

Alma Mater Studiorum Università di Bologna  
Archivio istituzionale della ricerca

Corporate Social Responsibility and Cost of Financing – the Importance of the International Corporate Governance System

This is the final peer-reviewed author's accepted manuscript (postprint) of the following publication:

*Published Version:*

Corporate Social Responsibility and Cost of Financing – the Importance of the International Corporate Governance System / Desender, Kurt A.; LópezPuertas-Lamy, Mónica; Pattitoni, Pierpaolo; Petracci, Barbara. - In: CORPORATE GOVERNANCE. - ISSN 0964-8410. - ELETTRONICO. - 28:3(2020), pp. 207-234. [10.1111/corg.12312]

*Availability:*

This version is available at: <https://hdl.handle.net/11585/718136> since: 2022-02-04

*Published:*

DOI: <http://doi.org/10.1111/corg.12312>

*Terms of use:*

Some rights reserved. The terms and conditions for the reuse of this version of the manuscript are specified in the publishing policy. For all terms of use and more information see the publisher's website.

This item was downloaded from IRIS Università di Bologna (<https://cris.unibo.it/>).  
When citing, please refer to the published version.

(Article begins on next page)

This is the final peer-reviewed accepted manuscript of:

**Desender, K. A., LópezPuertas-Lamy, M., Pattitoni, P., & Petracci, B. (2020). Corporate social responsibility and cost of financing—The importance of the international corporate governance system. *Corporate Governance: An International Review*, 28(3), 207–234.**

The final published version is available online at:

<https://doi.org/10.1111/corg.12312>

#### Terms of use:

Some rights reserved. The terms and conditions for the reuse of this version of the manuscript are specified in the publishing policy. For all terms of use and more information see the publisher's website.

*This item was downloaded from IRIS Università di Bologna (<https://cris.unibo.it/>)*

***When citing, please refer to the published version.***

# **Corporate Social Responsibility and Cost of Financing – the importance of the International Corporate Governance system**

**Kurt A. Desender**

Department of Business Administration, Universidad Carlos III.  
Calle de Madrid, 123; 28903 Getafe (Madrid), Spain.  
Email: [kdesende@emp.uc3m.es](mailto:kdesende@emp.uc3m.es)

**Mónica López Puertas-Lamy\***

Department of Business Administration, Universidad Carlos III.  
Calle de Madrid, 123; 28903 Getafe (Madrid), Spain.  
Email: [mlopezpu@emp.uc3m.es](mailto:mlopezpu@emp.uc3m.es)

**Pierpaolo Pattitoni**

Department of Statistical Sciences "Paolo Fortunati", University of Bologna.  
Via Belle Arti 41; 40126 Bologna, Italy.  
Email: [pierpaolo.pattitoni@unibo.it](mailto:pierpaolo.pattitoni@unibo.it)

**Barbara Petracci**

Department of Management, University of Bologna, Bologna.  
Via Capo di Lucca 34; 40126 Bologna, Italy.  
E-mail: [barbara.petracci@unibo.it](mailto:barbara.petracci@unibo.it)

**\*Corresponding author**

# Corporate Social Responsibility and Cost of Financing – the importance of the International Corporate Governance system

**Manuscript Type:** Empirical

**Research Question/Issue:** Our study examines whether international corporate governance systems shape the relationship between a firm's engagement in Corporate Social Responsibility (CSR) and their cost of financing (both equity and debt).

**Research Findings/Insights:** Using a large international sample, our findings reveal that while the link between CSR performance and the cost of equity is negative in a shareholder-oriented system, this relationship is positive in a stakeholder-oriented system. Furthermore, the link between CSR performance and the cost of debt is negative for firms that are close to default in both systems.

**Theoretical/Academic Implications:** Our study highlights the importance of considering the shareholder/stakeholder-orientation at the country level to explain the link between CSR performance and the cost of financing. Our findings help to explain and place into context the previous mixed findings on the relationship between CSR and the cost of equity and debt and add to the debate about whether CSR is beneficial or detrimental to corporate governance.

**Practitioner/Policy Implications:** The analysis of how the country corporate governance system influences the effect of CSR performance on the cost of financing allows for a deeper understanding of how investors respond to CSR initiatives worldwide and offers managers, directors and policy makers context-specific recommendations. Our analysis also highlights the limitations of transferring insights regarding CSR from one corporate governance system to another.

**Keywords:** Corporate Governance, Corporate Social Responsibility, , cost of equity, cost of debt.

## INTRODUCTION

Corporate social responsibility (CSR) consists of a set of environmental and social activities that companies implement on a voluntary basis to address the environmental and social impact of their business and the expectations of their stakeholders (Arjaliès and Mundy, 2013; European Commission, 2001). Distinct from corporate governance mechanisms that allocate power between shareholders and managers, firms' CSR is sometimes seen as a form of self-regulation that limits the set of acceptable actions that corporations can engage in when interacting with their stakeholders (Matten and Moon, 2008; Scherer and Palazzo, 2011). Despite the growing body of research on CSR (Jain and Jamali, 2016), the recent growth in socially responsible investments and shareholder proposals on social and <sup>environmental</sup> issues (Institutional Shareholder Service, 2019), there is still an important debate on its desirability from the investor's perspective (Devinney, Schwalbach and Williams, 2013).

Traditionally, scholars have considered two opposing perspectives on CSR, highlighting that CSR can be either beneficial or detrimental to corporate governance (Aguinis and Glavas, 2012; Albuquerque et al., 2018; Flammer, 2015; Lys, Naughton and Wang, 2015). From a resource-based perspective, CSR is suggested to create shareholder value by maximizing stakeholder value, a result known as “doing well by doing good” (Edmans, 2011; Ferrell, Liang and Renneboog, 2016). Stakeholders, in exchange for CSR initiatives, reward firms with enhanced reputation, increased loyalty, and other forms of support that may develop into a strong “business case” for CSR (McWilliams and Siegel, 2001). Yet, the difficulty of indisputably establishing the business case for CSR (Aguinis and Glavas, 2012; Margolis, Elfenbein and Walsh, 2009; Orlitzky, Schmidt and Rynes, 2003) has led critics, adopting an agency perspective, to suggest that, instead of contributing to more shareholder value, CSR may actually be negative for corporate governance as managers may use their discretion over CSR to seek private benefits or to avoid being disciplined by investors (Prior, Surroca and

Tribò, 2008). The empirical evidence on these two opposing views is mixed. Hawn, Chatterji and Mitchell (2018) argue that, despite the extensive research on the link between CSR and financial performance, it is not yet clear whether investors believe it pays off. In addition, Albuquerque, Koskinen and Zhang (2018:1) argue that “CSR’s increased popularity inside boardrooms has outpaced the research needed to justify it. Specifically, the mechanisms through which CSR may affect firm value are not fully understood.”

We respond to these calls by exploring how CSR performance shapes the cost of equity and debt, an important underlying mechanism linking CSR performance and firm value, and we argue that the international corporate governance system is an important missing piece in this relationship. In particular, we differentiate between shareholder-oriented and stakeholder-oriented systems to address the following research question: how does a country’s corporate governance system shape the effect of a firm’s engagement in CSR on the cost of equity and debt? Our research question links to the recent call by Larry Fink, the founder of BlackRock (one of the most important investment management corporations in the world), who states in his 2018 annual letter to CEOs, that companies need to do more than make profits and contribute to society if they want to receive their support, emphasizing the importance of CSR and stakeholder needs in order to reap long term rewards (New York Times, January 15<sup>th</sup>, 2018). We ask whether this call is supported by a negative relation between CSR performance and the cost of financing in a shareholder-oriented system and whether this call also extends to CEOs in a stakeholder-oriented system.

While prior research on the link between the firm’s engagement in CSR and the cost of equity and debt (e.g., Chava, 2014; El Ghouli, Guedhami, Kwok and Mishra, 2011, 2018; Goss and Roberts, 2011; Gregory, Whittaker and Yan, 2016; Hoepner, Oikonomou, Scholtens and Schröder, 2016; Plumlee, Brown and Hayesa, 2015) reports conflicting results, little attention has been paid to how CSR performance interacts with the national corporate governance system

to influence the cost of equity and debt. This neglect is noteworthy because, as argued by several comparative scholars, one cannot understand the CSR strategy and policies of organizations without understanding the nature of the institutional environments in which they operate (Aguilera, Filatotchev, Gospel and Jackson, 2008; Devinney, Schwalbach and Williams, 2013). Thus, understanding the effect of a country's corporate governance system on the relationship between CSR performance and the cost of equity and debt is important for academics, managers, investors and policy makers as it allows for a better understanding of the consequences of firms' engagement in CSR and how they are context-specific. It also helps to interpret some of the mixed findings in this literature, by showing that positive or negative effects are possible depending on the context.

Building on the resource-based view and agency theory, we argue that in a shareholder-oriented system, organizations are viewed as shareholder-value maximizing economic entities and thus, corporate governance mechanisms are focused on reducing agency problems resulting from the separation of ownership and control, which include concerns that CSR is employed to forward the interests of managers (or stakeholders) at the expense of shareholder value. Consequently, in a shareholder-oriented system, we expect the relationship between CSR performance and the cost of equity to be negative since shareholders are likely to view an increase in firms' engagement in CSR as a mechanism for gaining sustainable competitive advantage and creating value by better managing risks associated with the firms' stakeholders. Similarly, debtholders, in this system, may view CSR performance as a mechanism that allows firms to increase the available funds to repay any debt obligations or to reduce the variance of their future cash flows (Ashbaugh-Skaife, Collins and LaFond, 2006). Given that the benefits for debtholders are capped at face value of debt (Brealey, Myers and Allen, 2016) and that debtholders primarily care about the likelihood that the firm's future cash flows will allow the firm to meet its debt obligations (Ashbaugh-Skaife, Collins and LaFond, 2006), we argue that

a significant link between CSR performance and the cost of debt is only expected for firms that are close to default since only in these firms would CSR initiatives significantly affect the firms' likelihood of debt repayment. In addition to increasing the available funds, an increase in CSR performance may also have a positive effect for debtholders in firms that are relatively close to default through a reduction in the business risk and risk of takeovers and an increase in the likelihood of survival through strong stakeholder support.

In contrast, in a stakeholder-oriented system, we argue that there is a more prominent agency concern by the shareholders that the CSR is not being employed to maximize shareholder value, as institutional pressure may induce managers to sacrifice shareholder value to address the demands of a broad set of stakeholders (Aguilera and Jackson, 2003; Matten and Moon, 2008). If CSR initiatives go beyond what is optimal from shareholders' perspective, we expect an increase in CSR performance to be positively related to the cost of equity.

As in the shareholder-oriented context, we argue that only debtholders in firms that are close to default would be affected by CSR activities, which could significantly influence the likelihood of debt repayment. In particular, we claim that in a stakeholder-oriented context, the effect of CSR performance for debtholders in firms that are close to default is ex-ante not clear as it may either reduce or increase the firms' capacity to repay their debt obligation. On the one hand, CSR may have a negative consequence for debtholders through a reduction of funds available for debt repayment if debtholders perceive CSR activities as a mechanism allowing managers to attend to their own and stakeholders' interests at the expense of firm value. On the other hand, CSR initiatives may also have a positive effect for debtholders in firms that are close to default by reducing the business risk and the risk of takeovers and by increasing the likelihood of survival through strong stakeholder support. We argue that the positive effects of CSR for debtholders are stronger than the negative effects in firms that are close to default, as the concern that managers would employ CSR for private benefits is likely to be reduced if



financial resources are scarce (in line with the free cash flow hypothesis (Jensen, 1986). We, therefore, expect a negative relationship between CSR performance and the cost of debt for firms that are close to default.

To empirically test whether the international corporate governance system moderates the relationship between CSR performance and the cost of financing, we analyze a panel dataset of 18,928 firm-year observations from 2002 to 2011. Our results show that while the link between CSR performance and the cost of equity is significant and negative in a shareholder-oriented system, this relationship is significant and positive in a stakeholder-oriented system. We also reveal interesting interactions between country and firm-level corporate governance by showing that the absence of non-financial blockholders enhances the effect of CSR performance on the cost of equity in both systems. We find strong evidence of a negative link between CSR performance and the cost of debt for firms that are close to default in both the shareholder and stakeholder-oriented systems. We corroborate the robustness of our results through a series of additional tests, in which we employ alternative estimation methods and different proxies for the country corporate governance system.

Our study contributes to the literature in three main ways. First, we contribute to the literature on the link between CSR and the cost of financing (both equity and debt) (e.g., Chava, 2014; El Ghouli, Guedhami, Kwok and Mishra, 2011, 2018; Goss and Roberts, 2011; Gregory, Whittaker and Yan, 2016; Hoepner, Oikonomou, Scholtens and Schröder, 2016; Plumlee, Brown and Hayes, 2015) by showing that this relationship depends on the country corporate governance systems. Our results suggest that the country corporate governance system is an important omitted variable in prior studies that examine the effect of CSR on the cost of financing using an international sample (El Ghouli, Guedhami, Kwok and Mishra, 2018), and highlight the limited external validity of studies focusing on a single setting (e.g., El Ghouli,

Guedhami, Kwok and Mishra, 2011; Goss and Roberts, 2011; Oikonomou, Brooks and Pavelin, 2014; Plumlee, Brown and Hayesa, 2015). Our findings may help to better understand the mixed findings in the literature, as we reveal that a positive or negative relationship between CSR performance and the cost of financing depends on the corporate governance system. Our study is also the first to examine the effect of CSR performance on both the cost of equity and the cost of debt for the same sample. Comparing the effect of CSR performance on shareholders versus debtholders allows us to better understand the underlying mechanisms that explain a negative link between CSR performance and the cost of debt in each system.

Second, we contribute to the corporate governance literature and to the debate about whether CSR is beneficial or detrimental to corporate governance (Aguinis and Glavas, 2012; Albuquerque, Koskinen and Zhang, 2018; Flammer, 2015; Lys, Naughton and Wang, 2015). Specifically, we theoretically develop how CSR is linked to agency concerns and how these concerns depend on the corporate governance system. Understanding these agency conflicts, and how they relate to CSR, is of central importance to corporate governance (Hoskisson, Hitt, Wan and Yiu, 1999), as CSR strategies and policies represent critical aspects of the choices that the firm, i.e., its shareholders and managers, makes about how it wants to be governed (Devinney, Schwalbach and Williams, 2013).

Our findings are also relevant to improving decisions made by the board of directors. Burke, Hoitash and Hoitash (2019) highlight the growing relevance that boards play regarding CSR and the increasing number of CSR board committees in public companies. Similarly, Albuquerque, Koskinen and Zhang (2018) suggest that CSR has become an important issue inside boardrooms, which increasingly seek to engender investor accountability and stakeholder engagement through the creation of CSR committees or by linking top executive compensation incentives to sustainability metrics. We contribute to this literature by providing new insights into how the corporate governance system influences investors' view of CSR,

which allows boards to make better CSR-related decisions. Our results show that CSR initiatives may be positive or negative for investors, depending on the corporate governance system. We also contribute to the literature that examines how firm- and country-level corporate governance interact with CSR (e.g., Aguilera, Filatotchev, Gospel and Jackson, 2008; Misangyi and Acharya, 2014) to influence the cost of equity. Specifically, we show that the effect of CSR performance on the cost of equity in both governance systems is stronger in the absence of non-financial blockholders.

Third, we contribute to the comparative corporate governance literature, which highlights that decision-making is embedded in, and shaped by, the country corporate governance system (Aguilera and Jackson, 2003; Aguilera, Rupp, Williams and Ganapathi, 2007). Comparative corporate governance theoretically recognizes that potential differences between the extent and nature of agency conflicts in country corporate governance systems allow for the development of a more holistic approach to governance problems and their potential remedies (Filatotchev, Jackson and Nakajima, 2013). We contribute to this literature by showing how agency concerns are different across governance systems, and how these differences ultimately shape how investors view CSR. We are particularly responsive to Devinney, Schwalbach and Williams (2013) who advocate for a comparative approach to CSR research by considering different institutional environments.

The paper is organized as follows. Section 2 provides an overview of the main arguments used in prior literature, while Section 3 develops the theoretical framework by explaining the differences between shareholder-oriented and stakeholder-oriented systems. Section 4 defines our sample, methodology and measures, while Section 5 presents our empirical analysis. Finally, Section 6 summarizes and discusses the main results of our empirical analysis.

## LITERATURE REVIEW

Two opposing views have been proposed in the literature to explain the link between CSR and the cost of equity (Dhaliwal, Li, Tsang and Yang, 2011; El Ghouli, Guedhami, Kwok and Mishra, 2011, 2018; Humphrey, Lee and Shen, 2012; Plumlee, Brown and Hayes, 2015) and the cost of debt (Goss and Roberts, 2011; Magnanelli and Izzo, 2017; Oikonomou, Brooks and Pavelin, 2014; Hoepner, Oikonomou, Scholtens and Schröder, 2016). A first perspective draws from the resource-based view of CSR (Hillman and Keim, 2001; Surroca, Tribò and Waddock, 2010; Wang and Bansal, 2012) and suggests that a firm's survival depends on the resources in its environment and, as a result, firms need to manage the risk associated with its stakeholders who can significantly influence the supply of critical resources. Empirically, several authors have shown that socially irresponsible firms often face higher risks of consumer boycotts, employee strikes, lawsuits and regulatory intervention (e.g., Fombrun, Gardberg and Barnett, 2000; Hong and Kacperczyk, 2009; Waddock and Graves, 1997). As Orlitzky (2008) notes "it is precisely the unaddressed stakeholder concerns that usually turn into lawsuits against neglectful companies". In this line, CSR performance has been found to produce insurance-like effects on the firm's stock and bond price (Godfrey, 2005; Godfrey, Merrill and Hansen, 2009; Shiu and Yang, 2017), to help poorly performing firms recover from a disadvantageous position more quickly (Choi and Wang, 2009) and to improve the firm's foresight capacity (Orlitzky, Schmidt and Rynes, 2003; Waddock, 2002). In addition, CSR performance could also help to gain sustainable competitive advantage (Gregory, Whittaker and Yan, 2016; Hoepner, Oikonomou, Scholtens and Schröder, 2016; Porter and Kramer, 2006, 2011). In particular, CSR performance has been argued to increase the efficiency and work morale of employees (Edmans, 2011; Schmitz and Schrader, 2015), to attract and retain high-quality employees (Greening and Turban, 2000; Jones and Murrell, 2001) and to strengthen client relations. Nielsen's (2014) Global Survey on CSR shows that 67% of the

30,000 participants in 60 countries prefer to work for socially responsible companies, while 60% indicate that they are willing to pay more for products and services from companies that are committed to positive environmental and social actions. From this first perspective, a negative relationship is expected between CSR performance and the cost of equity and debt to the extent that an increase in CSR performance has a positive influence on the mean, or on the variance, of the firm's future cash flow distribution (El Ghoul, Guedhami, Kwok and Mishra, 2011; Albuquerque, Koskinen and Zhang, 2018).

A second perspective, which is strongly embedded in agency theory, suggests that CSR may be linked to the pursuit of managers' self-interest (or stakeholders' interest) at the expense of shareholder value (Barnea and Rubin, 2010; Baron, 2009; Friedman, 1970; Jensen, 2001; McWilliams, Siegel and Wright, 2006; Surroca and Tribo, 2008; Tirole, 2001). In addition to pursuing value-enhancing CSR initiatives, managers may engage in CSR to increase their own reputation and visibility within social circles, to advance their career agendas (Barnea and Rubin, 2010; Surroca and Tribo, 2008) or to reduce their risk exposure by lowering the idiosyncratic risk (Lee and Faff, 2009). These opportunistic motivations of managers to engage in CSR may lead to excessively high levels of CSR performance from the shareholders' point of view. Managers may also seek to satisfy the interests of some stakeholders, at the expense of shareholder value (Cespa and Cestone 2007; Cronqvist, Heyman, Nilssonm Svaleryd et al., 2009; Jensen, 2001) especially if they feel accountable to stakeholders, or seek to form a coalition to reinforce their position (Cespa and Cestone, 2007; Jackson, 2005; Roe and Vatiero, 2015; Surroca and Tribó, 2008;). In this line, Petrovits (2006) finds evidence of the strategic use of corporate philanthropy programs to achieve earnings targets, by creating earnings reserves, while Prior, Surroca and Tribó (2008) report a positive link between CSR performance and earnings management and claim that managers may use CSR strategically to disguise earnings management. In addition, Cheng, Hong and Shue (2013) find a decline in

CSR performance with an increase in a manager's firm ownership. They conclude that "some forms of goodness investment, not on the margin, may increase firm value; however, managers spend the marginal dollar on goodness because they wish to do good with other people's money". This second perspective points to the risk of excessive investments in CSR that go beyond what is optimal from a shareholders' perspective. According to this stream of work, CSR performance is expected to be positively related to the cost of equity.

From an agency perspective, the effect of CSR performance on the cost of debt is not clear. On the one hand, an increase in CSR performance may increase the cost of debt if it reflects a growing agency conflict between shareholders and managers that has a negative influence on the firm's future cash flows (e.g., El Ghouli, Guedhami, Kwok and Mishra, 2011, 2018; Goss and Roberts, 2011; Gregory, Whittaker and Yan, 2016) and hence on the firm's capacity to repay its debt obligation. On the other hand, prior literature also indicates that an increase in agency problems between shareholders and managers may lead to less risk-taking (Billett, King and Mauer, 2004; Bradley and Chen, 2011) and consequently it may reduce the cost of debt. While less risk-taking may not be beneficial for shareholders, it could benefit debtholders. To illustrate, while managerial shirking would be harmful to both debtholders and shareholders, taking on low-risk projects would benefit debtholders (Billett, King and Mauer, 2004; Bradley and Chen, 2011). Although there is debate in the literature regarding the risk-taking preference of managers (Adams, Almeida and Ferreira, 2005; Amihud and Lev, 1981; Hirshleifer and Thakor, 1992; Holmstrom and Costa, 1986), the evidence largely supports the proposition that managers prefer conservative investment strategies that are suboptimal from a shareholders perspective, due to their concerns for the private benefits from control and their non-diversified firm-specific human capital (John, Litov and Yeung, 2008; Kempf, Ruenzi and Thiele, 2009; Laeven and Levine, 2009). Interestingly, most stakeholders, such as employees, clients or providers, share this preference for lower risk (Werner, Tosi and Gomez-Mejia,

2005), while debtholders also benefit from less volatile cash flows (Ashbaugh-Skaife, Collins and LaFond, 2006). Therefore, from an agency perspective, the effect of CSR performance on the cost of debt remains an empirical issue, as the sign will depend on the relative strength of the opposing effects.

Building on the resource-based view and agency theory perspective, prior literature has found mixed results regarding the effect of CSR performance on the cost of financing (both equity and debt). For the relationship between CSR performance and the cost of equity, prior literature has reported a negative (Albuquerque, Koskinen and Zhang, 2018; Chava, 2014; El Ghoul, Guedhami, Kwok and Mishra, 2011, 2018; Husted, Jamali and Saffar, 2016; Plumlee, Brown and Hayesa, 2015), positive (Judd and Lusch, 2017) and a non-significant (Humphrey, Lee and Shen, 2012; Gregory, Whittaker and Yan, 2016) relationship. All prior work, except for El Ghoul, Guedhami, Kwok and Mishra (2018), focuses on samples from the US. Prior research is relatively scarce on the relationship between CSR performance and the cost of debt and has produced mixed results. Goss and Roberts (2011) investigate the impact of CSR performance on the cost of bank loans for a US sample. Their results suggest that banks are indifferent to discretionary CSR investments by high-quality borrowers, but they impose higher spreads on low-quality borrowers who engage in CSR. In contrast, Oikonomou, Brooks and Pavelin (2014) find for a US sample that CSR performance is associated with lower corporate bond yield spreads. Hoepner, Oikonomou, Scholtens and Schröder (2016) find no conclusive evidence that firm-level sustainability influences the interest rates charged to borrowing firms by banks for an international sample. Finally, Magnanelli and Izzo (2017) report a positive link between CSR performance and the cost of debt for an international sample.

## HYPOTHESES DEVELOPMENT

We employ an international corporate governance perspective to propose that the country corporate governance system influences the relationship between CSR performance and the cost of financing. In particular, we focus on the shareholder and stakeholder models of corporate governance, which are the two main national models identified by the comparative corporate governance literature (Aguilera and Jackson, 2003, 2010; Bebchuk and Hamdani, 2009; Matten and Moon 2008), and we posit that they are likely to shape the importance of the resource-based view on CSR versus the agency concerns related to CSR, and hence the results obtained on the effect of CSR performance on the cost of financing.

The main differences between the shareholder and the stakeholder models of corporate governance relate to their view of the corporation's purpose and role within society (Letza, Sun and Kirkbride, 2004). On the one hand, the shareholder-oriented system regards the corporation as a legal instrument for shareholders to maximize their investment returns, while demands from other stakeholders are subordinate to shareholders' interests (Aguilera and Jackson, 2010). Corporate structures are characterized by dispersed ownership and generally concentrate authority in a single insider group, the top management team, which enjoys substantial freedom to allocate corporate resources. In this system, corporate governance mechanisms rely on high-powered incentives and external control systems to discipline managers and align their interests with those of shareholders (Kochhar and David, 1996; Teoh, Welch and Wong, 1998). This market-driven financial system counterbalances the many risks associated with this insider power and facilitates access to finance as well as protecting investor assets. Capital markets control managers by exerting significant pressure to meet short-term goals (Flammer and Bansal, 2017), which reduces the managerial ability to engage in value-decreasing CSR activities (Kacperczyk, 2009).



On the other hand, the stakeholder-oriented system views the corporation as a locus in relation to wider external stakeholder interests rather than merely a shareholders' wealth corporation (Letza, Sun and Kirkbride, 2004) and features debt financing and tightly interconnected relational networks among firms, trading partners and financial institutions. Patient capital supplied by blockholders and banks reduces the pressure exerted on managers to increase short-term profitability and share value (Aguilera and Jackson, 2003; Schnepfer and Guillén, 2004). Corporate governance mechanisms in this system are designed to consider the preferences of broader sets of stakeholders, which often are represented on the firms' board. For example, in Japan, executives see themselves as having a commitment to maintaining the company as an entity in its own right and may even view their obligations to customers and employees, present and future, as taking priority over those owed to shareholders (David, Yoshikawa, Chari and Rasheed, 2006; Deakin 2010/2011; Desender, Aguilera, Lópezpuertas-Lamy and Crespi-Cladera, 2016).<sup>1</sup> Table 1 provides a comparison between the main characteristics of the two systems.

-----  
Insert Table 1 about here  
-----

In a shareholder-oriented system, where the pursuit of shareholder value is of primary importance and corporate governance mechanisms are designed to reduce agency conflicts between shareholders and managers, firms are likely to increase CSR initiatives only if it improves competitiveness and shareholder value. Thus, firms will establish and develop relationships with stakeholders, if through these relationships they expand their opportunities, beyond market-based transactions, for value-creating exchanges and generate intangible resources—such as corporate reputation, human capital, product and process innovation capabilities, and organizational culture (Hillman and Keim, 2001; Surroca, Tribò and Waddock, 2010; Wang and Bansal, 2012)—that contribute to long-term financial performance. In this

system, institutions to channel stakeholder demands are absent or minimal, and CSR is, therefore, an opportunity for firms to differentiate themselves from their peers (Aguilera, Rupp, Williams and Ganapathi, 2007). CSR is thus conceived of as deliberate, voluntary, and with the aim of maximizing shareholder value by satisfying key stakeholder interests (Matten and Moon, 2008). As these programs and strategies are not a reaction to institutionalized pressures, firms will mostly satisfy stakeholders' expectations if doing so has a positive influence on the mean, or on the variance, of the firm's future cash flow distribution (Aguilera, Rupp, Williams and Ganapathi, 2007).<sup>2</sup>

The stock market-based corporate governance system limits the magnitude and duration of CSR investments that do not add shareholder value, and thus the potential agency conflict between managers and shareholders linked to CSR. Any CSR initiative that deviates from the objective to enhance shareholder value, such as the pursuit of CSR for personal gain, is likely to be corrected by the governance mechanisms that are in place such as corporate boards, shareholder voice, shareholder exit, and the market for corporate control. Consistent with these arguments, Krüger (2015) finds a negative effect on stock prices if management is likely to receive private benefits from CSR but a positive effect if CSR policies are adopted to improve relations with stakeholders. As a result, if investors view a firm's engagement in CSR as a mechanism for gaining a sustainable competitive advantage and to reduce the systematic risk associated with its stakeholders, an increase in CSR performance is expected to be linked to a reduction in the cost of equity.

*Hypothesis 1a. In a shareholder-oriented system, an increase in CSR performance reduces the cost of equity.*

Compared to shareholders, debtholders primarily care about the likelihood that the firm's future cash flows will adequately cover debt service costs and principal payments

(Ashbaugh-Skaife, Collins and LaFond, 2006). As a result, debtholders benefit from initiatives that increase the expected firm's future cash flows (as long as they do not substantially increase the level of risk) or reduce the variance of the firm's future cash flows (Brealey, Myers and Allen, 2016). However, while any initiative may have an unlimited effect on equity, the effect on debt is capped at its face value (Brealey, Myers and Allen, 2016).<sup>3</sup> An important implication is that the effect of CSR performance on the cost of equity applies to all firms, while the effect on the cost of debt should only be observed for firms that are close to default since CSR initiatives would only affect the likelihood of debt repayment in a significant way in these firms.

In a shareholder-oriented system, where governance mechanisms limit the pursuit of CSR initiatives that are not linked to the creation of shareholder value, debtholders in firms that are close to default may benefit from CSR initiatives in several ways. First, CSR initiatives that are directed at generating firm value and creating a sustainable competitive advantage are likely to increase the available funds to respond to debt obligations, and, hence, to reduce the cost of debt. Second, debtholders may benefit from a reduction in the firm's business risk (Barnett and Salomon, 2006; Brammer and Millington, 2005; Godfrey, Merrill and Hansen, 2009). Different studies have shown that CSR can be regarded as a form of reputation building or maintenance (Gregory, Whittaker and Yan 2016; Hoepner, Oikonomou, Scholtens and Schröder 2016; McWilliams, Siegel and Wright, 2006) that produces insurance-like effects on the firm's stock and bond prices (Godfrey, Merrill and Hansen, 2009; Shiu and Yang, 2017). In addition, research also shows that CSR performance improves the firm's foresight capacity (Orlitzky, Schmidt and Rynes, 2003; Waddock, 2002), enabling the firm to better anticipate the future and to act promptly regarding external changes and turbulence to avoid negative consequences. Third, research shows that strong stakeholder relations help poorly performing firms to recover from a disadvantageous position more quickly (Choi and Wang, 2009).<sup>4</sup> In

this line, Verwijmeren and Derwall (2010) find that firms with leading track records in employee well-being have a significantly lower probability of bankruptcy, for a sample of US firms.

Taking these arguments together, we expect a negative relationship between CSR performance and the cost of debt in a shareholder-oriented system for firms that are close to default, as an increase in financial performance or a reduction of business risk through CSR could significantly increase the likelihood of debt repayment.

*Hypothesis 1b. In a shareholder-oriented system, an increase in CSR performance reduces the cost of debt for firms close to default.*

In a stakeholder-oriented system, corporate governance mechanisms are designed to respond to the interests of a broad set of stakeholders rather than the interests of one set of stakeholders (i.e., shareholders). In this system, firms' responsibilities towards stakeholders are often defined by norms, rules, and laws that are subject to negotiation with the state or organizations representing stakeholders' interests, such as political parties, labor unions, industry associations or employers' associations (Matten and Moon, 2008). This institutionalization of stakeholder expectations has two important effects: (1) there is pressure on firms to comply with the normative expectations of acquiring legitimacy in the eyes of stakeholders (Brammer, Jackson and Matten, 2012), and (2) there is little discretion for firms to engage in differentiated CSR activities (Jackson and Apostolakou, 2010). Once legitimacy is gained, value-maximizing firms should have little interest in expanding CSR further (Matten and Moon, 2008).

We argue that the agency concern that CSR is not employed to maximize shareholder value becomes more prominent in this governance system as managers are more likely to adopt CSR initiatives to attend to the demands of different stakeholders (Aguilera and Jackson, 2003),

even if it comes at the expense of shareholder value (Matten and Moon, 2008).<sup>5</sup> In this line, Roe (2003) describes how in Continental Europe, managers and stakeholders such as employees and banks become allies to expand the company size, avoid risky projects, reduce the likelihood of takeovers, and limit restructuring. Prior research has also shown that corporate insiders can use CSR programs as ceremonial acts to secure their personal reputations and obtain stakeholder approval for decisions that increase insider's private benefits while hurting the firm's overall financial performance (Barnea and Rubin, 2010; Surroca and Tribó, 2008;). In addition, corporate governance mechanisms to protect the interest of shareholders may be less effective if insiders enjoy the support from key stakeholders, who hold substantial power in this system (Aguilera and Jackson, 2003). In this sense, scholars have highlighted the possibility that managers could implement generous CSR activities addressed to non-shareholding stakeholders to weaken the threat of takeovers or to reduce monitoring (Cespa and Cestone, 2007; Prior, Surroca and Tribó, 2008). Finally, shareholders may also view a firm's increased engagement in CSR as a reflection of greater stakeholder power relative to shareholders, and hence of a greater agency conflict between managers and shareholders that could harm financial performance. Taking these arguments together, we hypothesize that:

*Hypothesis 2a. In a stakeholder-oriented system, an increase in CSR performance increases the cost of equity.*

Regarding the cost of debt, we argue that CSR performance may affect debtholders in firms that are close to default either in a negative or in a positive way.<sup>6</sup> On the one hand, debtholders in firms that are close to default may view an increase in CSR performance negatively if they believe that CSR is not employed to maximize firm value. In this case, an increase in CSR performance will increase the firm's probability of default by reducing the available funds to repay debt obligations. On the other hand, debtholders in firms that are close

to default may benefit from an increase in CSR performance, even if this goes at the expense of firm value in several ways.

First, debtholders in firms that are close to default may benefit from CSR through a reduction in the firm's business risk and an increase in firm survival (Barnett and Salomon, 2006; Brammer and Millington, 2005; Godfrey, Merrill and Hansen, 2009;). Godfrey (2005) argues that positive, well-established stakeholder relations in a situation of poor performance will remain valuable because they encourage stakeholders to maintain their commitment and support, which may, in turn, enable the firm to implement strategic changes. As such, maintaining strong stakeholder relations may help the firm recover more quickly from its performance disadvantage (Choi and Wang, 2009).<sup>7</sup> Similarly, other studies suggest that CSR produces insurance-like effects on the firm's stock and bond prices (Godfrey, Merrill and Hansen, 2009; Shiu and Yang, 2017). Second, strong stakeholder support is likely to empower managers and shield them from pressure by shareholders to engage in risk-shifting activities that would damage the interests of debtholders (Eisdorfer, 2008). Third, strong stakeholder relations may also reduce the risk of takeovers, which generally have a negative impact on debtholders (Bradley and Chen, 2011). Cespa and Cestone (2007) argue that, when facing a threat of takeover, incumbent managers are natural allies of workers and can employ CSR initiatives such as offering long-term contracts to workers to discourage the takeover. Similarly, Pagano and Volpin (2005) argue that unions are prone to supporting a worker-friendly manager against a more efficient raider, while Chen, Kacperczyk and Ortiz-Molina (2012) find that firms in more unionized industries have lower bond yields. They argue that unions are viewed favorably in the bond market because they protect debtholders' wealth by reducing takeover threats. Interestingly, Chen, Kacperczyk and Ortiz-Molina (2011) show that the cost of equity is significantly higher for firms in more unionized industries.

We argue that the lack of slack resources in firms that are close to default is likely to decrease debtholders' concerns that CSR is being employed for private benefits by management, in line with the free cash flow hypothesis (Jensen, 1986). As a result, we expect the positive effect of CSR performance on debtholders to become stronger than the negative effect and we hypothesize that CSR performance is negatively related to the cost of debt for firms that are close to default in a stakeholder-oriented system:

*Hypothesis 2b. In a stakeholder-oriented system, an increase in CSR performance reduces the cost of debt for firms close to default.*

## **METHODOLOGY**

### **Sample and data description**

We construct our sample by combining and matching several databases. We gathered all firm-specific financial variables, including the dependent variables, control variables and the ownership and corporate governance variables, from the Bloomberg financial database and Datastream. We obtain environmental and social performance, firm-level corporate governance data and CSR-disclosure data from Thomson Reuters ASSET4 (ASSET4), which specializes in providing objective, relevant, auditable and systematic CSR information to professional investors. The country-specific variables come from multiple sources, including Dhaliwal, Radhakrishnan, Tsang and Yang (2012), Guillén and Capron (2016), Leuz, Nanda and Wysocki (2003), and World Bank.

Based on the ASSET4 dataset, the initial number of firms with available data on environmental and social scores was equal to 4,325.<sup>8</sup> Every data point question goes through a multi-step verification and process control, which includes a series of data entry checks,

automated quality rules and historical comparisons to ensure a high level of accuracy, timeliness and quality. From this initial sample, we excluded observations with missing values and we winsorized our data at the 1% level, following Kale and Shahrur (2007), to limit the impact of anomalous values and outliers. Our final sample includes observations on 3,389 firms from 31 countries over the period 2002-2011. Table 2 provides the sample breakdown by country (Panel A) and by year (Panel B). Our sample represents close to 94% of the world stock market capitalization, and the weight of most countries in our sample is, generally, close to their weight in the world stock market.

-----  
Insert Table 2 about here  
-----

### **Regression models**

To formally test our research hypotheses, we use a regression-based approach. Our baseline regression model is:

$$r_{it} = \alpha + \theta \text{ CSR performance}_{it} + \mathbf{x}'_{it} \boldsymbol{\beta} + \mu_i + \tau_t + \varepsilon_{it} \quad (1)$$

where  $r_{it}$  is one of the cost of capital measures (either cost of equity or cost of debt) for the firm  $i$  at time  $t$ ,  $\alpha$ , and  $\theta$  are two coefficients,  $\boldsymbol{\beta}$  is a vector of coefficients,  $\text{CSR performance}_{it}$  is our measures of CSR performance,  $\mathbf{x}_{it}$  is a vector of control variables,  $\mu_i$  denotes an unobservable time-constant firm effect,  $\tau_t$  indicates an unobservable firm-constant time effect and  $\varepsilon_{it}$  indicates a zero-mean idiosyncratic stochastic error term. The coefficient  $\theta$  is the one of interest, as it measures the marginal effect of CSR performance on the cost of equity and debt.

We estimate the model in Equation 1 for our entire sample to provide a baseline that allows for a comparison to prior studies and, more importantly, for the separate samples of



shareholder-oriented and stakeholder-oriented countries. When testing the role of the country corporate governance system, we allow coefficients on control variables to vary between the observations pertaining to shareholder- and stakeholder-oriented systems (like the approach used in Ghosh and Tang, 2015). For an intuitive interpretation, we present the results on each subsample.

We employ the two-way Fixed Effects (FE) estimator (Baltagi, 2013) to estimate the model in Equation 1. The FE estimator exploits the within dimension of the data (differences within individuals), has the advantage of not imposing any restriction on the correlation between explanatory variables and unobservable time-constant firm effects and is a remedy for endogeneity stemming from omitted time- and firm-constant variables (Verbeek, 2012). It, therefore, has several advantages over other estimators (e.g., Random Effects estimator or pooled OLS estimator).

As we analyze firms operating in different countries, an alternative estimation approach would be using estimators for multilevel data with unit- and country-level random effects. Multilevel models offer an elegant way of dealing with within-country similarities between firms. However, consistency (and efficiency) of multilevel models rely upon the assumption that the model is correctly specified, which requires much stronger assumptions than the FE estimator. Unlike FE models, multilevel models require the correlation between explanatory variables and unobservable time-constant firm effects to be null (a situation which is very unlikely to occur with economic data) and are not robust to endogeneity stemming from omitted time- and unit-invariant variables (Greene, 2011). To formally choose between FE and multilevel models, we perform Hausman's (1978) specification tests. Tests performed using the data of our sample reveal that the multilevel approach does not produce consistent results: multilevel models are rejected at all conventional levels of significance. For all these reasons,

we use the two-way FE estimator and deal with the concern of within-country similarities between observations by clustering standard errors at the country or unit level. Clustering standard errors at the country level is an (possibly less elegant) alternative to multilevel models. However, it is worth noting that in large samples (like the one we analyze in this study), clustering at unit level works better as inference is based on a greater level of detail (units vs. countries). For this reason, unit-clustered standard errors are our baseline choice for the empirical analysis. Our results are robust to using country-clustered standard errors.

## **Variables**

### **Dependent variables: cost of equity and cost of debt.**

In our analyses, we use two cost of capital measures as dependent variables: the cost of equity and the cost of debt. Like Sharfman and Fernando (2008), we rely on Bloomberg as our data source for these variables, which allows us to exploit the benefits of an official data provider. As Bloomberg is one of the most widely used data providers in the world by practitioners, we can expect that the figures reported by this data provider are those that most investors use when making their investment decisions. Furthermore, since we use different data sources for our dependent and independent variables (except for control variables), possible measurement errors in the dependent variables are likely to be uncorrelated with independent variables so that the estimates of the marginal effects in regression models remain consistent. Bloomberg calculates the cost of equity through the CAPM where the risk-free rate is the country's long-term bond rate (10-years). On the other hand, Bloomberg estimates the cost of debt by considering government bond rates, a debt adjustment factor and the proportions of short- and long-term debt to total debt. The debt adjustment factor represents the average yield above government bonds for a given rating class.

### **Independent variable of interest: CSR performance.**

Constructing a truly representative measure of CSR is challenging as it concerns a multidimensional construct, and measurements of a single aspect (e.g., corporate philanthropy) only provide a limited perspective on firm performance in the environmental and social sense. We employ ASSET4, a dataset validated in the studies of Cheng, Ioannou and Serafaim (2014), Hawn and Ioannou (2016), Ioannou and Serafeim (2012), Lys, Naughton and Wang (2015).

ASSET4 produces comparable, benchmarked CSR scores for more than 4.300 firms. Specialized analysts assess over 250 objective key performance indicators (KPIs) and over 750 individual data points. Firms receive yearly scores for environmental and social pillars, benchmarking their performance with the rest of the universe of covered firms (see Appendix A for a detailed description of how ASSET4 constructs each pillar). The environmental pillar refers to resource reduction, emission reduction, and product innovation benefiting the environment. The social pillar refers to the firm's employment quality, health and safety, training and development, diversity and opportunity, human rights, community, and customer product responsibility. Our measure of CSR performance combines the social and environmental performance scores from ASSET4, assigning equal weights to both scores. Given the focus on KPIs, our CSR scores capture the net result of CSR (reflecting concerns and strengths). For example, CSR controversies captured in the KPI are scored inversely to reflect their impact.

### **Country measures of shareholder- versus stakeholder-orientation.**

Based on an extensive review of the literature, we have collected (see Appendix B for details) several country-specific variables that capture whether countries subscribe to the shareholder or stakeholder model of corporate governance. La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997, 2000) have placed research on the legal origin at the core of the

corporate governance discussion, triggering an extensive debate on the role of law in corporate governance (Aguilera and Jackson, 2010). According to this research, a country's legal tradition, in general, and the protection of shareholders and creditors by the legal system, in particular, are key to understanding the patterns of corporate governance in different countries. In our analysis, we employ a country's legal tradition and the level of investor protection (which we capture through two different measures), as a proxy of a country shareholder- or stakeholder-orientation to corporate governance, as well as the comprehensive stakeholder-law index, developed by Dhaliwal, Radhakrishnan, Tsang and Yang (2012).

Our first variable captures the country's legal origin. La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000) and Liang and Renneboog (2016) show that the country's legal regime shapes the society's orientation towards protection shareholder and debtholder interests as well as the relations between shareholders and other stakeholders through its effect on governance structures and the decision-making process. Common law countries have a strong shareholder-orientation, while civil law countries are strongly associated with a stakeholder-orientation (Allen, Carletti and Marquez, 2015; La Porta, Lopez-de-Silanes and Shleifer, 2008; Magill, Quinzii and Rochet, 2015).

Moving beyond the measure of legal tradition, every country defines its own legal rules and regulations to protect shareholders from corporate insiders investing in projects or activities that would benefit themselves or other stakeholders at the expense of shareholders (Aguilera and Jackson, 2003). A key country-level corporate governance dimension is the level of investor protection (La Porta, Lopez-de-Silanes, Shleifer and Vishny, 1999; Leuz, Nanda and Wysocki, 2003; Shleifer and Vishny, 1997). Investor protection is crucial for corporate governance because, in many countries, the expropriation of minority shareholders and creditors by shareholders is extensive (La Porta, Lopez-de-Silanes, Shleifer and Vishny, 2000).

We employ two measures of investor protection. First, we use the strength of investor protection from the World Bank, which reflects the extent of conflict of interest regulation and of shareholder governance indices (La Porta, Lopez-de-Silanes, Shleifer and Vishny, 1999; Leuz, Nanda and Wysocki, 2003; Shleifer and Vishny, 1997). Second, we use the Guillén and Capron (2016) index of minority shareholder protection. In their work, Guillén and Capron (2016) detail the procedure they use to construct this variable as follows ‘[t]o construct a cross-national, comparative measure, we collected information on the ten key legal provisions identified by legal scholars as most relevant to the protection of minority shareholder rights (Lele and Siems, 2007; Siems, 2008): powers of the general meeting for *de facto* changes; agenda-setting power; anticipation of shareholder decision facilitated; prohibition of multiple voting rights; independent board members; feasibility of dismissing directors; private enforcement of directors’ duties (derivative suit); shareholder action against resolutions of the general meeting; mandatory bid; and disclosure of major share ownership’.

Taking a different but complementary perspective on stakeholder rights, we also employ a comprehensive stakeholder-orientation index, developed by Dhaliwal, Radhakrishnan, Tsang and Yang (2012). This index is a principal component of variables capturing the legal environment of a country in protecting labor rights, the existence of mandatory disclosure requirements for CSR, and the public awareness of CSR issues at the country level.

### **Contingency and control variables.**

We consider two specific firm-level variables (considering their direct effect and indirect effect through interactions) to test the logic of our underlying arguments: non-financial blockholdings and proximity to default. Similar to La Porta, Lopez-de-Silanes, Shleifer and Vishny (1999) and Faccio, Lang and Young (2001), we control for the ownership

concentration, including the total stake of all non-financial blockholders, i.e., family, company and government shareholder with at least five percent of the shares. To identify firms that are close to default, we follow Bharath and Shumway (2008) and Farre-Mensa and Ljungqvist (2016) to calculate Merton's (1974) distance-to-default measure (we describe this in detail in Appendix C). We consider firms to be close to default if they score in the first quartile in terms of proximity to default.

In all our models, we control for unobserved time-constant firm heterogeneity (firm fixed effects) and systematic shocks to all firms (year effects). To further reduce concerns related to omitted variables, we include several firm-level controls. First, we control for voluntary CSR reporting. We follow Dhaliwal, Radhakrishnan, Tsang and Yang (2012) and Lys, Naughton and Wang (2015), who use CSR standalone reports as an indicator of CSR reporting. The variable that proxies CSR reporting takes the value of 1 if a firm publishes a separate CSR/H&S/Sustainability report or publishes a section in their annual report on CSR/H&S/Sustainability, and zero otherwise. Second, we control for firm leverage, firm size and firm growth, like Sharfman and Fernando (2008) and El Ghouli, Guedhami, Kwok and Mishra (2011). We measure leverage as the total debt to total assets ratio; firm size as the natural logarithm of the market value of firm equity and growth as the market-to-book ratio.

## **RESULTS**

Table 3 provides descriptive statistics (Panel A) and correlations (Panel B) for the variables of interest. The average cost of equity is 11.32%, while the average cost of debt is 3.22%, which is similar to prior studies (e.g., Sharfman and Fernando 2008). The average CSR performance is 51.21 and shows a substantial amount of variation with values moving between 6.46 and 97.82, and about 34% of our sample firms issue a CSR report. Regarding our sample distribution, 61% of the observations pertain to common law countries. Table 3 also compares

the mean values of the variables of interest across shareholder and stakeholder systems (defined by their legal tradition). It is interesting to highlight the large difference in the mean level of CSR performance across both systems, in line with previous work, which describes the importance of stakeholder pressure across both systems (e.g., Matten and Moon, 2008). In terms of the correlation matrix, we observe that common law tradition is positively correlated with both the cost of equity and debt, and negatively related to CSR performance. Each measure of shareholder/stakeholder-orientation shows high levels of correlation with the other measures that capture shareholder/stakeholder-orientation.

-----  
 Insert Table 3 about here  
 -----

Table 4 presents the baseline results for the full sample in four models: two models using the cost of equity as the dependent variable, and two models using the cost of debt. The baseline models, which are relevant to compare to prior studies, do not yet differentiate between shareholder-oriented and stakeholder-oriented systems. Models 1 and 3 present our results for the link between CSR performance and the cost of equity and cost of debt, respectively. Model 1 shows a non-significant result regarding the link between CSR performance and the cost of equity, in line with the results presented by Humphrey, Lee and Shen (2012) and Gregory, Whittaker and Yan (2016). In contrast, the relationship between CSR performance and the cost of debt is negative and significant, similar to the findings reported by Oikonomou, Brooks and Pavelin (2014).

The signs of the control variables are in line with expectations. Firms with higher levels of debt generally have a higher cost of equity and debt, while firm size (growth) is generally associated with a lower (higher) cost of equity. Issuing a CSR report is negatively related to the cost of equity (in line with Dhaliwal, Li, Tsang and Yang (2014)), while there is no

significant relationship for the cost of debt. Models 2 and 4 explore whether the presence of a few countries with a large proportion of observations may affect our baseline results. Our results seem to be essentially the same when we reduce our sample by dropping the observations from the four countries with the largest number of observations.<sup>9</sup>

-----  
Insert Table 4 about here  
-----

### **CSR performance and the cost of equity in shareholder/stakeholder systems**

To assess the role of the country's corporate governance system in shaping how shareholders view CSR performance and to test our hypotheses H1a and H2a, we next examine the relationship between CSR performance and the cost of equity when we compare the results of the shareholder-oriented versus stakeholder-oriented subsamples. Table 5 shows the results for the relationship between CSR performance and the cost of equity when we divide our sample according to legal tradition (models 5 and 6), investor protection (models 7 and 8), minority shareholder protection (models 9 and 10) and stakeholder law (models 11 and 12).

-----  
Insert Table 5 about here  
-----

Model 6 shows that CSR performance is negatively related to the cost of equity in common law countries (shareholder-oriented), in line with our hypothesis H1a. However, this relationship is positive in countries with a civil law tradition (stakeholder-oriented), where an increase in CSR is generally associated with an increase in the cost of equity (model 5), in line with our hypothesis H2a. The impact of CSR performance also has an important economic impact. Specifically, a one standard deviation increase in CSR performance is associated with a 1.9% decrease in the cost of equity (relative to the mean value of the cost of equity) for firms in a common law system. In a civil law system, a one standard deviation increase in CSR



performance is associated with a 1.4% increase in the cost of equity (relative to the mean value of the cost of equity). These results are in line with the idea that, in a shareholder-oriented system, firms develop strong stakeholder relationships if, through these relationships, they expand their opportunities for value-creating exchanges and generate intangible resources that positively influence the mean or variance of the firm's future cash flow distribution. In contrast, in a stakeholder-oriented system, our results suggest that institutional pressure induces managers to go beyond what is optimal from a shareholders' perspective, sacrificing shareholder value to attend the demands of a broad set of stakeholders.

Regarding the control variables, we find that issuing a CSR report is perceived positively by shareholders, but only in a stakeholder-oriented system, while there is no significant relation with the cost of equity in a shareholder-oriented system. These findings are in line with Dhaliwal, Li, Tsang and Yang (2014), who find that the negative association between CSR disclosure and the cost of equity is especially strong in stakeholder-oriented countries. They argue that management in stakeholder-oriented countries will be more responsive to the information demands of the stakeholder groups and will, therefore, produce higher quality CSR disclosure, which may contain information that helps investors gain a better understanding of the firm's future strategic initiatives (Clarkson, Fang, Li and Richardson 2013). The other control variables show the expected signs in both models.

When we move beyond the legal law tradition to distinguish between shareholder and stakeholder-oriented systems and focus on the relative strength of investor protection, minority shareholder protection and extent of stakeholder law, the results are very similar and provide robust support to our hypotheses H1a and H2a. An increase in CSR performance is negatively (positively) related to the cost of equity in a shareholder-oriented (stakeholder-oriented) system. The results for the shareholder-oriented systems are consistent with the recent calls in

favor of more CSR from powerful investment funds and the increase in shareholder proposals on social and environmental issues (Institutional Shareholder Services, 2019). However, these calls do not apply to a stakeholder system, where an increase in CSR is viewed negatively by shareholders. Overall, our results are consistent with the idea that the country governance system strongly influences how shareholders view CSR performance.

One of the main arguments employed to explain the link between CSR performance and cost of equity is the importance of agency conflicts between management and shareholders and the extent to which corporate governance systems may help to reduce concerns about opportunistic CSR initiatives. To validate our theoretical arguments, we focus on the presence of non-financial blockholdings, to explore how this factor moderates the relationship between CSR performance and the cost of equity. Overall, we expect non-financial blockholdings to reduce the effect of CSR on the cost of equity, in both shareholder-oriented and stakeholder-oriented systems. In a shareholder-oriented system, the presence of non-financial blockholders may lead to an agency problem between controlling and minority shareholders. Specifically, the presence of large family, government or corporate owners may fuel the concern that these blockholders may employ the firm's resources towards CSR initiatives that aim to maximize their utility (i.e., initiatives that bring non-monetary value to these blockholders) at the expense of the overall performance of the firm (Barnea and Rubin, 2010; Surroca and Tribò, 2008). These blockholders also shield managers from market-based corporate governance mechanisms (Aguilera and Jackson, 2003; Schnepfer and Guillén, 2004) and, as a result, value-destroying CSR may persist to the extent that non-financial blockholders allow it. Taking these arguments together, in a shareholder-oriented system, we would expect the relationship between CSR performance and the cost of equity to be weaker in the presence of non-financial blockholders.

In contrast, in a stakeholder-oriented system, powerful owners may counterbalance the pressure from stakeholders to engage in CSR initiatives that aim to maximize the value of a wide range of stakeholders at the expense of shareholder value (Jackson, 2005). For example, Roe and Blair (1999) argue that, in stakeholder-oriented countries, “diffuse owners may be unable to create a blockholding balance of power that stockholders would prefer as a counterweight to the employee block”. Blockholders would have greater incentives and the ability to reduce such behavior as their stake becomes larger (Desender, Aguilera, Crespi and García-Cestona, 2013). At the same time, a greater stake held by non-financial blockholders would also reduce incentives to use CSR for private benefits (i.e., initiatives that bring non-monetary value to these blockholders). Taking these arguments together, we would expect the positive relationship between CSR performance and the cost of equity in a stakeholder-oriented system to be stronger in the absence of nonfinancial block-holders.

-----  
Insert Table 6 about here  
-----

Table 6 (models 13-20) presents the results when we interact non-financial blockholdings with CSR for our eight subsamples that capture a shareholder and a stakeholder orientation. In line with our expectations, we find that non-financial blockholdings reduce the negative impact of CSR performance on the cost of equity in a shareholder-oriented system, in line with the idea that shareholders may be concerned that non-financial blockholders use CSR to pursue private benefits. In addition, the results show that non-financial blockholdings also reduce the positive impact of CSR performance on the cost of equity in a stakeholder-oriented system, in line with the idea that controlling owners are able to curb some of the pressure exerted by stakeholders to engage in CSR initiatives that benefit stakeholders at the expense of shareholder value. Overall, the effect of CSR on the cost of equity is stronger in the absence of non-financial blockholders in both governance systems. These additional results add validity to

our theoretical arguments and provide insight into the interaction between firm-level governance measures and CSR to shape the cost of equity, while controlling for the country corporate governance system.

### **CSR performance and the cost of debt in shareholder/stakeholder systems**

Table 7 shows the results for the relationship between CSR performance and the cost of debt, when we divide our sample according to legal tradition, into civil law (model 21) and common law (model 22). Models 23 and 24 compare the results of the sample split according to the median level of investor protection, as defined by the World Bank, while models 25 and 26 use the median value of the Guillén and Capron (2016) index of minority shareholder right protection to split the sample. Finally, we consider the results when we use the comprehensive measure of stakeholder law (models 27 and 28).

-----  
Insert Table 7 about here  
-----

The findings on the relationship between CSR performance and cost of debt are consistent across all models that capture a shareholder-orientation, where the coefficient is negative but not significant (in line with the findings by Goss and Roberts (2011) and Hoepner, Oikonomou, Scholtens and Schröder (2016)). For the models that capture a stakeholder-orientation, the coefficients of CSR performance are consistently negative and significant. Given that the benefits for debtholders are capped at face value of debt (Brealey, Myers and Allen, 2016), we argue that a significant link between CSR and the cost of debt should only be expected for firms that are close to default. To test this, we follow Bharath and Shumway (2008) and Farre-Mensa and Ljungqvist (2016) and calculate the Merton's (1974) distance-to-default measure.<sup>10</sup> We consider firms to be close to default if they lay in the first quartile in terms of proximity to default (the default risk at the first quartile is about 0.04). To test our

hypotheses (H1b and H2b), that CSR performance is negatively related to the cost of debt for firms that are close to default, we interact CSR performance with our dummy variable of proximity to default in Table 8.

-----  
Insert Table 8 about here  
-----

The results of all eight models reveal that CSR performance is not significantly related to the cost of debt for firms that have a low default risk, in line with expectations (Brealey, Myers and Allen, 2016). To test our hypotheses H1b and H2b, we focus on the interaction between proximity to default and CSR performance and we find a strongly significant negative sign for this interaction in all eight models. For both systems, we find that the cost of debt is negatively related to CSR performance for firms that are close to default, which lends strong support to our hypotheses H1b and H2b. Our results suggest that a reduction of CSR performance in the presence of financial distress is negative for debtholders. This is consistent with the idea that strong stakeholder ties are important for a firm to recover from a disadvantaged position and that maintaining strong stakeholder relations, even when financial resources are scarce, is beneficial for firm survival.<sup>11</sup>

These results show that debtholders in firms that are close to default benefit from CSR initiatives. For the shareholder-oriented system, the positive effect of debtholders works through the creation of firm value and available funds to respond to debt obligations. In addition, these firms may also benefit from CSR performance through a reduction in the overall firm's business risk and an increase in the likelihood of survival. In contrast, the negative relationship between CSR performance and the cost of debt for firms that are close to default in a stakeholder-oriented system suggests that any reduction in available funds to repay debt obligations that stems from CSR initiatives directed at satisfying stakeholders at the expense

of shareholder value is more than offset by the benefits of CSR performance which help to reduce the overall business risk and the threat of takeovers, and increase firm survival. In particular, the results from Table 5 lend support to the idea that managers push CSR performance beyond maximizing firm value in a stakeholder system, thus potentially reducing the available funds to repay debt obligations. However, the findings in Table 8 are consistent with the idea that debtholders' concerns that managers pursue private benefits (which reduces the available funds to repay debt obligations) is reduced for firms that are closer to default, thus weakening the negative effect, and, when taken together with the benefits of CSR for debtholders, the overall effect of CSR performance is positive for debtholders.

We graphically represent the relationship between CSR performance and the cost of equity and the cost of debt, in Figures 1 and 2, respectively.

-----  
Insert Figures 1 and 2 about here  
-----

## **DISCUSSION AND CONCLUSIONS**

Differentiating between shareholder-oriented and stakeholder-oriented systems, our study examines whether the international corporate governance system of a country shapes the effect of CSR performance on the cost of equity and debt. Building on the resource-based view and agency theory, we argue that in a shareholder-oriented system, organizations are viewed as shareholder-value maximizing economic entities and corporate governance mechanisms are focused on reducing agency problems resulting from the separation of ownership and control, which include concerns that CSR is employed to forward the interests of managers (or stakeholders) at the expense of shareholder value. As a result, in this system, shareholders are likely to view an increase in firms' engagement in CSR as a mechanism to gaining sustainable

competitive advantage and to creating value by better managing risks associated with the firms' stakeholders. As CSR initiatives are not a reaction to institutionalized pressures (Matten and Moon, 2008) and corporate governance is designed to reduce managerial opportunisms regarding CSR, firms will attend to stakeholders' expectations if this helps to maximize the long-term firm value or to reduce significant risks (Aguilera, Rupp, Williams and Ganapathi, 2007). Similarly, debtholders, in this system, may view CSR as a mechanism that allows firms to increase the available funds to repay any debt obligations or to reduce the variance of their future cash flows (Ashbaugh-Skaife, Collins and LaFond, 2006). Given that the benefits for debtholders are capped at face value of debt (Brealey, Myers and Allen, 2016), we argue that a significant link between CSR and the cost of debt is only expected for firms that are close to default. In addition, an increase in CSR may also have a positive effect for debtholders through a reduction in business risk and an increase in the likelihood of survival through strong stakeholder support.

In contrast, we expect a positive relationship between CSR and the cost of equity in a stakeholder-oriented system, where the organization is viewed as a stakeholder-value maximizing entity and corporate governance mechanisms are oriented towards the protection of the interest of a large set of stakeholders who can exert substantial pressure towards more CSR. We argue that the agency concerns that CSR is not employed to maximize shareholder value become more prominent in this system, as managers may sacrifice shareholder value to attend the demands of stakeholders (Aguilera and Jackson, 2003; Matten and Moon, 2008). An increase in CSR performance is likely to increase shareholders' agency concerns related to CSR and, as a result, the cost of equity. For debtholders, sacrificing shareholder value to attend to the interest of other stakeholders has a negative consequence by reducing the available funds to repay debt obligations. However, the concern that managers would employ CSR for private benefits that has a negative influence on the firm's future cash flows and hence on the firm's

capacity to repay its debt obligation is likely to be reduced if financial resources are scarce (in line with the free cash flow hypothesis (Jensen, 1986)). In addition, an increase in CSR performance may also have a positive effect on debtholders, as strong stakeholder support may help to reduce the overall business risk (Shiu and Yang, 2017) and to lower the threat of takeovers (Cespa and Cestone 2007) and risk-shifting activities (Eisdorfer, 2008). Therefore, we expect the positive effect on debtholders to outweigh the negative effects and, as a result, we expect a negative relationship between CSR performance and the cost of debt for firms that are close to default. As previously argued, the effect on the cost of debt should only be observed for firms that are close to default.

Using a large international panel dataset, our results show that while the link between CSR performance and the cost of equity is significant and negative in a shareholder-oriented system, this relationship is significant and positive in a stakeholder-oriented system. We also show that the absence of non-financial blockholders enhances these effects in both systems. Regarding the cost of debt, we find strong evidence of a negative link between CSR and the cost of debt for firms that are close to default in both systems. However, we argue (and find supporting evidence) that the underlying reasons are different. On the one hand, in a shareholder-oriented system, debtholders benefit from CSR initiatives because they are directed at the creation of firm value and as a result, they increase the likelihood of repayment of debt obligations. On the other hand, in a stakeholder-oriented system, CSR initiatives do not increase shareholder value but instead increase shareholders' agency concerns. This affects debtholders negatively as it likely reduces the available funds to repay debt obligations. However, these concerns are likely to be reduced in the absence of slack resources, which is the case for firms that are close to default. In addition, debtholders in firms that are close to default may benefit from increased CSR through a reduction in business risk and the risk of takeovers and an increase in firm survival through strong stakeholder relations. Our findings



reveal that for debtholders in firms that are close to default, the positive arguments outweigh the negative ones. We corroborate the robustness of our results through a series of additional tests, in which we employ alternative estimation methods and different proxies of the country corporate governance system.

Our study responds to the call by Hawn, Chatterji and Mitchell (2018), who argue that, despite the extensive research on the link between CSR and financial performance, we have yet to understand whether investors believe it pays off. In this sense, our findings may help to better understand the mixed results found in prior studies (e.g., Chava, 2014; El Ghouli, Guedhami, Kwok and Mishra, 2011, 2018; Goss and Roberts, 2011; Gregory, Whittaker and Yan, 2016; Hoepner, Oikonomou, Scholtens and Schröder, 2016; Plumlee, Brown and Hayes, 2015). Our results suggest that the country corporate governance system is an important omitted variable of prior studies that examine the effect of CSR on the cost of financing using an international sample and highlight the limited external validity of studies focusing on a single governance system. Our findings also lend support to Devinney, Schwalbach and Williams (2013) who advocate for considering a comparative approach to CSR, as one cannot understand CSR strategies and policies of organizations without understanding the nature of the institutional environment in which they operate (Aguilera, Filatotchev, Gospel and Jackson, 2008; Devinney, Schwalbach and Williams, 2013).

Our study also adds to the debate about whether CSR is beneficial or detrimental to corporate governance by creating or destroying value for investors (Aguinis and Glavas, 2012; Albuquerque, Koskinen and Zhang, 2018; Flammer, 2015; Lys, Naughton and Wang, 2015), as well as the calls in favor of more CSR from powerful investment funds and other shareholders. Our results show that CSR initiatives may be positive or negative for investors,

depending on the corporate governance system. We theoretically develop how CSR is linked to agency concerns and how these concerns depend on the corporate governance system.

Our results are an important step towards developing a corporate governance system-dependent conceptual framework that advances our knowledge of the drivers and consequences of CSR, which are a fundamental guide to managers in choosing the level of investment in socially responsible initiatives that maximize firm value. More specifically, our results suggest that the evaluation of CSR is specific to the country corporate governance system and that results and recommendations from one system may not hold in another system. Finally, we also uncover, and believe future research may look into, the relevance of firm-level corporate governance when studying CSR, while controlling for the country-level corporate governance system.

The discussion above reveals some potential limitations of our study as well as suggesting directions for future research. While we focus on the cost of equity and debt as one of the channels through which CSR affects firm value, the conceptual framework of our study can be applied to other channels to examine whether the marginal benefits of CSR performance are conditioned on the country corporate governance system. Examples of these channels could include the capacity of socially responsible firms to boost revenues, improve efficiency and attract a more productive workforce (Orlitzky, 2008). Furthermore, we have focused on the shareholder-orientation versus stakeholder-orientation to capture important differences across international corporate governance systems. Future research could further explore firm-level contingencies, while controlling for the corporate governance system. Finally, our sample is entirely composed of listed firms, and our findings may not necessarily apply to non-listed firms.

## ENDNOTES

---

<sup>1</sup> Yoshimori (1995) surveyed senior managers at major corporations in Japan, Germany, France, the US, and the UK, asking them to choose between the following two statements: a) “A company exists for the interest of all stakeholders” and b) “Shareholder interest should be given the first priority”. The results of the survey suggest that stakeholders’ interest are considered to be very important in Japan, Germany and France (where 97%, 83% and 78% of senior managers chose option a), respectively) while shareholders’ interests represent the primary concern in the US and the UK (where 76% and 71% of senior managers chose option b), respectively). In the same line, the International Business Report (2014) by Grant Thornton shows that 92% of Japanese executives indicate that the main reason to engage in CSR is “because it’s the right thing to do”, compared to about 60% for the US; and that executives in Japan (95%) and Germany (80%) strongly agree that CSR decisions are driven by customer demand for CSR, while there appears to be much less pressure on US businesses in this regard as just 46% of US executives cite customer demand as an important driver.

<sup>2</sup> Anecdotal evidence corroborates that corporations in a shareholder-oriented context hold an instrumental approach to CSR. For example, the CEO of GM stated: “We recognize that sustainability feeds our bottom line and that sustaining a profitable business is our ultimate responsibility. Profits enable reinvestment — in R&D to reimagine a car’s DNA; in cleaner, more fuel-efficient technologies; in plants that better conserve resources; in improved vehicle safety; in job creation and stability; and in contributions to the communities in which we live and work” (Akerson, 2012). Similarly, Dave Stangis, VP for CSR at Campbell Soup Company stated that “Corporate Social Responsibility isn’t about giving money away and adopting the latest cause of activists. CSR and sustainability are approaches to business operation and execution that build employee engagement, create positive social impact, enable operational efficiency, reduce cost, foster innovation, strengthen relationships with customers and consumers and ultimately . . . create business advantage.” (Forbes, September 15, 2011); while Brian Moynihan (CEO of Bank of America) states that “you can provide great returns for your shareholders and great benefits for your employees and run your business in a responsible way” (New York Times, August 19th, 2019).

<sup>3</sup> Merton (1973) shows that the asymmetric payoffs accruing from debt can be replicated by taking a long position in the firm’s assets and a short position in a call option on the same assets (i.e., a strategy equivalent to a synthetic short put on the firm’s assets plus a risk-free bond).

<sup>4</sup> To illustrate, strong stakeholder relations was a key element in the recovery of Chrysler Corporation during the recession of the early 1990s, especially the relations with its suppliers (Rigby, 2001). Chrysler’s suppliers offered suggestions for improvement in overall efficiency and various ways to cut costs. As a result, Chrysler was able to use its “improved cash flows to invest in new product development, introducing cross-functional platform teams to improve quality and speed” (Rigby, 2001:102).

<sup>5</sup> Anecdotal evidence supports the idea that executives in a stakeholder-oriented system attend the interests of a broad set of stakeholders, which may push CSR initiatives beyond what is shareholder value maximizing. In a joint letter by senior managers at Daimler, they stated: “Honorable business people. . . want to not only gain an advantage but also serve the needs of their customers, business partners, employees, and society. . . Our stakeholders today rightly expect that our “culture of top performance” should not only apply to our products and technologies but also be reflected in our approach to environmental, social, and ethical responsibility. . .” (Hohmann-Dennhardt, Zetsche and Weber, 2012).

<sup>6</sup> As we argued previously, the effect on the cost of debt should only be observed for the firms that are close to default as the likelihood of debt repayment in these firms would be affected by CSR initiatives in a significant way.

<sup>7</sup> Aoki and Lennersfors (2013) describe how Toyota, instead of abandoning suppliers when others offer lower prices, provides its suppliers with support for operational improvements, organizing “study groups” and dispatching engineers to help them improve efficiency and quality and bring prices down. When Toyota drops a supplier for a particular model because of price, it works to maintain the relationship, providing opportunities for the vendor to supply parts for other models, for example. Having strong client relations is likely to be a key element of survival for the suppliers to Toyota. In line with the importance of stakeholder relations for firm survival, Allen, Carletti and Marquez (2015) show that firms in Germany, France, and Japan have significantly lower probabilities of bankruptcy than firms in the US, which they attribute to a stronger stakeholder support in stakeholder-oriented countries.

---

<sup>8</sup> ASSET4 assesses all firms listed on ASX 300, Bovespa, CAC 40, DAX, FTSE 250, MSCI Emerging Markets, MSCI World, NASDAQ 100, S&P 500, SMI and STOXX 600. We use the ASSET4 universe of firms as our starting point.

<sup>9</sup> We have also tested the sensitivity of our main results when dropping the largest country in each system (i.e., United States and Japan) and found that the tenor of the results does not change.

<sup>10</sup> The mean value of default risk is about 0.10 (the median is about 0), while the standard deviation is about 0.28. These figures are very similar to Bharath and Shumway (2008).

<sup>11</sup> Building strong stakeholder relations generally requires time to develop (Hillman and Keim, 2001; Wang, Choi and Li, 2008). If stakeholders perceive such initiatives to be opportunistic and short term oriented, it is unlikely that the firm will develop strong stakeholder relations, and as a result the suggested benefits may not materialize.

## REFERENCES

- Adams, R., Almeida, H., & Ferreira, D. 2005. Powerful CEOs and their impact on corporate performance, **Review of Financial Studies**, 18: 1403-1432.
- Aguinis, H. & Glavas, A. 2012. What we know and don't know about corporate social responsibility: A review and research agenda, **Journal of Management**, 38(4): 932-968.
- Aguilera, R. V & Jackson, G. 2003. The cross-national diversity of corporate governance: Dimensions and determinants, **Academy of management Review**, 28(3): 447-465.
- Aguilera, R. V & Jackson, G. 2010. Comparative and international corporate governance, **The Academy of Management Annals**, 4(1): 485–556.
- Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. 2007. Putting the S back in corporate social responsibility: A multilevel theory of social change in organizations, **Academy of Management Review**, 32: 836-863.
- Aguilera, R. V., Filatotchev, I., Gospel, H., & Jackson, G. 2008. An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities, **Organization science**, 19(3): 475-492.
- Akerson, D. 2012. General Motors Corporate Social Responsibility 2012 Report - [https://media.gm.com/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2012/Jan/0112\\_sustainability.html](https://media.gm.com/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2012/Jan/0112_sustainability.html) (accessed 24/11/2019).
- Albuquerque, R., Koskinen, Y., & Zhang, C. 2018. Corporate social responsibility and firm risk: Theory and empirical evidence, **Management Science**, Article in Advance: 1-9.
- Allen, F., Carletti, E., & Marquez, R. 2015. Stakeholder governance, competition, and firm value, **Review of Finance**, 19: 1315-1346.
- Amihud, Y. & Lev, B. 1981. Risk reduction as a managerial motive for conglomerate mergers, **Bell Journal of Economics**, 12: 605-617.
- Aoki, K. & Lennersfors, T. 2013. The New, Improved Keiretsu, **Harvard Business Review**, September 2013.
- Arjaliès, D. L. & Mundy, J. 2013. The Use of Management Control Systems to Manage CSR Strategy: A Levers of Control Perspective, **Management Accounting Research**, 24(4): 284-300.
- Ashbaugh-Skaife, H., Collins, D. W., & LaFond, R. 2006. The effects of corporate governance on firms' credit ratings, **Journal of Accounting and Economics**, 42(1-2): 203-243.
- Baltagi, B. 2013. **Econometric analysis of panel data**. Chichester: John Wiley & Sons.
- Barnea, A. & Rubin, A. 2010. Corporate social responsibility as a conflict between shareholders, **Journal of Business Ethics**, 97(1): 71-86.

- Barnett, M. L., & Salomon, R. M. 2006. Beyond dichotomy: The curvilinear relationship between social responsibility and financial performance, **Strategic Management Journal**, 27: 1101-1122.
- Baron, D. P. 2009. A Positive Theory of Moral Management, Social Pressure, and Corporate Social Performance, **Journal of Economics & Management Strategy**, 18(1): 7–43.
- Bebchuk, L. & Hamdani, A. 2009. The elusive quest for global governance standards, **University of Pennsylvania Law Review**, 157(5): 1263–1317.
- Bharath, S. T. & Shumway, T. 2008. Forecasting default with the Merton distance to default model, **The Review of Financial Studies**, 21(3): 1339-1369.
- Billett, M. T., King, D. & Mauer, D. D. 2004. Bondholder wealth effects in mergers and acquisitions: New evidence from the 1980s and 1990s, **Journal of Finance**, 59: 107-135.
- Bradley, M. & Chen, D. 2011. Corporate governance and the cost of debt: Evidence from director limited liability and indemnification provisions, **Journal of Corporate Finance**, 17(1): 83-107.
- Brammer, S. & Millington, A. 2005. Corporate reputation and philanthropy: an empirical analysis, **Journal of Business Ethics**, 61: 29–44.
- Brammer, S., Jackson, G., & Matten, D. 2012. Corporate social responsibility and institutional theory: New perspectives on private governance, **Socio-Economic Review**, 10(1): 3-28.
- Brealey, R. A., Myers, S. C., & Allen, F. 2016. **Principles of Corporate Finance**. Boston: Prentice Hall.
- Burke, J. J., Hoitash, R., & Hoitash, U. 2019. The heterogeneity of board-level sustainability committees and corporate social performance, **Journal of Business Ethics**, 154(4): 1161-1186.
- Cespa, G. & Cestone, G. 2007. Corporate social responsibility and managerial entrenchment, **Journal of Economics and Management Strategy**, 16(3): 741–771.
- Chava, S. 2014. Environmental Externalities and Cost of Capital, **Management Science**, 60(9): 2223 – 2247.
- Chen, H. J., Kacperczyk, M. T., & Ortiz-Molina, H. 2011. Labor Unions, Operating Flexibility, and the Cost of Equity, **Journal of Financial and Quantitative Analysis**, 46(1): 25-58.
- Chen, H. J., Kacperczyk, M. T., & Ortiz-Molina, H. 2012. Do nonfinancial stakeholders affect the pricing of risky debt? Evidence from unionized workers, **Review of Finance**, 16: 347-383.
- Cheng, B., Ioannou, I., & Serafaim, G. 2014. Corporate social responsibility and access to Finance, **Strategic Management Journal**, 33(1): 1-23.

- Cheng, I. H., Hong, H., & Shue, K. 2013. Do managers do good with other people's money? Working Paper no. 19432, NBER.
- Choi, J., & Wang, H. 2009. Stakeholder relations and the persistence of corporate financial performance, **Strategic Management Journal**, 30: 895-907.
- Clarkson, P. M., Fang, X., Li, Y., & Richardson, G. 2013. The relevance of environmental disclosures: Are such disclosures incrementally informative?, **Journal of Accounting and Public Policy**, 32(5): 410-431.
- Cronqvist, H., Heyman, F., Nilsson, M., Svaleryd, H., & Vlachos, J. 2009. Do entrenched managers pay their workers more?, **The Journal of Finance**, 64(1): 309-339.
- David P., Yoshikawa, T., Chari M. D., & Rasheed, A. 2006. Strategic investments in Japanese corporations: do foreign portfolio owners foster underinvestment or appropriate investment?, **Strategic Management Journal**, 27: 591–600.
- Deakin, S. 2010/2011. What directors do (and fail to do): some comparative notes on board structure and corporate governance, **New York Law School Law Review**, 55: 525-541.
- Desender, K. A., Aguilera, R., Lópezpuertas-Lamy, M. & Crespi-Cladera, R. 2016. A clash of governance logics: Foreign ownership and board monitoring, **Strategic Management Journal**, 37(2): 349-369.
- Desender, K. A., Aguilera, R. V., Crespi, R., & García-Cestona, M. 2013. When does ownership matter? Board characteristics and behavior, **Strategic Management Journal**, 34(7): 823-842.
- Devinney, T. M., Schwalbach, J., & Williams, C. A. 2013. Corporate social responsibility and corporate governance: Comparative perspectives, **Corporate Governance: An International Review**, 21(5): 413-419.
- Dhaliwal, D., Li, O., Tsang, A, & Yang, Y. 2011. Voluntary non-financial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting, **The Accounting Review**, 86(1): 59-100.
- Dhaliwal, D., Radhakrishnan, S., Tsang, A, & Yang, Y. 2012. Nonfinancial disclosure and analyst forecast accuracy: International evidence on corporate social responsibility disclosure, **The Accounting Review**, 87(3): 723-759.
- Dhaliwal, D., Li, Z. O., Tsang, A., Yang, Y. G. 2014. Corporate social responsibility disclosure and the cost of equity capital: The roles of stakeholder orientation and financial transparency, **Journal of Accounting and Public Policy**, 33(4): 328-355.
- Edmans, A. 2011. Does the stock market fully value intangibles? Employee satisfaction and equity prices, **Journal of Financial Economics**, 101(3): 621-640.

- Eisdorfer, A. 2008. Empirical evidence of risk shifting in financially distressed firms, **Journal of Finance**, 63: 609-637
- El Ghoul, S., Guedhami, O., Kwok, C., & Mishra, D. 2011. Does corporate social responsibility affect the cost of capital?, **Journal of Banking and Finance**, 35(9): 2388-2406.
- El Ghoul, S., Guedhami, O., Kim, H., & Park, K. 2018. Corporate Environmental Responsibility and the Cost of Capital: International Evidence, **Journal of Business Ethics**, 149: 335–361.
- European Commission (Commission of the European Communities). 2001. Promoting a European Framework for Corporate Social Responsibilities, COM (2001) 366 final, Brussels.
- Faccio, M., Lang, L. H., & Young, L. 2001. Dividends and expropriation, **American Economic Review**, 91(1): 54-78.
- Farre-Mensa, J. & Ljungqvist, A. 2016. Do measures of financial constraints measure financial constraints?, **The Review of Financial Studies**, 29(2): 271-308.
- Ferrell, A., Liang, H., & Renneboog, L. 2016. Socially responsible firms, **Journal of Financial Economics**, 122(3): 585-606.
- Filatotchev, I., Jackson, G., & Nakajima, C. 2013. Corporate governance and national institutions: A review and emerging research agenda, **Asia Pacific Journal of Management**, 30(4): 965-986.
- Flammer, C. 2015. Does corporate social responsibility lead to superior financial performance? A regression discontinuity approach, **Management Science**, 61(11): 2549-2568.
- Flammer, C. & Bansal, P. 2017. Does a long-term orientation create value? Evidence from a regression discontinuity, **Strategic Management Journal**, 38(9): 1827-1847.
- Fombrun, C., Gardberg, N., & Barnett, M. 2000. Opportunity platforms and safety nets: Corporate citizenship and reputational risk, **Business and Society Review**, 105(1): 85-106.
- Thriving on the Value of Vice: Stop Making Too Much of CSR (*Forbes*, 2011).
- Friedman, M. 1970. The social responsibility of business is to increase its profits, **New York Times**, September 13: 122-126.
- Ghosh A. & Tang, C. Y. 2015. Assessing financial reporting quality of family firms: The auditors' perspective, **Journal of Accounting and Economics**, 60(1): 95–116.
- Godfrey, P. C. 2005. The relationship between corporate philanthropy and shareholder wealth: A risk management perspective, **Academy of Management Review**, 30: 777-798.



- Godfrey, P. C., Merrill, C. B. & Hansen, J. M. 2009. The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis, **Strategic Management Journal**, 30(4): 425-445.
- Goss, A. & Roberts, G. 2011. The impact of corporate social responsibility on the cost of bank loans, **Journal of Banking and Finance**, 35(7): 1794-1810.
- Greene, W. H. 2011. **Econometric analysis**. Nueva York: Prentice Hall.
- Greening, D. W. & Turban, D. B. 2000. Corporate social performance as a competitive advantage in attracting a quality workforce, **Business & Society**, 39(3): 254–280.
- Gregory, A., Whittaker, J., & Yan, X. 2016. Corporate social performance, competitive advantage, earnings persistence and firm value, **Journal of Business Finance and Accounting**, 43(1-2): 3-30.
- Guillén, M. F. & Capron, L. 2016. State capacity, minority shareholder protections, and stock market development, **Administrative Science Quarterly**, 61(1): 125-160.
- Hausman, J. A. 1978. Specification tests in econometrics, **Econometrica**, 46(6): 1251-1271.
- Hawn, O., Chatterji, A. K. & Mitchell, W. 2018. Do investors actually value sustainability? New evidence from investor reactions to the Dow Jones Sustainability Index (DJSI), **Strategic Management Journal**, 39(4): 949-976.
- Hawn, O. & Ioannou, I. 2016. Mind the gap: The interplay between external and internal actions in the case of corporate social responsibility, **Strategic Management Journal**, 37(13): 2569-2588.
- Hillman, A. & Keim, G. 2001. Shareholder value, stakeholder management, and social issues: What's the bottom line?, **Strategic Management Journal**, 22(2): 125-139.
- Hirshleifer, D. & Thakor, A. V. 1992. Managerial conservatism, project choice, and debt, **Review of Financial Studies**, 5: 437-470.
- Hoepner, A., Oikonomou, I., Scholtens, B., & Schröder, M. 2016. The effects of corporate and country sustainability characteristics on the cost of debt: An international investigation, **Journal of Business Finance and Accounting**, 43(1-2): 158-190.
- Hohmann-Dennhardt, C., Zetsche, D. & Weber, T. 2012. Daimler Sustainability Report 2012 - <https://ddd.uab.cat/pub/infos/146256/isDAIMLERa2012ieng.pdf> (accessed 24/11/2019).
- Holmstrom, B. & Costa, J. R. 1986. Managerial incentives and capital management, **Quarterly Journal of Economics**, 101: 835-860.
- Hong, H. & Kacperczyk, M. 2009. The price of sin: The effects of social norms on markets, **Journal of Financial Economics**, 93(1): 15-36.

- Hoskisson, R. E., Hitt, M. A., Wan, W. P., & Yiu, D. 1999. Theory and research in strategic management: Swings of a pendulum, **Journal of Management**, 25: 417-456.
- Humphrey, J. E., Lee, D. D. & Shen, Y. 2012. Does it cost to be sustainable?, **Journal of Corporate Finance**, 18: 626–639.
- Husted, B. W., Jamali, D., & Saffar, W. 2016. Near and dear? The role of location in CSR engagement, **Strategic Management Journal**, 37: 2050–2070.
- Ioannou, I. & Serafeim, G. 2012. What drives corporate social performance? The role of nation-level institutions, **Journal of International Business Studies**, 43(9): 834-864.
- International Business Report (2014). Corporate Social Responsibility: Beyond Financials. Grant Thornton –<https://www.grantthornton.global/en/insights/articles/Corporate-social-responsibility/> (accessed 24/11/2019).
- Institutional Shareholder Services 2019. The Long View: US Proxy Voting. Harvard Law School Forum on Corporate Governance and Financial Regulation
- Jackson, G. 2005. Stakeholders under pressure: corporate governance and labour management in Germany and Japan, **Corporate Governance: An International Review**, 13(3): 419-428.
- Jackson, G. & Apostolakou, A. 2010. Corporate social responsibility in Western Europe: An institutional mirror or substitute?, **Journal of Business Ethics**, 94(3): 371-394.
- Jain, T. & Jamali, D. 2016. Looking inside the black box: the effect of corporate governance on corporate social responsibility, **Corporate Governance: An International Review**, 24: 253–273.
- Jensen, M. 2001. Value maximization, stakeholder theory, and the corporate objective function, **Journal of Applied Corporate Finance**, 14(3): 8–21.
- Jensen, M. 1986. Agency costs of free cash flow, corporate finance and takeovers, **American Economic Review**, 76: 323-329.
- John, K., Litov, L., & Yeung, B. 2008. Corporate governance and risk-taking, **Journal of Finance**, 63: 1679-1728.
- Jones, R. & Murrell, A. 2001. Signaling positive corporate social performance: An event study of family-friendly firms, **Business & Society**, 40(1): 59–78.
- Judd, J. S. & Lusch, S. J. 2018. Corporate philanthropy and the cost of equity capital. Working Paper.
- Kacperczyk, A. 2009. With greater power comes greater responsibility? Takeover protection and corporate attention to stakeholders, **Strategic Management Journal**, 30(3): 261-285.

- Kale, J. R. & Shahrur, H. 2007. Corporate capital structure and the characteristics of suppliers and customers, **Journal of Financial Economics**, 83(2): 321-365.
- Kempf, A., Ruenzi, S., & Thiele, T. 2009. Employment risk, compensation incentives, and managerial risk taking: evidence from the mutual fund industry, **Journal of Financial Economics**, 92: 92-108.
- Kochhar P. & David, P. 1996. Institutional investors and firm innovation: A test of competing hypotheses, **Strategic Management Journal**, 17(1): 73–84.
- Krüger, P. 2015. Corporate goodness and shareholder wealth, **Journal of Financial Economics**, 115(2): 304-329.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A, & Vishny, R. 1997. Legal Determinants of External Finance, **Journal of Finance**, 52(3): 1131–50.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A, & Vishny, R. 1999. The quality of government, **The Journal of Law, Economics, and Organization**, 15(1): 222-279.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A, & Vishny, R. 2000. Agency problems and dividend policies around the world, **Journal of Finance**, 55(1): 1-33.
- La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. 2008. The economic consequences of legal origins, **Journal of Economic Literature**, 46(2): 285-332.
- Laeven, L. & Levine, R. 2009. Bank governance, regulation, and risk taking, **Journal of Financial Economics**, 93: 259-275.
- Lee, D. D. & Faff, R. W. 2009. Corporate sustainability performance and idiosyncratic risk: A global perspective, **Financial Review**, 44(2): 213-237.
- Lele, P. P. & Siems, M. M. 2007. Shareholder protection: A leximetric approach, **Journal of Corporate Law Studies**, 7(1): 17-50.
- Letza, S., Sun, X., & Kirkbride, J. 2004. Shareholding versus stakeholding: A critical review of corporate governance, **Corporate Governance: An International Review**, 12(3): 242-262.
- Leuz, C., Nanda, D, & Wysocki, P. 2003. Earnings management and investor protection: An international comparison, **Journal of Financial Economics**, 69(3): 505-527.
- Liang, H. & Renneboog, L. 2017. On the foundations of corporate social responsibility, **The Journal of Finance**, 72(2): 853-910.
- Lys, T., Naughton, J. & Wang, C. 2015. Signaling through corporate accountability reporting. **Journal of Accounting and Economics**, 60(1): 56–72.
- Magill, M., Quinzii, M. & Rochet, J. C. 2015. A theory of the stakeholder corporation, **Econometrica**, 83(5): 1685-1725.

- Magnanelli, B. S. & Izzo, M. F. 2017. Does it pay or does firm pay? The relation between CSR performance and the cost of debt, **Social Responsibility Journal**, 13(2): 250 - 265
- Margolis, J. D., Elfenbein, H. A., & Walsh, J. P. 2009. Does it pay to be good ... and does it matter? A meta-analysis of the relationship between corporate social and financial performance. Working paper, Harvard University, Cambridge, MA
- Matten, D. & Moon, J. 2008. "Implicit" and "Explicit" CSR: A conceptual framework for a comparative understanding of corporate social responsibility, **Academy of Management Review**, 33(2): 4404-424.
- McWilliams, A., & Siegel, D. 2001. Corporate social responsibility: A theory of the firm perspective, **Academy of Management Review**, 26(1): 117-127.
- McWilliams, A., Siegel, D., & Wright, P. 2006. Corporate social responsibility: Strategic implications, **Journal of Management Studies**, 43(1): 1-18.
- Merton, R. C. 1973. Theory of rational option pricing, **Theory of Valuation**, 229-288.
- Merton, R. C. 1974. On the pricing of corporate debt: The risk structure of interest rates, **Journal of Finance**, 29: 449-470.
- Misangyi V. F. & Acharya, A. G. 2014. Substitutes or complements? A configurational examination of corporate governance mechanisms, **Academy of Management Journal**, 57(6): 1681–1705.
- BlackRock's Message: Contribute to Society, or Risk Losing Our Support (New York Times, 2018).
- Shareholder Value Is No Longer Everything, Top C.E.O.s Say (New York Times, 2019).
- Nielsen. (2014). Doing well by doing good. <https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/global-corporate-social-responsibility-report-june-2014.pdf>.
- Oikonomou, I., Brooks, C. & Pavelin, S. 2014. The Effects of Corporate Social Performance on the Cost of Corporate Debt and Credit Ratings, **The Financial Review**, 49(1): 49-75.
- Orlitzky, M. 2008. Corporate social performance and financial performance: A research synthesis, **The Oxford Handbook of Corporate Social Responsibility**, 83-112.
- Orlitzky, M., Schmidt, F. L., & Rynes, S. L. 2003. Corporate social and financial performance: A meta-analysis, **Organization Studies**, 24(3): 403-441.
- Pagano, M. & Volpin, P. F. 2005. Managers, workers, and corporate control, **The Journal of Finance**, 60(2): 841-868.
- Petrovits, C. 2006. Corporate-sponsored foundations and earnings management, **Journal of Accounting and Economics**, 41(3): 335–362.

- Plumlee, M., Brown, D., Hayesa, R. M., & Marshall, R. S. 2015. Voluntary environmental disclosure quality and firm value: Further evidence, *Journal of Accounting and Public Policy*, 34(4): 336-361.
- Porter, M. & Kramer, M. 2006. Strategy and Society. The link between competitive advantage and corporate social responsibility, *Harvard Business Review* (December), 78–92.
- Porter, M. & Kramer, M. 2011. Creating Shared Value, *Harvard Business Review* (November/December): 62–77.
- Prior, D., Surroca, J., & Tribó, J. A. 2008. Are socially responsible managers really ethical? Exploring the relationship between earnings management and corporate social responsibility, *Corporate Governance: An International Review*, 16(3): 160-177.
- Rigby, D. 2001. Moving upward in a downturn, *Harvard Business Review*, 79: 98 – 105.
- Roe, M. J. (2003), *Political Determinants of Corporate Governance: Political Context, Corporate Impact*. Oxford and New York: Oxford University Press.
- Roe, M. J., & Blair, M. 1999. Codetermination and German securities markets, *Employees and Corporate Governance*, 194-205.
- Roe, M. J. & Vatiero, M. 2015. Corporate governance and its political economy, in Oxford Handbook of Corporate Governance.
- Scherer, A. G. & Palazzo, G. 2011. The new political role of business in a globalized world: A review of a new perspective on CSR and its implications for the firm, governance, and democracy, *Journal of Management Studies*, 48(4): 899-931.
- Schmitz, J. & Schrader, J. 2015. Corporate social responsibility: A microeconomic review of the literature, *Journal of Economic Surveys*, 29(1): 27-45.
- Schneper, W. D. & Guillén, M. F. 2004. Stakeholder rights and corporate governance: A cross-national study of hostile takeovers, *Administrative Science Quarterly*, 49(2): 263-295.
- Sharfman, M. & Fernando, C. 2008. Environmental risk management and the cost of capital, *Strategic Management Journal*, 29(6): 569-592.
- Shiu, Y. M. & Yang, S. L. 2017. Does engagement in corporate social responsibility provide strategic insurance-like effects?, *Strategic Management Journal*, 38(2): 455-470.
- Shleifer, A. & Vishny, R. W. 1997. A survey of corporate governance, *The Journal of Finance*, 52(2): 737-783.
- Siems, M. M. 2008. Shareholder protection around the world (Leximetric II\*), *Delaware Journal of Corporate Law*, 33: 111.
- Surroca, J. & Tribó, J. A. 2008. Managerial entrenchment and corporate social performance, *Journal of Business Finance and Accounting*, 35(5-6): 748–789.

- Surroca J., Tribó, J. A, & Waddock, S. 2010. Corporate responsibility and financial performance: The role of intangible resources, **Strategic Management Journal**, 31(5): 463–490.
- Teoh, S., Welch, I. & Wong, T. 1998. Earnings management and the long-run market performance of initial public offerings, **The Journal of Finance**, 53(6): 1935–1974.
- Tirole, J., 2001. Corporate governance, **Econometrica**, 69(1): 1-35.
- Verbeek, M. 2012. **A guide to modern econometrics**. Chichester: John Wiley & Sons.
- Verwijmeren, P. & Derwall, J. 2010. Employee well-being, firm leverage, and bankruptcy risk, **Journal of Banking & Finance**, 34(5): 956-964.
- Vitols, S. 2001. The origins of bank-based and market-based financial systems: Germany, Japan, and the United States, in *The origins of nonliberal capitalism: Germany and Japan in comparison*, 171-199.
- Waddock, S. & Graves, S. 1997. The corporate social performance link, **Strategic Management Journal**, 18(4), 303-319.
- Waddock, S. 2002. **Leading Corporate Citizens: Vision, Values, Value Added**. New York: McGraw-Hill.
- Wang, H., Choi, J. & Li, J. 2008. Too little or too much? Untangling the relationship between corporate philanthropy and firm financial performance, **Organization Science**, 19: 142-159.
- Wang T. & Bansal P. 2012. Social responsibility in new ventures: Profiting from a long-term orientation, **Strategic Management Journal**, 33(10): 1135–1153.
- Werner, S., Tosi, H. L., & Gomez-Mejia, L. 2005. Organizational governance and employee pay: How ownership structure affects the firm's compensation strategy, **Strategic Management Journal**, 26(4): 377-384.
- Yoshimori, M. 1995. Whose company is it? The concept of the corporation in Japan and the West, **Long Range Planning**, 28: 33–44.

**TABLE 1**  
**A Comparison between Shareholder- and Stakeholder-oriented Systems\***

	Shareholder-oriented	Stakeholder-oriented
Orientation / Primary corporate goal	Shareholder value / Profitability	Stakeholder value / Multiple goals
Firm responsibilities towards society	Voluntary, defined at the firm level, strategy-oriented	Compulsory, collectively defined standards, motivated by the societal consensus
Key stakeholders	Top management and shareholders	Banks, top management, and employees
Stakeholder representation	No formal voice in corporate decisions	Board-level representatives
Financial system	Impatient capital (stock market-based)	Patient capital (bank-based)
Labor relations	De-centralized, individual bargaining, flexible labor market	Centralized, collective bargaining, stable labor market
Employee skills	General, marketable, transferable	Industry- or firm-specific

\* Own elaboration based on Letza, Sun and Kirkbridge (2004), Matten and Moon (2008), Vitols (2001).

**TABLE 2**  
**Sample Breakdown by Country and Year**

Panel A – Country	N	% sample	Average % of World Stock Market Capitalization
Australia	1118	5.91	2.27
Austria	140	0.74	0.20
Belgium	197	1.04	0.62
Brazil	163	0.86	1.69
Canada	455	2.4	3.51
Chile	36	0.19	0.44
Denmark	164	0.87	0.01
Finland	199	1.05	0.01
France	729	3.85	3.82
Germany	605	3.2	3.21
Greece	116	0.61	0.14
Hong Kong	551	2.91	5.15
India	156	0.82	1.89
Italy	327	1.73	1.02
Japan	2805	14.82	9.54
Malaysia	38	0.2	0.83
Mexico	66	0.35	0.87
Netherlands	274	1.45	1.36
New Zealand	57	0.3	0.11
Norway	181	0.96	0.44
Philippines	25	0.13	0.35
Portugal	99	0.52	0.01
Singapore	282	1.49	1.23
South Africa	110	0.58	1.57
South Korea	172	0.91	2.05
Spain	317	1.67	1.85
Sweden	380	2.01	0.01
Switzerland	395	2.09	2.56
Thailand	48	0.25	0.59
United Kingdom	2076	10.97	7.65
United States	6647	35.12	39.90
Total	18928	100	94.9
Panel B – Year	N	%	
2002	836	4.42	
2003	1145	6.05	
2004	1760	9.3	
2005	1923	10.16	
2006	1959	10.35	
2007	2084	11.01	
2008	2527	13.35	
2009	2824	14.92	
2010	2582	13.64	
2011	1288	6.8	
Total	18928	100	

*Notes:* This table shows the distribution of the observations by country and by year. We also include a comparison of the proportion of each country in our sample to the proportion of the market capitalization that each country represents over the sample period (2002-2011) (according to World Bank data).



**TABLE 3**  
**Descriptive Statistics (Panel A) and Correlation Matrix (Panel B)**

	full sample			civil law	common law	difference	significance						
Variables (Panel A)	Mean	Median	SD	Mean	Mean								
cost of equity (%)	11.32	10.66	3.47	11.16	11.42	0.26	***						
cost of debt (%)	3.22	3.3	1.99	2.64	3.59	0.96	***						
CSR performance	51.21	49.34	29.56	60.21	45.45	-14.76	***						
CSR report	0.34	0.00	0.47	0.45	0.27	-0.18	***						
leverage (debt to total assets ratio) (%)	27.67	22.48	23.14	32.33	24.69	-7.64	***						
size (log market value)	13.96	13.47	2.26	15.18	13.18	-2.00	***						
growth (mtbv)	2.76	1.97	2.54	2.29	3.06	0.77	***						
nonfinancial blockholdings	14.82	5.00	21.08	21.08	10.79	-10.30	***						
proximity default	0.27	0.00	0.44	0.22	0.30	0.08	***						
common law	0.61	1.00	0.49	0.00	1.00	1.00	-						
strength of investor protection	7.18	8.00	1.46	0.00	0.70	0.70	***						
minority shareholder protection	6.66	7.00	1.00	6.25	6.91	0.66	***						
stakeholder law	13.41	12.13	5.39	18.24	10.31	-7.92	***						
Variables (Panel B)	1	2	3	4	5	6	7	8	9	10	11	12	13
cost of equity (1)	1												
cost of debt (2)	-0.01	1											
CSR performance (3)	0.00	-0.01	1										
CSR report (4)	0.19	-0.04	0.60	1									
leverage (debt to total assets ratio) (5)	0.13	0.09	0.12	0.10	1								
size (log market value) (6)	0.01	-0.31	0.26	0.20	-0.01	1							
growth (mtbv) (7)	-0.14	0.05	-0.05	-0.09	-0.35	-0.01	1						
nonfinancial blockholdings (8)	-0.02	0.10	0.01	0.04	-0.01	0.04	0.03	1					
proximity default (9)	-0.05	0.15	-0.09	-0.25	-0.04	-0.14	0.06	0.03	1				
common law (10)	0.04	0.23	-0.24	-0.18	-0.16	-0.43	0.15	-0.24	0.08	1			
strength of investor protection (11)	0.03	-0.06	-0.22	-0.14	-0.11	-0.06	0.07	-0.23	0.02	0.73	1		
minority shareholder protection (12)	0.05	-0.13	-0.07	-0.05	-0.02	0.04	-0.02	-0.31	-0.04	0.32	0.44	1	
stakeholder law (13)	-0.07	0.00	0.23	0.13	0.14	-0.01	-0.09	0.30	-0.00	-0.72	-0.76	-0.46	1

**TABLE 4**  
**Linear Effects of CSR Performance on Cost of Equity and Cost of Debt – Baseline Models (Full Sample)**

	1	2	3	4
	cost of equity	cost of equity	cost of debt	cost of debt
constant	14.7598*** [1.1350]	9.8486*** [1.5913]	2.4840*** [0.5659]	3.7039*** [1.0231]
CSR performance	-0.0031 [0.0020]	0.0043 [0.0030]	-0.0025*** [0.0009]	-0.0052*** [0.0016]
CSR report	-0.1960** [0.0777]	-0.3131*** [0.1162]	0.0369 [0.0333]	0.2329*** [0.0656]
leverage (debt to total assets ratio)	0.0175*** [0.0032]	0.0149*** [0.0045]	0.0161*** [0.0018]	0.0157*** [0.0030]
size (log market value)	-0.4004*** [0.0810]	-0.048 [0.1143]	0.0186 [0.0394]	-0.0153 [0.0737]
growth (mtbv)	0.0584*** [0.0152]	0.0347 [0.0289]	0.0011 [0.0072]	-0.0039 [0.0166]
firm fixed effects	yes	yes	yes	yes
year fixed effects	yes	yes	yes	yes
N	18928	6282	18928	6282
R <sup>2</sup> within	0.4133	0.3717	0.2036	0.1566

*Notes:* Models 1 and 3 report two-way Fixed Effects estimates of the linear model presented in Equation 1. Models 2 and 4 report two-way Fixed Effects estimates of the linear model presented in Equation 1 in a subsample where the countries with more than 1000 observations are excluded (United States, United Kingdom, Japan and Australia). Unit-clustered robust standard errors in brackets.

Significance codes: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

**TABLE 5**  
**Cross-sectional Variation in the Effect of CSR Performance on Cost of Equity – Division by Shareholder-/Stakeholder-oriented Systems**

	5	6	7	8	9	10	11	12
	cost of equity	cost of equity	cost of equity	cost of equity	cost of equity	cost of equity	cost of equity	cost of equity
subsample:	civil law (a)	common law (b)	strength of investor protection below median (a)	strength of investor protection above median (a)	minority shareholder protection below median (a)	minority shareholder protection above median (b)	stakeholder law above median (a)	stakeholder law below median (b)
constant	16.9148*** [1.8555]	12.2699*** [1.4230]	13.4393*** [1.4010]	14.6648*** [1.8768]	14.2874*** [1.4594]	15.7699*** [1.8032]	15.0521*** [1.5966]	14.1924*** [1.6154]
CSR performance	0.0056* [0.0031]	-0.0063*** [0.0024]	0.0057** [0.0026]	-0.0076*** [0.0026]	0.0047* [0.0027]	-0.0060** [0.0025]	0.0046* [0.0027]	-0.0076*** [0.0024]
CSR report	-0.6339*** [0.1189]	0.0306 [0.0972]	-0.4997*** [0.0938]	-0.07 [0.1202]	-0.4677*** [0.0982]	-0.0824 [0.1107]	-0.6299*** [0.1090]	0.1351 [0.1005]
leverage (debt to total assets ratio)	0.0087* [0.0049]	0.0195*** [0.0041]	0.0096** [0.0038]	0.0234*** [0.0056]	0.0115*** [0.0039]	0.0198*** [0.0052]	0.0134*** [0.0043]	0.0169*** [0.0046]
size (log market value)	-0.5413*** [0.1221]	-0.2038* [0.1081]	-0.3337*** [0.0975]	-0.3706*** [0.1388]	-0.4150*** [0.1023]	-0.4419*** [0.1319]	-0.4330*** [0.1087]	-0.3446*** [0.1216]
growth (mtbv)	0.1422*** [0.0382]	0.0292* [0.0157]	0.0708*** [0.0208]	0.0432** [0.0206]	0.0718*** [0.0212]	0.0418** [0.0200]	0.0890*** [0.0299]	0.0391** [0.0161]
firm fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
year fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
N	7390	11538	10898	8030	10743	8185	9408	9520
R <sup>2</sup> within	0.5184	0.3536	0.5023	0.3359	0.5014	0.3313	0.4985	0.3453

*Notes:* In this table, firms are divided into two subsamples, according to legal origin (models 5 and 6), relative strength of investor protection (models 7 and 8), minority shareholder protection (models 9 and 10) and extent of stakeholder law (models 11 and 12). See Appendix B for the definition of these measures. The table shows two-way Fixed Effects estimates of the coefficients. Unit-clustered robust standard errors in brackets.

Significance codes: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

TABLE 6

**Cross-sectional Variation in the Effect of CSR Performance on Cost of Equity – Examining the Moderating Role of Non-financial Blockholdings**

subsample:	13	14	15	16	17	18	19	20
	cost of equity	cost of equity	cost of equity	cost of equity	cost of equity	cost of equity	cost of equity	cost of equity
	civil law (a)	common law (b)	strength of investor protection below median (a)	strength of investor protection above median (a)	minority shareholder protection below median (a)	minority shareholder protection above median (b)	stakeholder law above median (a)	stakeholder law below median (b)
constant	16.6936*** [1.9000]	13.0296*** [1.4575]	13.3062*** [1.4389]	15.8292*** [1.9008]	14.0981*** [1.5066]	16.5558*** [1.8115]	14.7134*** [1.6329]	15.0457*** [1.6321]
CSR performance	0.0128*** [0.0036]	-0.0097*** [0.0025]	0.0089*** [0.0030]	-0.0101*** [0.0027]	0.0081*** [0.0030]	-0.0082*** [0.0026]	0.0102*** [0.0033]	-0.0103*** [0.0025]
nonfinancial blockholdings	0.0166*** [0.0061]	-0.0138** [0.0054]	0.0072 [0.0051]	-0.0068 [0.0063]	0.0065 [0.0049]	-0.0067 [0.0062]	0.0103** [0.0051]	-0.0126** [0.0064]
CSR performance * nonfin. blockholdings	-0.0003*** [0.0001]	0.0003*** [0.0001]	-0.0001* [0.0001]	0.0003** [0.0001]	-0.0001* [0.0001]	0.0002* [0.0001]	-0.0002*** [0.0001]	0.0003*** [0.0001]
CSR report	-0.5929*** [0.1187]	0.0524 [0.0980]	-0.4769*** [0.0942]	-0.0526 [0.1200]	-0.4425*** [0.0987]	-0.0588 [0.1106]	-0.5891*** [0.1094]	0.157 [0.1011]
leverage (debt to total assets ratio)	0.0095* [0.0049]	0.0173*** [0.0041]	0.0098** [0.0038]	0.0199*** [0.0055]	0.0114*** [0.0039]	0.0178*** [0.0051]	0.0143*** [0.0043]	0.0144*** [0.0046]
size (log market value)	-0.5540*** [0.1255]	-0.2475** [0.1109]	-0.3354*** [0.1002]	-0.4464*** [0.1409]	-0.4122*** [0.1054]	-0.4917*** [0.1330]	-0.4265*** [0.1114]	-0.3967*** [0.1232]
growth (mtbv)	0.1497*** [0.0402]	0.0305** [0.0155]	0.0723*** [0.0214]	0.0466** [0.0202]	0.0723*** [0.0217]	0.0472** [0.0196]	0.0938*** [0.0311]	0.0412*** [0.0157]
firm fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
year fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
N	7266	11309	10708	7867	10542	8033	9231	9344
R <sup>2</sup> within	0.5264	0.3518	0.5075	0.3318	0.5068	0.3282	0.5049	0.3431

Notes: In this table, firms are divided into two subsamples, according to legal origin (models 13 and 14), relative strength of investor protection (models 15 and 16), minority shareholder protection (models 17 and 18) and extent of stakeholder law (models 19 and 20). See Appendix B for the definition of these measures. The table shows two-way Fixed Effects estimates of the coefficients. Unit-clustered robust standard errors in brackets.

Significance codes: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

TABLE 7

**Cross-sectional Variation in the Effect of CSR Performance on Cost of Debt – Division by Shareholder-/Stakeholder-oriented Systems**

subsample:	21	22	23	24	25	26	27	28
	cost of debt	cost of debt	cost of debt	cost of debt	cost of debt	cost of debt	cost of debt	cost of debt
	civil law (a)	common law (b)	strength of investor protection below median (a)	strength of investor protection above median (a)	minority shareholder protection below median (a)	minority shareholder protection above median (b)	stakeholder law above median (a)	stakeholder law below median (b)
constant	3.2170*** [0.9105]	1.6680** [0.6817]	1.4687** [0.7460]	3.6429*** [0.8200]	1.8061** [0.7882]	3.2557*** [0.7763]	2.2180*** [0.8492]	2.4275*** [0.7062]
CSR performance	-0.0037*** [0.0013]	-0.0003 [0.0011]	-0.0028** [0.0011]	-0.0002 [0.0012]	-0.0040*** [0.0012]	-0.0006 [0.0012]	-0.0035*** [0.0012]	-0.001 [0.0011]
CSR report	0.0158 [0.0474]	-0.0031 [0.0427]	-0.0215 [0.0404]	-0.0052 [0.0513]	-0.0161 [0.0415]	0.0857 [0.0528]	0.0511 [0.0434]	-0.0003 [0.0464]
leverage (debt to total assets ratio)	0.0121*** [0.0025]	0.0178*** [0.0024]	0.0148*** [0.0022]	0.0146*** [0.0030]	0.0149*** [0.0023]	0.0159*** [0.0029]	0.0132*** [0.0024]	0.0183*** [0.0025]
size (log market value)	-0.0649 [0.0591]	0.1128** [0.0500]	0.0859* [0.0508]	-0.0543 [0.0587]	0.0648 [0.0542]	-0.0292 [0.0549]	0.0141 [0.0567]	0.0556 [0.0513]
growth (mtbv)	0.0336** [0.0143]	-0.0173** [0.0081]	0.0190* [0.0104]	-0.0154 [0.0101]	0.0195* [0.0106]	-0.0125 [0.0099]	0.0319*** [0.0123]	-0.0196** [0.0085]
firm fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
year fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
N	7390	11538	10898	8030	10743	8185	9408	9520
R <sup>2</sup> within	0.1133	0.3098	0.115	0.3923	0.1227	0.3426	0.1169	0.3521

*Notes:* In this table, firms are divided into two subsamples, according to legal origin (models 21 and 22), relative strength of investor protection (models 23 and 24), minority shareholder protection (models 25 and 26) and extent of stakeholder law (models 27 and 28). See Appendix B for the definition of these measures. The table shows two-way Fixed Effects estimates of the coefficients. Unit-clustered robust standard errors in brackets.

Significance codes: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

TABLE 8

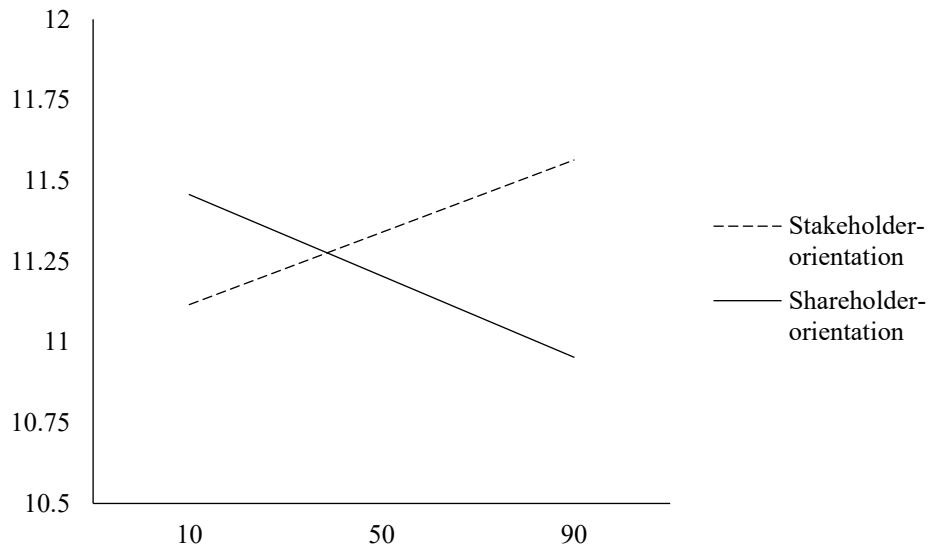
**Cross-sectional Variation in the Effect of CSR Performance on Cost of Debt – Examining the Moderating Role of the Proximity to Default**

	29	30	31	32	33	34	35	36
	cost of debt	cost of debt	cost of debt	cost of debt	cost of debt	cost of debt	cost of debt	cost of debt
subsample:	civil law (a)	common law (b)	strength of investor protection below median (a)	strength of investor protection above median (a)	minority shareholder protection below median (a)	minority shareholder protection above median (b)	stakeholder law above median (a)	stakeholder law below median (b)
constant	1.3508 [1.0722]	1.7330** [0.7384]	0.1793 [0.8673]	3.4554*** [0.8291]	0.4458 [0.9289]	2.7790*** [0.8103]	0.9269 [1.0526]	2.2839*** [0.7268]
CSR performance	-0.0014 [0.0018]	0.0009 [0.0012]	-0.0011 [0.0015]	0.001 [0.0014]	-0.002 [0.0015]	0.0017 [0.0014]	-0.0018 [0.0016]	0.001 [0.0013]
Proximity default	0.3135** [0.1373]	0.2190*** [0.0792]	0.2172** [0.1102]	0.2250*** [0.0850]	0.3191*** [0.1112]	0.2564*** [0.0853]	0.3802*** [0.1256]	0.1825** [0.0822]
CSR performance * Proximity default	-0.0047** [0.0020]	-0.0029** [0.0013]	-0.0033** [0.0016]	-0.0027* [0.0016]	-0.0035** [0.0016]	-0.0055*** [0.0016]	-0.0043** [0.0018]	-0.0036** [0.0014]
CSR report	-0.0208 [0.0615]	-0.0686 [0.0442]	-0.0487 [0.0485]	-0.0679 [0.0539]	-0.0384 [0.0484]	-0.0254 [0.0571]	0.0029 [0.0533]	-0.0648 [0.0485]
leverage (debt to total assets ratio)	0.0173*** [0.0034]	0.0174*** [0.0025]	0.0175*** [0.0027]	0.0155*** [0.0031]	0.0176*** [0.0028]	0.0172*** [0.0031]	0.0171*** [0.0031]	0.0177*** [0.0027]
size (log market value)	0.0464 [0.0698]	0.0902* [0.0538]	0.1704*** [0.0596]	-0.0508 [0.0590]	0.1525** [0.0644]	-0.004 [0.0572]	0.0953 [0.0704]	0.0485 [0.0527]
growth (mtbv)	0.0278 [0.0172]	-0.0173** [0.0087]	0.0192 [0.0117]	-0.0224** [0.0108]	0.0119 [0.0120]	-0.0153 [0.0107]	0.0227 [0.0145]	-0.0184** [0.0092]
firm fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
year fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
N	4956	9664	7582	7038	7414	7206	6133	8487
R <sup>2</sup> within	0.1297	0.3235	0.1373	0.3835	0.152	0.34	0.1263	0.3544

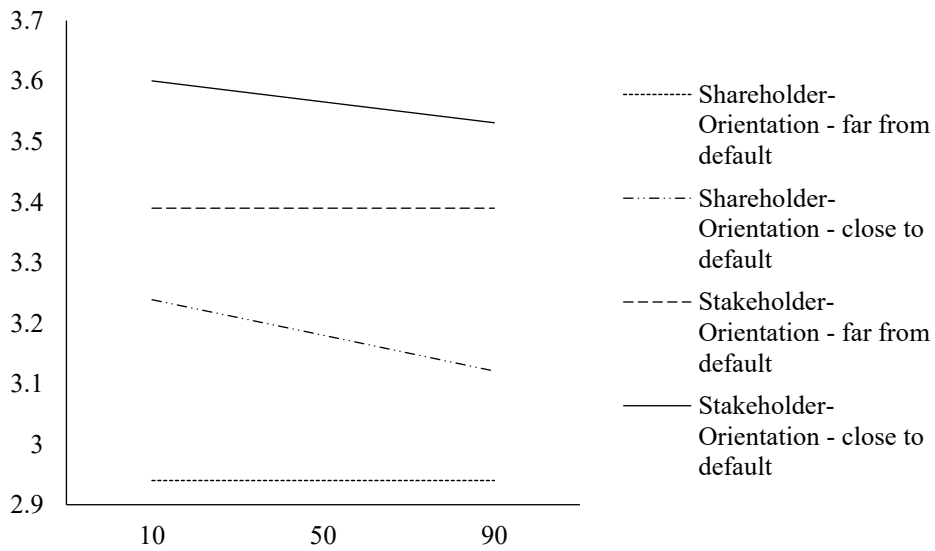
*Notes:* In this table, firms are divided into two subsamples, according to legal origin (models 29 and 30), relative strength of investor protection (models 31 and 32), minority shareholder protection (models 33 and 34) and extent of stakeholder law (models 35 and 36). See Appendix B for the definition of these measures. The table shows two-way Fixed Effects estimates of the coefficients. Unit-clustered robust standard errors in brackets.

Significance codes: \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

**FIGURE 1**  
**The relationship between CSR performance and cost of**



**FIGURE 2**  
**The relationship between CSR performance and cost of debt**



## **Appendix A**

### **Description of the CSR performance scores from ASSET4**

ASSET4 covers more than 4.300 firms by assessing all firms listed on ASX 300, Bovespa, CAC 40, DAX, FTSE 250, MSCI Emerging Markets, MSCI World, NASDAQ 100, S&P 500, SMI and STOXX 600. Firms are assessed based on objective and publicly available data, which include stock exchange filings, CSR and annual reports, nongovernmental organizations' websites, and news sites. According to ASSET4, every data point goes through a multi-step verification and process control, which includes a series of data entry checks, automated quality rules and historical comparisons to ensure a high level of accuracy, timeliness and quality.

To build the performance scores for the different pillars, ASSET4 uses 250 KPIs and 750 individual data points, which are categorized as “drivers” or “outcomes. While drivers track policies that cover issues such as emission reduction or human rights, outcomes track quantitative results such as greenhouse gas emissions or personnel turnover. ASSET4 classifies the KPIs into categories within each pillar. For example, the environmental pillar consists of three category groupings: emission reduction, product innovation, and resource reduction. Each KPI is scored against the company peers between 0 and 1. To determine the relative weight of each KPI within each category, each KPI receives a Relative Level of Importance (RLI) from 0 to 5 based on several factors, such as the relevance of the KPI in the industry, whether it is derived from independent information content or the objective measurability of the KPI. The obtained weighted average scores for each category are then normalized and adjusted for skewness and the differential between the mean and the median, then fitted to a bell curve to derive ratings for each category between 0 and 100 for each company. The resulting category ratings are comparable across categories. Finally, the performance score of



each pillar is the average of the different category ratings that make up the pillar, assuming equal weights for each category within the pillar. In what follows, we provide a detailed description of the different categories within the environmental and social pillars, as outlined in the ASSET4 documentation.

Environmental Performance Pillar	
Resource Reduction	The resource reduction category measures a company's management commitment and effectiveness towards achieving an efficient use of natural resources in the production process. It reflects a company's capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.
Emission Reduction	The emission reduction category measures a company's management commitment and effectiveness towards reducing environmental emission in the production and operational processes. It reflects a company's capacity to reduce air emissions (greenhouse gases, F-gases, ozone-depleting substances, NOx and SOx, etc.), waste, hazardous waste, water discharges, spills or its impacts on biodiversity and to partner with environmental organizations to reduce the environmental impact of the company in the local or broader community.
Product Innovation	The product innovation category measures a company's management commitment and effectiveness towards supporting the research and development of eco-efficient products or services. It reflects a company's capacity to reduce the environmental costs and burdens for its customers, and thereby creating new market opportunities through new environmental technologies and processes or eco-designed, dematerialized products with extended durability.
Social Performance Pillar	
Employment Quality	The employment quality category measures a company's management commitment and effectiveness towards providing high-quality employment benefits and job conditions. It reflects a company's capacity to increase its workforce loyalty and productivity by distributing rewarding and fair employment benefits, and by focusing on long-term employment growth and stability by promoting from within, avoiding lay-offs and maintaining relations with trade unions.
Health and Safety	The health and safety category measures a company's management commitment and effectiveness towards providing a healthy and safe workplace. It reflects a company's capacity to increase its workforce loyalty and productivity by integrating into its day-to-day operations a concern for the physical and mental health, well-being and stress level of all employees.
Training and Development	The training and development category measures a company's management commitment and effectiveness towards providing training and development (education) for its workforce. It reflects a company's capacity to increase its intellectual capital, workforce loyalty and productivity by developing the workforce's skills, competences, employability and careers in an entrepreneurial environment.
Diversity and Opportunity	The diversity and opportunity category measures a company's management commitment and effectiveness towards maintaining diversity and equal opportunities in its workforce. It reflects a company's capacity to increase its workforce loyalty and productivity by promoting an effective life-work balance, a family-friendly environment and equal opportunities regardless of gender, age, ethnicity, religion or sexual orientation.
Human Rights	The human rights category measures a company's management commitment and effectiveness towards respecting the fundamental human rights conventions. It reflects a company's capacity to maintain its license to operate by guaranteeing the freedom of association and excluding child, forced or compulsory labor.
Community	The community category measures a company's management commitment and effectiveness towards maintaining the company's reputation within the general community (local, national and global). It reflects a company's capacity to maintain its license to operate by being a good citizen (donations of cash, goods or staff time, etc.), protecting public health (avoidance of industrial accidents, etc.) and respecting business ethics (avoiding bribery and corruption, etc.).
Customer / Product Responsibility	The customer/product responsibility category measures a company's management commitment and effectiveness towards creating value-added products and services upholding the customer's security. It reflects a company's capacity to maintain its license to operate by producing quality goods and services, integrating the customer's health and safety, and preserving its integrity and privacy also through accurate product information and labeling.

## Appendix B

### List of variables

Panel A		
Variables	Description	Source
cost of equity	Cost of equity capital.	Bloomberg
cost of debt	Marginal cost of borrowing.	Bloomberg
CSR performance	Following Hillman and Keim (2001), Ioannou and Serafeim (2012), Lys, Naughton and Wang (2015), Waddock and Graves (1997), we create a composite CSR performance score by assigning equal importance (and thus equal weight) to the performance on environmental and social dimensions of CSR.	ASSET4
CSR report	A dummy variable equal to 1 for firms that publish a separate CSR/H&S/Sustainability report or publish a section in their annual report on CSR/H&S/Sustainability and 0 otherwise.	ASSET4
leverage	Total debt to total assets ratio.	Bloomberg
size	Natural logarithm of the market value of firm equity.	Bloomberg
growth	Market-to-book ratio.	Thomson Eikon
nonfinancial blockholdings	Total stake of all non-financial blockholders that is shareholders with at least five percent of shares (i.e. government, company, individual and family ownership).	Thomson Eikon
proximity default	A dummy variable equal to 1 for firms that fall in the first quartile in terms of the Merton's (1974) distance-to-default measure.	Datastream
common law	A dummy variable equal to 1 for firms based in a common law country and 0 otherwise.	Leuz, Nanda and Wysocki (2003)
strength of investor protection	According to the description in the World Bank website, this variable is an average of the extent of disclosure, the extent of director liability, and the ease of shareholder suit variables from World Bank. The index ranges from 0 to 10, with higher values indicating more protection.	World Bank
minority shareholder protection	According to Guillèn and Capron (2016), this variable is measured as the sum of the scores of the following legal provisions: 1) powers of the general meeting for <i>de facto</i> changes; 2) agenda-setting power; 3) anticipation of shareholder decision facilitated; 4) prohibition of multiple voting rights; 5) independent board members; 6) feasibility of directors' dismissal; 7) private enforcement of directors' duties (derivative suit); 8) shareholder action against resolutions of the general meeting; 9) mandatory bid; 10) disclosure of major share ownership. The index ranges from 0 to 10, with higher values indicating more minority shareholder protection.	Guillèn and Capron (2016)
stakeholder law	According to the description in Dhaliwal et al. (2012), this variable is measured as the average rank score of the following four indices: (i) Employment laws, a measure of the protection of labor and employment based on (a) alternative employment contracts; (b) cost of increasing hours worked; (c) cost of firing workers; and (d) dismissal procedures; (ii) Social security laws, a measure of social security benefits based on (a) old age, disability, and death benefits; (b) sickness and health benefits; and (c) unemployment benefits; (iii) Collective relations laws, a measure of the protection of collective relations based on (a) labor union power, and (b) collective disputes; and (iv) Human rights laws, an index for human rights protection, with higher scores indicating better human rights protection.	Dhaliwal, Radhakrishnan, Tsang and Yang (2012)

## Appendix C

### Proximity to default measure

The Proximity-to-Default Measure is constructed following Bharath and Shumway (2008). Using their equation (12), distance to default (DD) over the next year is defined as  $DD = [\ln[(E+F)/F] + r - 0.5\sigma^2]/\sigma$ , where  $E$  is the market value of the firm's equity,  $F$  is the face value of the firm's debt,  $r$  is the firm's annual stock return computed by cumulating monthly returns over the previous 12 months, and  $\sigma^2$  captures the volatility of the firm's total value (debt and equity).  $\sigma$  is approximated as  $(E/(E+F)) \times \sigma_E + (F/(E+F)) \times (0.05 + 0.25\sigma_E)$ , where  $\sigma_E$  is the annualized percent standard deviation of returns, estimated from monthly stock returns over the previous 12 months. A firm's probability of default is then defined as  $N(-DD)$ , where  $N$  is the cumulative standard normal distribution function. When  $F$  is 0,  $DD$  is not defined and the probability of default is set to zero. We classify firm-years as having a high proximity to default if the default probability at the beginning of the year falls in the first quartile, though our results are robust to using alternative cutoffs.