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Multiple directorships and dividends in Spanish listed firms

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ABSTRACT

This study analyzes the impact of directors belonging to several boards (multiple directorships) on the dividend policy of firms. As the composition of a board has an impact on its effectiveness and the quality of corporate governance, this study focuses on the presence of multiple directorships. Theoretically, the literature presents two competing hypotheses regarding the impact of this type of directorship on firm performance—reputation and dedication hypotheses. Based on a sample of nonfinancial companies listed on the Spanish stock market from 2008 to 2019, the study finds that a greater presence of multiple directorships increases the propensity of firms to pay dividends, as well as the level of cash dividends, supporting the reputation hypothesis. In addition, we find that ownership concentration moderates the relationship between multiple directorships and dividends.

1. Introduction

The dividend policy is one of the most relevant corporate decisions and has been the subject of numerous studies (see a recent review by Ed-Dafali et al. (2023)). Among the factors that can influence a dividend policy, this study focuses on a key internal mechanism of corporate governance—the board of directors (henceforth, the board). Its essential function focuses on controlling the decisions of corporate insiders (managers or controlling shareholders) to reduce conflicts of interest and any opportunistic behavior that can be detrimental to outside investors (Jensen, 1993; La Porta et al., 2000a). The distribution of dividends contributes to reducing these conflicts. Thus, it is expected that a better functioning board will establish a better quality of corporate governance and a greater distribution of dividends.

Among the characteristics of a board, we focus on the impact of multiple directorships (MDs) on the decision to pay and the level of cash dividends. Here, the term MDs encompasses the terms "interlocking director," "busy director," and "interconnected director," which can be used interchangeably to refer to an individual who is serving on the board of two or more companies concurrently (e.g., Dhingra & Dwivedi, 2023; Haniffa & Hudaib, 2006). Research on directors who belong to several boards (MDs) has increased over the last two decades (see Dhingra & Dwivedi, 2023). Previous literature indicates that there are both advantages and disadvantages of MDs (Chou & Feng, 2019).

From a firm's perspective, arguments about the effectiveness of MDs have been classified into two competing categories—the reputation/experience hypothesis and the dedication/busyness hypothesis. The reputation/experience hypothesis is based on the idea that appointing a director from a corporation with a good reputation can be favorable for a company because it is an indicator of its higher management quality (Fama & Jensen, 1983; Gilson, 1990; Ferris et al., 2003; Lamb & Roundy, 2016). This type of directors can be very useful due to the benefits they offer through their network of contacts (Beckman & Haunschild, 2002; Ferris et al., 2003; Pfeffer, 1972) and their access to diverse and unique information (Lamb & Roundy, 2016). Additionally, as one of the most important tasks of a board is monitoring (e.g., Hillman & Dalziel, 2003; Hillman et al., 2008), these directors can improve that function thanks to their experience (Carpenter & Westphal, 2001). In contrast, the dedication/busyness hypothesis argues that MDs divide the time and attention of directors (Carpenter & Westphal, 2001). Thus, they are less dedicated and attentive to their control, supervision, and advisory functions, reducing the quality of corporate governance and negatively affecting firm performance (Devos et al., 2009; Ferris et al., 2003; Fich & Shivdasani, 2006).

The few studies that have analyzed the relationship between MDs and dividend policy either predicted a positive relationship between both variables based on the reputation hypothesis or a negative relationship based on the dedication hypothesis. Thus, "it is an empirical issue whether the reputation hypothesis dominates the dedication hypothesis" (Chou & Feng, 2019, p. 665). Moreover, the current empirical studies—all about the US—are not conclusive.

This study aims to analyze the relationship between the presence of

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MDs and payout policy in Spain, focusing on the likelihood of paying dividends and the level of dividends. As in other continental European countries, in Spain, concentrated ownership structures with controlling shareholders predominate. Thus, the focus of the shareholder–manager agency conflict (Fama, 1980; Fama & Jensen, 1983; Jensen & Meckling, 1976) is on the conflict of interest between majority (or controlling) and minority shareholders due to the divergence of interests that can arise between the two parties (La Porta, et al., 2000b; Azofra & López-De-Foronda, 2007). Moreover, in Spain, there is no legal limitation to the number of boards on which a director can serve. However, the good governance codes approved by the *Comisión Nacional del Mercado de Valores* (CNMV) make special reference to the dedication of directors. In particular, the 2006 Unified Good Governance Code has urged companies to establish rules on the number of boards on which their directors can sit. In the 2015 and 2020 modifications, it was proposed that board regulations should set out the maximum number of boards on which a director could sit.

Using a sample of 1,089 firm–year observations of 140 firms listed on the Spanish stock market from 2008 to 2019, our results reveal that a greater presence of directors who serve on the boards of several listed companies increases the propensity of a company paying dividends and the level of cash dividends, supporting the reputation hypothesis. Therefore, the results reveal that in Spain, the presence of MDs and the reputation and experience of directors on boards favor aligning the interests of controlling shareholders with those of minority shareholders, which will lead to a greater paying out of cash dividends and limit the extraction of private benefits by majority shareholders. In addition, the results reveal that the relationship between MDs and dividends is moderated by ownership concentration.

This study extends the literature in several aspects. We contribute to the scarce literature about the relationship between MDs and dividend policy, which is a novel contribution in an institutional context characterized by the agency conflict between controlling and minority shareholders. To the best of our knowledge, only three studies have investigated the relationship between MDs and dividend policy, and all of them are about the US. Sharma (2011) and Sun and Yu (2022) concluded that MDs reduce the effectiveness of corporate governance and thus the distribution of dividends, while Benson et al. (2022) found that a greater preponderance of MDs increases the propensity to pay dividends and the level of cash dividends paid to shareholders. Therefore, we open the debate about the relationship between both aspects in different corporate governance systems as the presence of MDs and their expected monitoring effects can vary considerably from one market to another (Fernandez et al., 2017). We contribute to the literature by analyzing how a corporate governance variable related to the institutional context moderates the relationship between MDs and dividend policy, making it more pronounced (or attenuated).

The rest of the paper proceeds as follows. The second section presents the literature review and hypotheses. The third section describes the methodological aspects that make up the empirical study. The fourth section reports the results. Finally, the fifth section presents the main conclusions of the study.

2. Literature review and hypothesis

When a company appoints directors who serve on the boards of other companies that have a good reputation, it signals to potential investors that it is a legitimate company worth investing in (Dhingra & Dwivedi, 2023; Lamb & Roundy, 2016). Furthermore, as payouts to shareholders are not an obligation for a company, the payout decision is a relevant corporate decision that is made by the board, with studies highlighting this important role of the board (see Benson et al., 2022).

Moreover, the board is one of the main internal mechanisms of corporate governance (Jensen, 1993). Among its functions, the board has the task of controlling management as well as advising and designing strategies (Carpenter & Westphal, 2001; López Iturriaga & Morrós Rodríguez, 2014). Its essential function as a corporate governance mechanism focuses on controlling the decisions of corporate insiders (managers or controlling shareholders) to reduce conflicts of interest and potential opportunistic behavior that will be detrimental to outside investors (Jensen, 1993; La Porta et al., 2000a). Empirically, studies have revealed how a board and its characteristics influence dividend payment. For instance, Yarram and Dollery (2015) and Sharma (2011) found that board independence has a significant positive relationship with the dividend payout and the propensity to pay, respectively. Thompson and Manu (2021) found a positive significant effect of firm age, female directors, and board size on dividend policy.

Focusing on the role of MDs, the literature on corporate governance raises two competing hypotheses—the reputation/experience hypothesis and the dedication/busyness hypothesis (e.g., Amin et al., 2023; Benson et al., 2022; Clements et al., 2013; López Iturriaga & Morrós Rodríguez, 2014). On the one hand, the reputation/experience hypothesis posits a positive relationship between MDs and dividends. The main idea behind this hypothesis is that MDs can contribute to the better functioning of a board because they provide more experience and are incentivized to increase control as their reputation is exposed to a greater level of scrutiny (Chou & Feng, 2019). In addition, from the perspective of the agency theory, Fama and Jensen (1983) asserted that directors with multiple appointments contribute to an improvement in the quality of a board. Similarly, Hashim and Rahman (2011) argued that the presence of MDs on a company's board provides an incentive for better control as they have the knowledge, experience, skill, and motivation to actively control the actions of insiders and improve the quality of financial information. Additionally, Field et al. (2013) stated that companies select MDs because of their experience. Similarly, Clements et al. (2015) argued that directors gain valuable experience by sitting on the boards of companies in different sectors or regulatory environments, which increases the effectiveness of corporate governance. From the perspective of the theory of resources and capabilities, the reputation hypothesis states that directors who are on several boards are an asset to a company because their role in decision-making can be based on their experience in different areas (Carpenter & Westphal, 2001; Harris & Shimizu, 2004). These directors may have rich experiences and connections and provide access to various resources that improve performance (Ferris et al., 2003; Sarkar & Sarkar, 2009). Furthermore, due to their connections, directors with multiple boards can be beneficial and help attract resources (e.g., financial, nonfinancial, informational, and relational), clients, and suppliers to a company, which helps reduce uncertainty (Harris & Shimizu, 2004; Martin et al., 2015; Mizruchi, 1996; Pfeffer, 1972).

On the other hand, the dedication or busyness hypothesis (e.g., Amin et al., 2023; Chou & Feng, 2019; Fich & Shivdasani, 2006; Hauser, 2018) suggests that multiple board membership can limit the time directors spend monitoring each company and advising each board they belong to on corporate issues. According to the dedication hypothesis, belonging to multiple boards can compromise directors' ability to effectively control companies' managers to the greater benefit of shareholders, which can negatively affect the value of a company (Amin et al., 2023; Devos et al., 2009; Ferris et al., 2003; Fich & Shivdasani, 2006; Jiraporn et al., 2009; Sun & Yu, 2022). Devos et al. (2009) maintained that the presence of MDs on a board is an indicator of weak corporate governance. Similarly, Amin et al. (2023) argued that MDs limit directors' time and effort to acquire information about the firms they are associated with to monitor and advise management and attend various firm-level meetings. In this sense, Fich and Shivdasani (2006) observed that firms with MDs have worse corporate governance indicators, and Di Pietra et al. (2008) pointed out several studies, which suggest that the effectiveness of a board is lower when there is a higher proportion of MDs.

To the best of our knowledge, only three works have analyzed the relationship between MDs and dividend policy, and all are about the US. Sharma (2011) and Sun and Yu (2022) found evidence that supports the

dedication/busyness hypothesis. The former found that when directors are too busy, they exercise less control over insiders, allowing them to make decisions that are not always in the best interest of external shareholders, including decisions on the payment of dividends, which will be reduced. According to the author, MDs reduce the effectiveness of corporate governance and thus the distribution of dividends. The same result was found by Sun and Yu (2022), who asserted that holding MDs consumes time and energy, which potentially hampers independent directors' ability to monitor insiders through dividend policy. However, Benson et al. (2022) found a positive relationship between the presence of busier inside directors and the probability or level of cash dividend payments. These authors explained "The accumulation of directorships can be an efficient way to build experience and develop critical skills, which can benefit a firm" (p.3754). Therefore, they find support for the reputation/experience hypothesis.

The previous theoretical arguments mainly refer to and have been empirically studied exclusively in the US—a country with a very different institutional context from that of Spain. However, we understand that the foundations of those arguments can be transferred to different institutional contexts with the presence of both controlling and minority shareholders. Thus, the reputation hypothesis would be equally valid in this context as the arguments about the accumulation of experience and safeguarding the reputational capital of MDs can be transferred to this context. Regarding dividends, we can assume that the greater experience and concern for reputation would lead to a preference for aligning the interests of minority shareholders, leading to a greater distribution of dividends. Regarding the dedication/busyness hypothesis, it applies to the relationship between controlling and minority shareholders. Here, if MDs lose the ability to carry out their duties due to their busyness, greater expropriation by majority shareholders would be possible and likely lead to a lower level of distribution of dividends.

Therefore, due to the opposing arguments and results, we enunciate the hypotheses in the following terms, considering both the propensity to pay dividends and their amount:

H1a. A greater presence of MDs on a board positively affects dividends.

H1b. A greater presence of MDs on a board negatively affects dividends.

3. Data and methodology

3.1. Sample and sources

The sample is nonfinancial firms listed on the Spanish stock market (Continuous Market Stock Exchange), from 2008 to 2019. After eliminating observations with negative equity, the final sample comprises an unbalanced panel of 1,089 firm–year observations of 140 firms. Financial firms are omitted because their financial reporting standards are different from those of other firms (e.g., Renneboog & Trojanowski, 2011). Further, some of the firms or firm–year observations are not included as some key variables are not available or the data are incomplete.

Data on the structure of various boards, specifically MDs, were obtained from the official records of the *CNMV*, which is based on the annual corporate governance reports of firms. The data on the total number of positions was obtained individually for each company and year from the corporate governance annual reports of companies on the CNMV website. The market values of the firms were obtained from the annual report of "*Bolsas y Mercados Españoles*" (BME), available on their website. The accounting data, including consolidated accounts, are from the SABI database (Bureau Van Dyck). The accounting data comprise balance sheets and income statements, as well as the statements of cash flow, from which data related to dividends and share repurchases were extracted. The beginning of the period is the first year in which this financial statement is available as it has been mandatory for some companies since the General Accounting Plan of 2007 came into force. We chose 2019 as the end of the period to avoid the effect of the coronavirus pandemic.

3.2. Variables

Dependent variables. The dependent variables are *D_Dividends* and *Dividends_TA*. The first is a dichotomous variable that takes the value of 1 if a firm pays cash dividend in a year and 0 otherwise (Benson et al., 2022; Sharma, 2011; Sun & Yu, 2022). The second is the ratio of cash dividends to total assets (e.g., Azofra & López-De-Foronda, 2007; Farinha and López de Foronda, 2009; López-Iturriaga and Santana, 2019; Peña-Martel, Pérez-Alemán, & Santana-Martín, 2023).

Explanatory variable. The explanatory variable is MDs (*Mul_dir*). This variable is computed as the ratio of MDs (busy directors) on the board of a firm to the total number of directors on the board (e.g., Ferris et al., 2003; Fich & Shivdasani, 2006; Sharma, 2011; Sun & Yu, 2022). In this study, busy directors are those on the board of a company with at least one additional directorship on the board of another company (Haniffa & Hudaib, 2006; Sarkar & Sarkar, 2009; Stein et al., 2013). Following Fich and Shivdasani (2006), we apply this criterion because the average (median) number of directorships in our sample is 1.54 (1.43).[1] In terms of robustness, we consider the average number of directorships held by board members *(Average_dir)*, calculated as the ratio of the total number of directorships held by directors on boards other than the reference company to the total number of directors on a firm's board (Benson et al., 2022; Ferris et al., 2003; Sun & Yu, 2022).

Control variables. To control for the possible impact of other corporate aspects on the dividend decision of a firm, a set of variables was introduced. Based on studies on MDs and dividends (Benson et al., 2022; Sharma, 2011; Sun & Yu, 2022) as well as determinants of payout policy (e.g., Fama & French, 2001; Fenn & Liang, 2001; Khan, 2022), variables related to firm board, ownership structure, firm characteristics, industry, and year are considered as control variables. Specifically, board size, board independence, ownership concentration, firm size, profitability, leverage, firm age, and investment opportunities, are used as control variables.

Board_size represents the number of directors on a board (e.g., Benson et al., 2022; Sun & Yu, 2022). The literature reveals that the size of a board can have an impact on its effectiveness. On the one hand, an excessive number of members can cause coordination problems and greater difficulty in making decisions, reducing efficiency (Jensen, 1983). On the other hand, some studies have found a positive (Sun & Yu, 2022; Thompson & Manu, 2021) or nonsignificant (e.g., Yarram & Dollery, 2015) relationship with dividends payout.

The participation of independent directors on firm boards brings a new force in controlling the agency problem (Sun & Yu, 2022). Thus, board independence may have a positive influence on dividend payout when independent board members encourage firms to pay dividends (Yarram & Dollery, 2015). Board independence is proxied by the independent directors variable *(Ind_direc)*, which is the ratio of the number of independent directors to the total number of board members (Benson et al., 2022; Li et al., 2017; Sharma, 2011; Sun & Yu, 2022). Independent directors are positively related to paying dividends because they have incentives to signal their reputation to the market (Fama & Jensen, 1983). However, the empirical evidence is mixed. Sharma (2011) found that a greater proportion of independent directors positively affect the likelihood of paying dividends, while Thompson and Manu (2021) and Boshnak (2023) found a negative effect, and Sun and Yu (2022) discovered a nonsignificant relationship. Moreover, Yarram and Dollery (2015) as well as Sun and Yu (2022) found a significant and positive relationship with dividend payout.

[1] Computed over the firms with MD in all periods.

Regarding ownership structure, *ownership concentration* (*Ownership_con)* is considered. This variable is obtained from the CNMV and is computed as the percentage of total shares held by significant shareholders (those who own more than 3% of the total shares of a firm) plus the percentage of all shares owned by the board members, regardless of their participation. A similar measure was used by Azofra and López de Foronda (2007), Farinha and López de Foronda (2009), Renneboog and Trojanowski (2011), and Tayachi et al. (2023). A majority control gives larger shareholders considerable power and discretion over key decisions, such as dividends and payout ratios (Gugler, 2003). Thus, a greater concentration of ownership can be used by large shareholders to obtain private benefits by reducing dividends (Shleifer & Vishny, 1997). However, it can also lead to higher dividend payouts to avoid agency conflicts with minority shareholders. Moreover, the empirical evidence is not conclusive. Some studies have reported a positive relationship between concentrated ownership and dividend payouts (e.g., Khan, 2022; López-Iturriaga & Santana-Martín, 2019), whereas other studies have found a negative one (e.g., Harada & Nguyen, 2011; Tayachi et al., 2023).

The *Firm_size* variable represents firm size, which is another relevant factor that systematically affects dividend decisions. Some studies consider the size of firms as a proxy for agency costs as larger firms are expected to face higher agency costs compared with smaller firms (Yarram & Dollery, 2015). In this vein, prior literature has documented a positive relationship between a firm's size and dividend payouts (Fama & French, 2001; Rozeff, 1982; Yarram & Dollery, 2015). Thus, we expect a positive relationship between firm size and dividends as large firms reduce agency costs by paying dividends to shareholders. Following the literature, firm size is measured by the logarithm of total assets (Denis & Osobov, 2008; Fama & French, 2001; Farinha and López de Foronda, 2009; Sharma, 2011; Sun & Yu, 2022; Tayachi et al., 2023).[2]

The profitability (*ROA*) of a company is one of the main determinants of the propensity to pay dividends as it is expected that profitable companies will have a greater willingness to distribute dividends among their shareholders (Fama & French, 2001; Fenn & Liang, 2001). The level of indebtedness *(Leverage)* is measured as the ratio of the book value of debt to total assets (Fenn & Liang, 2001). Highly leveraged firms are expected to pay a lower level of cash dividends because of the competing imperative to pay high interest. Based on the agency theory, this variable also has a possible substitution effect with dividends as a control mechanism, so an inverse relationship with the distribution of dividends is expected. *Firm age* (Fama & French, 2001) is an important factor as a dividend policy is expected to evolve with the life cycle of a company, so mature companies with fewer investment needs have a greater propensity to pay dividends. Older, more established firms enjoy more stable earnings than younger firms and thus tend to pay higher dividends. This variable is added to the models in their logarithm form. The market-to-book ratio (*Mk_to_Book*) (Fenn & Liang, 2001), calculated as the quotient between the market capitalization and the book value of equity, is used as a proxy of investment opportunities. A negative relationship is expected between investment opportunities and dividends.

Finally, to control for time and industry heterogeneities, we included year and industry dummies (Renneboog & Trojanowski, 2011). The industry dummy was approximated through six dichotomous variables that capture the contagion effects (imitation effect) that can occur in business decisions and usually affect companies in the same sector (e.g., Sharma, 2011). Thus, we used the industry classification of the Madrid Stock Exchange to determine the industry dummy. Further, year is a dichotomous variable for each year from 2008 to 2019. To eliminate extreme values, the continuous accounting variables (*ROA, Leverage,* and *Mk_to_Book)* were winsorized to the 1st and 99th percentiles. In Table 1, we present a description of the variables.

Table 1
Variable description and sources.

Variable	Code	Measurement
Dividends (dummy)	*D_Dividends*	Take the value of 1 if a firm pays cash dividend in a year and zero otherwise.
Dividends (level)	*Dividends_TA*	Ratio of cash dividends to total assets in a year.
Multiple directorships	*Mul_dir*	Ratio of the number of MDs to the total number of board members.
Average of directorships	*Average_dir*	Ratio of the number of directorships of directors held on boards other than a firm to the number of directors on a firm's board.
Board size	*Board_size*	Number of directors on a board.
Board independence	*Ind_dir*	Ratio of the number of independent directors to the total number of directors on a board.
Ownership concentration	*Ownership_con*	Percentage of total shares held by all shareholders with a percentage above 3% plus the shares held by the board members.
Firm_ size	*Firm_size*	Logarithm of total assets.
Profitability	*ROA*	Ratio of a firm's earnings before interest and taxes to total assets (%).
Leverage	*Leverage*	Ratio of total debt to total assets (%).
Firm_age	*Firm_age*	Number of the years since the establishment of a firm.
Market-to-book	*Mk_to_Book*	Ratio of the market value of equity to the book value of equity.
Industry	Industry	Six industry dummies (see Panel C of Table 2).
Year	Year	Twelve dummies, one for each year from 2008 to 2019.

Variable sources: accounting and age variables are computed from the SABI database. The board size, board composition, and ownership variables are collected from the corporate governance annual reports of firms on the CNMV website. Firm market value is obtained from the Annual Report of BME. The industrial classification corresponds to that used in the Madrid Stock Exchange.

3.3. Model specification

First, we propose a baseline model where all control variables have a linear relationship with a firm's dividend policy—both the likelihood to pay dividends and the dividend payout. However, the existence of controversial empirical results makes it advisable to consider a possible nonlinear relationship between board size, board independence, and dividends.[3] We estimated and explored the nonlinear relationship between these variables in terms of the likelihood of paying dividends and the dividend payout. The results (unreported but available upon request) indicate that this nonlinear relationship is significant in the model that explains the payout but not in the model that explains the likelihood of paying dividends. On the contrary, regarding board independence, the nonlinear relationship is significant in the model that explains the likelihood of paying dividends but not in the payout model. Thus, we propose the following econometric model:

Model 1. The dependent variable *D_dividend* equals 1 if a firm pays dividends and 0 otherwise.

$$D\_dividends_{i,t} = \beta_0 + \beta_1\, Mul\_dir_{\,I,t} + \beta_2\, Board\_size_{i,t} + \beta_3\, Board\_size^2_{i,t} + \beta_4\, Ind\_direc_{i,t} + \beta_5\, Ownership\_con_{i,t} + \beta_6 Firm\_size_{i,t} + \beta_7\, ROA_{i,tt} + \beta_8 Leverage_{i,} + \beta_9 Firm\_Age_i + \beta_{10}\, Mk\_to\_Book_{i,t} + Industry_{\mathrm{i}} + Year_{\mathrm{t}} + \varepsilon_{it} \quad (1)$$

Model 2. The dependent variable is *Div_TA*.

$$Dividends\_TA_{i,t} = \beta_0 + \beta_1\, Mul\_dir_{\,i,t} + \beta_2\, Board\_size_{i,t} + \beta_3\, Ind\_direc_{\,i,t} + \beta_4\, Ind\_direc^2_{i,t} + \beta_5\, Ownership\_con_{i,t} + \beta_6 Firm\_size_{i,t} + \beta_7\, ROA_{i,tt} + \beta_8 Leverage_{i,} + \beta_9 Firm\_Age_i + \beta_{10}\, Mk\_to\_Book_{i,t} + Industry_{\mathrm{i}} + Year_{\mathrm{t}} + \varepsilon_{\mathrm{it}} \quad (2)$$

The estimation method depends on the nature of the dependent variable. In Model 1, the dependent variable is dichotomous

[2] See Dang et al. (2018) for a review of measuring firm size in corporate finance.

[3] We are grateful to an anonymous reviewer for the idea of considering the nonlinear relationship between board size and dividends.

(D_Dividends). Thus, a logit model is used (Benson et al., 2022; Sharma, 2011) to analyze the relationship between MDs and the propensity to pay dividends.

In logistical regression, the parameters of the model are estimated using the method of maximum likelihood; hence, the estimated coefficients are expressed in log-likelihood ratios. These coefficients can be used by determining the sign and significance level. However, to interpret the beta coefficients, we need to use exponentiated coefficients or odd ratios (computed as e^{Beta}). The main difference between betas and ratios is that the former can be either positive or negative, while the latter are always positive. Thus, an odd ratio higher than 1 is associated with a positive coefficient, while an odd ratio lower than 1 is associated with a negative one. An odd ratio equal to 1 corresponds to a coefficient close to 0.

In Model 2, the dependent variable is the level of cash dividends (*Dividends_TA*), so we use a tobit model (Benson et al., 2022). The tobit model was selected because this variable is left-censored at zero and includes continuous values. In the tobit model, the coefficients are interpreted as marginal effects of the noncensured sample.

To control for the potential endogeneity between the explanatory variables, we used the generalized method of moments (GMM) model for the robustness analysis (Arellano & Bond, 1991). Then, we controlled for sample selection bias using a propensity score matching (PSM) procedure. Finally, in an additional analysis, we applied a simultaneous equation model (three-stage least squares (3SLS)) to analyze the relationship between dividends and share repurchases.

4. Results

4.1. Descriptive analysis

Panel A of Table 2 presents the summary statistics of the variables for the whole sample (n = 1,089). In Panel B of Table 2, we present the average values of the dependent variables for the whole sample and the subsamples of *Mul_Dir*. We split the sample into firm–year observations with a percentage of MDs higher and lower than the median.

We observed that the payers represent 60% of the sample, with a higher value in firms with more MDs than those with fewer MDs (63% versus 56%). In all periods, the average level of cash dividends distributed to shareholders is about 1.65% of total assets and higher in companies with more MDs than those with fewer MDs (2.05% versus 1.11%). The average board size comprises 10 members. The firms in the subsample with higher Mul_Dir values have bigger boards, more independent directors, lower ownership concentration, and a higher level of ROA and leverage and are bigger than firms with lower Mul_dir. However, there are no significant differences in their firm age and Mk_to_Book.

Finally, the industry distribution is presented in Panel C of Table 2. The table reveals a predominance of Basic Materials, Industry, and Construction (30%), followed by Consumer goods (25%) and Consumer services (15%).

The correlation matrix and variance inflation factor (VIF) are presented in Table 3. As presented in Panel B, there is a positive and significant correlation between *Mul_dir* and the two dividends variables. Regarding the control variables, no high correlations are observed. Likewise, the VIFs are the same for both models and have a maximum value of 2.71 (see Panel A), so multicollinearity problems are expected.

4.2. Explanatory analysis

The results obtained from the estimation of the econometric models to analyze the relationship between MDs and dividends are presented in Table 4. Model 1 considers the dividend dummy as the dependent variable, while in Model 2, the dependent variable is the ratio of cash dividends to total assets. In both models, *Mul_dir* is positive and significant, supporting H1a that a greater presence of multiple directors increases the propensity to pay dividends and the level of dividends. Specifically, a unit increase in *Mul_Dir* increases the likelihood of dividend distribution by 4.11% (odd ratio) and the ratio of cash dividends to total assets by 1.83%.

As mentioned in Section 3.3, in Model 1, we propose a nonlinear relationship between board size and the probability of paying dividends. In this model, board size is positive and significant, while the squared form of board size is negative and significant. The cut-off is 14 members. This implies that the expected negative relationship occurs for boards with more than 14 members. This figure is around the 75th percentile, which is 13. In Model 2, the relationship between board size and payout is positive and significant. This result is contrary to the theoretical expectation. However, some previous studies have obtained the same result (e.g., Chen et al., 2017; Thompson & Manu, 2021).

Regarding board independence, as indicated in Section 3.3, we propose a linear relationship between it and the likelihood of paying dividends as well as a nonlinear relationship between it and dividend payout. The results reveal a positive and significant sign in Model 1, which is consistent with the theoretical literature. In Model 2, there is a positive relationship up to 37%, after which it becomes negative. This cut-off coincides with the mean value of the variable and is slightly higher than the median (35%). Thus, having boards with a percentage of

Table 2
Descriptive statistics.

Panel A. Descriptive statistics of variables all sample (n = 1,089)

	Mean	S.D.	P25	Median	P75
D_dividends	0.6033	0.4894	0.0000	1.0000	1.0000
Dividends_TA[a]	1.6479	5.1281	0.0018	0.0491	1.5998
Mul_dir	0.2308	0.1859	0.0909	0.2000	0.3571
Board_size	10.5133	3.2882	8.0000	10.0000	13.0000
Ind_dir	0.3767	0.1662	0.2667	0.3529	0.5000
Ownership_con	55.3867	21.7699	40.544	58.5300	70.5000
Firm_size (log)	14.0298	2.0006	12.5043	13.9447	15.2912
ROA (%)	5.0811	8.9478	1.9559	5.2557	8.7582
Leverage (%)	62.1440	19.7162	48.6749	65.1964	76.2257
Firm_age (log)	3.6355	0.7810	3.2019	3.7624	4.2420
MK_to_Book	2.4094	3.3265	0.8102	1.3990	2.4489

Panel B. Higher versus lower MD's firms. Descriptive statistics

	Higher MD's firms (n = 589)		Lower MD's firms (n = 500)		
	Mean	Std. Dev.	Mean	Std. Dev.	T-test [b]
D_dividends	0.6350	0.4818	0.5660	0.4961	5.3758**
Dividends_TA[a]	2.0539	6.4985	1.1113	2.1926	2.3407**
Board_size	11.3582	3.1755	9.5180	3.1396	5.5794***
Ind_directors	0.3999	0.1769	0.3493	0.1482	5.0623***
Ownership_con	53.6013	21.7291	57.4899	21.6513	−2.9477***
Firm_size (log)	14.8051	1.8987	13.1164	1.7125	15.2949***
ROA	5.4154	8.9527	4.6872	8.9348	1.3388*
Leverage	63.5407	18.3143	60.4985	21.1498	2.5438**
Firm_age	3.6306	0.8178	3.6412	0.7360	−0.2245
Mk_to_Book	2.4124	3.1102	2.4059	3.5676	0.0323

Panel C. Sample industry distribution

Industry	N	%
Oil and Energy	112	10.28
Basic materials, Industry and Construction	331	30.39
Consumer Goods	274	25.16
Consumer Services	163	14.97
Technology and Telecommunications	81	7.44
Real Estate Services	128	11.75

Variable description in Table 1.
***, **, *: Significant at the 1%,5% and 10%, respectively.
[a] Computed over the firms that paying dividends.
[b] Chi^2 in dummies.

Table 3
Variance Inflation factor (VIF) and correlation matrix.

Panel A. Variance Inflation Factor (VIF)									
	Mul_dir	Board_size	Ind_dir.	Owner	Firm_size	ROA	Debt	Firm_age	Mk_to_Book
VIF	1.39	2.03	1.69	1.36	2.71	1.28	1.88	1.28	1.44

Panel B. Correlation matrix										
	D_Div.	Div_TA	Mul_dir	Board_size	Ind_dir.	Owner	Firm_size	ROA	Debt	Firm_age
D_Dividends	1									
Dividens_TA	0.20***	1								
Mul_dir	0.10***	0.08***	1							
Board_size	0.21***	−0.05	0.31***	1						
Ind_dir.	0.11***	0.07**	0.20***	−0.11***	1					
Ownership	−0.07***	0.05*	−0.09***	−0.12***	−0.39***	1				
Firm_size	0.21***	−0.05*	0.47***	0.64***	0.18***	−0.14***	1			
ROA	0.33***	0.38***	0.08**	0.00	0.11***	−0.02	0.06**	1		
Leverage	−0.12***	−0.11***	0.03	0.25***	−0.11***	−0.08***	0.32**	−0.23***	1	
Firm_age	0.05*	−0.03	−0.05*	0.13***	−0.25***	−0.06**	0.07**	−0.03	0.14***	1
Mk_to_Book	0.02	0.16***	−0.02	−0.11***	0.11***	−0.09***	−0.11***	0.22***	0.26***	−0.06**

Variable description in Table 1.
***,**,*: Significant at the 1%,5% and 10%, respectively.

Table 4
Multiple directorships and cash dividends.

Model	(1)		(2)
Dependent variable	D_Dividends		Dividends_AT
Estimation method	Logit		Tobit
	Beta	Odd ratio	Beta
Mul_Dir	1.4154* (1.66)	4.1180* (1.66)	1.8320* (1.87)
Board_size	0.8408*** (3.22)	2.3183*** (3.22)	0.1663* (1.84)
Board_size²	−0.0294*** (−2.67)	0.9710*** (−2.67)	–
Ind_directors	2.1062* (1.89)	8.2170* (1.89)	6.1438* (1.78)
Ind_dir²	–	–	−8.1117** (−2.13)
Ownership_con	0.0076 (0.82)	1.0077 (0.82)	0.0163 (1.38)
Firm_size	0.5687*** (3.16)	1.7660*** (3.16)	0.5076** (2.10)
ROA	0.0687*** (4.04)	1.0711*** (4.04)	0.0934*** (4.13)
Leverage	−0.0256*** (−2.26)	0.9746*** (−2.26)	−0.0094 (−0.69)
Firm_age	0.5823* (1.86)	1.7902* (1.86)	0.4689 (1.0)
Mk_to_Book	0.0036 (0.06)	1.0036 (0.06)	−0.0019 (−0.03)
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Intercept	−15.4555*** (−4.95)	–	−10.6965*** (−2.93)
Observations	1,089	1,089	1,089
Left-censored observations	–	–	432
Uncensored observations	–	–	657
Log-Likelihood	−469.20	−469.20	−1,931.32
Chi2	89.95***	89.35***	170.41***

Variable description in Table 1 z-statistics between parenthesis.
***,**,*: Significant at the 1%,5% and 10%, respectively.

independent members above the average reduces the payout. Regarding ownership concentration, the results indicate that there is a positive relationship in both models but nonsignificant .[4] The results on other control variables are mostly consistent with the literature. Thus, in both models, *Firm_size* and *ROA* are positive and significant, while ownership concentration and *Market_to_Book* are positive and nonsignificant. In addition, in Model 1, *Firm_age* is positive and significant, and *Leverage* is negative. Finally, *Market_to_Book* is positive and nonsignificant in none of the models.

4.3. Robustness analysis

To analyze the robustness of the results, Models 1 and 2 were re-estimated using some variants of the explanatory variable and estimation methods, including the potential sample selection bias. As an additional analysis, we considered the possible moderator effect of ownership concentration on the relationship between MDs and dividends.

First, we replaced the explanatory variable *(Mul_Dir)* for the average number of directorships held by board members *(Average_dir)*, calculated as the number of directorships held by directors on boards other than the reference company divided by the number of directors on the firm's board (Benson et al., 2022; Ferris et al., 2003; Sun & Yu, 2022). The results presented in Table 4 (Models 3 and 4) indicate that the MD variable is positive and significant in both models.

Second, as firms usually try to maintain certain stability in their dividend policy, we included the lagged dividend variables $D\_dividends_{t-1}$ and $Dividends\_TA_{t-1}$ in the models (e.g., Benson et al., 2022). The results presented in Table 5 (Models 5 and 6) indicate that the lagged variables are positive and significant at the 1% level in both models. Similarly, *Mul_Dir* is positive in Models 5 and 6, but for the level of cash dividends, it is only significant in the latter.

Third, López Iturriaga and Morrós Rodríguez (2014) found in the Spanish market that the presence of MDs is initially beneficial for a firm's performance but is detrimental beyond a certain threshold. Thus, in Models 7 and 8, we include *Mul_Dir* squared, although the coefficients of squares (Mul_Dir^2) are nonsignificant, implying that the relationship is linear. We also re-estimated the models by adding other variables that were found to be significant in previous studies, such as the percentage of females on the board of directors (e.g., Thompson & Manu, 2021), CEO duality (e.g., Benson et al., 2022), and IBEX35 index—a selective index of the Spanish exchange market (Sharma, 2011). However, they are nonsignificant in our sample and do not alter the results of the key variables (unreported but available upon request).

Fourth, to control for the industry effects, all models were estimated by including industry dummies; hence, we applied random effects. In Models 9 and 10, we ran the models with fixed effects. As presented in Table 5, the *Mul_dir* variable maintained its sign and significance.

Fifth, as another robustness analysis, we used the GMM procedure

[4] Following Azofra and López de Foronda (2007) and Farinha and López de Foronda (2009), the models were re-estimated assuming a nonlinear relationship, although none of them was significant.

Table 5
Multiple directorships and dividends. Robustness (I).

Model	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
D.V.	D_Div	Div_TA	D_Div	Div_TA	D_Div	Div_TA	D_Div	Div_TA
Est. method	Logit	Tobit	Logit	Tobit	Logit	Tobit	Logit Fixed effects	Regression Fixed effects
New variable	Ave_dir	Ave_dir	Div_lagged	Div_lagged	MD non linear	MD non linear	–	–
Mul_Dir	–	–	0.3601 (0.44)	1.3304* (1.64)	0.0944 (0.04)	4.4832* (1.92)	2.2668** (2.28)	1.1501* (1.68)
Mul_Dir ^{2}	–	–	–	–	−2.4005 (−0.72)	−4.4631 (−1.25)	–	–
Average_dir	0.7052* (1.66)	0.7546* (1.69)	–	–	–	–	–	–
D_dividends $_{t-1}$	–	–	1.6950*** (6.05)	–	–	–	–	–
Dividends_TA $_{t-1}$	–	–	–	0.3429*** (6.78)	–	–	–	–
Board_size	0.9120*** (3.50)	0.1675* (1.84)	0.6082*** (2.60)	0.1718** (2.37)	0.9034*** (3.45)	0.1620* (1.78)	0.5791* (1.93)	0.0593 (0.93)
Board_size^{2}	−0.0322*** (−2.93)	–	−0.0220** (−2.71)	–	−0.0318*** (−2.88)	–	−0.0153 (−1.27)	–
Ind_directors	1.8742* (1.70)	6.1791* (1.85)	1.4600 (1.44)	5.2944 (1.56)	1.8325* (1.66)	6.2239* (1.86)	1.4342 (1.14)	2.8103 (1.20)
Ind_dir^{2}	–	−8.0684* (−2.11)	–	–	–	−8.3922** (−2.20)	–	−5.5423** (−1.99)
Ownership_con	0.0667 (0.72)	0.154 (1.31)	0.0053 (0.67)	0.0064 (0.69)	0.0076 (0.83)	0.0156 (1.32)	0.0130 (1.02)	0.0019 (0.23)
Firm_size	0.5545*** (3.13)	0.5263** (2.18)	0.3398*** (2.56)	0.2618* (1.85)	0.5628*** (3.19)	0.4888** (2.02)	0.9125** (2.29)	0.4890** (1.97)
ROA	0.0694*** (4.10)	0.0931*** (4.11)	0.0673*** (4.27)	0.1199*** (5.32)	0.0699*** (4.14)	0.0942*** (4.16)	0.0412** (2.09)	0.0023 (0.19)
Leverage	−0.02652** (−2.36)	−0.0093 (−0.67)	−0.0230*** (−2.34)	−0.0115 (−0.89)	−0.0260** (−2.32)	−0.0088 (−0.64)	−0.0242* (−1.70)	−0.0032 (−0.35)
Firm_age	0.5448* (1.78)	0.5000 (1.07)	0.3173 (1.43)	0.0225 (0.09)	0.5394* (1.76)	0.4437 (0.95)	0.5707 (0.83)	1.0025* (1.72)
Mk_to_Book	−0.0014 (−0.02)	−0.0056 (−0.08)	0.0012 (0.02)	0.0300 (0.49)	0.0099 (0.01)	−0.0065 (−0.10)	0.0133 (0.11)	−0.0149 (−0.36)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Not	Not
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Intercept	−13.6028*** (−4.93)	−10.8788*** (−2.98)	−9.1502*** (−4.17)	−7.1257*** (−3.24)	−13.6631*** (−4.93)	−10.5102*** (−2.88)	–	−11.4905** (−2.98)
Observations	1,089	1,089	993	976	1,089	1,089	649	1,089
Log-Likelihood	−470.25	−1,931.65	−417.17	−1,730.00	−470.06	−1,930.54	−223.70	–
Chi2	89.21***	169.80***	144.64***	267.81***	89.58***	172.30***	80.99***	F = 6.89***

Variable description in Table 1. We report only the beta coefficients of logit estimations. The odd ratio can be obtain computing e^{beta}.
***,**,*: Significant at the 1%,5% and 10%, respectively.

Table 6
Multiple directorates and dividends. Robustness (II).

Model	(11)	(12)	(13)	(14)		(15)	(16)
Estimation method	GMM	PSM Logit	PSM Tobit	3SLS		Logit	Tobit
Dep. Var.	Div_TA	D_Div	Div_TA	Div_TA	Mul_Dir	D_Rep.	Rep._TA
Mul_Dir	2.1766* (1.92)	2.7852* (1.68)	2.8542* (1.68)	0.4866*** (2.77)	–	0.0579 (0.09)	0.0614 (0.16)
Dividend_TA	–	–	–	–	0.2699 (0.79)	–	–
Dividend_TA $_{t-1}$	−0.0857* (−1.95)	–	–	–	–	–	–
Board_size	−0.7587* (−1.87)	0.6764 (1.24)	0.0816 (0.49)	−0.8616* (−1.79)	2.3409*** (2.90)	0.3939** (2.14)	0.0342 (1.13)
Board_size^2	0.0306* (1.80)	−0.0210 (−0.85)	–	0.0335* (1.77)	−0.0928*** (−2.67)	−0.0152* (−1.96)	–
Ind_dir.	−2.5987* (−1.79)	2.3568 (1.17)	5.2544 (0.85)	5.7313* (1.76)	11.5984*** (3.50)	1.0372 (1.30)	−0.7648 (−0.54)
Ind_dir^2	–	–	−7.3951 (−1.03)	−12.8843** (−2.22)	–	–	–
Ownership_con	−0.0037 (−0.24)	0.0049 (0.30)	0.0122 (0.58)	0.0087 (1.35)	–	0.0009 (0.15)	−0.0022 (−0.57)
Firm_size	0.3416 (0.66)	0.5422* (1.81)	0.1666 (1.42)	2.1919*** (2.92)	3.9858*** (11.78)	0.1006 (0.97)	0.1082* (1.76)
ROA	0.0031 (0.19)	0.1694*** (4.03)	0.2038*** (4.38)	0.1598*** (9.15)	–	−0.0070 (−0.57)	−0.0066 (−0.84)
Leverage	0.0314** (2.00)	−0.0085 (−0.43)	0.0139 (0.57)	0.0326 (1.60)	–	−0.0290*** (−3.83)	−0.0146*** (−3.15)
Firm_age	2.6170* (1.81)	0.5265 (1.06)	0.3826 (0.54)	0.5932** (2.15)	−1.3241** (−2.03)	0.1074 (0.58)	0.0515 (0.48)
Mk_to_Book	−0.0260 (−0.44)	−0.0473 (−0.49)	−0.0304 (−0.31)	–	−0.3393 (−0.25)	0.0476 (1.36)	0.0560*** (2.61)
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Intercept	0.4153 (0.05)	−11.8643*** (−2.92)	−8.5144 (−1.53)	21.0771*** (2.64)	−45.8041*** (−7.50)	−3.3044** (−1.96)	−1.1917 (−1.35)
Observations	822	438	438	1,089	1,089	1,089	1,089
Log-Likelihood	–	−174.05	−882.38	–	–	−641.62	−927.48
Chi2	124.12***	31.62***	64.39***	170.08***	374.94***	38.87**	85.27***

Variable description in Table 1.
***, **, *: Significant at the 1%,5% and 10%, respectively.

(Arellano & Bond, 1991). This technique enabled us to address possible endogeneity problems that arise from the reverse causality between MDs and dividend payments (Pindado et al., 2014). This method is only applicable when the dependent variable is continuous; hence, we re-estimated only Model 2 regarding the level of cash dividends. The results of the GMM estimation (Model 11, Table 6) indicate that *Mul_dir* is positive and significant.

Sixth, to control potential sample bias, we conducted an additional analysis using a PSM. Using *Mul_Dir*, we created a dummy variable, *High_MD*, which takes a value of 1 if *Mul_dir* is higher than the sample median and 0 otherwise. We used nearest neighbor matching without replacement to match firms based on the *Board_size, Ownership Concentration, Firm age, ROA, Leverage, Firm_age,* and *Mk_to_Book* variables (Benson et al., 2022). We obtained a matched sample of 719 firm–year observations. The results of the PSM indicate that firms in the matched sample have similar values of the variables used. The t-statistics indicate that, for all variables, the mean differences between the treated and control samples are not statistically significant (unreported but available upon request). The results of the estimation of the initial models for the matched sample are presented in Models 12 and 13 of Table 6. As presented in the table, *Mul_Dir* maintained its sign and significance in the propensity to pay dividends and the level of cash dividends. Thus, there is no selection sample bias, and the results are robust.

Seventh, we considered the possibility that dividend distribution and MDs are simultaneously determined. To do this, we estimated a simultaneous equation model (3SLS), with the dependent variables *Div_TA* and *Mul_Dir*. Following Ferris et al. (2003), board size, the proportion of independent directors, firm size, firm age, and growth opportunities were considered as determinants of MDs. As depicted in Model 14 (Table 6), *Mul_Dir* is positive and significant when the dependent variable is *Div_TA*, but *Div_TA* is not significant when the dependent variable is *Mul_Dir*. Thus, both variables are not simultaneously determined.

Finally, as companies can repurchase their own shares as an alternative or as a complement to the distribution of dividends, we estimated Models 1 and 2 using *D_Repurchase (D_Rep)* and *Repurchase_TA (Rep_TA)* as the dependent variables, respectively. The first is a dummy variable which takes the value of 1 if a company has carried out at least one round of repurchasing of their own shares in a given year (Benson et al., 2022; Sharma, 2011), and the second is the ratio of repurchases to total assets. As depicted in Models 15 and 16 (Table 6), *Mul_dir* is not significant in either of the two models, implying that it does not affect the decision to repurchase their own shares and the level of repurchases.

4.4. Additional analysis

As a board and ownership structure are two of the main mechanisms of corporate governance, both can contribute jointly to the dividend policy of companies. Thus, we analyze whether the relationship between MDs and dividends found in this study is moderated by ownership concentration.[5]

To understand this, it is important to highlight that in the Spanish context, as in other continental European countries, the agency problems between controlling and minority shareholders are more crucial than those between managers and shareholders (Claessens et al., 2000; Faccio et al., 2001; La Porta et al., 1999). Majority control gives larger shareholders considerable power and discretion over key decisions, such as those regarding dividends and payout ratios (Gugler, 2003). The literature considers two competing arguments to explain the relationship between ownership concentration and dividends (La Porta et al., 2000a). On the one hand, the outcome theory asserts that controlling shareholders can exercise their power to extract private profits, reducing dividends (Shleifer & Vishny, 1997). On the other hand, according to the

[5] We are grateful to an anonymous reviewer for the idea of consider this additional analysis.

Table 7
Multiple directorates and dividends. Incidence of the ownership concentration.

Sample	Lower ownership concentration		Higher ownership concentration	
Model	(17)	(18)	(19)	(20)
Dependent variable	D_Div	Div_TA	D_Div	Div_TA
Estimation method	Logit	Tobit	Logit	Tobit
Mul_Dir	0.1174 (0.09)	1.0514* (1.83)	2.6453* (1.85)	1.8832 (0.98)
Board_size	1.2929*** (3.39)	0.3397* (1.81)	1.1194*** (2.66)	1.5429** (2.23)
Board_size^2	−0.0481*** (−3.13)	−0.0146** (−1.97)	−0.0444** (−2.42)	−0.0581* (−1.94)
Ind_directors	2.1371 (1.58)	4.1615** (2.49)	2.2752 (1.12)	26.8297*** (2.51)
Ind_dir^2	–	−5.7563*** (−3.22)	–	−40.0053** (−2.64)
Firm_size	0.5151** (2.30)	0.4520*** (3.56)	0.4481* (1.79)	0.1644 (0.43)
ROA	0.0718*** (3.18)	0.0420*** (3.56)	0.1175*** (3.74)	0.2247*** (4.77)
Leverage	−0.0308** (−1.88)	−0.0219*** (−2.83)	−0.0172 (−1.06)	−0.0034 (−0.13)
Firm_age	1.2016*** (2.95)	0.7339*** (3.17)	0.4427 (0.90)	0.4065 (0.52)
Mk_to_Book	−0.0642 (−0.76)	−0.0223 (−0.56)	0.0583 (0.57)	0.0185 (0.15)
Industry	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
Intercept	−17.1358*** (−4.68)	−9.2869*** (−4.72)	−13.5707*** (−3.41)	−16.2433** (−2.44)
Observations	542	542	547	547
Log-Likelihood	−245.13	−686.05	−216.52	−1,026.23
Chi2	50.15***	265.64***	53.41***	105.58***

Variable description in Table 1 z-statistics between parenthesis.
***,**,*: Significant at the 1%,5% and 10%, respectively.

substitute theory, higher dividends are used to reduce agency conflicts (Berzins et al., 2019).

To analyze this issue, we split the sample by the median of the ownership concentration, which is 58.35%, and re-estimate Models 1 and 2 for subsamples whose ownership concentration is either below or above the median. The results are presented in Table 7. As presented in the table, in firms with lower ownership concentration (lower agency conflict), more MDs increase the level of dividends payout (Model 18) but not the likelihood of paying dividends (Model 17). On the contrary, in firms with higher ownership concentration (more agency conflict), more MDs increase the likelihood of paying dividends (Model 19) but do not significantly affect the level of dividends payout (Model 20).

In both cases, the level of MDs affects dividends policy but in different ways. Thus, the role of MD is more relevant in the decision to pay or not to pay dividends in firms with a higher ownership concentration, while it is more relevant to the level of dividends paid in firms with a lower ownership concentration.

This result can be explained by the degree of agency conflict between majority and minority shareholders, which is predicted to be more relevant in firms with a higher ownership concentration. Therefore, firms in which the role of MDs contributes to a higher likelihood of paying dividends will try to reduce the aforementioned conflict via this approach. In firms with lower ownership concentration, where there is presumably less conflict of interest between majority and minority shareholders, the role of MDs is more pronounced in decisions regarding the level of dividends.

5. Discussion of results and conclusions

In this study, we analyzed the impact of directors who serve on the board of several firms (i.e., MDs) on the dividend policy of Spanish listed firms from 2008 to 2019. The econometric results indicate that a greater presence of MDs on the board increases the propensity to pay dividends and the level at which those dividends are paid out. These results hold under various estimations.

The results support the reputation hypothesis (H1a) that the presence of directors who serve on the boards of other companies provides experience, knowledge, and contacts that improve the quality of corporate governance. In particular, MDs contribute to reducing agency conflicts between shareholders and directors, as well as between majority and minority shareholders, favoring the distribution of dividends. In the case of Spanish listed firms, the benefits of the presence of MDs outweigh the possible drawbacks resulting from their lower availability due to their obligations to several boards.

The results regarding the positive relationship between MDs and the likelihood of paying dividends, as well as the level of cash dividends, are consistent with those obtained by Benson et al. (2022). However, Sharma (2011) and Sun and Yu (2022) found a negative relationship between MDs and the likelihood of paying dividends, as well as the level of cash dividends. All these studies were carried out in the context of listed firms in the US—a country with a stock market and a corporate governance system very different from that of Spain. In addition, we found that MDs do not significantly affect the decision to carry out share repurchases or the level to which this is done. The nonsignificance of MDs in share repurchases is also found in the work of Sharma (2011), although this differs from the findings by Benson et al. (2022).

Moreover, as the institutional context in Spain is characterized by high ownership concentration, we analyzed the possible moderator effect of ownership concentration on the relationship between MDs and dividends. The results indicate that the ownership concentration level affects this relationship. Specifically, we found that the role of MDs is more relevant to the likelihood of paying dividends in firms with a higher ownership concentration, which contributes to reducing the agency conflict between majority and minority shareholders. Moreover, in firms with lower ownership concentration, the role of MDs is more pronounced regarding the level of dividends paid. Thus, we conclude that the ownership structure moderates the relationship between MDs and dividends, although it affects the likelihood of paying dividends and the level of dividends paid differently. Thus, the role of MDs in influencing dividends should be analyzed considering ownership concentration in a firm as it determines the significance of the possible agency conflict between majority and minority shareholders. To the best of our knowledge, this is a novel study to analyze this issue; however, this does not allow us to compare our results with previous studies.

The results obtained can be applied to other European countries with a similar legal and financial environment, as well as those with a high level of ownership concentration. In this vein, Bancel et al. (2009) found that the main factors influencing dividend policy are similar across European countries, but they also found that some country-specific differences exist. They suggested that dividend policy is not only

based on the legal and institutional structure of a country but also influenced by other characteristics of companies such as ownership structure.

The main limitation of this study is that we only consider cash dividends, while some companies could have used the share dividend option during the research period. This information is not available in the databases consulted, so it would be the subject of an extension of this study, relying on other sources.

CRediT authorship contribution statement

Inmaculada Aguiar-Díaz: Conceptualization, Methodology, Data curation, Writing – original draft, Supervision, Software, Validation. **Nieves Lidia Díaz-Díaz:** Formal analysis, Data curation, Writing – review & editing, Investigation, Resources. **María Victoria Ruiz-Mallorquí:** Data curation, Investigation, Writing – review & editing.

Declaration of competing interest

The authors have no competing interests to declare that are relevant to the content of this article.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.bir.2024.04.002.

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