have invested. We hypothesize a quadratic relationship between institutional directors and CSR. We show a U-shaped relationship between institutional directors/pressure-resistant directors and CSR disclosure, showing that they have a negative effect on CSR disclosure when their presence on boards is low, but a positive influence when their presence on boards is higher than a tipping point, suggesting that institutional and pressure-resistant directors may play two opposite roles (monitoring or entrenchment with executives) regarding CSR decisions. However, our findings show that CSR practices are not affected by pressure-sensitive directors. These findings indicate that there is a link between board members – particularly institutional directors – and strategic decisions, such as CSR reporting. Moreover, institutional directors do not behave in a uniform way as pressure-resistant directors affect CSR disclosure, but pressure-sensitive directors do not. Finally, the enhancement of corporate governance (increases in CSR disclosure) depends on the proportion of institutional and pressure-resistant directors on boards.

2.1. INTRODUCTION

The European Commission (2001) defines the concept of corporate social responsibility (CSR) as the integration by firms, on a voluntary basis, of social and environmental concerns in their business and in their interaction with their stakeholders**.** The aim of CSR is to promote sustainable development and achieve a triple economic, social and environmental impact (Adams and Zutshi, 2004).

A number of issues, including corporate corruption, the use of child labour, increasing pollution and malpractice, among others, have led to the rise of CSR as an issue of considerable importance. Indeed, the market no longer only considers economic performance, but also takes into account social and environmental performance when evaluating companies (Setó-Pamies, 2015). Therefore, CSR practices have become a key strategic element (Garrigues-Walker and Trullenque, 2008) and companies should not only consider economic aims, but also environmental and social goals.

According to Gallego-Álvarez and Quina-Custodio (2016) and Hartojo and Jo (2011), a company's features may influence CSR. Among these characteristics, corporate governance is important (Prado-Lorenzo et al., 2009). Previous literature has analysed the relationship between board characteristics and CSR, focusing especially on the presence of independent directors (Cuadrado-Ballesteros et al., 2015; Hartojo and Jo, 2011; Martínez-Ferrero et al., 2015; Setó-Pamies, 2015). However, prior research on CSR has paid scarcely any attention to the role of other board members, such as directors appointed by institutional investors (hereinafter institutional directors).

Institutional investors are the most important controlling shareholders in Europe (Brossard et al., 2013), due to the particular agency problem in Europe, where minority shareholders' wealth is appropriated by controlling shareholders, they play a significant role on boards as directors. Within European countries, Spain has the highest proportion of institutional directors on boards. Concretely, 40% of the board directors are appointed by institutional investors (Heidrick and Struggles, 2011). According to prior evidence, institutional directors have an effect on board compensation (López-Iturriaga et al., 2015), earnings management (García-Osma and Gill de Albornoz, 2007),

financial reporting quality (Pucheta-Martínez and García-Meca, 2014) and leverage (García-Meca et al., 2013), among others.

Boards of directors play an important role in corporate governance, affecting CSR practices (Frias-Aceituno et al., 2013). Therefore, given the role played by institutional directors on boards, the relevance of CSR issues to boards' daily business (PricewaterhouseCoopers, 2010), the benefits that CSR can provide to companies (e.g. Marín et al., 2012; Reverte, 2012) and the scant attention that the relationship between corporate governance and CSR has received (Fernández-Sánchez et al., 2011), it is necessary to gain an understanding of how institutional directors influence CSR. Accordingly, the aim of this research is twofold. First, we analyse the impact of institutional directors as a whole on CSR disclosure. Previous evidence suggests that the kind of business relations between institutional investors and companies (Brickley et al., 1988) can explain why institutional directors do not behave in the same way and, therefore, their ability, incentives and aims to engage in corporate governance may be different (Almazán et al., 2005; Ferreira and Matos, 2008). Thus, we also make a distinction between pressure-sensitive directors, who represent institutional investors maintaining business relations with the firm on the board of which they sit, and pressure-resistant directors, who represent institutional investors who do not maintain such relations.

Consistent with prior evidence (Almazán et al., 2005; López-Iturriaga et al., 2015), our results support the thesis that institutional directors have to be treated as a heterogeneous group and not be considered as a whole and that they participate in corporate governance in dissimilar ways. In addition, we also show that institutional directors as a whole and pressure-resistant directors may perform two opposite roles, depending on their representation on boards. Thus, when their representation is low, the entrenchment or collusion hypothesis prevails as they are negatively associated with CSR reporting and they prefer to collude with executives to meet their own goals. However, when their representation on boards exceeds a critical point, they support CSR initiatives as the monitoring hypothesis prevails and their monitoring role becomes more active and efficient, given that they encourage managers and other directors to disclose CSR information. This evidence suggests that the relationship between institutional/pressure-resistant directors and CSR disclosure is non-linear, concretely

quadratic (U-shaped). In addition, we have constructed an index based on the triple bottom line approach to measure CSR disclosure, which includes economic, social and environmental matters. This index can be used to assess to what extent a company provides CSR information. Finally, from the policymakers' point of view, this analysis makes a significant contribution as it shows that institutional directors behave as drivers of good corporate governance and, consequently, policymakers should take them into account when recommending or regulating board composition as institutional directors may perform two opposite roles with respect to CSR disclosure and are involved in corporate governance.

This research makes some contributions to the growing literature on the role of institutional directors in corporate governance. The results show a link between the mechanisms of corporate governance and strategic decisions. Specifically, we provide evidence that the presence of institutional directors on boards is associated with CSR reporting, exerting an effect that it is more difficult to find in Anglo-Saxon environments because institutional directors appointed by institutional investors are less prevalent. We also report that institutional directors do not have the same incentives to participate in corporate governance. Thus, when a distinction is made between pressure-resistant and pressure-sensitive directors, the evidence shows that their attitudes concerning CSR reporting is different: whereas pressure-resistant directors affect CSR disclosure, pressure-sensitive directors do not.

After this introduction, in the next section we explore the institutional setting within which this paper is situated. We, then, describe the theoretical background and the hypotheses in the following section before setting out the research design. In a further section, we present the results and, finally, we address the conclusions, limitations and future research.

2.2. INSTITUTIONAL SETTING

According to the European Commission (2013) and the Spanish Government (2014), the impetus for the promotion of CSR in the Spanish business sector has been provided by the Spanish civil society. Spanish multinationals occupy the top positions in international rankings of CSR and sustainability, making Spain the European country

with a greater number of multinationals in these rankings (European Commission, 2013). Furthermore, small and medium-sized enterprises (SMEs) are also including and enhancing CSR in their activities (Spanish Government, 2014).

Despite CSR being a voluntary matter, both the European Union and Spain have driven some initiatives to promote and perform CSR properly. In this regard, in 2001 the European Commission promoted a CSR framework. To encourage CSR, Spain published a White Paper and created the State Council of Corporate Social Responsibility. In 2011, the Spanish Government enacted a sustainable economy law to turn the Spanish productive model into something more competitive and environmentally and socially sustainable. More efforts have also been made by Spanish policymakers to encourage CSR, thus achieving sustainable development and improving the protection of minority shareholders and transparency. In particular, the Conthe Code or Unified Code of Corporate Governance (CUBG) was published in 2006 and updated in 2015; this proposes the incorporation of CSR practices in businesses. In 2002, the Spanish Accounting Standard Setting Board published its White Paper for the Reform of Accounting in Spain, according to which firms have to include in their annual reports environmental information on a compulsory basis and social information on a voluntary basis. The Transparency Act (Law 26/2003) was enacted to enhance the transparency of Spanish listed firms. Finally, the goal of Law 31/2014 is to attain better governance.

Corporate governance is essential to undertake and ensure the proper development of CSR (European Commission, 2013). Spain has a non-market-based system, but one that is oriented to a banking system. Thus, banks play an important role in economic and business development because Spanish capital markets are not as liquid as in the US and UK, where their role is significant. Therefore, the corporate control market is not very common compared to the US and UK (De Miguel et al., 2004). In addition, Spanish corporate governance is distinguished by a high ownership concentration (De Andrés et al., 2005), which leads to the presence of controlling shareholders and allows them to play a major role on boards and influence managers. Among controlling shareholders, the position of institutional investors in Spain is noteworthy and their impact on corporate governance is significant (Crespí et al., 2004). Indeed, the controlling role in Spanish boards is not played by independent directors, but by

directors who represent controlling shareholders, i.e. institutional directors (García-Osma and Gill de Albornoz, 2007). The level of shareholder protection is low compared to the US and UK (La Porta et al., 1998). As a result, the board of directors is one of the most important mechanisms for alleviating agency costs characterized by the expropriation of minority shareholders' wealth by controlling shareholders.

Consequently, the analysis of the effect of institutional directors on CSR in the Spanish context is important as the board is one of the main bodies making decisions and alleviating agency problems. Thus, given the importance that CSR has acquired in Spain for sustainable development, it is essential to examine such relationships. Furthermore, independent directors on boards do not act independently (Spencer Stuart, 2015), this role being played instead by institutional directors, who may be considered outsiders and more independent of management. In addition, in examining institutional investors, most prior research has focused on their roles as shareholders and not as directors (e.g. Cox et al., 2004; Hartzell and Starks, 2003; Ruiz-Mallorquí and Santana-Martín, 2011) and the majority of the previous literature on CSR has been based on the US and UK (Miras-Rodríguez et al., 2014).

2.3. THEORETICAL BACKGROUND AND HYPOTHESES

Maximizing benefits has been the sole aim pursued by owners (Friedman, 1962). However, according to stakeholder theory (Freeman, 1984), companies should not only consider owners' interests, but also those of all stakeholders as they can influence or can be influenced by the company. Thus, the relationships between managers and decisive stakeholders are essential in creating sustainable long-term value (Freeman, 1984; Post et al., 2002). The triple bottom line (TBL), based on stakeholder theory, offers a wider view of the stakeholders affected by firms. The TBL framework has been adopted by many companies to evaluate their performance from a broader perspective and, thus, create greater business value (Elkington, 1994). Accordingly, the three components that make up the TBL – social, environmental and financial – are considered to assess firm performance. Furthermore, these three components are connected and the performance in one component affects the other two and vice versa (Hockerts, 1999). Thus, this approach adds social and environmental measures of performance (Gao and Zhang, 2006) and, therefore, companies are not only responsible for economic aspects.

Consequently, the ultimate goal of firms is not to generate wealth for their shareholders, but also to create social and environmental value (Elkington, 1997), extending the benefits not only to shareholders, but also to all stakeholders.

Firms can gain competitive advantage and garner greater financial benefits through engaging in CSR activities (Luo and Bhattacharya, 2006) as these activities make it possible to manage social and environmental risks and avoid stringent regulation (Maxwell et al., 2000) and negative customer reactions (Baron 2001). This may reduce the firm's market risk (Salama et al., 2011), reduce the cost of financing (Lenox and Nash, 2003; Reverte, 2012) and lower the uncertainty of cash flow. In addition, CSR practices may enhance job satisfaction and mitigate recruitment and training costs (Branco and Rodriges, 2006; Zappala, 2004). Moreover, CSR may generate entry barriers to the industry, easing access to new markets (Wotruba, 1997) and enhancing the firm's reputation (Diller, 1999) and competitiveness (Marín et al., 2012). In this line, previous research has found a positive relationship between CSR and financial performance (e.g. Jimeno de la Maza and Redondo-Cristóbal, 2011; McWilliams and Siegel, 2001).

Thus, CSR is part of the corporate strategy for developing competitive advantage (Jackson and Apostolakou, 2010) and is considered a strategic investment (e.g. Husted and Allen, 2000; McWilliams and Siegel, 2001). Consequently, boards are increasingly making decisions concerning CSR (Ingley, 2008). Hence, boards not only have to focus on economic performance, but have to extend their aims and consider social and environmental performance as well, creating value for stakeholders and being responsible towards them and not only towards owners.

Boards exert significant influence on the responsible behaviour of firms (Michelon and Parbonetti, 2012; Rupley et al., 2012) and, consequently, corporate governance is a relevant mechanism for guaranteeing CSR practices (European Commission, 2013). Thus, board composition may play an essential role in CSR policies (Pfeffer, 1972). Although CUBG (2006) recommended the presence of independent directors on boards to improve corporate governance, research has shown that they do not enhance it (Menozzi et al., 2011; Pucheta-Martínez and García-Meca, 2014) and do not affect CSR activities (McKendall et al., 1999). Indeed, some authors (García-Osma and Gill de

Albornoz, 2007; Pucheta-Martínez and García-Meca, 2014) suggest that corporate governance is enhanced by institutional directors and not by independent directors. Thus, the role played by institutional directors on boards with regard to CSR practices is an interesting topic for analysis.

Some theories suggest a positive impact of institutional directors on CSR practices. Among these, stewardship theory is frequently used to understand the implications of the presence of institutional directors for company strategy (Castaldi and Wortman, 1984) as it stresses the experience, knowledge and skill of directors. The rising belief that CSR activities enhance financial performance has put social and environmental issues on firms' agenda. Hence, institutional directors are expected to foster CSR practices because they focus on social and environmental issues as well as financial performance. In addition, they are interested in showing the responsible behaviour of the company as otherwise their professional reputation can be harmed (Pathan, 2009). Stakeholder power theory shows that firms are likely to meet the requests of stakeholders who control critical resources (Ullman, 1985). Therefore, outside directors, such as institutional directors, may be more aware of CSR activities than executives, who are more concerned with economic questions. According to resource dependence theory, the board of directors is a necessary body to manage outside dependencies, such as those imposed by social and environmental challenges (Hillman et al., 2000). This theory suggests that outside directors, such as institutional directors, are an effective tool to connect the firm with its external environment. Finally, agency theory posits that institutional directors who are committed to CSR issues may strengthen the internal control of firms. Therefore, they may reduce opportunistic behaviour problems due to asymmetric information (Frias-Aceituno et al., 2013), disclosing social and environmental information.

According to myopic institutional theory (Hansen and Hill, 1991), institutional investors, represented on boards by institutional directors, tend to be short-sighted and focus on returns. This argument is in line with the thesis that institutional investors will not support CSR investment decisions, given the long-term horizons and uncertain results associated with them (Coffey and Fryxell, 1991). However, institutional investors usually own a large proportion of shares (Ozkan, 2007), making it complicated and costly to sell off their shares without negatively affecting the stock

price. Furthermore, institutional investors hold stock in most companies and, consequently, may have difficulty in finding other suitable investments. Finally, institutional investors manage money from other people and, accordingly, have to protect their investment against loss of value. As a result, representatives of institutional investors, institutional directors, have sufficient incentives to perform monitoring activities (Gillan and Starks, 2000), which implies both collecting and analysing information and influencing management, as well as being involved in the strategic decisions of firms (McWilliam and Siegel, 2001), such as CSR decisions.

In addition, Spicer (1978) and Graves and Waddock (1994) suggest that institutional directors consider firms which do not behave responsibly to be more risky and potentially less efficient. Moreover, these directors view CSR as essential to attain sustainability and competitive advantage (Neubaum and Zahra, 2006), as in changing and unpredictable environments socially responsible behaviour can help firms gain legitimacy through support from different stakeholders (Goll and Rashedd, 2004). Thus, institutional directors, as dominant shareholders' representatives, have an interest in the long-term sustainability of the company (Paek et al., 213) and they are likely to support CSR activities because they are necessary for long-term value creation and sustainable organizational performance (Mahapatra, 1984). In this line, previous research has found a positive relationship between outside directors, such as institutional directors, and CSR policies (e.g. Ibrahim et al., 2003; Johnson and Greening, 1999; Webb, 2004; Zahra et al., 1993). These same results are reported by Dyck et al. (2015), Fernández Sánchez et al. (2011), Johnson and Greening (1999), Neubaum and Zahra (2006) and Yong Oh and Kyun Chang (2011), who show a positive impact of institutional investors on CSR practices, demonstrating the effectiveness of these owners in promoting responsible behaviour.

However, although institutional directors are active and vigilant investors and, therefore, may encourage CSR activities (Preston and Post, 1975; Useem, 1996), monitoring is extremely costly. As the cost of monitoring activities is borne by institutional investors and all stakeholders benefit from them (Shleifer and Vishny, 1986), these investors can bear potential liquidity costs (Coffee, 1991) and free-rider problems can arise. Consequently, institutional directors have to determine the benefit–cost ratio of monitoring activities and the intensity of monitoring will vary depending

on the value of this ratio (Almazán et al., 2005). In addition, institutional directors have the power to make decisions based on their own benefits, (Cornett et al., 2007; Ruiz-Mallorquí and Santana-Martín, 2009) and tend to deal personally with firms (Carleton et al., 1998) to achieve their own goals (Pound, 1988). Accordingly, it is reasonable to suggest that institutional directors may take part in tunnelling activities, namely expropriating wealth from minority owners (Johnson et al., 2000), instead of performing control activities. As a result, institutional directors may negatively influence CSR activities, despite the potential for CSR practices to increase firm performance, as they may hope to derive lower profits due to the wedge between cash flow and control rights (Pucheta-Martínez and García-Meca, 2016). Thus, authors such as Arora and Dhawadkar (2011), Coffey and Fryxell (1991) and Pucheta-Martínez and García-Meca (2016) find a negative influence of institutional directors on CSR policies.

Thus, the prior literature shows a linear relationship between institutional directors and CSR. However, to the best of our knowledge, there is no existing evidence of a non-linear relationship, concretely quadratic, between institutional directors and CSR activities, while authors such as Chirinko et al. (1999), Jara-Bertin et al. (2012), Navissi and Naiker (2006) and Zou (2010) show this quadratic non-linear association between institutional investors and firm performance. Therefore, we extend this quadratic relationship to institutional directors and CSR practices.

This quadratic relationship is supported by the theory of optimal distinctiveness proposed by Brewer (1991). According to this approach, the effect of a collective is expected to be non-linear: the presence of features (institutional directors) at very low and very high levels within a team (board of directors) can lead to more positive results (more CSR practices), while more negative outcomes (fewer CSR practices) can take arise when there is a balanced proportion of features (a U-shaped relationship). Therefore, focusing on these arguments, it can be suggested that institutional directors not only have a linear effect on CSR practices, but also a non-linear effect.

Thus, we expect a non-linear association, concretely quadratic, between institutional directors on boards and CSR activities. On the one hand, we hypothesize that as the proportion of institutional directors increases, they will prefer to collude and entrench with managers in order to obtain private benefits given the high costs of both

monitoring and challenging the management team to adopt CSR activities; consequently, they will align with managers' decisions rather than supporting CSR practices. Institutional directors will be less likely to wish to bear more monitoring costs and, as a result, they will have fewer incentives to push managers to perform CSR activities. When their presence represents low percentages on boards, it is easier for them to collude with mangers. In this line, Oh et al. (2011) report that executives have a negative impact on CSR practices, showing that managers are more interested in financial performance than CSR activities. This is because managers may perceive CSR activities as an extra cost and consider that they do not create firm value. Therefore, they may not consider social and environmental issues to be key factors in their oversight and strategic planning responsibilities. Accordingly, managers may deal with institutional directors in order to obtain their support and, in exchange, institutional directors may fulfil their own aims. Furthermore, according to Ricart et al. (2005), more than 50% of board members do not perceive CSR to be a key issue and the views of a low proportion of institutional directors wishing to promote CSR policies may, therefore, not be considered.

Nevertheless, when their presence on boards reaches a certain threshold, institutional directors may have a positive effect on CSR activities, in line with the monitoring hypothesis. Thus, the addition of more institutional directors on boards above this inflection point will concentrate a higher proportion of institutional directors, who may share monitoring costs. Their monitoring role will, therefore, be more efficient and it will be more difficult for managers to collude with all institutional directors. Moreover, the presence of more institutional directors on boards will militate against other institutional directors taking part in tunnelling activities. Accordingly, it is more likely that institutional directors will perform monitoring activities, avoid expropriation activities and challenge boards and management team to implement CSR strategies, viewing the benefits of CSR as essential to achieve competitive advantage, which leads to the long-term sustainability of the firm and enhances firm value. Therefore, there can be two opposite impacts on CSR from the presence of institutional directors, suggesting a non-linear association between them and CSR practices, concretely a quadratic relationship (a U-shaped relationship).

Based on the above, we posit the following hypothesis:

H1: Institutional directors have a negative effect on CSR reporting, but when they exceed a critical point, they affect them positively.

However, prior research provides evidence that institutional directors do not behave in a monolithic manner with regard to corporate issues (e.g. Almazán et al., 2005; Ferreira and Matos, 2008, Pucheta-Martínez and García-Meca, 2014; Ramalingegowda and Yu, 2012) as there are differences between the legal, competitive and regulatory environments they face (Bennett et al., 2013). Indeed, institutional directors are a heterogeneous group with diverse incentives for engagement in corporate governance. Business relationships are considered as a key factor that may influence the effectiveness of control by institutional directors, affecting their capability to perform monitoring activities and the extent of their influence (Brickley et al., 1988). Accordingly, institutional directors can be categorized as either pressure-resistant institutional directors or pressure-sensitive institutional directors (e.g. Almazán et al., 2005; López-Iturriaga et al., 2015; Ruiz-Mallorquí and Santana-Martín, 2009).

Pressure-resistant investors, represented by pressure-resistant directors, including mutual funds, pension funds, investment funds, venture capital firms and endowments, solely maintain an investment relationship with the company in which they invest. Thus, they do not incur conflicts of interest arising from business ties, the pressure from the company in which they invest is lower and, consequently, they can behave more independently (David et al., 2001). Hence, pressure-resistant directors may be more active in monitoring and may exert pressure to encourage change (e.g. Almazán et al., 2005; Ferrerira and Matos; 2008; Pucheta-Martínez and García-Meca, 2014), such as engaging in CSR practices. Moreover, these directors prefer to invest over a long-term horizon (Tihanyi et al., 2003) and to reduce agency problems, performing monitoring activities to mitigate or eliminate fraudulent behaviour (Zhang et al., 2008). Thus, they will be more active in monitoring managers and may affect firm decisions in line with stakeholders' interests, supporting CSR activities and increasing the disclosure of environmental and social issues. Johnson and Greening (1999) show a positive relationship between pressure-resistant institutional ownership and CSR. Sethi (2005) also provides evidence that CSR is influenced positively by pressure-resistant

institutional investors. Similarly, Cox et al. (2004), Harjoto and Jo (2008) and Neubaum and Zahra (2006) find that pressure-resistant institutional investors are positively associated with CSR. Hence, it is likely that pressure-resistant institutional directors will enhance CSR reporting owing to their monitoring role.

However, as pointed out above, authors like Jara-Bertín et al. (2012) and Navissi and Naiker (2006) find a non-linear relationship between institutional directors and firm value. Extending this association to pressure-resistant institutional directors, Jiao and Ye (2013) show a quadratic relationship between pressure-resistant institutional directors and firms' future performance. Consequently, we extend this non-linear relationship to the analysis of the presence of pressure-resistant institutional directors and CSR practices. Therefore, as posited for institutional directors as a whole, we propose that when the presence of pressure-resistant institutional directors is low, their position may not be considered when trying to enhance CSR practices as most of the board members do not consider CSR an essential matter (Ricart et al., 2005). Furthermore, when their presence on boards is low, their incentives to perform monitoring activities will be lower because they bear more monitoring costs and, as a result, they will be less likely to challenge managers to undertake CSR activities. In addition, it is also more likely that pressure-resistant directors will take part in tunnelling activities because executives may collude with them to obtain their support; in exchange, these directors may achieve fulfilment of their own interests. Conversely, as the proportion of pressure-resistant directors on boards grows, they may monitor management team more effectively as they can share monitoring costs. When their presence on boards reaches a certain point, it will be more difficult for managers to attain the support of pressure-resistant directors. Thus, the greater the presence of pressure-resistant directors on the board the more likely it is that they will perform monitoring activities, militating against other pressure-resistant directors taking part in expropriation activities and challenging boards to implement a CSR strategy as the benefits of this strategy are considered important for attaining long-term sustainability and enhancing company performance. These arguments support a non-linear association between pressure-resistant directors and CSR practices (a U-shaped relationship).

On the other hand, pressure-sensitive investors, which include banks and insurance companies, have both an investment and business relationship with the firm in which

their representatives, pressure-sensitive directors, serve on boards. Pressure-sensitive investors, particularly banks, are entities with high public visibility (Khan, 2010). They can act as creditors and shareholders and, as a result, society may press these investors to increase CSR activities (Simpson and Kohers, 2002) in the firms in which their representatives serve on boards in order to avoid unsafe products or polluting the environment. Accordingly – and given the importance of CSR in recent years – pressure-sensitive investors have directed their activities towards engaging in socially responsible behaviour to meet the expectations of a wider group of stakeholders (O'Donnovan, 2002). In this line, banks have increased their CSR activities (Douglas et al., 2004; Sharif and Rashid, 2014). To avoid damaging their professional reputation, pressure-sensitive directors are more willing to assess firms' social aims (Zahra, 1989) and confirm that the firms' behaviour is socially responsible in accordance with these aims (García-Sánchez et al., 2011).

Moreover, banks perform a triple role, as shareholders, creditors and directors. This position gives them more information, reduces information asymmetry (Hadlock and James, 2002) and makes them more efficient monitors (Gorton and Schmid, 2000; Ingley and Van Der Walt, 2004) as their knowledge of the firms, obtained through their relationships, allows pressure-sensitive directors to supervise firms' investments and mitigate adverse selection and moral hazard problems (García-Meca et al., 2013; Hadlock and James, 2002). Furthermore, pressure-sensitive directors may also act as creditors and, therefore, they may be interested primarily in the viability of the company and paying off debt. Thus, pressure-sensitive directors may support CSR activities as they can improve internal control systems, enable better decision making and save costs (Adams, 2002), resulting in lower firm risk. In this way, increasing CSR activities will allow pressure-sensitive investors to lessen the risk faced by lenders and to lower the probability of default, thereby protecting their loans.

In addition, banks reduce their opportunistic behaviour when they behave as both shareholders and creditors (De Andrés Alonso et al., 2010; Mahrt-Smith, 2006), as a result of which they may perform an active role in the governance of the firm (García-Meca et al., 2013). Consequently, pressure-sensitive directors may play an active and effective monitoring role and will tend to align their representatives' interests with those

of other shareholders, trying to guarantee management involvement in CSR activities (Pucheta-Martínez and García-Meca, 2016).

However, authors like De Andrés et al. (2010) and Morck et al. (2000) show a non-linear association between pressure-sensitive institutional ownership and corporate performance. We would like to extend the analysis of this relationship and examine whether a non-linear association is confirmed between pressure-sensitive institutional directors and CSR.

Drawing on the above arguments, we predict that as the presence of pressure-sensitive directors on boards increases, they will challenge boards and managers to undertake CSR activities as their monitoring role may be more active and effective than that of other directors due to their triple role as shareholders, creditors and directors. Thus, pressure-sensitive directors have more information which they might use to press boards to make decisions in line with higher CSR disclosure. In addition, this CSR reporting may be promoted by pressure-sensitive directors because they tend to consider not only their own interests, but also those of other stakeholders. However, when their presence on boards reaches a tipping point, the incorporation of more pressure-sensitive directors will result in them playing a less effective and weaker monitoring role due to their commercial ties (Brickley et al., 1988). This will, then, affect corporate decisions as each pressure-sensitive investor will tend to enforce their own interests at the expense of other pressure-sensitive investors; their aim will not be to boost corporate value, but to obtain private profits (Cuervo, 2002) and control other pressure-sensitive investors with the purpose of hindering them from fulfilling their own aims. Consequently, pressure-sensitive directors will be likely to give more support to managers and less willing to challenge them with regard to CSR practices due to the interest disputes pressure-sensitive institutional investors have to contend with arising from their commercial ties (Almazán et al., 2005). Otherwise, they may compromise their business relations (Chen et al., 2007).

In addition, the monitoring costs are higher for pressure-sensitive directors than for pressure-resistant directors (Almazán et al., 2005) and, therefore, when the presence of pressure-sensitive directors on boards is high, they may not have the incentives and abilities to control managers; if they do so, they might endanger their opportunities to

obtain private benefits in favour of other pressure-sensitive directors who support managers' decisions. Hence, pressure-sensitive directors may choose not to control managers, but to favour their decisions (Brickley et al., 1988), for example limiting CSR activities. This would be in line with research which has shown that when pressure-sensitive directors make corporate decisions, they are contrary to shareholders' interests (Brickley et al., 1988; Ruiz-Mallorquí and Santana-Martín, 2011; Tribó and Casasola, 2010). Thus, pressure-sensitive directors might collude with managers, supporting their decisions, such as not being involved in CSR practices, to attain their own aims and avoid jeopardizing business ties. Moreover, according to Bushee (1998), these directors prefer short-term earnings, so pressure-sensitive directors might encourage firms to assume activities that enhance short-term profitability (Hoskisson et al., 2002) and discourage CSR practices, the benefits of which are derived over the long term (Johnson and Greening, 1999). Thus, given the monitoring costs and the conflicts of interest pressure-sensitive directors face and their short-term orientation, it is likely that they will not support CSR activities, suggesting a negative association between pressure-sensitive institutional directors and CSR practices. Therefore, an inverted U-shaped relationship between pressure-sensitive directors and CSR may be expected, in which the monitoring hypothesis prevails with low numbers of pressure-sensitive directors and CSR activities are supported due to their controlling role, but the collusion hypothesis is supported with high numbers of pressure-sensitive directors as they may collude with managers to safeguard their business and, hence, may not support CSR activities.

Accordingly, we hypothesize a non-linear relationship between pressure-sensitive directors and CSR activities: as the proportion of pressure-sensitive directors increases on boards, they will perform an active monitoring role to avoid negative and opportunistic disclosures and will support those that benefit a broad range of stakeholders, for example supporting CSR reporting. Nevertheless, when the presence of pressure-sensitive directors on boards exceeds a critical point, their aim might be to collude with managers and to support managers' decisions, such as reducing CSR activities in order to obtain private benefits. In return, managers will provide benefits to those pressure-sensitive directors who do not hinder their decisions, such as limiting CSR.

To the best of our knowledge, a non-linear association between pressure-resistant/pressure-sensitive institutional directors and CSR has not yet been analysed.

Thus, according to the above views, we propose the following two hypotheses:

H2a: Pressure-resistant directors have a negative effect on CSR reporting, but when they reach a critical point, they affect them positively.

H2b: Pressure-sensitive directors have a positive effect on CSR reporting, but when they reach a critical point, they affect them negatively.

2.4. RESEARCH DESIGN

2.4.1 Sample

The database used in this research was drawn from the population of Spanish non-financial listed companies for the period 2007–2014. Both financial and insurance firms were removed from the sample due to their particular accounting practices, which make their financial statements incomparable with those of firms in other sectors. An unbalanced panel, consisting of 864 firm-year observations, was constructed. The findings provided for such panels are as reliable as those achieved by balanced panels (Arellano, 2003).

Financial data were collected from the "Sistema de Análisis de Balances Ibéricos" (SABI database) and corporate governance information was obtained from the public register of the Spanish Securities Market Commission (CNMV), particularly from the annual corporate governance reports. Finally, CSR data were collected from both the companies' websites and the Global Reporting Initiative (GRI) website, as the GRI is the most significant framework for disclosing CSR issues with regard to economic, social and environmental performance (Gallego, 2006).

2.4.2. Variables

We use two different variables as dependent variables. We define the first as REPORT, measured as a dummy variable coded 1 if the company discloses a CSR report and 0, otherwise (Frias-Aceituno et al., 2013). The second dependent variable is defined as CSR. To measure this variable, we built a CSR index based on the triple bottom line approach, which includes economic, social and environmental performance (Bansal, 2005; Chow and Chen, 2012; Gallardo-Vázquez et al., 2013; Gallego, 2006; Gónzález-Ramos et al., 2014). This index was constructed through content analysis of the CSR reports (Dong et al., 2014; Frias-Aceituno et al., 2013; Kuo et al., 2012; Miras-Rodríguez et al., 2014). Specifically, we used an aggregate construct calculated as the aggregation of 25 items measured as dummy variables, assigning each item the value 1 if the firm provides information concerning the item considered and 0, otherwise (Al-Tuwaijri et al., 2004; Hughes et al., 2001; Miras-Rodríguez, 2014). The selection of the 25 items was based on investigations conducted in Spain (Archel-Domench, 2003; Gallardo-Vázquez et al., 2013; Gallego, 2006; González-Ramos et al., 2014) as our study is also based in this context and, therefore, both the legal and cultural environments should be taken into account; they influence CSR practices and CSR disclosure (Cuadrado-Ballesteros et al., 2015; Miras-Rodríguez et al., 2015; Prado and Garcia, 2011; Yong, A., 2008). The index value for each company is estimated as follows:

$$RSC_{it}=\sum \text{item points}_{it}/\text{total points (25 points)}$$

In Table 1, we offer the items considered in the CSR index.

Table 1
Items considered in the CSR index

Social dimension
1. Hiring people at risk of social exclusion
2. Commitment to job creation
3. Training and professional development of employees
4. Flexible labour policies for reconciling work and family life
5. Consideration of employees' proposals in the management decisions of the company
6. Information on accidents and absenteeism
7. Money earmarked for political parties
8. Investments in social programmes
9. Awards and/or mentions received related to social, ethical and environmental performance
Economic dimension
1. Geographical distribution of markets
2. Geographical distribution of suppliers
3. Information on responsible purchasing
4. Information on enhancing stable relations, cooperation and mutual benefit with suppliers
5. Information on non-compliance with the terms agreed with suppliers
6. Complete and accurate information about the products and/or services delivered to customers
7. Information on customer complaints
8. Taxes paid to the government by country
Environmental dimension
1. Information on energy, water, etc.
2. Information on the use of renewable energy sources
3. Information on waste generation and emissions
4. Information on the use of waste as inputs for the production process
5. Information on the use of consumables, work in progress products/processed, packaging of low environmental impact
6. Information on the commitment to reducing the negative impact of the final product on the environment
7. Incidents/fines related to the environment
8. Investment in environmental programmes

The CSR index is in the range (0–1), based on the classification provided in Table 2:

Table 2
CSR classification

Index Score	Classification
0	Firm does not disclose CSR information concerning the items analysed
0.1–0.5	The CSR disclosure of the firm is moderate
0.6–0.9	The CSR disclosure of the firm is considerable
1	The CSR disclosure of the firm concerning the items analysed is complete

To test how institutional directors influence CSR, several independent variables are used. The variable PINST represents the institutional directors on boards appointed by institutional investors, measured as the proportion of institutional directors on boards (García-Meca and Pucheta-Martínez, 2015; López-Iturriaga et al., 2015; Pucheta-Martínez and García-Meca, 2016). The variables PSENSIT and PRESIST represent the proportion of pressure-sensitive and pressure-resistant directors on boards, respectively. Both PSENSIT and PRESIST are the quotient of the total number of pressure-sensitive/pressure-resistant directors on boards, respectively, and the total number of members on boards (García-Meca et al., 2013; López-Iturriaga et al., 2015; Pucheta-Martínez and García-Meca, 2014). Finally, the squares of the proportions of institutional ($PINST^2$), pressure-sensitive ($PSENSIT^2$) and pressure-resistant directors ($PRESIST^2$) are used to analyse whether these directors affect CSR in a quadratic manner.

Other factors may have effect on CSR and, therefore, several variables have been taken into account. First, firm size is considered, defined as FSIZE and measured as the log of total assets (Frias-Aceituno et al., 2013; Victoravich et al., 2013). Previous research has shown a positive relationship between firm size and CSR (e.g. Archel-Domenech, 2003; Gallego-Álvarez and Quina-Custodio 2016; Hamid, 2004). Firm performance is defined as ROA and is measured as operating income before interest and taxes over total assets (Campbell and Mínguez-Vera, 2008). A positive association between firm performance and CSR has been shown by previous research (e.g. Pucheta-Martínez and García-Meca, 2016; Setó-Pamies, 2015). Leverage is also controlled, defined as LEV and measured as the ratio between the volume of the firm's short- and long-term debt and its total assets (Arora and Dharwadkar, 2011; Fernández-Gago et al., 2014). A negative correlation is shown by Castelo and Lima (2008) and Reverte (2009) between leverage and CSR reporting. Board size is also controlled, defined as BDSIZE and measured as the number of directors on boards (Kent and Ung, 2003; Martínez-Ferrero et al., 2015; Pucheta-Martínez and García-Meca, 2016). A positive correlation is expected between board size and CSR (Martínez-Ferrero et al., 2015; Pucheta-Martínez and García-Meca, 2016). Board independence has been found to increase CSR activities (e.g. Abdelsalam et al., 2007; Martínez-Ferrero et al., 2015; Prado-Lorenzo et al., 2009). Hence, we also control board independence, labelled as INDP and calculated as the proportion of independent directors on boards (Martínez-Ferrero et al., 2015; Prado-

Lorenzo et al., 2009; Pucheta-Martínez and García-Meca, 2016). A dual position as CEO and president of the board of directors, defined as CEO_DUALITY, is also considered. This variable is calculated as a binary variable coded 1 if the CEO serves as CEO and chairman of the board and 0, otherwise (Prado-Lorenzo et al., 2009). A negative association is expected between this variable and CSR activities. Finally, board activity is also considered as a control variable, defined as BDMEET and measured as the number of meetings held by the board (Martínez-Ferrero et al., 2015; Prado-Lorenzo et al., 2009). It is expected that the more meetings held by the board, the more effective will be its controlling role and this may increase CSR activity. Finally, the sector to which the company belongs is also considered. The sector will affect CSR activities (Fernández-Gago et al., 2014; Prado-Lorenzo et al., 2009) and the companies that belong to highly sensitive sectors are more likely to disclose CSR information (Deegan and Gordon, 1996). Thus – and according to the Madrid Stock Exchange sector classification – we use three sector variables, defined as SECT_OE, SECT_IC and SECT_CO and measured as a dummy variable coded 1 if the company belongs to the oil and energy sector, the basic materials, industry and construction sector and the consumer services sector respectively and 0, otherwise.

A summary of the description of variables is provided in Table 3.

Table 3
Variable description

Variables	Expected Sign	Description
REPORT		Dummy variable. 1 if the firm discloses CSR report and 0, otherwise
CSR		CSR index
PINST	-	The proportion of institutional directors on the board
$PINST^2$	+	The square of PINST
PSENSIT	+	The proportion of institutional directors who represent pressure-sensitive institutional investors on the board
$PSENSIT^2$	-	The square of PSENSIT
PRESIST	-	The proportion of institutional directors who represent pressure-resistant institutional investors on the board
$PRESIST^2$	+	The square of PRESIST
FSIZE	+	The logarithm of total assets
ROA	+	Operating incomes before interests and taxes over total assets
LEV	-	The ration between the fim's debt and its total assets
BDSIZE	+	The number of directors on board

CEO_DUALITY	-	Dummy variable. 1 if the CEO and president of the board are the same and 0, otherwise
BDMEET	+	The number of meetings held by the board in a year.
INDP	+	The proportion of independent directors on the board
SECT_OE	+	Dummy variable. 1 if the firm belongs to the oil and energy sector and 0, otherwise
SECT_IC	+	Dummy variable. 1 if the firm belongs to the basic materials, industry and construction sector and 0, otherwise
SECT_CO	+	Dummy variable. 1 if the firm belongs to the consumer services sector and 0, otherwise

2.4.3. Methodology

The following models are estimated to examine the hypotheses:

$$REPORT_{it} = \alpha + \sum B_j\ BOARD\_DIRECTORS_{it} + \sum B_j\ BOARD\_DIRECTORS^2_{it} + \beta_7\ FSIZE_{it} + \beta_8\ ROA_{it} + \beta_9\ LEV_{it} + \beta_{10}\ CEO\_DUALITY_{it} + \beta_{11}\ BDMEET_{it} + \beta_{12}\ INDP_{it} + \beta_{13}\ BDSIZE_{it} + \sum B_j\ SECT_{it} + \mu_{it} + \varepsilon_{it} \quad (1)$$

$$CSR_{it} = \alpha + \sum B_j\ BOARD\_DIRECTORS_{it} + \sum B_j\ BOARD\_DIRECTORS^2_{it} + \beta_7\ FSIZE_{it} + \beta_8\ ROA_{it} + \beta_9\ LEV_{it} + \beta_{10}\ CEO\_DUALITY_{it} + \beta_{11}\ BDMEET_{it} + \beta_{12}\ INDP_{it} + \beta_{13}\ BDSIZE_{it} + \sum B_j\ SECT_{it} + \mu_{it} + \varepsilon_{it} \quad (2)$$

Where $BOARD\_DIRECTORS_{it}$ denotes institutional, pressure-sensitive and pressure-resistant directors. In addition, μ_{it} represents year-fixed and firm-fixed effects and ε_{it} is the error term. Firm-fixed effects capture unobservable and constant features of the companies which are potentially associated with REPORT and CSR. We employ year- and firm-fixed effects to control for specific year and company effects on the dependent variables.

2.5. RESULTS

2.5.1. Descriptive statistics

Table 4 displays the mean and median values, the standard deviation and the 10th and 90th percentiles.

Table 4
Main Descriptive Statistics

Mean, median, standard deviation, and percentiles of the main variables. Panel A and B show the continuous and dummy variables, respectively. REPORT equals 1 if the firm discloses CSR report and 0, otherwise; CSR is the CSR index; PINST is the proportion of institutional directors on board;PSENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; PRESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; FSIZE is the logarithm of total assets; ROA is the operate income before interests and taxes over total assets; LEV is volume of firm's short and long term debt over its total assets. BDSIZE is the number of directors on board; INDP is the proportion of independent directors on board; BDMEET is the number meetings held by the board in a year; CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise; SECT_OE equals to 1 if the firm belongs to the oil and energy sector and 0, othersiwise; SECT_IC equals 1 if the firm belongs to the basic materials, industry and construction sector and 0, otherwise; SECT_CO equals 1 if the firm belongs to the consumer services sector and 0, otherwise.

Panel A. Continuos variables

Variables	N	Mean	Median	Std. Dev.	Perc. 10	Perc. 90
CSR	864	0.311	0.000	0.359	0.000	84.000%
PINST	864	45.031%	45.455%	28.407%	11.111%	75.000%
PSENSIT	864	7.720%	0.000%	13.909%	0.000%	26.667%
PRESIST	864	36.889%	33.333%	26.751%	0.000%	71.429%
FSIZE	864	13.048	13.057	2.098	10.608	15.683
ROA	864	-1.315%	1.649%	56.101%	-16.208%	14.639%
LEV	864	57.557%	54.294%	46.899%	11.059%	91.51%
BDSIZE	864	10.263	10.000	3.914	5.000	16.000
BDMEET	864	9.700	10.000	4.002	5.000	14.000
INDP	864	33.186%	33.333%	18.379%	11.111%	60.000%

Panel B. Dummies variables

Variable	0	% (0)	1	% (1)
REPORT	454	52.546%	410	47.454%
CEO_DUALITY	587	67.940%	277	32.060%
SECT_OE	797	92.245%	67	7.755%
SECT_IC	635	73.495%	229	26.505%
SECT_CO	757	87.616%	107	12.384%

The results show that the 47.5% of the firms provide CSR reports using the GRI framework, while the value of CSR is 0.31, demonstrating that the CSR disclosure of firms is moderate. Regarding economic data, on average, firms present a size of 13.05

(log. of total assets), negative profitability (-1.31%) and debt of 57.56%. The board of directors, on average, consists of 10 members; independent directors represent 33.19% and institutional directors account for 45.03%. The percentages of pressure-sensitive and pressure-resistant directors are 7.72% and 36.89%, respectively. The board meets, on average, 9.7 times per year. Moreover, the same person holds the position of CEO and board president in 32% of companies. Finally, 7.74% of firms belong to the oil and energy sector, 26.52% of firms are in the basic materials, industry and construction sector and 12.34% operate in the consumer services sector.

2.5.2. Univariate analysis

Table 5 shows the analysis of the mean differences run for the independent variables. Two groups were constructed to analyse the mean differences among the independent variables, according to whether the firms disclose GRI reports and whether they provide CSR information higher or equal than the CSR median. For the REPORT variable, firms that do not provide GRI reports were included in the first group and other firms were included in the second group. For the CSR variable, the median was selected as the critical value for making up the two groups (0.00). Thus, in the first group, firms with a CSR value equal the CSR median were included, whereas other companies were included in the second group (firms with a CSR value higher than the CSR median).

Table 5
Means comparison test

REPORT equals 1 if the firm discloses CSR report and 0, otherwise; CSR is the CSR index; PINST is the proportion of institutional directors on board; PSENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; PRESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors.

Panel A. Analysis of mean differences when the dependent variables is REPORT

Variable	REPORT (=0) Mean	REPORT (=1) Mean	Mean difference	p-value
PINST	47.526	42.277	5.249	0.016
PSENSIT	5.802	9.837	-4.035	0.000
PRESIST	40.853	32.510	8.343	0.000

Panel B. Analysis of mean differences when the dependent variables is CSR

Variable	CSR (= 0) Mean	CSR (>0) Mean	Mean difference	p-value
PINST	47.526	42.277	5.249	0.016
PSENSIT	5.802	9.837	-4.045	0.000
PRESIST	40.853	32.510	8.343	0.000

As can be seen, the results show that the mean differences for institutional directors (PINST) and pressure-resistant directors (PRESIST) are negative and statistically significant for both dependent variables: REPORT and CSR. Therefore, these findings suggest that the percentage of institutional and pressure-resistant directors is lower on boards in firms using GRI reports and disclosing CSR information below the median value. These results are in line with Arora and Dhawadkar (2011), Coffey and Fryxell (1991) and Pucheta-Martínez and García-Meca (2016), who also find such a relationship and provide evidence in favour of the collusion hypothesis, namely, that these directors prefer to collude with managers to attain private benefits, such as reinforcing their position, rather than controlling the management team and promoting CSR activities. Hence, a passive monitoring role is displayed by institutional and pressure-resistant directors (Varma, 2001).

On the other hand, the results also indicate that pressure-sensitive directors positively influence CSR disclosure. This finding demonstrates a positive relationship between

pressure-sensitive directors and REPORT and CSR; that is, a higher proportion of pressure-sensitive directors on boards encourages firms to provide GRI reports and disclose CSR information. Consistent with these views, Khan et al. (2009), Pucheta-Martínez and García-Meca (2016) and Sharif and Rashid (2014) also show that pressure-sensitive directors have a positive impact on CSR reporting. The findings suggest that pressure-sensitive directors play an active and effective monitoring role, promoting CSR activities. Accordingly, they may take into account stakeholders' interests through CSR activities.

2.5.3. Multivariate analysis

To examine the potential for multicollinearity problems, Spearman's correlation matrix was calculated. The values, provided in Table 6, show that the correlation coefficients are not high enough (> 0.8) to trigger multicollinearity issues (Archambeault and DeZoort, 2001; Pucheta-Martínez and De Fuentes, 2008), except for the pair PINST–PRESIST, which has a value of 0.825. However, these variables are not simultaneously incorporated in the model. Accordingly, the models employed do not exhibit multicollinearity problems and, therefore the results are not biased by multicollinearity.

Table 6
Correlation Matrix

Spearman's correlation matrix. REPORT equals 1 if the firm discloses CSR report and 0, otherwise; CSR is the CSR index; PINST is the proportion of institutional directors on board;PSENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; PRESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; FSIZE is the logarithm of total assets; ROA is the operate income before interests and taxes over total assets; LEV is volume of firm's short and long term debt over its total assets. BDSIZE is the number of directors on board; INDP is the proportion of independent directors on board; BDMEET is the number meetings held by the board in a year; CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise; SECT_OE equals to 1 if the firm belongs to the oil and energy sector and 0, othersiwise; SECT_IC equals 1 if the firm belongs to the basic materials, industry and construction sector and 0, otherwise; SECT_CO equals 1 if the firm belongs to the consumer services sector and 0, otherwise. * p<0.1; **p<0.05; ***p<0.01

	REPORT	CSR	PINST	PSENSIT	PRESIST	BDMEET	LEV	ROA	FSIZE	CEO_DUALITY	INDP	BDSIZE	SECT_OE	SECT_IC	SECT_CO
REPORT	1														
CSR	0.935***	1													
PINST	-0.081*	-0.102***	1												
PSENSIT	0.175***	0.195***	0.198***	1											
PRESIST	-0.147***	-0.169***	0.825***	-0.278***	1										
BDMEET	0.108**	0.154***	0.121**	-0.004	0.103**	1									
LEV	0.056	0.070	0.041	-0.110***	0.087**	0.180***	1								
ROA	0.308***	0.273***	-0.135***	-0.022	-0.104**	-0.085**	-0.310***	1							
FSIZE	0.590***	0.673***	-0.042	0.198***	-0.124**	0.287*	0.288***	0.134***	1						
CEO_DUALITY	-0.029	0.002	-0.315***	-0.101**	-0.262***	0.030	0.031	0.017	0.146	1					
INDP	0.200***	0.244***	-0.691***	+0.188***	-0.533***	0.037	-0.125**	0.105*	0.124**	0.169***	1				
BDSIZE	0.563***	0.571***	0.198***	0.344***	0.051	0.227***	0.105**	0.114***	0.670***	-0.117***	-0.016	1			
SECT_OE	0.138***	0.258***	-0.054	-0.054	-0.053	0.200***	-0.128***	0.066	0.256***	-0.007	0.215***	0.126***	1		
SECT_IC	0.096**	0.068	0.157***	0.157***	0.187***	0.087**	0.149***	-0.035	0.044	0.079*	-0.128***	0.080*	-0.173***	1	
SECT_CO	0.102**	0.124***	0.012	0.012***	0.036	-0.062	0.139***	-0.050	0.075*	0.042	-0.049	0.143***	-0.108**	-0.225***	1

Tables 7 and 8 display the findings of the baseline model for institutional, pressure-sensitive and pressure-resistant directors. In Table 7, we provide the results for the dependent variable REPORT, using model 1 for institutional directors, model 2 for pressure-sensitive and model 3 for pressure-resistant directors. In Table 8, we report the findings for the dependent variable CSR, following the same pattern used for the REPORT dependent variable, but employing models 4, 5 and 6, respectively, for institutional, pressure-sensitive and pressure-resistant directors.

Table 7
Results of the regression for institutional, pressure-sensitive and pressure-resistant directors sit on the board when the dependent variable is REPORT

Estimated coefficients. REPORT equals 1 if the firm discloses CSR report and 0, otherwise; PINST is the proportion of institutional directors on board;PSENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; PRESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; FSIZE is the logarithm of total assets; ROA is the operate income before interests and taxes over total assets; LEV is volume of firm's short and long term debt over its total assets. BDSIZE is the number of directors on board; INDP is the proportion of independent directors on board; BDMEET is the number meetings held by the board in a year; CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise; SECT_OE equals to 1 if the firm belongs to the oil and energy sector and 0, othersiwise; SECT_IC equals 1 if the firm belongs to the basic materials, industry and construction sector and 0, otherwise; SECT_CO equals 1 if the firm belongs to the consumer services sector and 0, otherwise. * p<0.1; **p<0.05; ***p<0.01

Variables	Expected Sign	Model 1 Estimated coefficient	Model 2 Estimated coefficient	Model 3 Estimated coefficient
PINST	-	-0.721*** (0.000)		
$PINST^2$	+	0.205*** (0.000)		
PSENSIT	+		0.149 (0.655)	
$PSENSIT^2$	-		-0.650 (0.265)	
PRESIST	-			-0.587*** (0.000)
$PRESIST^2$	+			0.195*** (0.000)
BDMEET	+	-0.011** (0.014)	-0.017*** (0.000)	-0.012*** (0.005)
LEV	-	-0.052 (0.108)	-0.040 (0.261)	-0.035 (0.308)
ROA	+	0.046 (0176)	0.044 (0.213)	0.050 (0.155)
FSIZE	+	0.028*** (0.003)	0.003 (0.722)	0.020** (0.022)
CEO_DUALITY	-	-0.117*** (0.002)	-0.060 (0.102)	-0.102*** (0.006)
INDP	+	0.002 (0.989)	0.415*** (0.000)	0.151 (0.196)
BDSIZE	+	0.049*** (0.000)	0.046*** (0.000)	0.044*** (0.000)
SECT_OE	+	0.150** (0.010)	0.179*** (0.008)	0.167*** (0.006)
SECT_IC	+	0.165*** (0.000)	0.141*** (0.003)	0.180*** (0.000)
SECT_CO	+	0.133** (0.011)	0.122* (0.033)	0.151*** (0.007)
Observations		864	864	864
R^2		66.08%	63.87%	65.79%

Table 8
Results of the regression for institutional, pressure-sensitive and pressure-resistant directors sit on the board when the dependent variable is CSR

Estimated coefficients. CSR is the CSR index; PINST is the proportion of institutional directors on board;PSENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; PRESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; FSIZE is the logarithm of total assets; ROA is the operate income before interests and taxes over total assets; LEV is volume of firm's short and long term debt over its total assets. BDSIZE is the number of directors on board; INDP is the proportion of independent directors on board; BDMEET is the number meetings held by the board in a year; CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise; SECT_OE equals to 1 if the firm belongs to the oil and energy sector and 0, othersiwise; SECT_IC equals 1 if the firm belongs to the basic materials, industry and construction sector and 0, otherwise; SECT_CO equals 1 if the firm belongs to the consumer services sector and 0, otherwise. * p<0.1; **p<0.05; ***p<0.01

Variables	Expected Sign	Model 4 Estimated coefficient	Model 5 Estimated coefficient	Model 6 Estimated coefficient
PINST	-	-0.602*** (0.000)		
$PINST^2$	+	0.177*** (0.000)		
PSENSIT	+		0.111 (0.631)	
$PSENSIT^2$	-		-0.622 (0.125)	
PRESIST	-			-0.529*** (0.000)
$PRESIST^2$	+			0.193*** (0.000)
BDMEET	+	-0.007** (0.029)	-0.122*** (0.000)	-0.008** (0.012)
LEV	-	-0.028 (0.196)	-0.017 (0.469)	-0.127 (0.580)
ROA	+	0.030 (0.121)	0.029 (0.160)	0.033* (0.098)
FSIZE	+	0.017*** (0.007)	-0.004 (0.408)	0.101* (0.056)
CEO_DUALITY	-	-0.063** (0.018)	-0.157 (0.541)	-0.527* (0.048)
INDP	+	-0.055 (0.497)	0.294*** (0.000)	0.061 (0.41)
BDSIZE	+	0.037*** (0.000)	0.034*** (0.000)	0.033*** (0.000)
SECT_OE	+	0.270*** (0.000)	0.296*** (0.000)	0.284*** (0.000)
SECT_IC	+	0.111*** (0.000)	0.093*** (0.003)	0.125*** (0.000)
SECT_CO	+	0.136*** (0.001)	0.130*** (0.003)	0.153*** (0.000)
Observations		864	864	864
R^2		66.64%	63.61%	66.58%

According to model 1 in Table 7 (REPORT as the dependent variable) and model 4 in Table 8 (CSR as the dependent variable), the variables PINST and $PINST^2$ show that the presence of institutional directors on boards presents the expected signs (negative and positive, respectively) in a linear and quadratic way and the values are statistically significant in both models. Therefore, H1 cannot be rejected. The results show that as the number of institutional directors on boards increases, there will be a negative effect on CSR reporting, but when they reach a turning point, this situation will be inverted and the addition of new institutional members on boards beyond this tipping point will positively affect CSR disclosure. Accordingly, two opposite roles may be performed by institutional directors. When their presence on boards is low, the collusion hypothesis predominates and they prefer to support executives' decisions, such as reducing CSR reporting, but at a high level, above a critical point, the monitoring hypothesis prevails and they challenge the executive team to undertake CSR reporting. These results are in line with previous research demonstrating these two opposite roles (e.g. Jara-Bertín et al., 2012; Navissi and Naiker, 2006; Zou, 2010). Therefore, there is evidence of a U-shaped relationship between institutional directors and CSR disclosure, consistent with Hu and Izumida (2008), who find this relationship between dominant shareholders (such as institutional investors) and corporate performance as CSR is essential to create organizational value (Mahapatra, 1984).

Regarding pressure-sensitive directors, both the PSENSIT and $PSENSIT^2$ variables exhibit the expected signs in Table 7 for the REPORT dependent variable (model 2) and in Table 8 for the CSR dependent variable (model 5), but the results are not statically significant in either model. Consequently, H2b, contrary our expectations, has to be rejected. Hence, the presence of pressure-sensitive directors on boards does not influence CSR disclosure. These findings are consistent with previous research showing that pressure-sensitive directors do not affect CSR (e.g. Johnson and Greening, 1999; Neubaum and Zahra, 2006; Oh et al., 2011). This result could be due to the lack of interest of pressure-sensitive directors in strategic issues such as CSR as controlling CSR practices is a long-term activity (Johnson and Greening, 1999) and they might prefer to be involved in activities that increase short-term earnings (Hoskisson et al., 2002). In addition – and given that they represent institutional investors who maintain commercial ties with the firm in which they hold a directorship on boards – they may

prefer to obtain private benefits by supporting other executives' decisions rather than strategic decisions, such as CSR disclosure or practices.

The variables PRESIST and $PRESIST^2$ also present the expected signs (negative and positive respectively) in model 3, reported in Table 7, for the REPORT dependent variable and in model 6, in Table 8, for the CSR dependent variable; these are statistically significant in both models. Therefore, H2a cannot be rejected. These findings display a U-shaped association between the presence of pressure-resistant directors on boards and CSR reporting. In particular, these findings show that pressure-resistant directors collude with executive teams (collusion hypothesis) when their presence on boards is low and they may support their decisions, for example lowering CSR initiatives. However, when they reach a certain point in terms of increased presence, they perform a monitoring role more effectively, mitigating the potential for other pressure-resistant directors to take part in tunnelling activities (contest hypothesis) and challenging boards and managers to engage in CSR activities as these are essential to boost company performance. These results are in line with Jiao and Ye (2013), who also argue that these two opposite roles are played by pressure-resistant directors in analysing the association between pressure-resistant directors and company value.

Regarding the control variables, the three variables that represent the sector (SECT_OE, SECT_IC and SECT_CO) exhibit the expected signs (positive) in all models and they are statistically significant. These findings suggest that firms operating in highly sensitive sectors disclose more CSR information. BDSIZE is also statistically significant and has a positive impact on CSR, as expected, demonstrating that larger boards support CSR reporting. BDMEET is statistically significant, but contrary to our expectations, the number of meetings held by the board has a negative effect on CSR reporting. The variables ROA and LEV behave in all models in the same way. These variables exhibit the expected signs (positive and negative, respectively), but they are not statistically significant, except for the variable ROA for pressure-resistant directors in model 6 in Table 8. These findings show that these two variables do not influence CSR disclosure, in line with Cuadrado-Balleteros at al., (2015), Frias-Aceituno et al. (2013) and Oh et al. (2011). The findings obtained for the other control variables should be considered with caution as FSIZE, CEO_DUALITY and INDP do not behave in the same way in all models. FSIZE influences CSR disclosure positively and it is

statistically significant in models 1, 3, 4 and 6, but not in models 2 and 5. CEO_DUALITY exhibits the expected sign (negative) and is statistically significant, except in models 2 and 5. Finally, the variable INDP does not have an effect on CSR reporting (models 1, 3, 4 and 6), but the proportion of independent directors on boards has a positive effect on CSR activities when the presence of pressure-sensitive directors is considered (models 2 and 5).

Finally, we also take into account potential endogeneity problems between institutional, pressure-sensitive and pressure-resistant directors and CSR disclosure as they may emerge in studies such as this (Villalonga and Amit, 2006). Namely, we wonder if these directors have a positive/negative effect on CSR reporting, or if firms with CSR reporting attract institutional, pressure-sensitive, or pressure-resistant directors to their boards. Causality usually goes from these directors to CSR disclosure, but it is also possible that CSR disclosure may affect board structure. Accordingly, we address this matter by lagging our independent and explanatory variables in our regressions in line with Hartzell and Sarks (2003) and Ozkan (2007), who support the use of lagged explanatory variables to alleviate possible endogeneity concerns. The findings are provided in Table 9 with REPORT as the dependent variable and Table 10 with CSR as the dependent variable. In Tables 9 and 10, the roles of institutional directors' performance are analysed in models 1 and 4, respectively, those of pressure-sensitive directors in models 2 and 5 and those of pressure-resistant directors in models 3 and 6. As can be observed, the results shown in Tables 9 and 10 are consistent with the core findings provided earlier and, thus, we can confirm that potential endogeneity is not a concern in our analysis. The results with lagged explanatory variables confirm the findings previously shown.

Table 9
Estimates of the baseline models for institutional, pressure-sensitive and pressure-resistant institutional directors sit on the board when the dependent variable is REPORT (Lagging independent variables)

Estimated coefficients. REPORT equals 1 if the firm discloses CSR report and 0, otherwise; PINST is the proportion of institutional directors on board;PSENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; PRESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; FSIZE is the logarithm of total assets; ROA is the operate income before interests and taxes over total assets; LEV is volume of firm's short and long term debt over its total assets. BDSIZE is the number of directors on board; INDP is the proportion of independent directors on board; BDMEET is the number meetings held by the board in a year; CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise; SECT_OE equals to 1 if the firm belongs to the oil and energy sector and 0, othersiwise; SECT_IC equals 1 if the firm belongs to the basic materials, industry and construction sector and 0, otherwise; SECT_CO equals 1 if the firm belongs to the consumer services sector and 0, otherwise.
* p<0.1; **p<0.05; ***p<0.01

Variables	Expected Sign	Model 1 Estimated coefficient	Model 2 Estimated coefficient	Model 3 Estimated coefficient
$PINST_{-1}$	-	-0.733***		
		(0.000)		
$PINST^2_{-1}$	+	0.240***		
		(0.003)		
$PSENSIT_{-1}$	+		0.045	
			(0.902)	
$PSENSIT^2_{-1}$	-		-0.449	
			(0.495)	
$PRESIST_{-1}$	-			-0.602***
				(0.000)
$PRESIST^2_{-1}$	+			0.157***
				(0.003)
BDMEET	+	-0.012**	-0.018***	-0.012**
		(0.014)	(0.001)	(0.010)
LEV	-	-0.044	-0.051	-0.031
		(0.178)	(0.165)	(0.346)
ROA	+	0.043	0.032	0.047
		(0.151)	(0.306)	(0.123)
FSIZE	+	0.028***	0.004	0.021**
		(0.007)	(0.680)	(0.032)
CEO_DUALITY	-	-0.152***	-0.075*	-0.134***
		(0.001)	(0.081)	(0.002)
INDP	+	0.911	0.419***	0.183
		(0.497)	(0.000)	(0.147)
BDSIZE	+	0.048***	0.046***	0.045***
		(0.000)	(0.000)	(0.000)
SECT_OE	+	0.138**	0.176**	0.161**
		(0.036)	(0.018)	(0.017)
SECT_IC	+	0.184***	0.159***	0.207***
		(0.001)	(0.003)	(0.000)
SECT_CO	+	0.131**	0.121*	0.153**
		(0.026)	(0.058)	(0.014)
Observations		655	655	655
R^2		68.26%	65.86%	68.24%

Table 10
Estimates of the baseline models for institutional, pressure-sensitive, pressure-resistant and female institutional directors sit on the board when the dependent variable is CSR (Lagging independent variables)

Estimated coefficients. CSR is the CSR index; PINST is the proportion of institutional directors on board;PSENSIT is the proportion of the board directors who are representative of pressure-sensitive institutional investors; PRESIST is the proportion of the board directors who are representative of pressure-resistant institutional investors; FSIZE is the logarithm of total assets; ROA is the operate income before interests and taxes over total assets; LEV is volume of firm's short and long term debt over its total assets. BDSIZE is the number of directors on board; INDP is the proportion of independent directors on board; BDMEET is the number meetings held by the board in a year; CEO_DUALITY equals to 1 if CEO and president of the board are the same person and 0, otherwise; SECT_OE equals to 1 if the firm belongs to the oil and energy sector and 0, othersiwise; SECT_IC equals 1 if the firm belongs to the basic materials, industry and construction sector and 0, otherwise; SECT_CO equals 1 if the firm belongs to the consumer services sector and 0, otherwise. * p<0.1; **p<0.05; ***p<0.01

Variables	Expected Sign	Model 4 Estimated coefficient	Model 5 Estimated coefficient	Model 6 Estimated coefficient
$PINST_{-1}$	-	-0.607*** (0.000)		
$PINST^2_{-1}$	+	0.197*** (0.000)		
$PSENSIT_{-1}$	+		-0.093 (0.719)	
$PSENSIT^2_{-1}$	-		0.583 (0.225)	
$PRESIST_{-1}$	-			-0.540*** (0.000)
$PRESIST^2_{-1}$	+			0.168*** (0.000)
BDMEET	+	-0.008** (0.014)	-0.013*** (0.000)	-0.009** (0.010)
LEV	-	-0.017 (0.441)	-0.021 (0.379)	-0.003 (0.883)
ROA	+	0.030* (0.072)	0.021 (0.224)	0.034** (0.040)
FSIZE	+	0.017** (0.016)	-0.003 (0.592)	0.011* (0.073)
CEO_DUALITY	-	-0.083** (0.010)	-0.019 (0.000)	-0.071** (0.026)
INDP	+	0.015 (0.867)	0.292*** (0.000)	0.091 (0.272)
BDSIZE	+	0.037*** (0.000)	0.036*** (0.000)	0.034*** (0.000)
SECT_OE	+	0.264*** (0.000)	0.299*** (0.000)	0.283*** (0.000)
SECT_IC	+	0.125*** (0.001)	0.105*** (0.004)	0.145*** (0.000)
SECT_CO	+	0.139*** (0.002)	0.132*** (0.007)	0.159*** (0.001)
Observations		655	655	655
R^2		68.76%	65.67%	69.10%

2.6. DISCUSSION AND CONCLUSION

Given the great importance that CSR is acquiring as a strategic element, boards of directors are increasingly considering CSR issues. Thus, the aim of this research is to explore whether directors who represent institutional investors have an effect on CSR reporting. The existing literature has scarcely considered the role of these board members in relation to corporate governance; nonetheless, understanding institutional directors' behaviour regarding CSR practices is essential as they are the most important controlling shareholders in Europe and corporate governance is a key issue in developing CSR. Consequently, we not only examine the repercussions of the presence of institutional directors as a whole for CSR, but also distinguish between pressure-resistant directors, who are appointed by institutional investors with an investment tie with the firm, and pressure-sensitive directors, who are appointed by institutional investors with a commercial and investment relationship with the firm, as not all institutional investors do not behave in the same way on corporate matters and commercial ties are a key factor that may affect their behaviour.

The results show the influence that institutional investors exert when they are board members. Specifically, we demonstrate that when the presence of institutional directors on boards is low, they have a negative influence on CSR reporting, but when their participation reaches a critical point, the addition of more institutional directors on boards will positively affect CSR disclosure. Thus, unlike previous research that shows a linear relationship, our paper shows a U-shaped association between institutional directors and CSR practices, suggesting that these directors may play two opposite roles (collusion or monitoring), depending on their level of representation on boards. Indeed, when the proportion of institutional directors on boards is low, they prefer to collude with managers, who perceive CSR as an extra cost, in order to obtain private benefits rather than undertaking monitoring activities to promote CSR activities. Most board members do not consider CSR an essential matter and, therefore, if institutional directors were to undertake monitoring activities and challenge board members to engage in CSR activities, they would have to bear higher costs to implement these activities. Consequently, as institutional directorship increases, these directors might prefer to support the executive teams in attaining their own goals instead of incurring greater costs for carrying out CSR activities. Nevertheless, adding more institutional

directors on boards beyond a tipping point will positively affect CSR reporting, perhaps because they may share the costs of inducing board members and management teams to foster CSR practices. Furthermore, as the presence of institutional directors on boards exceeds this critical point, the other directors may take into account the institutional directors' preferences, for example for CSR activities, given the benefits that such activities can bring. Therefore, a proportion of institutional directors above a certain threshold results in them playing more effective and active roles, allowing better control of managers and other institutional directors to militate against them engaging in tunnelling activities and failing to support CSR reporting. This conclusion is in line with the idea that when the presence of certain directors (in our case institutional directors) reaches a critical mass on boards, it is likely to affect the behaviour of the board and it is more probable that the company will behave in a socially responsible way (Landry et al., 2014).

On the other hand, this research shows that institutional directors do not share the same incentives to engage in corporate governance. According to our findings, institutional directors should be treated as a heterogeneous group as their attitudes with respect to CSR disclosure are not uniform. In particular, pressure-sensitive directors do not affect CSR reporting and do not take part in CSR matters, probably because, given their short-term orientation, they are not interested in influencing corporate strategy in relation to CSR as the benefits of these strategies are derived over the long term. Moreover, the business links that pressure-sensitive investors maintain with the firm in which they invest will determine their level of support for managers. Thus, such directors will align with managers in order to guarantee their commercial relations. Consequently, pressure-sensitive directors will be less likely to promote CSR disclosure. The complexity and uncertainty of CSR practices may also explain the lack of engagement of pressure-sensitive directors in these activities; they will be more inclined to focus on others matters involving less effort and cost, and more in line with the aims of the managers.

In contrast, pressure-resistant directors influence CSR reporting. Consistent with institutional directors as a whole, pressure-resistant directors negatively affect CSR disclosure. However, beyond a critical point, more pressure-resistant directors on boards will have positive repercussions for CSR reporting, suggesting a U-shaped relationship

between pressure-resistant directors and CSR practices. These findings show that pressure-resistant directors engage in collusion when their presence on boards is low, probably because they prefer to support managers' decisions to implement tunnelling activities and attain their own goals. They may choose not to support the implementation of CSR activities given that the costs of challenging executives and other directors on boards to undertake such activities may be greater than the benefits. However, when their presence reaches a certain tipping point, pressure-resistant directors will display a monitoring role as a higher presence of these directors on boards will allow them to share the monitoring costs and control will become more efficient. Thus, it will be more likely that pressure-resistant directors encourage changes related to CSR practices and the behaviour of firms will be more responsible, resulting in them gaining the benefits of carrying out such practices. This conclusion is in line with the view that pressure-resistant directors are probably keener to engage with complex and uncertain issues, such as defining corporate strategies (García-Meca et al., 2013) related to CSR disclosure, rather than aligning with managers.

The presence of institutional directors in Anglo-Saxon countries is less frequent than in civil law contexts. Therefore, the findings obtained in this research have significant and interesting implications both in the political and academic arenas. The representation of independent directors on boards is recommended to improve corporate governance, but policymakers should also consider the ownership structure when they suggest board composition, particularly the presence of directors appointed by institutional investors, as they influence corporate governance, especially concerning CSR policies. Institutional directors, as supported by the previous literature, do not behave in the same way and can be classified as pressure-resistant and pressure-sensitive directors. Thus, the types of institutional directors on boards should be considered when policymakers make suggestions regarding board structure, given that pressure-resistant directors affect CSR reporting, whereas pressure-sensitive directors do not. Another point to be emphasized is the contrasting roles that institutional directors and pressure-resistant directors can play, namely, monitoring and collusion, depending on the proportion of these directors on boards. Policymakers should take this into account as these directors can damage corporate governance if their presence is low, reducing CSR reporting, but they will be more likely to disclose CSR information if their presence is higher than a critical point. Another implication of our analysis is

that pressure-sensitive directors do not have the incentives or capabilities to participate in and affect the strategic decisions of firms in relation to CSR. Finally, pressure-sensitive directors do not consider the stakeholders' interests in firms, in contrast to pressure-resistant directors who take into account such interests when their presence on boards exceeds a tipping point. Hence, there is a need for more research focused on institutional directors taking part in corporate governance mechanisms, such as boards of directors, especially in countries where their presence as directors is significant, as new insights into the reasons for their participation in corporate governance and their implications are essential. This is particularly the case given the two opposite roles (monitoring and collusion) that they can play and the fact that their incentives can be different (pressure-resistant/pressure-sensitive).

Some limitations should be considered. The data used in this research were obtained from a population of Spanish listed firms for the period 2007–2014. Thus, the findings may not be applicable to other periods. Apart from institutional directors, other factors that may influence CSR have been taken into account. These were chosen based on theory and prior evidence, but it may be possible that other unknown aspects might affect CSR reporting.

This research could lead to future investigations. The TBL framework includes three components: social, environmental and financial information. It would be interesting to explore how institutional directors affect these three pillars separately, rather than considering them as a whole. Small and medium-sized companies (SMEs) play an essential role in the Spanish economy and, thus, an analysis of how corporate governance in these companies affects CSR reporting merits attention, particularly as CSR can be a source of competitive advantage for firms and the responsible behaviour of firms may be affected by corporate governance.

CONCLUSIÓN

Entre los grandes accionistas, los inversores institucionales han adquirido una gran importancia en la participación de la gestión de las empresas. Este papel activo en el gobierno de las empresas les ha hecho que se les considere como el mecanismo más eficaz para intervenir en el gobierno corporativo de las empresas (Wilcox, 2001). Mientras la gran mayoría de la literatura existente se centra en la influencia de estos inversores como accionistas, poca ha sido la atención recibida cuando estos inversores participan en el consejo de administración de las empresas como consejeros. Así pues, el objetivo de este trabajo ha sido analizar el papel de los consejeros dominicales en el gobierno corporativo de las empresas cotizadas españolas. Para ello, hemos examinado cómo los consejeros dominicales influyen en la remuneración del CEO y sobre la divulgación de la RSC.

Los resultados obtenidos demuestran que la participación de los inversores institucionales como consejeros en el consejo de administración influye en las decisiones de gobierno corporativo de las compañías españolas. Respecto a la remuneración del CEO, observamos que los consejeros dominicales reducen la remuneración del primer ejecutivo. Sin embargo, cuando la presencia de los consejeros dominicales alcanza cierta representatividad (un porcentaje determinado) en el consejo de administración, la remuneración el CEO se incrementa. Esta evidencia pone de manifiesto que la asociación entre los consejeros dominicales y la remuneración del CEO es no lineal, concretamente cuadrática (en forma de U). En cuanto a la estructura del salario del CEO, los consejeros dominicales influyen positiva y negativamente sobre la retribución fija y variable, respectivamente. Cuando clasificamos a los consejeros dominicales en consejeros resistentes a la presión o en consejeros sensibles a la presión, evidenciamos que los directores resistentes a la presión se comportan de la misma forma que los inversores institucionales considerados como un todo. En cambio, los resultados también revelan que los consejeros sensibles a la presión no influyen en la remuneración del CEO.

En cuanto a la divulgación de la RSC, evidenciamos que cuando la presencia de los consejeros dominicales en el consejo de administración es baja, éstos influyen negativamente sobre la divulgación de información de RSC. Ahora bien, cuando la presencia de los consejeros dominicales en el consejo supera un porcentaje determinado, los consejeros dominicales apoyan la divulgación de información sobre RSC. Por otro lado, observamos que los consejeros resistentes a la presión se comportan de la misma forma que los consejeros dominicales en general, y que la divulgación de información sobre RSC no se ve afectada por la presencia de consejeros sensibles a la presión. Esta evidencia revela que la relación entre consejeros dominicales y la divulgación de información sobre RSC es no lineal, concretamente en forma de U.

Este trabajo tiene importantes implicaciones académicas y para los reguladores y supervisores españoles. En primer lugar, los resultados obtenidos evidencian que los consejeros dominicales de las empresas cotizadas son un mecanismo que influye en el gobierno corporativo de las empresas. En este sentido, los reguladores deberían considerar la estructura accionarial de las empresas cuando hacen recomendaciones acerca de la composición del consejo de administración. En concreto, deberían considerar la presencia de consejeros dominicales. En segundo lugar, al clasificar los consejeros dominicales en consejeros resistentes y sensibles a la presión, hemos observado que el modo de participar en el gobierno corporativo de las empresas es diferente entre unos y otros. De este modo, los reguladores deberían tener en cuenta el tipo de consejero dominical cuando hagan sugerencias sobre la participación de los inversores institucionales en el consejo de administración. En tercer lugar, cabe destacar el doble papel que pueden desempeñar los consejeros dominicales y los consejeros dominicales resistentes a la presión. Según los resultados obtenidos, estos consejeros pueden desempeñar un rol de control y de atrincheramiento, lo que mejoraría y empeoraría el gobierno corporativo, respectivamente. Así pues, considerar el nivel de representatividad de los consejeros dominicales en el consejo de administración es importante, ya que una presencia demasiada alta o baja podría perjudicar el gobierno corporativo de la empresa. Por lo tanto, son necesarios más estudios que analicen el doble rol que pueden desempeñar los consejeros dominicales y sus implicaciones. Por último, señalar que los consejeros dominicales sensibles a la presión no influyen en el gobierno corporativo de las empresas españolas, probablemente porque no quieren

poner en peligro las relaciones comerciales de los inversores institucionales que representan en los consejos de administración.

A continuación sugerimos futuras líneas de investigación que podrían derivarse de este trabajo:

- El papel de los consejeros dominicales en el gobierno corporativo de las empresas de mediano y pequeño tamaño.

- Los resultados obtenidos evidencian que los consejeros dominicales pueden desempeñar dos roles opuestos (control y atrincheramiento), dependiendo de su nivel de representatividad en el consejo de administración. Por lo tanto, sería importante analizar si los consejeros dominicales ejercen estos roles sobre otras variables empresariales, como por ejemplo, la política de dividendos o el endeudamiento empresarial, entre otras.

- El papel de los consejeros dominicales en la creación voluntaria de distintas comisiones.

- El papel que los consejeros dominicales desempeñan en las distintas comisiones (comisión ejecutiva, comisión de auditoría, comisión de nombramientos o comisión de retribución, entre otras).

- Estudiar cómo influyen los consejeros dominicales en la incorporación de criterios extra-financieros, tales como aspectos sociales y medioambientales, en la retribución del equipo directivo.

CONCLUSION

Among the large shareholders, institucional investors have acquired a great importante in the participation of the management of the companies. This active role in corporate governance has made them considered as the most effective mechanism to intervene in corporate governance of companies (Wilcox, 2001). While most of previous literature focuses on the influence of these investors as shareholders, little attention has been received by researchers when these investors participate on boards as directors. Thus, the aim of this research has been to analyze the role of institutional directors in the corporate governance of Spanish listed companies. To this end, we have examined how institutional directors affect CEO compensation and CSR disclosure.

The results show that the participation of institutional investors as directors on board of directors impact on the corporate governance decisions of Spanish companies. Regarding the remuneration of CEO, we evidence that institutional directors reduce the CEO compensation. However, when the presence of insitutional directors reaches certain representativeness (a certain percentage) on boards, CEO pay increases. This evidence shows that the association between institutiona directors and CEO compensation in non-linear, specifically quadratic (U-shaped). Regarding the structure on the CEO's salary, instituional directors influence positively and negatively on fixed and variable remuneration, respectively. When we classify institutional directors into pressure-resistant or pressure-sensitive directors, we evidence that pressure-resistant directors behave in the same way as institutional directors considered as a whole. On the other hand, the results also show that pressure-sensitive directors do not influence on CEO compensation.

Regarding CSR disclosure, we display that when the presence of institutional directors on boards is low, they have a negative influence on the disclosure of CSR information. However, when their presence on bords exceeds a certain percentage, institutional directors support the disclosure of CSR information. Furthermore, we demonstrate that pressure-resistant directors behave in the same way as institutional directors in general, and that the disclosure of CSR information is not affected by the

presence of pressure-sensitive directors. This evidence reveals that the relationship between institutional directors and CSR disclosure is non-linear (a U-shaped).

This research has important implicactions: for academics and for Spanish regulators and supervisors. First, our evidence finds that institutional directors of listed companies are a mechanism that impact on the corporate governance of companies. In this sense, regulators should consider the ownership structure of companies when they make recommendations about board composition. In particular, they should consider the presence of institutional directors. Second, by classifying institutional directors into pressure-resistant and pressure-sensitive directors, we have observed that the way of participating in corpoarte governance of companies is different between them. Regulators should, therefore, take into account the kind of institutional director when they make suggestions about the participation of institutional investors on boards. Thirdly, it is worth noting the dual role of institutional directors and pressure-resistant directors. According to the findings, these directors can play a role of control and entrenchment, which would improve and worsen corporate governance, respectively. Thus, considering the level of representativeness of institutional directors on boards is important, since a too high or too low presence could harm corporate governance of the company. Therefore, more research is needed to analyse the double role played by institutional directors and their implications. Finally, it should be pointed out that pressure-sensitive directors do not affect corporate governance of Spanish companies, probably because they do not want to jeopardize the commercial relationships of institutional investors that they represent on boards.

Next, we suggest future research that could derive from this analysis:

- The role of institutional investors in corporate governance of small and medium-sized companies.
- The findings evidence that institutional directors can play two opposite roles (control and entrenchment), depending on their level of representativeness on boards. Therefore, it would be important to analyse whether institutional directors play these roles over other business variables, such as dividend policy or corporate indebtedness, among others.

- The role of institutional investors on the voluntary creation of different commissions.
- The role that institutional directors play on several committees (executive committee, audit committee, appointments committee or remuneration committee, among others).
- To examine how institutional directors impact on the incorporation of extra-financial criteria, such as social and environmental aspects, in the management team compensation.

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