

CORPORATE SOCIAL RESPONSIBILITY AND LARGE SHAREHOLDERS: AN ANALYSIS OF EUROPEAN FIRMS

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Corporate Social Responsibility and Large Shareholders: An Analysis of European Firms

ABSTRACT. We analyze the influence of firm ownership structure on corporate social responsibility (CSR) as measured by the Dow Jones Sustainability STOXX Index and the Ethibel Excellence Index. Using data from 1,248 firms from five major European Union countries (United Kingdom, Germany, France, Italy, and Spain) for 2000–2004, we find that the power of the largest shareholder is negatively related to CSR. That is, as the proportion of shares owned by the largest shareholder increases, his or her incentives to engage in CSR decreases. Similarly, we find that a higher contest to the power of the main shareholder by other reference shareholders improves the firm's commitment to socially responsibility actions. Additional results suggest that, conditional on the availability of profitable growth opportunities, family shareholders are more prone to CSR than other types of investors, and, conversely, the percentage of ownership in the hands of institutional investors is negatively related to CSR.

KEY WORDS: corporate ownership structure, corporate social responsibility, family shareholders, growth opportunities, institutional investors.

JEL CLASSIFICATION CODES: M14, O16, G32

CORPORATE SOCIAL RESPONSIBILITY AND REFERENCE SHAREHOLDERS: AN ANALYSIS OF EUROPEAN FIRMS

INTRODUCTION

For many investors, a firm's level of corporate social responsibility (CSR)—that is, the degree to which it pursues sustainable growth and seeks a balance among social, financial, and environmental dimensions—can be directly linked to how well managerial behavior addresses the interests of all stakeholders (Fassin, 2009; O'Riordan and Fairbrass, 2008). As a result, minority shareholders may attempt to drive corporate decision making toward improving the firm's commitment to CSR activities to increase benefits to all stakeholders and long-term firm value (van Beurden and Gössling, 2008).

However, in many European corporations, minority shareholders lack the voting power and legal coverage to impact managers' decisions (Aguilera and Vadera, 2008). Conversely, the largest shareholder in these firms retains dominant power and is often able to seek private benefits undeterred (Cuervo, 2004; Johnson et al., 2000). Thus, to force social responsibility criteria into corporate decisions, noncontrolling shareholders—especially reference shareholders¹—must contest the power of the largest shareholder (Aguilera et al., 2007). This contest to power usually arises when the other shareholders obtain the ability and incentives to neutralize the control of the largest shareholder (see Lehman and Weigand; 2000; Maury and Pajuste, 2005).

We use two highly reliable capital market indexes, the Dow Jones Sustainability STOXX Index and the Ethibel Excellence Index, to analyze the influence of corporate control on the

¹ We define reference shareholder as a blockholder who holds enough voting power to be taken into account in some strategic decisions, sits on the board of directors, or appoints other directors (Harbula, 2007; van den Berghe and Levrau, 2002).

socially responsible behavior of firms. These sustainability indexes serve as good indicators of both how investors assess corporate decisions from a socially responsible perspective and how these actions are reflected in the firm's value creation (Barnea and Rubin, 2006; Webb, 2005). Given our purpose is to determine how corporate control affects CSR, we focus on the analysis of one of the key factors of corporate governance: the ownership structure (Jansson, 2005; Shleifer and Vishny, 1997).

We examine the relation between ownership structure (i.e., ownership concentration and identity of the main shareholders) and CSR to determine the effects of the power and characteristics of the largest shareholder on the firm's CSR orientation. Specifically, our study is twofold: First, we examine the impact of the power of the largest shareholder on CSR, and, second, we examine the influence of the identity of the reference shareholders on CSR.

Based on a sample of firms from the five largest European Union countries (United Kingdom, Germany, France, Italy, and Spain), we find that the power of the largest shareholder is negatively related to CSR. Our results also suggest that whereas family shareholders are more prone to CSR than other types of investors, the percentage of ownership in the hands of institutional investors has a negative effect on CSR. These results are conditional on the availability of profitable growth opportunities by firms.

The paper is divided into five sections. Section 2 analyzes previous research about the link between CSR and firms' ownership structure and formulates our hypotheses. Section 3 describes the sample and variables and explains the empirical method. Section 4 shows the empirical results and assesses the degree to which the initial hypotheses are verified. In the final section, we draw some conclusions from the most outstanding results and suggest some directions for future research.

THEORETICAL BACKGROUND AND HYPOTHESES

Power of the largest shareholder

European firms show big differences in terms of ownership structure across countries. These differences can be attributable to the different legal protection for investors in each country (La Porta et al., 1998, 1999, 2000). For example, although only 16% of British firms have a reference shareholder,² 79% of French firms and 85% of German firms have at least one reference shareholder (Franks and Mayer, 2001). These figures point to the agency relation between large dominant shareholders and minority shareholders as a problem of collective decision making inside the firms. Furthermore, the most prominent conflict of interest inside some firms is not likely to arise between managers and shareholders (Magness, 2008) but rather between large dominant shareholders and minority shareholders (Becht and Röell, 1999; Faccio and Lang, 2002; Morck et al., 2005).

The largest shareholder can hold excessive power that allows him or her to make corporate decisions to extract private benefits even though those decisions may be detrimental to the interest of the other shareholders. Thus, the expropriation of wealth from minority shareholders can lead to nonsocially responsible corporate decisions. As a result, one could expect that the more power the largest shareholder holds, the more prominent the possibility of conflict of interest with the rest of shareholders becomes and, consequently, the less social responsibly engaged the firm becomes.

Financial theory has shown that managerial incentive to improve firm value depends on the availability of investment projects (Hofmann et al., 2008; McConnell and Servaes, 1995; Myers,

² Consistent with previous research (Chen and Steiner, 1999; Short et al., 2002) and databases such as Thomson Financial, Marketguide, and WorldVest, we define the threshold for a reference shareholder as 5% of total shares.

1977). That is, when firms encounter growth opportunities and can carry out profitable investment projects, conflicts of interests among shareholders are often muted as high performance levels, resulting in high dividend payouts, quiet criticism from small shareholders. Conversely, when firms lack these growth opportunities, the largest shareholders, who retain the power to extract private benefits, compete directly with small shareholders for scarce corporate resources, thereby creating a conflictive environment. Thus, we expect that the consequences of the largest shareholder extraction of private benefits to be most detrimental to a firm's CSR when growth opportunities are lacking as the opportunistic behaviour of the largest shareholder is exacerbated by the scarcity of resources. Because the largest shareholder's ability to influence the firm's attitude toward CSR is relative to the unavailability of profitable investment projects, our first hypothesis is formulated as follows:

H1: For firms without growth opportunities, a negative relation exists between the proportion of ownership held by the largest shareholder and the firm's commitment to CSR.

The power of the largest shareholder depends not only on his or her stake in the ownership but also on the distribution of the power among other shareholders. Some authors (Bloch and Hege, 2001; Edwards and Weichenrieder, 2004; Maury and Pajuste, 2005) have reported that firm value is positively impacted by an ownership structure in which participation of shareholders is generally evenly distributed and the dominant shareholder faces more contest to his or her power.

When the position of the largest shareholders is not as dominant, reference shareholders can collaborate or minority shareholders can achieve a majority of the voting rights and, thus, intervene to direct firm strategy and the managerial actions. These agreements can constrain the discretion of the main shareholder, reduce the private benefits they might extract, increase the costs of opportunistic behavior, and, ultimately, enhance the firm's ability to engage in CSR. Hence, the ability of reference shareholders to contest the power of the largest shareholder is likely to be positively related with the protection of the interests of minority shareholders and, broadly speaking, with CSR actions.

Because *contestability*³ may improve the value of the firm, this relation should hold for the firms with higher market value, namely firms with profitable investment projects. Therefore, we formulate our second hypothesis:

H2: For firms with growth opportunities, the contest to the control of the largest shareholder is positively related to firm's socially responsible actions.

Identity of shareholders

The role of families

Although ownership is not the only characteristic used to define a family firm—other factors include management-level participation by members of the founding family and their presence on the board of directors (Villalonga and Amit, 2006)—the presence of family members among the main shareholders is a common requirement and, therefore, the basis of our definition of family-owned firms. Previous studies have estimated that family ownership of European firms is between 44% (Faccio and Lang, 2002) and 53% (Barontini and Caprio, 2006).

³ In accordance with Maury and Pajuste (2005), we define *contestability* as the ability to challenge the largest shareholder and to contest his or her control.

Although the empirical evidence regarding the influence of families in firms' performance is not conclusive (Miller et al., 2007), numerous authors have shown the efficiency of family firms in different geographical and institutional settings (Anderson and Reeb, 2003; Chang and Shin, 2007; Maury, 2006; McConaughy, 1998). According to these studies, family owners are more interested in firm survival, have longer time horizons, are more engaged in the firm's reputation, and experience less conflicts of interest caused by the separation of ownership and control (Anderson et al., 2003; McVey and Draho, 2005). Accordingly and *mutatis mutandis*, family firms are likely to be more committed to the reputation of the firm and more prone to invest in social responsibility (Déniz and Cabrera, 2005).

As before, the availability of growth opportunities is relevant: When a firm is engaged in profitable investment projects, the largest shareholder's commitment to CSR does not impact the firm as much as when resources are scarce due to a lack of growth opportunities. That is, for growing firms, resources are sufficient to fund both investment projects and CSR activities. Conversely, when profitable opportunities are scarce, the commitment of the largest shareholders is required to make or retain CSR as a priority. Thus, because of the unique characteristics of family-owned firms, which make them more prone to commit to CSR, we propose our third hypothesis as follows:

H3: For firms without growth opportunities, the family nature of the largest shareholder has a positive effect on the CSR actions.

The role of institutional investors

The participation of institutional investors in the ownership of nonfinancial firms is widely spread among most countries (Li et al., 2006). Researchers point to a number of motives for

institutional involvement such as financial disintermediation,⁴ cuttings in welfare state benefits,⁵ the sophistication of financial products, and progress in technologies of information. These factors, among others, have led the investors to rely on more professionalized financial institutions. For instance, in the middle of the 1990s, institutional investors held more than 75%, 59%, and 39% of the shares of British, French, and German nonfinancial firms, respectively (Gillan and Starks, 2002).

The increased involvement of institutional investors has raised the question regarding the role that these investors play in the functioning of firms. That is, are they merely passively focused on financial return alone, or are they actively engaged in the main strategic decisions of the firm—and, if so, to what extent (Coffey and Fryxell, 1991; Cox et al., 2004)? Bhattacharya and Graham (2007) and Li et al. (2006) both suggested that the different roles and attitudes of institutional investors may stem from their differing nature or legal status. For example, whereas mutual and pension funds' motives may be basically speculative to achieve capital gains and high financial rates of return for their clients, banks and other deposit institutions may have private interests due to a dual relation with the firm (i.e., they might be simultaneously creditors and shareholders). Regardless, no institutional investors appear to have an inherent motivation to improve the CSR actions of the firms in which they participate.

Nevertheless, Aguilera et al. (2006) suggested that institutional investors often enhance CSR actions for two different reasons. First, some instrumental motives exist because good social corporate reputation is an indicator of competent managerial behaviour. Second, relational

⁴ In the United States, banking deposits have dramatically fallen from 26% of total financial assets in 1976 to 15% in 1996. In the same period, banking deposits in France have decreased from 65% to 34%, and in Germany from 62% to 43%.

⁵ In many countries, the aging of the Baby Boom generation has encouraged the development of private pension funds complementary to State assistance.

and moral motives exist as a consequence of the social laws in a number of European industries and in the acts of many European investors. Despite these appealing reasons, Aguilera et al.'s assertions are not supported by any empirical evidence. Furthermore, Barnea and Rubin (2006) did not find significant empirical evidence to relate the power of institutional investors with CSR.

Some researchers have emphasized the transient nature of institutional investors, which are often characterized by a short-term orientation (Black, 1998; Bushee, 1998, 2001; Porter, 1992; Pound and Shiller, 1987). That is, institutional investors tend to overweight near-term earnings while underweighting long-run value and, thus, induce myopic stock assessment. In contrast to Aguilera et al.'s (2006) assessment, these authors find that institutional investors' excessive focus on short-term gains and lower prioritization of sustainable performance suggests a negative relation between institutional ownership and CSR. Because this focus on short term is more likely to occur when firms have profitable growth opportunities, this negative relation will hold especially for high-growth firms. Therefore, we state our fourth hypothesis as follows:

H4: For firms with growth opportunities, CSR actions are negatively affected by having an institutional investor as the largest shareholder

SAMPLE AND METHODOLOGY

Sample, variables, and empirical model

Our sample is drawn from two databases. We obtained data from financial statements (balance sheet and income and expenditures statement) and information on the ownership

structure and the market value of the firms from the AMADEUS⁶ database. The information on daily (dividends and stock issuances adjusted) stock prices comes from the Datastream database.

Given our focus on the influence of corporate ownership structure on CSR actions, we must be able to determine and quantify CSR appropriately. Accordingly, following Barnea and Rubin (2006) and Hartman et al. (2007), we use the Dow Jones Sustainability STOXX Index (DJSI) and Ethibel Excellence Index (EEI) and define a dummy variable that equals 1 when a firm is included in these CSR indexes, and zero otherwise. As flexible and consistent indicator of sustainability, the DJSI is reviewed quarterly to ensure that the index accurately represents the top 10% of the leading sustainability companies from 18 European countries. The EEI, which is supplied by Vigeo (Bagnole, France), a leading European provider of extra-financial analysis specializing in social responsibility audits for companies and organizations, is based on Standard & Poor's Global 1200 and focuses primarily on the integration of the concepts of sustainable development and stakeholder involvement.

Both the DJSI and the EEI indexes summarize numerous practices in several dimensions, including economic (e.g., corporate governance, risk and crisis management, corruption and bribery), environment (e.g., environmental performance and reporting), and social (e.g., labor practices, human capital development, talent attraction). In addition, both indexes, which are updated regularly, are calculated on the basis of four main information sources: (a) a questionnaire (distributed to the CEOs and heads of investor relations of the companies in the indexes investable stocks universe); (b) company documentation relevant to sustainability, environmental management, and health and safety policy and financial statements; (c) media and stakeholders reports (e.g., analysts review media, press releases, articles, and stakeholder

⁶ AMADEUS is a product of Bureau van Dijk Electronic Publishing (Brussels) and provides standardized annual accounts for companies throughout Europe.

commentary); and (d) personal interviews with company executives (to clarify open points arising from the questionnaires and company documents). Firms included in the indexes are often monitored with regard to newly arising critical issues. In addition, to ensure quality and objectivity of the DJSI, an external review is completed.

Our sample is consists of 2,426 observations from 1,248 firms for 2000–2004 from the five largest European Union countries (United Kingdom, Germany, France, Italy, and Spain). Table 1 provides descriptive statistics by country, and Table 2 reports the number of observations and the proportion that each country represents in each index. As Table 2 shows, the composition of the indexes in our sample is quite consistent with the samples as a whole. The only significant deviations are the slight underrepresentation of French firms and overrepresentation of Spanish firms in the DJSI. This generally well-balanced distribution means that our results are not biased by any unbalanced composition of the sample.

[TABLE 1 ABOUT HERE]

[TABLE 2 ABOUT HERE]

We define ownership structure by four variables that are informative of the ownership concentration and identity of the largest shareholders: (a) OWN1 is the proportion of shares owned by the largest shareholder in each firm; (b) OWN25 is the proportion of shares owned by the second, third, fourth and fifth largest shareholders; (c) INSTIT measures ownership by institutional investors; and DUMFAM is a dummy variable that equals 1 when the largest shareholder is a family, and zero otherwise. In addition to these variables, the contest to the control is measured as the OWN25-to-OWN1 ratio (CONTEST). This additional variable is

informative about the ability of other reference shareholders to contest the control of the largest owner.

Our model also includes some control variables. Although not direct determinants of CSR actions, these variables provide significant information, whose absence could mean running the risk of omission bias. Because these variables are common to the literature, they allow our study to be comparable with previous analogous research. Market-to-book assets ratio (MB) is defined as the ratio of the firm's market value to its book value. Although there are several different alternative measures of growth opportunities such as price-earnings ratios and market-to-book ratios, a recent study by Adam and Goyal (2008) showed that the market-to-book assets ratio has the highest informational content with respect to investment opportunities. The market value of the firm is the sum of the equity market value plus the debt book value, as is currently common in research (Maury and Pajuste, 2005; Villalonga and Amit, 2006). The rationale is that the higher the MB, the lower the value due to the assets-in-place and, in turn, the higher the value due to growth opportunities. Accordingly, we identify a firm as having growth opportunities when the market value is higher than book value ($MB > 1$) and a firm as not having good investment projects when the market value of assets is lower than the book value ($MB < 1$).

We also control for capital structure (LEV), measured as the financial leverage ratio (i.e., debt to equity ratio). To account for firm's size (Holder-Webb et al, 2009; Udayasankar, 2008), we calculate the log of total assets (LOGAST). We also control for investors' legal protection by a dummy variable (LEGAL). La Porta et al. (1998) showed that investors' rights are better protected in common law countries (i.e., United Kingdom) than in civil law countries (i.e., Italy, France, Germany, and Spain). This variable controls for regional or geographical effects (Luna and Fernández, 2008) and for cross-national diversity of corporate governance (Aguilera and

Jackson, 2003). Consequently, LEGAL equals 1 for British firms, and zero otherwise. Finally, we control for risk (RISK) using the standard deviation of the daily stock returns. All the control variables are measured for each firm in each year, so that the model to be analyzed can be expressed as follows :

$$\begin{aligned} \text{CSR}_{it} = & \beta_0 + \beta_1 \text{OWN1}_{i,t} + \beta_2 \text{OWN25}_{i,t} + \beta_3 \text{DUMFAM}_{i,t} + \beta_4 \text{INSTIT}_{i,t} + \\ & + \beta_5 \text{LEV}_{i,t} + \beta_6 \text{LOGAST}_{i,t} + \beta_7 \text{RISK}_{i,t} + \beta_8 \text{LEGAL} + \eta_i + \varepsilon_{i,t}, \quad (1) \end{aligned}$$

where i denotes the firm, t denotes the time period, η_i stands for the fixed-effects term of each firm or unobservable and constant heterogeneity, and $\varepsilon_{i,t}$ is the stochastic error used to introduce possible errors in the measurement of the independent variables and the omission of explanatory variables.

Empirical method

The empirical analysis is divided into two stages. First, we provide a descriptive analysis to show the main characteristics of our sample and to explore possible differences in the ownership structure of firms depending on the degree of social responsibility. The second stage tests our hypotheses through an explanatory analysis to assess the extent to which the distribution of ownership and control inside the firm affects the corporate attitude toward CSR.

Although the descriptive analysis includes an independent sample T test, the explanatory analysis is based on the regression analysis. Due to the dichotomous nature of the dependent variable, the most suitable method is the logit analysis. The logit procedure relies on maximum-likelihood estimations, so rather than the usual (adjusted) R^2 coefficient, the assessment of the

goodness of fit is based on the maximum-likelihood ratio and on the percentage of correctly predicted observations. Accordingly, we report the percentage of observations correctly predicted; this percentage is quite high in all the estimations. However, we note that in this type of model, goodness of fit is not as important as the statistical significance of the explanatory variables (Wooldridge, 2002).

RESULTS

Descriptive analysis

Before showing the results of the regression analysis, we perform a comparison of means test between both subsamples. Table 3 shows the mean, median, standard deviation, and maximum and minimum values of the most characteristic variables. To explore whether firms included in the DJSI show differences from those not included, the mean values are split into two groups. Table 2 also shows the p -value or maximum level of significance to reject the null hypothesis of equality of means. The p -value clearly shows very significant differences according to the CSR.

[INSERT TABLE 3 ABOUT HERE]

As Table 3 shows, firms included in the DJSI (i.e., socially responsible firms) show higher value creation than firms not included in the index (MB = 2.31 and 1.49, respectively; the difference is statically significant). DJSI firms also have a more dispersed ownership structure: On average, the largest shareholder owns 20% of shares in the DJSI firms compared with 28% in the non-DJSI firms. Furthermore, the accumulated ownership of the second through fifth

shareholders (OWN25) is significantly lower in DJSI firms than non-DJSI firms (20% vs. 25%). Consequently, the power of the largest shareholder is significantly more contested (CONTEST) in DJSI firms than non-DJSI firms (84.21 vs. 25.82). Other characteristics of the firms included in the DJSI relative to the non-DJSI firms are lower family and institutional presence as shareholders, larger size, and higher financial leverage. All these differences are statistically significant.

Initially, to address the question regarding the extent to which profitable investment projects affect CSR, we develop in Table 4 some of the results of Table 3 according to the availability of growth opportunities. As the results show, the ownership structure of DJSI firms is always more dispersed (i.e., OWN1 is significantly lower) irrespective of the availability of growth opportunities. This result is consistent with Hypothesis 1.

[INSERT TABLE 4 ABOUT HERE]

In Table 5 we report some analogous results regarding the contest to the largest shareholder (CONTEST). We find that the challenge to the largest shareholder is higher in DJSI firms, but this difference only is statistically significant for firms with good investment projects. This result is, therefore, consistent with Hypothesis 2.

INSERT TABLE 5 ABOUT HERE

Explanatory analysis

The main explanatory results come from the logit analysis of equation (1) reported in Table 6. As shown, estimates can be accepted according to the log-likelihood ratio. We run two different regressions depending on whether the value of MB is higher or lower than 1. We run these regressions through the maximum likelihood procedure. In these cases, the main measure of goodness of fit is the percentage correctly predicted. Results, using the DJSI and the EEI as the dependent variable, are reported in Table 6 and Table 7, respectively. As our findings show, this percentage is quite high in all the estimations.

[INSERT TABLE 6 ABOUT HERE]

[INSERT TABLE 7 ABOUT HERE]

Regarding Hypothesis 1, the coefficient of OWN1 is negative and statistically significant when firms have low growth opportunities, which is fully consistent with our first hypothesis. That is, when firms lack profitable investment projects, the largest shareholder has incentives to pursue private benefits by expropriating the other shareholders. In these cases, the largest shareholder is not interested in socially responsible actions and, thus, a negative relation exists between OWN1 and CSR.

According to Hypothesis 2, the challenge to the control of the largest shareholder is particularly important to implementing social responsibility criteria when firms have high potential for value creation. This hypothesis is empirically supported by the coefficient of OWN25, which is positive and significant when $MB > 1$. Therefore, minority shareholders (and, to some extent, the other stakeholders) appreciate the disciplinary role of the reference

shareholders and their ability to contest the power of the main shareholder. In this way, joint agreement among reference shareholders can pressure the largest shareholder to follow socially responsible guidelines.

Addressing Hypothesis 3, we also find that family ownership (DUMFAM) has a positive relation with CSR when firms lack of growth opportunities, which corroborates our third hypothesis. That is, families are usually more interested than other types of shareholders in maintaining firm reputation, so they are more apt to promote corporate decisions that address the interests of all stakeholders and alleviate the conflicts of interest.

Hypothesis 4 is also supported by our results, which show that institutional ownership (INSTIT) is negatively related to CSR in firms with growth opportunities. This finding suggests that at least some institutional investors are short-termed oriented shareholders with incentives to focus on the firm's financial performance and to avoid social responsibility criteria in corporate decision making.

Looking at control variables, we find that financial leverage (LEV) is negatively related to CSR for the highest growing firms. This coefficient can be explained by the underinvestment theory (McConnell and Servaes, 1995; Myers, 1977): Too much corporate debt can have a negative effect on the value of the firm, as it may motivate managers to forego profitable investment projects. Because bondholders' priority over the firm's cash flow is relative to shareholders, managers may forego projects with positive net present value if the project's earnings target the creditors. The size of the firm has a positive influence on CSR irrespective of the availability of growth opportunities, which may be due to the more ability/opportunities of large firms to invest in social initiatives.

As a robustness analysis, we provide the results using the EEI as the dependent variable and substitute CONTEST for OWN25 (see Table 7). Results are broadly consistent with our prior findings (see Table 6), especially for the scenario defined by the availability of growth opportunities.

CONCLUDING REMARKS

We analyze the influence of the ownership structure on the attitude toward corporate social responsibility among European firms. Unlike U.S. and U.K. corporations, in continental European firms, the ownership structure is quite concentrated with few reference shareholders holding the power to make corporate decisions. Therefore, the main conflict of interests is not between managers and shareholders but rather between large dominant shareholders and small minority shareholders.

We measure CSR with two highly reliable sustainability indexes, the DJSI and the EEI (López et al., 2007), which summarize a number of good practices related to, for example, corporate governance, struggle against corruption, environmental performance, and labour practices. Using data from 1,248 firms from the five largest European Union countries (United Kingdom, Germany, France, Italy, and Spain) for 2000–2004, we (a) test how the power of the largest shareholder relates to CSR and (b) analyze the influence of the identity of reference shareholders on CSR. Because the conflict of interest among shareholders inside the firm depends on the power of the largest shareholders to extract private benefits—and, therefore, on the ability of the firm to create value through profitable investment projects—a key characteristic of our research is the introduction of the availability of growth opportunities as a determinant.

We find that, in firms without growth opportunities, the power of the largest shareholder to appropriate benefits from minority shareholders is negatively related to CSR; that is, the higher the fraction of shares owned by the largest shareholder, the less incentive he or she has to engage in CSR. However, in high-growth firms, we find that a higher contest to the power of the main shareholder by other reference shareholders improves the firm's commitment to social responsibility. Our results also suggest that, conditional on the availability of profitable project to the firms, family shareholders are more prone to CSR than other types of investors, whereas the percentage of ownership in the hands of institutional investors has a negative effect on CSR. These results can be explained by the investors' differing incentives: Whereas family shareholders may be more concerned with corporate reputation and value over longer time horizons, institutional investors may be too focused on short-term financial performance.

Our research has promising implications both for practitioners, policymakers, and academia. Because we base on study on market information and not on questionnaires or interviews, our research is informative for practitioners about how capital markets assess firms' information about CSR. Policymakers can enhance CSR actions by encouraging the formation of balanced ownership structures, so that no dominant shareholder has incentives to extract private benefits by expropriating other shareholders. Finally, our paper adds to the fertile field of academic research on the factors affecting the attitude of firms toward CSR.

Several directions for future research are apparent. First, whereas we limit our scope to the ownership of the reference shareholders, new research could introduce the involvement of shareholders in management and directorship. Second, the effect of the legal and institutional setting deserves further attention to test a differential impact of firm characteristics on CSR actions depending on the investors' protection and cultural tradition. Finally, new research could

introduce the role of the board of directors and other mechanisms of corporate governance on CSR following the results of Holder-Webb et al. (2008).

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TABLE 1
Composition of the sample by countries

Country	Firms (<i>n</i>)	Observations (<i>n</i>)	Sample (%)
Great Britain	508	1,369	56.47
Germany	127	241	9.93
France	223	572	23.57
Italy	75	158	6.51
Spain	35	85	3.50
Total	1,248	2,426	100.00

TABLE 2
Indexes composition

Country	Dow Jones STOXX Sustainability		Ethibel Excellence Index	
	Observations (<i>n</i>)	Sample (%)	Observations (<i>n</i>)	Sample (%)
Great Britain	68	55.28	93	59.23
Germany	15	12.19	15	9.55
France	16	13.00	34	21.65
Italy	9	7.31	6	3.82
Spain	15	12.19	9	5.73
Total	123	100.00	157	100.00

TABLE 3
Descriptive statistics

	Mean			Median	Std. dev.	Max.	Min.
	Non-DJSI	DJSI	<i>p</i> -value				
OWN1	0.28	0.20	0.00	0.17	0.25	0.97	0.01
OWN25	0.25	0.20	0.00	0.23	0.20	0.97	0.00
CONTEST	25.82	84.21	0.00	1.23	189.29	1,249.00	0.00
DUMFAM	0.20	0.13	0.04	0.00	0.39	1.00	0.00
INSTIT	0.16	0.09	0.00	0.07	0.21	0.97	0.00
MB	1.49	2.31	0.00	1.25	1.23	7.01	0.00
LEV	0.82	0.95	0.00	0.90	0.25	1.48	0.00
DISP	0.03	0.03	0.44	0.026	0.03	1.21	0.01
LOGAST	1.09	1.20	0.00	1.094	0.06	1.28	0.88

Mean, median, standard deviation, maximum and minimum value of the variables according to the inclusion in the Dow Jones Sustainability STOXX index (DJSI). MB is the market to book ratio of assets; OWN1 and OWN25 the proportion of ownership of the largest and the second to fifth largest shareholders; CONTEST is a measure of contest to the power of the largest shareholder; DUMFAM is a dummy variable when the largest shareholder is a family; INSTIT is the fraction of shares owned by institutional investors, LEV is financial leverage; DISP is a measure of financial risk and LOGAST is the log of total assets. The *p*-value is the maximum level of significance to reject the null hypothesis of equality of means between both subsamples.

TABLE 4
Distribution of OWN1

	Whole sample	DJSI	Non-DJSI	<i>p</i> -value
With growth opportunities	0.1801	0.0964	0.1860	0.000
Without growth opportunities	0.1954	0.1272	0.1973	0.042

DJSI = Dow Jones Sustainability STOXX index.

TABLE 5
Decomposition of CONTEST

	Whole sample	DJSI	Non-DJSI	<i>p</i> -value
With growth opportunities	33.83	100.16	29.24	0.00
Without growth opportunities	22.32	41.68	21.79	0.51

DJSI = Dow Jones Sustainability STOXX index.

TABLE 6
Results of the logit estimation (DJSI)

	MB>1		MB<1	
	Est. coeff.	Std. error	Est. coeff.	Std. error
Intercept	-79.20 ^{***}	16.49	-69.46	9.98
OWN1	-7.01	8.39	-6.94 [*]	5.18
OWN25	10.67 [*]	6.99	0.13	5.36
DUMFAM	-0.409	1.70	1.91 ^{**}	0.96
INSTI	-7.24 ^{**}	3.98	-2.28	2.60
LEV	-7.03 ^{***}	2.44	0.19	2.97
LOGAST	69.80 ^{***}	14.97	55.89 ^{***}	8.76
RISK	-7.16	26.31	-2.15	12.55
LEGAL	0.98	1.66	0.72	1.07
% correctly classified	93.18		97.40	
Likelihood ratio	18.31 ^{***}		78.53 ^{***}	

Standard errors are robust to heteroskedasticity of equation (1). Sample partitioned by MB, defined as the market-to-book assets ratio. The dependent variable is the inclusion in the Dow Jones Sustainability STOXX index (DJSI). OWN1 and OWN25 the proportion of ownership of the largest and the second to the fifth largest shareholders; CONTEST is a measure of contest to the power of the largest shareholder; DUMFAM is a dummy variable when the largest shareholder is a family; INSTI is the fraction of shares owned by institutional investors, LEV is financial leverage; DISP is a measure of financial risk and LOGAST is the log of total assets. ***, **, and * indicate significance at the 99%, 95%, and 90% confidence level, respectively.

TABLE 7
Results of the logit estimation (Ethibel Excellence index)

	MB>1		MB<1	
	Est. coeff.	Std. error	Est. coeff.	Std. error
Intercept	-38.91 ^{***}	3.50	-29.96 ^{***}	4.99
OWN1	0.156	1.26	-1.29	2.66
CONTEST	0.35	0.40	-0.07	0.69
DUMFAM	1.751 ^{**}	0.70	0.825	1.45
INSTI	-1.41 [*]	0.89	0.03	0.97
LEV	-1.77 [*]	0.85	-0.37	1.01
LOGAST	33.42 ^{***}	3.14	24.25 ^{***}	4.33
RISK	0.27	4.06	-5.13	12.98
LEGAL	1.21 ^{***}	0.38	0.80	0.71
% correctly classified	91.39		96.34	
Likelihood-ratio	250.88 ^{***}		53.42 ^{***}	

Standard errors are robust to heteroskedasticity of equation (1). Sample partitioned by MB, defined as the market-to-book assets ratio. The dependent variable is the inclusion in the Ethibel Excellence index. MB is the market to book ratio of assets; OWN1 and OWN25 the proportion of ownership of the largest and the second to fifth largest shareholders; CONTEST is a measure of contest to the power of the largest shareholder; DUMFAM is a dummy variable when the largest shareholder is a family; INSTI is the fraction of shares owned by institutional investors, LEV is financial leverage; DISP is a measure of financial risk and LOGAST is the log of total assets. ***, **, and * indicate significance at the 99%, 95%, and 90% confidence level, respectively.