

# Corporate Governance and Corporate Social Performance: The Influence of Ownership, Boards and Institutions

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## Abstract

We analyze how ownership concentration and type, and board independence are related to corporate social performance (CSP). Drawing from agency and team production theories, we argue that the distribution of costs and benefits to shareholders and other stakeholders is crucial to understand what drives CSP. We analyze an international panel of listed firms and reveal that CSP is negatively related to ownership concentration, but positively to board independence. Furthermore, the ownership type and the business context matter. Ownership concentration is negatively related to CSP more strongly in shareholder-oriented societies. This negative relationship is weaker in egalitarian societies.

**Keywords:** corporate governance; corporate social performance (responsibility); ownership; boards; institutions; culture

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## I. INTRODUCTION

Corporate social performance (CSP) has become increasingly important in recent years and has fuelled research on its impact on future firm performance (Eccles et al. 2014; Flammer 2014; Luo et al. 2015). Yet, despite the importance of CSP for firm returns, there is still little international evidence on the firm-level drivers of CSP (see, e.g., the reviews of Aguinis and Glavas (2012) and Moser and Martin (2012)). We contribute to filling this gap in the literature by systematically analyzing how variations in ownership concentration, ownership type and board independence are related to the firm's CSP. First, we establish general theoretical predictions on the relationships between these key mechanisms of governance at the firm level (Bebchuk and Hamdani 2009; Bebchuk and Weisbach 2010) and CSP. Second, we theorize how formal and informal institutions (North 1991; Licht 2001; Ioannou and Serafeim 2012; Siegel et al. 2011; 2013) influence the standpoints large owners have on CSP. We test our theoretical predictions by analyzing a rich international panel of listed firms from multiple industries. This allows us to reveal that the firm-level findings depend on the business context and provides external validity to our results.

Theoretically, we argue that the incentives and pressures to engage in CSP-related activities are likely to depend on the decision-making timeframe, the allocation of costs and benefits, and the focus on the interests of shareholders and those of a broader set of stakeholders. Furthermore, we theorize that the business context is a crucial aspect for explaining the variation in CSP, as large owners face distinct pressures depending on formal or informal institutional configurations. To the best of our knowledge, previous studies have mainly focused on the link between corporate governance and certain aspects of the environmental dimension of CSP (see, e.g., Berrone and Gomez-Mejia 2009; Kock et al. 2012; Walls et al. 2012). Moreover, these studies generally consider U.S. firms, and restrict their analysis to the manufacturing industry.

CSP represents “a business organization’s configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm’s societal relationships” (Wood 1991: 693). CSP is therefore the outcome of a firm’s corporate social responsibility (CSR) operations which go beyond legal or regulatory requirements (McWilliams and Siegel 2000). Following this definition, we use a benchmarked CSP measure that reflects a wide variety of social and environmental dimensions.

This paper is motivated by two bodies of research related to CSP. On the one hand, several recent studies show that CSP can lead to superior financial performance (Eccles et al. 2014; Flammer 2014; Luo et al. 2015). Other related contributions emphasize the several channels through which CSP can bring about future benefits for the firm’s shareholders and other stakeholders, including sales (Lev et al. 2010), operational efficiency (Roberts and Dowling 2002; Edmans 2011), financing (Dhaliwal et al. 2011; Cheng et al. 2014), access to valuable resources (Waddock and Graves 1997), attracting and retaining qualified personnel (Turban and Greening 1997), fostering marketing activities (Moskowitz 1972; Fombrun 1996), gaining social legitimacy (Hawn et al. 2011), and lowering the probability of negative regulatory, legislative and fiscal actions (Freeman 1984; Hillman and Keim 2001). For these advantages to materialize, firms need to adopt a long-term view to investing in CSP (Porter and Kramer 2011; Eccles et al. 2014).

On the other hand, there is substantial heterogeneity in firms’ CSP, and an ongoing debate revolves around its inherent tensions and driving forces (see, e.g., Aguinis and Glavas 2012). CSP activities respond to internal incentives but also to external pressures from stakeholders and industry competitors (Waddock et al. 2002). In this sense, CSP is a double-edged sword, given that its benefits are shared among different actors and thus not all advantages flow to shareholders (see Hermalin and Weisbach (2012)). Importantly, the costs

of CSP are immediate, if not high (Brammer and Millington 2008), and reduce the available resources, whereas the payback periods may be unknown or returns may only materialize in the long-term (Lev et al. 2010; Eccles et al. 2014; Slawinski and Bansal 2015). In addition, there exist different perspectives on the role of the firm in society and on the importance of attending shareholders' interests relative to those of stakeholders, a fact that is likely to affect the owners' and directors' behavior. Describing how large owners and independent directors relate to CSP by linking the cost side with the long-term benefit side, while also accounting for the institutional context, allows for a better understanding of the drivers of CSP.

Traditionally, scholars have considered several broad perspectives on CSP. A first approach, grounded in economics, argues that companies should only pursue CSP when it maximizes shareholder value (Friedman 1970; Dhaliwal et al. 2011). This approach, opposite to the discussion in Porter and Kramer (2011), states that maximizing shareholder value is the corporation's sole reason of existence, whereas CSP that follows other stakeholders' objectives may represent a waste of shareholder wealth if it unnecessarily raises the firm's costs (Friedman 1970; McWilliams and Siegel 2000; Jensen 2002). Accordingly, for CSP to persist when shareholders focus on profit maximization, such activities must either yield sufficient return on investment to shareholders or be able to withstand the disciplining forces within firms and the capital and labor markets outside firms.

In publicly listed corporations this conflict is linked to the separation of ownership and management, which in conjunction with unaligned preferences between owners and managers can generate agency costs (Jensen and Meckling 1976; Fama and Jensen 1983; Jensen 1993). Accordingly, Kock et al. (2012) argue that the relatively weaker attention of stakeholders towards financial performance explains a potential divergence of interests with respect to environmental activities between managers and stakeholders. Agency theory has been usually employed to explain that directing the firm's resources towards CSR activities can be related

to opportunistic behavior that expropriates shareholders (Brammer and Millington 2008). To minimize these agency costs, corporate governance mechanisms (e.g. ownership concentration or independent boards) are instituted in firms that require costly monitoring (Jensen and Meckling 1976; Fama and Jensen 1983; Jensen 1993). Agency theory rationales tend to be more dominant in shareholder-oriented institutional settings, where capital markets value short-term return over long-term returns (Kochhar and David 1996; Teoh et al. 1998). The negative view of agency theory on CSP may reflect an emphasis on the certainty of immediate costs for shareholders relative to the uncertain long term benefits for a broader stakeholder set (Porter and Kramer 2011; Eccles et al. 2014).

Starting from agency theory, but relaxing the focus on the protection of shareholders' interests, Blair and Stout (1999) put forth a team production theory of corporate governance. In this case the corporation represents various stakeholders who invest specific resources, which are then allocated and controlled by a board of directors. This process solves ex-ante coordination problems and—by means of the board of directors—avoids ex-post free riding of contributing members (Blair and Stout 1999; Rajan and Zingales 2000). In contrast to Alchian and Demsetz' (1972) original team production model, Blair and Stout (1999) argue that individuals could want to be part of a team that can share the surplus from team production. Thus, when discussing CSP, the key matter is the distinction between shareholder resources and the benefits shared between various stakeholders. Assuming a joint team production and the firm-specific investments of all stakeholders, the allocation of costs and benefits, and especially the shareholder and stakeholder claims on firm actions, is proportional to their involvement in the organization (Klein et al. 2012). This theoretical perspective is especially helpful to understand the difference between the ownership and board structure as important drivers of CSP.

We use agency and team production perspectives to theorize on the mechanics of the relationship between corporate governance and CSP, a relationship that we also thoroughly empirically scrutinize using a rich international panel of listed firms. We first focus on how changes in firm-level corporate governance factors affect the firm's future CSP. Previous literature has emphasized the importance of the ownership structure and the board of directors as the two key corporate governance mechanisms at the firm level (Bebchuk and Hamdani 2009). Second, in line with comparative corporate governance studies which explain that decision making is embedded in and partly shaped by the institutional context (North 1991; Licht 2001), we also explore the influence of formal and informal institutional configurations. We distinguish between the shareholder- and stakeholder-oriented national corporate governance (Aguilera and Jackson 2003; 2010) using various measures of investor protection, legal rights strength and focus, as well as of egalitarianism and individualism.

Our results first reveal that ownership concentration is negatively related with CSP, while the type of large owners also matters. Foreign blockholders are positively associated with CSP, while financial companies' blockholdings have a strong negative relationship with CSP. Overall, large owners may invest less in CSP due to the uncertain timeframe and size of CSP benefits versus the certainty of immediate costs. Furthermore, large owners may be concerned with the power distribution within the firm, as CSP activities could redistribute power toward other stakeholders. Additionally, in the presence of strategic holdings, these owners' high proportional claims may outweigh those of other involved stakeholders (see Alchian and Demsetz 1972; Klein et al. 2012). In line with the team production view of allocating and controlling firm resources (Blair and Stout 1999), we find that board independence is positively related to CSP. These baseline findings support the idea that independent directors should be seen as agents in their own right. On the one hand, they may pursue their own interests beyond those of shareholders (Lorsch and MacIver 1989; Deutsch

et al. 2011), as their reputation is exposed to CSP-related scandals (Linck et al. 2009). On the other hand, independent board members may more easily defend other stakeholders' claims on firm actions, according to their proportional involvement in the organization (Alchian and Demsetz 1972; Klein et al. 2012). Interestingly, we show that the positive relationship between board independence and CSP is significantly weaker when ownership concentration is high. It is probable that firms in which strategic owners have higher degrees of control, the discretion for decision making is limited and the power structure within the company is more closely defined by the dominant shareholders and the board plays a less important role (Desender et al. 2013).

Our ownership concentration results are especially relevant, and intriguing, on the background of the recent findings on the positive impact of CSP on future firm returns (Eccles et al. 2014; Flammer 2014; Luo et al. 2015). We thus test their consistency in different business contexts. Results confirm that firm-level CSP is negatively affected more strongly by large owners in settings where formal rules and regulations (Shleifer and Vishny 1997; La Porta et al. 1999; Leuz et al. 2003; Aguilera and Jackson 2010) emphasize the relative importance of shareholders over other stakeholders. The same result is found when individualism is high, thus highlighting an important underlying channel of the general positive effect of individualism on CSP previously documented by Ioannou and Serafeim (2012). However, in the presence of strong informal institutional pressures towards egalitarian behavior (Schwartz 1994; 2004; Siegel et al. 2011; 2013), large owners exercise less pressure to reduce CSP activities, as the firm is a primary channel for social and environmental investments.

Our work has important implications that emerge from a better understanding of the relationship between corporate governance and CSP. First, our study adds an important missing picture to the existing literature by theorizing on distribution of costs and benefits of

CSP jointly with elements of external pressure play an important role. While previous research has already established a relationship between board characteristics and some dimensions of CSP, this is the first study to systematically explain the influence of ownership concentration, ownership type and board independence on CSP. Second, our study highlights, theoretically and empirically, the importance of the business environment as an important moderator of the firm-level influences on CSP. The owners' interests and the external pressure they may perceive are likely to depend on the business context. Thus, exploiting international differences, we reveal that the external validity of firm-level findings is sometimes limited. Third, our analysis builds on a large international sample of listed firms over the period 2002-2012. Our data on CSP come from ASSET4, a Thomson Reuters database created by specially trained research analysts who collect 900 evaluation points per firm-year and produce comparable, benchmarked CSP scores. Another major advance is that this database avoids sample selection biases, a crucial issue for studies of (non-financial) disclosure (Dhaliwal et al. 2012; Ioannou and Serafeim 2012). Forth, our empirical approach uses firm fixed and year effects. The results may well be influenced by unobserved time-constant firm heterogeneity and by potential endogeneity related to systematic shocks that lead to CSP variations in all firms. Controlling for these two aspects is a chief concern in panel data analyses as it provides significant strength to the attained results and is therefore an important advantage of our study.

The next section develops our hypotheses on the relationship between corporate governance and CSP, and the influence of institutional factors. We then provide an overview of the data gathering procedure, sample description, and methodology. Empirical results are discussed before presenting the concluding remarks jointly with some policy implications, which reveal that an improved understanding of the drivers of CSP is of interest to academics, managers, capital market participants, and regulators.



## **II. PRIOR LITERATURE AND HYPOTHESES DEVELOPMENT**

The firm-level mechanisms that fundamentally shape corporate governance and firm strategic decisions are the ownership structure of the firm (Bebchuk and Weisbach 2010) and the board of directors (Dalton et al. 2007). Within these two mechanisms, the ownership concentration and type, and board independence have been considered most relevant (Jensen and Meckling 1976; Fama and Jensen 1983; Jensen 1993). These internal governance characteristics interact with external institutional mechanisms (Denis and McConnell 2003; Aguilera and Jackson 2010). In terms of comparative corporate governance, much of the research has focused on the distinction between shareholder- and stakeholder-oriented governance models (e.g. Aguilera and Jackson 2003; 2010), and cultural and ideological differences (Bebchuk and Roe 1999; Siegel et al. 2011; 2013). Following Bebchuk and Hamdani's (2009) suggestion to move beyond a single global governance standard, we theorize on the extent to which firm-level characteristics are contingent on formal and informal institutions.

### **Ownership Concentration and Blockholder Type**

Shareholder control is an internal governance mechanism which can range from a sole majority owner to numerous small shareholders. Differences in ownership structure have two obvious consequences for corporate governance (Morck et al. 2005). On the one hand, large shareholders possess both the incentives and the power to influence management. On the other hand, large shareholders can create conditions for a new problem, because their interests and those of minority shareholders and other stakeholders may not be aligned.

Following agency theory, to the extent that the CSP benefits might not flow to shareholders to the same extent as the costs, large owners would have incentives (and the

ability) to reduce CSP-related activities (Burkhart et al. 1997; Demsetz et al. 1997). However, recent studies have highlighted the positive impact of CSP on firm performance (e.g., Eccles et al. 2014; Flammer 2014; Luo et al. 2015). To understand the relationship between ownership and CSP, it is important to understand how ownership concentration may influence the potential conflict of interest. From a managerial perspective, CSP holds additional benefits than the greater shareholder value described before, such as personal utility or a stronger CEO position because of involvement with important stakeholders (Roe and Vatiero 2015). In general, more ownership concentration is related to less managerial discretion (Aragón-Correa and Sharma 2003). Large owners may delegate less and monitor more closely the allocation and control of resources to the board of directors—as it would be the case in a team production setting (Blair and Stout 1999)—which could lead to an underrepresentation of other stakeholders' interests. Otherwise put, the interests of large shareholders outweigh those of other stakeholders given their higher proportional claims and firm specific investments (see Alchian and Demsetz 1972; Klein et al. 2012). It may thus be that in the presence of large owners fewer resources are directed to CSP than in cases with less ownership concentration and a team production system that pursues more diverse interests of a broad set of stakeholders.

To the extent to which there is asymmetric information, which is likely given the uncertainty and timeframe of benefits, and the interests of a broader set of stakeholders are not entirely aligned with the large shareholders', large owners have the ability to reduce CSR engagement. In addition, CSP investments that pursue other stakeholders' interests are potentially reshaping the power distribution within an organization. To avoid losing power in favor of other stakeholders, large shareholders could exercise their higher proportional influence and channel fewer investments towards CSP activities. Taking the above arguments

together, a negative relationship between ownership concentration and CSP would be expected. We hypothesize that:

*Hypothesis 1a: Ownership concentration is negatively related to CSP.*

When studying ownership structure it is crucial to distinguish between different types of large shareholders (Mehran 1995; Aguilera and Jackson 2003; Adams et al. 2011). This is so because different types of owners pursue different objectives, which in turn is likely to influence their preferences towards CSP. Different types of objectives and preferences further helps understanding the underlying motivation of the link between ownership concentration and CSP. Owners can be classified into different categories. Shleifer and Vishny (1997) and Barca and Becht (2001) distinguish between families (or individual), corporations, and financial companies. Government and foreign ownership are also relevant owners, depending on the context (Pedersen and Thomsen 1997).

We believe that there is an important distinction in the timeframe of investment and the focus on shareholder value orientation between different types of blockholders. In particular, financial companies (especially investment funds) are likely to have a stronger focus on short-term shareholder value maximization compared to any other owner type. We would therefore expect that larger proportions of financial ownership lead to lower CSP compared to any other type of owner. Corporate and family (or individual) owners are likely to focus on resource allocation that leads to long term shareholder value, which is an argument in favor of CSP. However, family, individual or other private owners have access to other channels, outside the company, to engage in social activities. The example of Microsoft and Bill Gates may serve to illustrate this point. Family owners may also become under greater scrutiny (and greater pressure) from other investors if they direct the firm towards high levels of CSP. In addition, corporate and family (or individual) owners may consider pursuing private benefits, which

may compete for resources with CSP investments. Finally, firms with large proportions of foreign owners (potentially for strategic reasons) and state ownership are likely to exhibit higher levels of CSP. This may be the case because, on the one hand, foreign investors may be under greater public scrutiny in their relations with stakeholders in a foreign setting, and may gain legitimacy through CSP. On the other hand, the objectives of the state are likely to focus on the welfare of a broader set of stakeholders. Taking these arguments together, we hypothesize that:

*Hypothesis 1b: Ownership concentration of financial companies, corporations and individuals is negatively related to CSP, while concentration of foreign and state ownership is positively related to CSP.*

### **Board Independence**

Boards are the internal governing mechanism that shapes firm governance, given their direct access to the two other axes in the corporate governance triangle: managers and shareholders. The board receives its authority from shareholders of corporations and its job is to hire, fire, compensate, and advise top management on behalf of those shareholders, as well as monitor top management teams to assure that they comply with the existing regulation (Jensen 1993). In recent years, public pressure and regulatory requirements have led firms to have majority-independent boards, an important issue in most corporate governance practices codes around the world (Krause et al. 2014).

While from the agency theory perspective, independent directors have a clear objective to look after the shareholders' interests (Jensen and Meckling 1976; Fama and Jensen 1983; Jensen 1993), from a team production standpoint, the (independent) board members manage and control the available resources (Blair and Stout 1999) in line with the proportional claims of all involved actors, including a larger set of stakeholders (Alchian and Demsetz 1972;

Klein et al. 2012). Taking these perspectives together, independent directors can be regarded as agents in their own right, who usually are powerful individuals, present or former CEOs, or top professionals (see also Deutsch et al. 2011). In line with the team production approach, Lorsch and MacIver (1989), who survey directors in S&P firms, find that the majority of independent directors consider themselves accountable to stakeholders more than to shareholders. To the extent that independent directors are agents in their own right and have a significant focus on stakeholder interests, we would expect a positive relationship between board independence and CSP.

Furthermore, independent directors, compared to executive directors, do not have a material relationship with the focal firm, have careers that are not dependent on the CEO, and do not feel the pressure of meeting shareholder forecasts as strongly. In addition, the board is charged with the long-term strategic direction of the firm and this extended timeframe for decision making may further enhance CSP, whose benefits usually appear in the long run (Eccles et al. 2014). Furthermore, while all board members share the same duty of care, corporate scandals are likely to draw public attention to the shortcomings of independent board members, which could affect their reputation and legitimacy (Linck et al. 2009). By pursuing higher levels of CSP, independent directors are able to gain legitimacy and protect their reputation, in addition to attending stakeholder interests. In a similar vein to the team production perspective, previous studies have shown that independent boards generally pursue policies that ensure higher financial transparency (Gul and Leung 2004; Cheng and Courtenay 2006; Lim et al. 2007) and are associated with higher levels of audit services (Carcello et al. 2002). Therefore, we hypothesize that:

*Hypothesis 2: Board independence is positively related to CSP.*

## **Formal and Informal Institutions**

Corporate governance is an institutional element of country-level business systems and thus reflects economic and social structures and norms of key stakeholders in a society (Whitley 1999). It is therefore important to examine whether the validity of our general firm-level predictions depends on the business context, as internal governance mechanisms can interact in multiple ways with the external environment (Denis and McConnell 2003; Aguilera and Jackson 2010). This is especially relevant for the predicted negative link between ownership concentration and CSP, especially to the background of the suggested positive impact of CSP on future firm performance (Eccles et al. 2014; Flammer 2014; Luo et al. 2015). As CSP is subject to external pressures, it is likely that the society's formal and informal institutions influence this relationship.

The comparative corporate governance literature has identified two main institutional models that explain cross-national differences: the shareholder- and stakeholder-orientations (Aguilera and Jackson 2003; 2010; Bebchuk and Hamdani 2009). In the shareholder model, sometimes labeled as outsider or market-oriented, the nature of interactions is transactional. This model relies on the market strength to allocate resources correctly within firms and is based on high-powered incentives and external control systems to discipline managers and align interests. Unlike the shareholder-oriented system, the stakeholder-oriented system, also referred to as insider, bank-oriented model, features debt financing, and tightly interconnected relational networks among firms, their trading partners and financial institutions.

Previous studies have started to explore a direct relationship between the institutional setting and CSP. We first revise the main arguments used to justify this relationship before exploring why the relationship between firm-level governance and CSP is likely to be shaped by the institutional context. In shareholder-oriented systems, financing decisions by the

markets are based to a greater extent on short-term profitability (Kochhar and David 1996; Teoh et al. 1998). This preference towards short-termism is likely to limit investments in CSP, since the benefits from such activities usually materialize in the long run (Porter and Kramer 2011; Eccles et al. 2014). Additionally, external pressure from stakeholders to invest in CSP is expected to be weaker in shareholder-oriented societies, where firms are understood to primarily attend shareholders' interests. When transactions are market-based, CSP may receive less support compared to a setting with relational transactions based on a longer time horizon (Cheng et al. 2011). Due to these different contextual pressures, the benefits of CSP may also be context dependent. This would affect the incentives to pursue social and environmental investments through the firm, which may be a predominant channel in stakeholder societies, while in shareholder societies multiple channels could be employed as illustrated via the example of Microsoft. Finally, the search for legitimacy through CSP is likely to be stronger in stakeholder-oriented contexts (Aguilera and Jackson 2003).

The evidence on the effect of the business context on CSP is mixed. Dhaliwal et al. (2012) find that firms in stakeholder-oriented countries are more likely to publish a CSR report. In contrast, Jackson and Apostolakou (2010) find that European firms from shareholder-oriented economies present higher levels of CSR activities, compared to firms from stakeholder-oriented economies. They argue that voluntary CSR activities in liberal, shareholder-oriented economies act as a substitute for institutionalized forms of stakeholder participation, while in stakeholder economies CSR activities often have more implicit forms.

A key institutional determinant of corporate policies is the level of investor protection (Shleifer and Vishny 1997; La Porta et al. 1999; Leuz et al. 2003). We would expect that in countries where laws and regulations emphasize the protection of shareholders' interests, large owners have less pressure to pursue the interests of multiple stakeholder groups, an argument in line with the theoretical development of our Hypothesis 1a. In contrast, if the

society has a stakeholder approach to the firm, there is more pressure on large shareholders to follow a team production model based on claims from various categories of stakeholders.

Empirically, Ioannou and Serafeim (2012) examine the importance of laws that limit self-dealing of corporate insiders, which is one of the four components of the political system they consider, are associated with lower CSP. Given that legal protection against self-dealing by large shareholders is only one aspect of minority shareholder protection, our focus is on a broader measure of shareholder protection. We argue that strong and well-enforced investor rights are an indication of the society's perception that the firm's resources should be primarily managed in the interest of shareholders.

To better understand how the institutional context influences CSP, we believe that it is important to consider the underlying channels, of which firm-level governance is likely to be an important one. Using the institutional-level reasoning jointly with our predictions on internal mechanisms, we theorize that institutional factors may significantly influence the attitudes of large owners towards CSP. Shareholder-oriented environments would enhance the theorized negative relation between ownership concentration and CSP (Hypothesis 1a). Specifically, in shareholder-oriented societies large owners face less pressure and have higher ability to reduce investments such as the ones in CSP, which have shared benefits with other stakeholders (Burkhart et al. 1997; Demsetz et al. 1997). Owners with strategic holdings have more legal and overall market support to maintain the power distribution within the firm and control the allocation of resources according to their higher proportional claim (see Alchian and Demsetz 1972; Klein et al. 2012). Whereas the board is important for the allocation of resources to CSP, the institutional environment is expected to influence less the stance of independent directors. On the one hand, Desender et al. (2013) suggest that the role and influence of the board may be enhanced in shareholder-oriented environments, in part because of the absence of other governance mechanisms like monitoring by large owners or banks. On



the other hand, independent directors in stakeholder-oriented environments may give more importance to a broad set of stakeholder compared to independent directors in shareholder-oriented environments. Thus, the interaction between board independence and a shareholder-oriented environment includes both positive and negative effects on CSP. Using all these arguments jointly, we focus our hypothesis on ownership concentration for which we have a clear prediction and propose that the interaction between ownership concentration and shareholder-orientation is negatively related to CSP.

*Hypothesis 3: The negative relationship between ownership concentration and CSP is stronger in shareholder-oriented societies.*

Jointly with formal institutions, informal institutions shape managerial actions and discretion (North 1991; Williamson 2000; Licht 2001; Crossland and Hambrick 2011). Whitley (1999: 51) states that “the norms governing trust and authority relations are crucial because they structure exchange relationships between business partners and between employers and employees. They also affect the development of collective identities and prevalent modes of eliciting compliance and commitment within authority systems.” This is in line with Licht’s (2001) idea that national culture systems broadly influence the role and responsibility of corporations in the society at large. Moreover, different cultural systems have generated diverse assumptions about society, business and government (Matten and Moon 2008). Continental European societies have developed a greater cultural reliance on organizations, while in the U.S. there is a strong ethic of stewardship in which businessmen and corporations consider only surplus revenues as trust funds that should be administered in the interest of the community (see Lipset and Rokkan (1967) and the related review in Matten and Moon (2008)). We could therefore expect that cultural traits will also influence the attitudes towards CSP, as well as the external pressure the firms they may perceive.

One such fundamental element of the cultural system is egalitarianism, defined as the belief that all people are of equal worth and should thus be treated equally in the society (Schwartz 1994; 2004). Egalitarianism also stands for the corresponding cultural orientation in the Schwartz model, and includes values as equality, social justice, responsibility, helpfulness, and honesty. An egalitarian society is characterized by a certain lack of tolerance for abuses of power (market and political), but also by a wide range of social and economic policy choices, including distributions and regulations that protect the indigent, the unemployed, the retired, and the elderly (Siegel et al. 2011; 2013). In egalitarian societies, there may be a greater need for legitimacy through CSP, and thus large shareholders may be less likely to focus exclusively on (short term) shareholder value and push less strongly for lower levels of CSP. One could argue that egalitarian societies perceive and value corporations according to characteristics more specific to “persons” than firms in traditional market economies. To a certain extent, this latter view is related to Arrow’s (1973) discussion of the morality of social versus production efficiency. We expect an egalitarian context to especially influence firms’ shareholders. Regarding board independence, since egalitarian societies may stimulate the protection of a broader set of stakeholders, the potential loss of reputation may be a relevant concern for independent directors. However, the same arguments would also apply to other board members or executives, and therefore, a greater level of board independence may not necessarily have a stronger impact on CSP when egalitarianism is higher. Given the particular characteristics described above, we hypothesize that large owners will exercise less pressure to reduce CSP investments when acting in egalitarian societies.

*Hypothesis 4: The negative relationship between ownership concentration and CSP is weaker in egalitarian societies.*

Approaching the relationship between the cultural system and CSP through the egalitarianism dimension is novel. To better integrate our study in the existing literature, we also test whether Hofstede's (1980; 2001) more traditional concept of individualism affects the relationship between firm-level corporate governance and CSP. In their nation-level study, Ioannou and Serafeim (2012) hypothesize that there is a positive link between individualism and CSP. Nevertheless, the documented general positive effect of individualism on CSP can interact in different ways with the internal corporate governance mechanisms. Individualism is the degree to which individuals are integrated into groups, thus revealing how people socialize and collaborate (Hofstede 1980). Moreover, Matten and Moon (2008) highlight that individualistic societies allow for more discretion of economic actors. An individualistic informal institutional environment is especially relevant when owners have important stakes as it is likely to impact the overall influence of large owners on decision making in general and CSP in particular. Taking these arguments jointly, we hypothesize that when the environment favors unilateral decision making and economic discretion, the negative relationship between ownership concentration and CSP is stronger.

*Hypothesis 5: The negative relationship between ownership concentration and CSP is stronger in individualistic societies.*

### **III. METHODOLOGY**

#### **Sample and Data**

We construct our sample by combining and matching several databases. We obtain environmental, social and economic metrics from Thomson Reuters ASSET4, which specializes in providing objective, relevant, auditable and systematic CSP information to professional investors. Regarding our corporate governance variables, we obtain board composition data from Thomson Reuters ASSET4 and ownership data from Datastream. We

collect stock market data from Datastream and accounting data from Worldscope. The nation-level variables come from multiple sources, including the World Bank, Dhaliwal et al. (2012), Schwartz (1994; 2004), Siegel et al. (2011; 2013) and Hofstede (1980; 2001). We restrict our sample to those countries with at least 50 firm-year observations. Our final sample includes a total of 11,163 firm-year observations from 27 countries over the period 2002–2012.

## Regression Models

We estimate firm fixed effects panel data regressions. In the presence of unobserved firm fixed effects, using panel fixed effects is a crucial aspect to control for unobserved time-constant firm heterogeneity. In addition to firm fixed effects, we include year dummies to control for potential endogeneity related to systematic shocks that lead to CSP variations in all firms. One can assume the following general specification for firms  $i = 1, \dots, N$  observed at time periods  $t = 1, \dots, T$ :

$$CSP_{it} = \alpha + \beta CG_{it-1} + \gamma Ctrl_{it-1} + v_i + \psi_t + \varepsilon_{it}, \quad (1)$$

where  $CSP_{it}$  is the dependent variable, thought to be explained by a vector of corporate governance variables ( $CG_{it-1}$ ) through the parameters  $\beta$  that are estimated. Firm and time varying controls ( $Ctrl_{it-1}$ ) are included jointly with a firm fixed effect ( $v_i$ ), a time-specific effect ( $\psi_t$ ) and an idiosyncratic error term ( $\varepsilon_{it}$ ).

A second model considers the interactions between firm-level corporate governance variables and the formal and informal institutional variables at country-level that are thought to affect CSP.

$$CSP_{it} = \alpha + \beta CG_{it-1} + \lambda CG_{it-1} \times Institutions_{it-1} + \gamma Ctrl_{it-1} + v_i + \psi_t + \varepsilon_{it}. \quad (2)$$

We test the robustness of our main findings by using different specifications for our dependent variable, additional sets of controls and alternative regression models. We present the details of the alternative specifications and their results in the discussion section.

## **Variables**

### ***Dependent Variable: Measuring CSP and the ASSET4 Dataset***

Constructing a truly representative measure of CSP is challenging as it concerns a multidimensional theoretical construct and measurements of a single aspect of CSP (e.g. corporate philanthropy) provide a limited perspective on firm performance in the more general social and environmental sense (Lydenberg et al. 1986; Wolfe and Aupperle 1991). In this regard, Waddock and Graves (1997: 304) highlight the “need for a multidimensional measure applied across a wide range of industries and larger samples of companies.”

Our study has the advantage of using the Thomson Reuters ASSET4 dataset (previously employed by Ioannou and Serafeim (2012), Cheng et al. (2014), Eccles et al. (2014)), which includes collected data and firms’ scores on social, environmental, economic and governance dimensions, since 2002. Specially trained research analysts collect 900 evaluation points per firm, and according to the guidelines all the primary data used must be objective and publicly available. Typical data sources include stock exchange filings, CSR and annual reports, nongovernmental organizations’ websites, and various news sources. It is noteworthy that this data gathering process avoids sample selection biases given that analysts access all listed firms’ information on CSR, irrespective of its degree of detail or firms’ strategy towards CSP. Thus, 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 are assessed.

After gathering the CSR data, the analysts transform it into consistent units to allow quantitative analysis of this qualitative information. Indicatively, to name just a few of the major elements considered, we note that: (1) for environmental factors the data typically include information on energy used, water recycled, CO<sub>2</sub> emissions, waste recycled, environmental R&D and product innovation, efficiency policies, green material and buildings,

biodiversity, ISO and other quality standards, and spills and pollution controversies; and (2) for social factors the data mainly include customer and product responsibility, total quality management, technology know-how sharing, litigation on socially sensitive issues, community reputation, donations, diversity policies, employee turnover, injury rate, accidents, training hours, women employees, donations, and health and safety controversies.

According to Thomson Reuters ASSET4, 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. For every year, a firm receives a z-score for the social and environmental pillars, benchmarking its performance with the rest of the universe of firms covered by ASSET4. We use the social and environmental metrics to construct a composite CSP index. Following the convention established by Waddock and Graves (1997), Hillman and Keim (2001), Waldman et al. (2006) and Ioannou and Serafeim (2012), among others, we assign equal importance to each of these two pillars.

### ***Independent Variables: Measuring Corporate Governance and Institutions***

*Ownership Concentration.* We use the total stake of all blockholders (i.e. shareholders with at least five percent of shares) to account for the ownership concentration (similar to La Porta et al. (1999) or Faccio et al. (2001)). To gain additional insight and test hypothesis 2a, we decompose the total stake of blockholders according to their type: corporation, individual, foreign, government, and financial company blockholdings.

*Board of Directors.* We define board independence as the percentage of independent board members as reported by the company (Carcello et al. 2002; Hay et al. 2006). We restrict our sample to firms with a one-tier board structure (i.e., we eliminate all firms with a

supervisory board) to more accurately evaluate the effect of (changes in) board independence, given that in dual board structures boards are exclusively composed of non-executives.

*Formal Institutions.* To operationalize shareholder- and stakeholder-orientations, we distinguish between a series of established characteristics of formal institutions (e.g. Shleifer and Vishny 1997; La Porta et al. 1999, Leuz et al. 2003). We employ the strength of investor protection, the ease of shareholder suit, the ease of director liability and the strength of legal rights indices from the World Bank. We also use Dhaliwal et al.'s (2012: 732-733) comprehensive stakeholder orientation index, which 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 country level. For each of these variables we create a dummy variable that splits the sample according to the median value.

*Informal Institutions.* We focus on the egalitarianism dimension from the culture framework developed by Schwartz (1994; 2004), and the individualism dimension from Hofstede's (1980; 2001) framework. Egalitarianism is the belief that all people are of equal worth and should be treated equally in society, emphasizing the transcendence of selfish interests in favor of voluntary commitment to promoting the welfare of others (Schwartz 2004). Individualism is the degree to which individuals are integrated into groups and their tolerance to unilateral decision making, thus revealing how people socialize and collaborate (Hofstede 1980). For both variables we create a dummy variable that splits the sample according to the median value.

### ***Control Variables***

For firm-level controls, prior CSR research has consistently found size to be an important predictor of CSR levels (e.g. De Villiers and Van Staden 2011). Other important

firm-level characteristics that could influence the level of CSP are profitability and leverage (Cho and Patten 2007; Clarkson et al. 2008). On the one hand, larger and more profitable firms have more resources to devote to CSR. In addition, large, profitable firms are also more likely to attract public and regulatory attention and may therefore use CSP to appease activists and regulators. On the other hand, firms with higher leverage are more likely to come under scrutiny from the providers of external finance which may exercise pressure to reduce the resources allocated to pursuing CSP. In addition, we employ firm and year fixed effects.

Moreover, for robustness analyses we include additional controls. First, we consider two other board characteristics: CEO duality, which takes the value one if the CEO and chairman positions are held by the same person and zero otherwise, and the board size, which we introduce as a continuous variable. Second, to account more thoroughly for the impact of firm size and the importance of industry peers, we create a variable that accounts for the relative size of the firm in its industry. Third, for macro-level controls we employ market capitalization of listed companies (percentage of GDP), GDP per capita, GDP growth and health expenditures (percentage of GDP), which we retrieve from the World Bank. We further discuss the characteristics use of control variables when presenting the robustness tests.

## **IV. DISCUSSION OF THE RESULTS**

### **Descriptive Overview**

Figure 1 illustrates the evolution of our dependent variable and its two pillars over the studied period. Our focus on the composite index is supported by the similar trend of the social and environmental scores, and the overall measure (see also in Table 3 their individual correlations at approximately 95% with the CSP index). The salient increasing trend before 2006, followed by a decrease until 2009 and a return to mean levels in 2012, may suggest a link between the resources firms dedicate to CSP and the level of economic uncertainty.



[Figure 1 and Table 1 about here]

Next, Table 1 provides an overview of all variables used in the regression analyses, starting with the firm-level variables. The ownership variables focus on the total blockholder stake (strategic holdings is about 25 percent), accounting for concentration. When decomposing strategic holdings, companies and investment companies emerge as the predominant type of blockholders in our sample, with roughly 6 and 14 percent of average holdings, respectively. On average, about 66 percent of the board members are independent.

[Tables 2 and 3 about here]

Institutional variables can be reviewed using Tables 1 and 2 jointly. There are two categories of institutional variables, capturing formal (La Porta et al. 1999; Leuz et al. 2003) and informal institutional aspects (Schwartz 1994; 2004; Hofstede 1980; 2001). First, the formal institutions are captured by the degree of investor protection, the ease of shareholder suit, the ease of director liability, the enforcement of legal rights (four variables originating from the World Bank) and an overall index of stakeholder orientation created by Dhaliwal et al. (2012). Second, the informal institutional measures—egalitarianism (Schwartz 1994; 2004) and individualism (Hofstede 1980; 2001)—show the society's approach to the balance of selfish interests and voluntary commitment towards the welfare of others. Table 2 reveals the cross-country distribution of institutional characteristics, while Table 3 presents the correlations among the main variables.

### **Ownership concentration, blockholder type and board independence**

Table 4 presents the results of the firm-level governance determinants of CSP. Specification (1) reveals the relationship between the total stake held by strategic owners and CSP. The coefficient is negative and significant, in line with our hypothesis 1a that postulates a negative relationship between powerful shareholders within the organization and the

allocation of resources to CSP. A one standard deviation change in strategic holdings is negatively associated with a change in CSP of 1.7 percent (compared to the mean value). This result corroborates the findings of Burkhart et al. (1997) and Demsetz et al. (1997) who show that ownership concentration is a fundamental aspect of corporate governance that helps to explain strategic decisions in general and, in our case, the variation of CSP with the firm.

To test hypothesis 1b, we decompose ownership concentration into blockholder types and we find partial support. The parameters' signs are in line with our theoretical predictions, however the only significant coefficients appear for corporation, foreign and financial companies blockholdings. The positive and significant association of CSP and foreign ownership is consistent with the need of legitimization of foreign investors and higher scrutiny by the public especially when their stakes are large (Pedersen and Thomsen 1997). On a related note, government blockholders are expected to support CSP investments due to their usual focus on the welfare of a broader set of stakeholders. Although the parameter sign is positive, this effect is not significant.

In contrast, ownership concentration of financial companies is negatively related to CSP. The higher and significant coefficient of financial companies' holdings upholds our conjecture that a larger proportion of this type of owners leads to lower CSP to a larger extent than any other type of owner. This is probably so given that financial companies (especially investment funds) focus more on short-term value maximization. Similarly, corporation and family shareholders, although more long-term oriented than financial companies, manage the allocation of resources more closely when they have substantial power in the firm. Nevertheless, while their coefficients are negative, there is no significant effect, which may be due to the mixed effects of a longer timeframe for decision making (in favor of CSP investments) and the closer control of resource allocation (against CSP investments).

Alternatively, individual and company blockholdings are the categories, together with government ownership, with lower levels of variation.

Next, specification (3) shows a significant positive coefficient for board independence, providing support to hypothesis 2. A one standard deviation change in board independence is associated with a change in CSP of 1.9 percent (compared to the mean value). This result underscores the idea that independent directors should be understood as agents in their own right, who consider a broader range of stakeholder interests (Lorsch and MacIver 1989; Deutsch et al. 2011). It is also consistent with a team production approach to the corporation (Blair and Stout 1999) and with previous studies that show independent boards to be associated with higher financial transparency (Gul and Leung 2004; Cheng and Courtenay 2006; Lim et al. 2007) and higher audit fees (Carcello et al. 2002). Independent directors may push for more allocation of resources to CSP if their timeframe for decision making is more long term oriented and their focus is on the proportional claims of broader stakeholder sets (Klein et al. 2012). Furthermore, independent board members' reputation is more exposed to CSP-related scandals (Linck et al. 2009). All these aspects provide support to our findings. In contrast to our results, Kock et al. (2012) report a negative relationship between board independence, which they employ as a control variable, and waste emissions.

[Table 4 about here]

In specifications (4) and (5), we introduce ownership concentration and board independence variables simultaneously and find consistent results with very similar coefficients. Specification (6) examines the interaction between board independence and ownership concentration. Results strengthen the interpretation of the main effects and provide insights from a team production perspective. In the presence of large strategic holdings, the positive relationship between board independence and CSP is weaker. In line with our arguments, it may be that when ownership concentration is high, the independent board

members' concerns for the claims of broader categories of stakeholders (Blair and Stout 1999) or for their own reputation towards other stakeholders (Lorsch and MacIver 1989; Linck et al. 2009) are reduced in favor of strategic owners' preferences and their higher proportional claims (see Klein et al. 2012). It is probable that firms in which strategic owners have higher degrees of control, the discretion for decision making is limited (Aragón-Correa and Sharma 2003), as the power structure within the company is more closely defined by the dominant shareholders and the board plays a less important monitoring role (Desender et al. 2013). In line with this reasoning, our results reveal an overall positive effect of board independence which is reduced as strategic holdings grow larger. When strategic holdings is low (Q1), the overall effect of board independence is close to 0.9, while this effects is reduced to 0.6 and 0.4 for higher levels of strategic holdings (Q2 and Q3, respectively).

Overall, our results provide strong support to the idea that ownership concentration is linked to lower CSP, which may be explained by the uncertainty of CSP benefits and the potential shifts in the power distribution within the firm. This latter point is well illustrated when decomposing by type of blockholders who pursue different objectives that are likely to influence their preferences towards CSP. Also, while independent directors owe their duties to the company as a whole and to shareholders, they consider themselves accountable to stakeholders, and support (long-term) CSP investments.

### **Formal and Informal Institutions: Firm-level results in context**

Given the different perspectives on the role of the firm in society and on the importance of attending shareholders' interests relative to those of stakeholders, analyzing a panel of firms from around the world allows us to shed new light on the interaction between firm governance and the external business environment. We operationalize the shareholder- and stakeholder-oriented business systems that reflect economic and social structures and norms

in a society according to the established national-level institutional models (Whitley 1999; Aguilera and Jackson 2003; 2010). Specifications (1) to (5) in Table 5 interact strategic holdings with environments that show high investor protection, high ease of shareholder suit, high ease of director liability, high strength of legal rights, and low stakeholder orientation, respectively. Using dummy variables that split our sample according to the median value, we are able to compare the influence of ownership concentration when these values are high, relative to when they are low. We consistently find, across all five specifications, a strong negative effect of ownership concentration on CSP, when firms operate in a shareholder-oriented context. This provides robust support to hypothesis 3. Large owners face less pressure to invest in CSP in shareholder-oriented societies, leading to a higher likelihood of large owners to influence decision making and act more conservatively with respect to long-term CSP investments.

[Table 5 about here]

As predicted, in shareholder-oriented institutional configurations large owners' appear to have higher ability to control the investments in activities such as CSP, which have shared benefits with various stakeholders (Burkhart et al. 1997; Demsetz et al. 1997). Owners with strategic holdings have more legal and overall market support to maintain the power distribution within the firm and invest less in CSP. Indeed, even if the corporation follows on the proportional claims of all involved stakeholders (Klein et al. 2012), in shareholder-oriented societies large owners concerns on the allocation of resources are more represented.

It is thus crucial to cautiously interpret firm-level results from this and previous studies, as these depend on the business context. One important advantage of our approach is that it accounts for firm fixed effects, and therefore reflects how within firm variations in strategic holdings are associated with CSP. Our results provide relevant insights related to the finding of Dhaliwal et al. (2012) that CSP is negatively related to shareholder-oriented environments,

in which there is a greater tendency to base decisions on short-term profitability (Kochhar and David 1996; Teoh et al. 1998). When we examine in detail the relationship between CSP and the interactions of firm-level corporate governance with the shareholder protection in different countries (Shleifer and Vishny 1997; La Porta et al. 1999; Leuz et al. 2003), results confirm that firm-level CSP is significantly affected by large owners in settings where rules and regulations emphasize the relative importance of shareholders over other stakeholders.

Having established the influence of formal institutions, we now analyze how informal institutions moderate the relationship between firm-level corporate governance and CSP. Informal institutions are expected, in broad terms, to influence the rules of the game and shape business actions (North 1991; Licht 2001; Williamson 2000; Crossland and Hambrick 2011), and—perhaps more importantly for our study—their influence is expected to differ across countries and shareholder- and stakeholder-oriented environments (Matten and Moon 2008). Accordingly, specification (6) in Table 5 reveals that valuing equity amongst people (Schwartz 1994; 2004) significantly affects the relationship between ownership concentration and CSP. Given the characteristics of an egalitarian society, which acts against potential abuses of power and values a wide range of social and economic policy choices, large owners face increased pressure in favor of CSP investments. These findings provide support to hypothesis 4 and corroborate Siegel et al.’s (2011; 2013) viewpoint that egalitarian societies value firms using rationales well beyond the neoclassical shareholder maximization approach. In this type of institutional context large owners are likely to exercise less pressure to reduce CSP activities, as the firm is a primary channel for social and environmental investments.

To better integrate these results in the existing literature—given that using the egalitarianism measure is novel—we test how informal institutions measured through Hofstede’s (1980; 2001) more traditional concept of individualism moderates the relationship between strategic holdings and CSP. Specification (7) in Table 5 upholds hypothesis 5 by

showing that when individualism is high, ownership concentration is negatively related to CSP. In contrast, when individualism is low, there is a positive relationship between ownership concentration and CSP, an aspect that is in line with the results on the egalitarianism measure (specification (6)). The negative interaction term between ownership concentration and high individualism matches the above shareholder-oriented interpretations. Scoring high in this informal institutional measure illustrates the society's tolerance to the discretion of economic actors, and the degree to which individuals are integrated into groups (Hofstede1980; Matten and Moon 2008). Interestingly, showing that there is a negative association between ownership concentration and CSP when individualism is high highlights an important underlying channel of the general positive effect of individualism on CSP, previously documented by Ioannou and Serafeim (2012).

In general, our findings on the interaction between firm-level corporate governance and formal and informal institutions reveal the importance of the business context for strategic decision making such as CSP investments. The essential takeaway is that, especially for international panel data analyses, it is vital to consider firm effects and the boundary conditions of general firm-level hypotheses. This is especially relevant to the background of the recent studies showing the positive impact of CSP on firm returns (Eccles et al. 2014; Flammer 2014; Luo et al. 2015). For instance, salient results indicate that hypothesis 1 (ownership concentration is negatively related to CSP) is significantly stronger in shareholder-oriented formal institutional contexts and informal individualistic environments, while the opposite is true in egalitarian societies.

### **Robustness Analysis**

An important concern when studying CSP relates to the issues of endogeneity, omitted variables and simultaneity, which could bias the results. We believe that endogeneity

problems related to measurement errors are less of a concern given that the ownership and board data are objective and our CSP measure is collected by an independent and highly reputed third party. Our main issue is that other firm-specific characteristics unaccounted for in our model might affect both the likelihood of investing in CSP and having an independent board or concentrated ownership. The problem of reverse causality, in which independent directors are more inclined towards and large owners steer away from higher level CSP firms is less likely to be severe. First, decisions on board composition and the number of independent directors are likely to be relatively independent of decisions on CSP, in part because they do not concern the same decision maker, and in part because changes in board compositions tend to be relatively slow. It is however possible that a common factor (omitted variable) could drive both elements. Second, the possibility that CSP would significantly influence investment decisions of large owners seems unlikely for a number of reasons. First, previous literature has highlighted the multiple benefits of CSP in terms of firm value and risk reduction, two aspects that would suggest a positive link (not a negative one as we show). Second, the proportion of strategic blockholdings in our sample is relatively stable, while the attention to CSP has increased significantly over the last decade. Rather than large owners avoiding higher level CSP firms, it is more likely that firms already had concentrated ownership before CSP became prominent.

Therefore, we believe that the main empirical concern is to control for relevant omitted variables that exhibit firm or country level variation. The firm fixed effects and year dummies control for time-constant firm heterogeneity and systematic shocks in all firms, respectively. Although this is already a restrictive specification, to well-identify the magnitudes of our main independent variables we test our results by introducing an extended set of control variables. First, we introduce two additional corporate governance variables: CEO duality and board size. CEO duality can be viewed as an impediment to the board's monitoring function,



while board size can affect board participation (Tuggle et al. 2010). Second, we control for the relative size of the firm in the industry, as engaging in CSP could be similar between size-industry peers, an effect not captured by the individual size variable. Third, to better identify the magnitudes of the international institutional variables, we include a series of macro-level controls: market capitalization of listed companies (percentage of GDP), GDP per capita, GDP growth and health expenditures (percentage of GDP). Tables 6 and 7 replicate all specifications for the main effects and the interactions with the business context including the additional sets of controls. Results do not change, while for some coefficients the statistical significance even increases. Moreover, results do not change when sequentially introducing the additional controls or when models only include alternative subsets of controls.

[Table 6 and 7 about here]

Next, we perform a number of tests related to the dependent variable and to the methodology. We verify that our results hold if we use a broader definition of CSP that incorporates the economic pillar to the social and environmental pillars. The economic pillar, also defined by Thomson Reuters Asset4, reflects client loyalty, shareholder loyalty and firm performance. Specifications (1), (2) and (3) in Table 6 replicate our main analyses for ownership concentration and type, and board independence using this broader definition of the dependent variable. The results are essentially unchanged.

[Table 8 about here]

We repeat our analysis using OLS with time, industry and country fixed effects for the relationships between ownership concentration and type, and board independence on CSP. Specifications (4), (5) and (6) show similar results for ownership concentration and board independence, although the magnitudes of the effects are larger. Regarding the influence of different types of blockholders, the signs of all types remain the same, but all the coefficients are now significant. Additionally, following Petersen (2009) and Gow et al. (2010) who

indicate that clustering errors at firm level (as we do in the previous models) may not always lead to accurate results, we also cluster by firm and year, or country and year when calculating the robust standard errors. As common practice suggests (e.g. Dhaliwal et al. 2012), the different clustering levels are also defined for OLS regressions with industry, country and year fixed effects. For all cases, the tenor of our results does not change, and, overall, these additional analyses provide further support to our results.

## **V. CONCLUDING REMARKS**

Given the growing attention to CSP, especially its recently documented positive impact on firm returns, it is crucial to better understand its firm-level drivers. We analyze how variations in ownership concentration, ownership type and board independence are related to the firm's CSP. We theorize on the relation between corporate governance and CSP, and the underlying influences exerted by formal and informal institutions. By using an international panel of listed firms, we are able to consistently show that it is essential to cautiously interpret firm-level results from this and previous research, as these depend on the business context.

We reveal that ownership concentration is negatively related to within-firm variations of CSP, while board independence is positively related with firm-level CSP variations. Large shareholders seem to restrict the allocation of resources to CSP, which we argue may reflect the dissimilar timeframe of costs and benefits of CSP, but also the possible shifts in the power distribution within the firm (e.g. Burkhart et al. 1997; Demsetz et al. 1997). From a team production perspective, the higher proportional claim and firm specific investments of large owners overweigh those of other stakeholder categories (see Alchian and Demsetz 1972; Klein et al. 2012). To provide further insights into this finding, we classify large owners according to type and reveal that foreign ownership concentration is positively associated with CSP, while financial companies' blockholdings have a strong negative relationship with

CSP. Also, our findings indicate that independent directors should be understood as agents in their own right, not only focused on shareholder interests but on a larger set of stakeholders (Lorsch and MacIver 1989; Blair and Stout 1999; Deutsch et al. 2011), and concerned with their reputation (Linck et al. 2009). Interestingly, we reveal that the positive relationship between board independence and CSP is significantly weaker when ownership concentration is high. In this scenario, the large shareholders more closely define the power structure within the company and the board plays a less important role (Desender et al. 2013).

A key contribution is that we demonstrate that firm-level drivers of CSP depend on the business context, by showing that formal and informal of institutions significantly moderate the relationship between ownership concentration and CSP. The essential takeaway is that, especially for international panel data analyses, it is vital to consider the boundary effects of firm-level hypotheses explaining CSP. Ownership concentration is negatively related to CSP more strongly when formal rules and regulations (Shleifer and Vishny 1997; La Porta et al. 1999; Leuz et al. 2003; Aguilera and Jackson 2010) emphasize the relative importance of shareholders over other stakeholders. This is consistent with the idea that in shareholder-oriented societies decisions rely more on short-term profitability objectives (Kochhar and David 1996; Teoh et al. 1998), while CSP benefits are uncertain, based on long-term strategies and linked to stakeholders' pressure. Moreover, the same result holds when informal institutions allow for more discretion of economic actors (i.e. high individualism) (Hofstede 1980; Matten and Moon 2008). This result provides interesting insights into the basic positive relationship between individualism and CSP, previously documented by Ioannou and Serafeim (2012). In contrast, when informal institutions exert strong pressures towards egalitarian behavior (Schwartz 1994; 2004; Siegel et al. 2011; 2013), large owners exercise less pressure to control the allocation of resources towards CSP. It thus seems that

stakeholder-oriented societies view the firm as an important channel for CSP investments, while in shareholder-oriented environments other channels may also be adequate.

Overall, our work has important academic and policy implications that emerge from a better understanding of the corporate governance drivers of CSP. There are limitations to our study. As it tends to be the case for metrics used in existing literature, the CSP scores provided by Thomson Reuters ASSET4 are an imperfect measure. Similar to Ioannou and Serafeim (2012) or Cheng et al. (2014), we remark that CSP scores could be noisy to the extent in which they do not capture some impacts of CSR activities. However, given the rigorous approach used for constructing the ASSET4 database, we believe these neglected aspects to be minimal. Also, given that ASSET4 data refer to publicly traded firms, our results are more relevant for these types of organizations (see Ioannou and Serafeim (2012) or Cheng et al. (2014)). This limitation is important if public and private corporations respond to organizational and institutional incentives in significantly different ways. Future research could investigate whether corporate governance drivers are different between listed and non-listed firms. Finally, our sample mostly includes firms from developed markets. It would be interesting to see whether our results hold for larger samples of firms from emerging markets.

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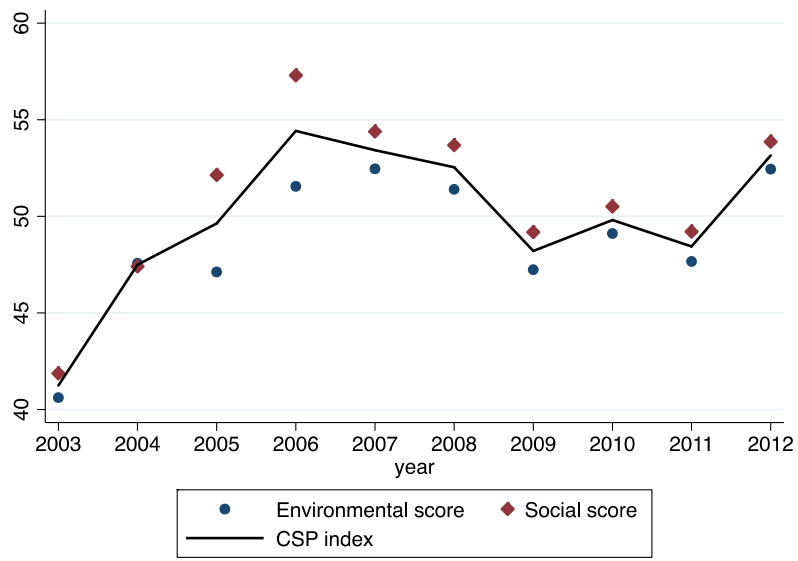
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**Figure 1.** Average values of two CSP pillars



**Table 1.** Descriptive statistics: All variables

Variable	Obs.	Mean	Std. Dev.	Min	Median	Max
CSP index	11163	49.95	29.18	5.97	47.23	97.81
Environmental score	11163	48.95	31.60	8.31	45.00	97.16
Social score	11163	50.96	30.00	3.34	49.86	98.89
Strategic holdings	11163	25.24	22.12	0.00	19.00	97.00
Corporation holdings	11163	5.92	14.83	0.00	0.00	96.00
Individual holdings	11163	3.27	10.52	0.00	0.00	91.00
Foreign holdings	11163	4.72	11.41	0.00	0.00	92.00
Government holdings	11163	0.59	5.18	0.00	0.00	86.00
Financial company holdings	11163	13.96	16.74	0.00	9.00	93.00
Board independence	11163	66.17	22.29	0.00	71.43	100.00
LnTA	11163	15.74	2.20	7.81	15.45	26.47
ROA	11163	0.04	0.14	-2.95	0.04	5.94
Liabilities/TA	11163	0.58	0.25	-0.48	0.58	4.66
Strength of investor protection	11163	7.61	1.30	3.00	8.30	9.70
Ease of shareholder suit	11163	7.97	1.38	3.00	9.00	10.00
Ease of director liability	11163	7.21	2.56	1.00	9.00	9.00
Strength of legal rights	11163	8.62	1.33	3.00	9.00	10.00
Stakeholder index	11085	-0.47	1.26	-2.73	-1.42	2.95
Egalitarianism	10921	4.88	0.16	4.47	4.80	5.39
Individualism	11163	81.72	17.63	18.00	90.00	91.00
CEO duality	11163	0.37	0.48	0.00	0.00	1.00
Board size	11155	10.03	3.15	1.00	10.00	33.00
Ln(Size in industry)	11163	0.02	0.09	0.00	0.00	0.69
Ln(Market capitalization / GDP)	11163	4.67	0.36	2.45	4.78	5.70
GDP growth	11163	1.34	2.75	-8.54	1.91	14.76
Ln(GDP per capita)	11163	10.56	0.52	6.71	10.71	11.49
Ln(Health expenditure / GDP)	11163	2.46	0.37	1.11	2.42	2.88

All variables considered for regression analyses. All variables vary across time, except for egalitarianism and individualism are constant over time for each country, and the strength of investor protection, ease of shareholder suit, ease of director liability, strength of legal rights, stakeholder index, Ln(Market capitalization / GDP), GDP growth, Ln(GDP per capita), Ln(Health expenditure / GDP) which are constant per year for all observations in the same country.

**Table 2: Summary statistics of the key variables by country**

Country	CSP index	Strategic holdings	Board indep.	Investor protection	Ease of shareholder suit	Ease of director liability	Legal enforcement	Stakeholder index	Egalitarianism	Individualism
Australia	39.36	21.96	66.46	5.7	7	2	9	1.58	4.921	90
Austria	6.85	28	32.2	5	5	5	7	1.25	5.059	55
Belgium	56.05	36.08	46.36	7	7	6	6	1.29	NA	75
Brazil	56.59	47.94	40.78	5.3	3	7	3	-1.92	5.037	38
Canada	38.2	17.09	75.55	8.7	9	9	7	0.56	4.985	80
Denmark	39.57	35.76	31	6.3	7	5	8.41	2.95	5.147	74
Finland	67.01	22.28	68.79	5.7	7	4	8	1.89	5.026	63
France	79.89	35.21	48.15	5.3	5	1	6.45	1.12	5.183	71
Germany	55.66	26.5	0	5	5	5	8	0.81	5.14	67
Greece	51.5	32.83	27.86	3.14	5	3.5	4	-0.33	4.979	35
India	57.71	44.09	54.27	6	7	4	7.95	-2.73	4.494	48
Ireland	39.83	26.97	61.31	8.3	9	6	9	NA	4.987	70
Italy	39.59	38.62	28.15	6	7	4	3	-0.09	5.376	76
Japan	59.43	17.04	17.49	7	8	6	6.42	-0.95	4.466	46
Malaysia	48.54	42.82	52.76	8.7	7	9	10	-1.76	4.497	26
Netherlands	83.2	12.24	74.57	4.3	6	4	6	1.52	5.083	80
New Zealand	50.32	20.68	69.43	9.7	10	9	10	0.64	5.027	79
Norway	45.51	34.72	33.4	6.7	7	6	6	2.62	5.285	69
Portugal	68.74	54.19	33.15	6	7	5	3	-0.29	5.388	27
Singapore	42.25	35.13	59.3	9.3	9	9	10	-0.59	4.691	20
South Africa	73.64	38.73	54.91	8	8	8	10	-1.42	NA	65
South Korea	63.21	36.67	54.26	5.3	7	2	8	-1.57	4.471	18
Spain	78.23	46.04	38.31	5	4	6	6	-0.42	5.203	51
Sweden	47.72	28.46	55.69	4.89	7	4	7.08	2.9	4.96	71
Switzerland	60.82	25.73	56.98	3	4	5	8	1.34	4.979	68
United Kingdom	62.72	26.36	53.06	8	7	7	10	0.47	4.998	89
United States	44.53	22.98	77.81	8.3	9	9	9	-1.55	4.799	91



**Table 3. Correlations: Main variables**

	CSP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 Environmental score	0.95	1.00																	
2 Social score	0.94	0.80	1.00																
3 Board independence	0.00	-0.02	0.02	1.00															
4 Strategic holdings	-0.08	-0.09	-0.06	-0.31	1.00														
5 Corporation holdings	0.03	0.02	0.03	-0.30	0.46	1.00													
6 Individual holdings	-0.05	-0.05	-0.05	-0.22	0.33	-0.04	1.00												
7 Foreign holdings	0.04	0.03	0.05	-0.20	0.36	0.39	0.04	1.00											
8 Government holdings	0.09	0.08	0.09	-0.07	0.15	-0.02	-0.03	0.02	1.00										
9 Financial company holdings	-0.15	-0.15	-0.13	0.06	0.56	-0.21	-0.14	-0.03	-0.07	1.00									
10 LnTA	0.35	0.34	0.32	-0.01	-0.04	0.09	-0.04	-0.05	0.09	-0.14	1.00								
11 ROA	0.06	0.04	0.07	0.00	0.02	0.02	0.05	0.01	0.01	-0.02	-0.02	1.00							
12 Liabilities/TA	0.15	0.13	0.16	0.00	-0.02	-0.05	-0.06	-0.05	0.02	0.03	0.32	-0.14	1.00						
13 Strength of investor prot.	-0.15	-0.15	-0.14	0.36	-0.14	-0.29	-0.18	-0.11	-0.05	0.22	-0.13	0.00	0.02	1.00					
14 Ease of shareholder suit	-0.28	-0.26	-0.27	0.50	-0.19	-0.31	-0.21	-0.19	-0.08	0.22	0.01	-0.02	-0.04	0.82	1.00				
15 Ease of director liability	-0.15	-0.15	-0.12	0.36	-0.10	-0.26	-0.14	-0.15	-0.06	0.21	-0.06	0.01	0.06	0.87	0.74	1.00			
16 Strength of legal rights	-0.04	-0.05	-0.03	0.23	-0.07	-0.23	-0.07	-0.05	-0.05	0.21	-0.22	0.03	0.00	0.46	0.33	0.25	1.00		
17 Stakeholder index	0.08	0.09	0.06	-0.27	-0.02	0.08	0.10	0.19	0.02	-0.20	-0.33	-0.02	-0.11	-0.45	-0.54	-0.64	-0.10	1.00	
18 Egalitarianism	0.14	0.12	0.15	-0.16	0.05	0.05	0.10	0.16	-0.02	-0.09	-0.45	-0.02	0.02	-0.26	-0.52	-0.27	-0.24	0.68	1.00
19 Individualism	-0.13	-0.13	-0.11	0.39	-0.18	-0.38	-0.11	-0.12	-0.22	0.24	-0.44	-0.02	-0.02	0.41	0.41	0.31	0.49	0.00	0.20

**Table 4.** CSP, ownership structure and board independence

	(1)	(2)	(3)	(4)	(5)	(6)
Strategic holdings	-0.039*** (0.015)			-0.038** (0.015)		0.064* (0.035)
Corporation holdings		-0.042* (0.024)			-0.040 (0.024)	
Individual holdings		-0.032 (0.032)			-0.029 (0.032)	
Foreign holdings		0.040* (0.024)			0.041* (0.024)	
Government holdings		0.074 (0.057)			0.074 (0.058)	
Financial companies holdings		-0.082*** (0.020)			-0.083*** (0.020)	
Board independence			0.042** (0.017)	0.041** (0.017)	0.043** (0.017)	0.100*** (0.025)
Board Independence× Strategic holdings						-0.002*** (0.001)
LnTA	1.825** (0.709)	1.730** (0.706)	1.817** (0.710)	1.811** (0.706)	1.714** (0.703)	1.874*** (0.700)
ROA	1.817* (1.019)	1.837* (1.016)	1.925* (1.028)	1.859* (1.021)	1.883* (1.017)	1.783* (1.007)
Liabilities/TA	-1.103 (1.799)	-1.057 (1.803)	-0.813 (1.797)	-0.923 (1.794)	-0.867 (1.799)	-0.902 (1.788)
Firm fixed effects	yes	yes	yes	yes	yes	yes
Year effects	yes	yes	yes	yes	yes	yes
Constant	18.377* (11.102)	20.029* (11.083)	14.746 (11.102)	15.753 (11.008)	17.325 (10.986)	10.797 (10.997)
R-squared	0.204	0.207	0.204	0.206	0.208	0.208
Observations	11163	11163	11163	11163	11163	11163

Fixed effects panel data regressions (equation (1) in Section III). Dependent variable CSP index (social and environmental scores). Robust standard errors are presented in brackets. \*, \*\*, \*\*\* indicate significance at the 0.10, 0.05, and 0.01 levels, respectively.

**Table 5. Formal and Informal Institutions: Firm-level results in context**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Strategic holdings	0.026 (0.020)	0.027 (0.019)	0.024 (0.019)	0.006 (0.022)	0.042** (0.019)	-0.079*** (0.021)	0.032* (0.019)
Board independence	0.042** (0.017)	0.041** (0.017)	0.041** (0.017)	0.042** (0.017)	0.041** (0.017)	0.043** (0.017)	0.041** (0.017)
High investor protection× Strategic holdings	-0.102*** (0.027)						
High ease shareholder suit× Strategic holdings		-0.106*** (0.027)					
High ease director liability× Strategic holdings			-0.101*** (0.027)				
High strength legal rights× Strategic holdings				-0.055** (0.028)			
Low stakeholder index × Strategic holdings					-0.128*** (0.027)		
High egalitarianism× Strategic holdings						0.104*** (0.027)	
High individualism× Strategic holdings							-0.123*** (0.027)
LnTA	1.827*** (0.695)	1.827*** (0.695)	1.829*** (0.695)	1.794** (0.704)	1.864*** (0.701)	1.808*** (0.678)	1.890*** (0.693)
ROA	1.831* (1.011)	1.830* (1.011)	1.833* (1.012)	1.841* (1.020)	1.711* (0.997)	1.563 (0.972)	1.782* (1.013)
Liabilities/TA	-0.942 (1.786)	-0.947 (1.786)	-0.932 (1.786)	-0.903 (1.795)	-1.008 (1.796)	-1.12 (1.787)	-0.944 (1.787)
Firm fixed effects	yes	yes	yes	yes	yes	yes	yes
Year effects	yes	yes	yes	yes	yes	yes	yes
Constant	15.242 (10.845)	15.255 (10.836)	15.237 (10.840)	15.825 (10.993)	5.22 (10.732)	15.329 (10.532)	14.414 (10.810)
R-squared	0.209	0.209	0.209	0.206	0.215	0.211	0.211
Observations	11163	11163	11163	11163	11085	10921	11163

Fixed effects panel data regressions (equation (2) in Section III). Dependent variable CSP index (social and environmental scores). Robust standard errors are presented in brackets. Note that that high investor protection, high ease of shareholder suit, high ease of director liability, high strength of legal rights, low stakeholder index, high egalitarianism and high individualism do not vary in time and therefore their direct effects are absorbed by the fixed effects. \*, \*\*, \*\*\* indicate significance at the 0.10, 0.05, and 0.01 levels, respectively.

**Table 6. Robustness analysis: CSP, ownership structure and board independence**

	(1)	(2)	(3)	(4)	(5)	(6)
Strategic holdings	-0.039*** (0.015)			-0.038*** (0.015)		0.063* (0.035)
Corporation holdings		-0.045* (0.024)			-0.043* (0.024)	
Individual holdings		-0.029 (0.032)			-0.026 (0.032)	
Foreign holdings		0.038* (0.023)			0.040* (0.023)	
Government holdings		0.066 (0.055)			0.065 (0.056)	
Financial companies holdings		-0.082*** (0.020)			-0.083*** (0.020)	
Board independence			0.045*** (0.017)	0.044** (0.017)	0.045*** (0.017)	0.102*** (0.025)
Board Independence× Strategic holdings						-0.002*** (0.001)
LnTA	1.498** (0.709)	1.411** (0.707)	1.489** (0.710)	1.471** (0.706)	1.383** (0.704)	1.542** (0.700)
ROA	1.750* (1.007)	1.782* (1.003)	1.855* (1.016)	1.790* (1.008)	1.825* (1.004)	1.720* (0.996)
Liabilities/TA	-1.226 (1.807)	-1.149 (1.811)	-0.961 (1.806)	-1.052 (1.803)	-0.968 (1.807)	-1.024 (1.797)
CEO duality	0.341 (0.730)	0.316 (0.729)	0.31 (0.731)	0.313 (0.729)	0.289 (0.727)	0.308 (0.726)
Board Size	0.365** (0.158)	0.351** (0.157)	0.372** (0.158)	0.377** (0.158)	0.362** (0.157)	0.364** (0.158)
Ln(Size in industry)	5.184 (5.824)	4.912 (5.834)	5.92 (5.760)	5.477 (5.754)	5.211 (5.761)	6.273 (5.754)
Ln(Market capitalization / GDP)	1.301 (1.301)	1.422 (1.275)	1.148 (1.314)	1.238 (1.292)	1.37 (1.265)	1.353 (1.290)
GDP growth	0.019 (0.088)	-0.001 (0.085)	0.034 (0.087)	0.019 (0.087)	-0.001 (0.085)	0.019 (0.087)
Ln(GDP per capita)	3.187 (2.223)	3.452 (2.201)	2.611 (2.239)	3.383 (2.224)	3.682* (2.202)	3.085 (2.238)
Ln(Health expenditure / GDP)	9.911 (8.100)	7.151 (8.101)	12.035 (8.162)	11.155 (8.141)	8.456 (8.140)	10.355 (8.151)
Firm fixed effects	yes	yes	yes	yes	yes	yes
Year effects	yes	yes	yes	yes	yes	yes
Constant	-44.465 (38.254)	-39.437 (38.191)	-46.712 (38.395)	-51.928 (38.399)	-54.438 (37.279)	-52.387 (38.504)
R-squared	0.206	0.208	0.206	0.207	0.21	0.209
Observations	11155	11155	11155	11155	11155	11155

Fixed effects panel data regressions (equation (1) in Section III). Dependent variable CSP index (social and environmental scores). Robust standard errors are presented in brackets. These specifications report eight less observations with respect to Tables 4 and 5 due to missing values in the board size variable. Results do not change when this variable is removed. \*, \*\*, \*\*\* indicate significance at the 0.10, 0.05, and 0.01 levels, respectively.

**Table 7. Robustness analysis: Formal and Informal Institutions: Firm-level results in context**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Strategic holdings	0.026 (0.020)	0.027 (0.020)	0.025 (0.020)	0.007 (0.022)	0.039** (0.019)	-0.079*** (0.021)	0.031* (0.019)
Board independence	0.044** (0.017)	0.044** (0.017)	0.044** (0.017)	0.045*** (0.017)	0.044** (0.017)	0.045*** (0.017)	0.043** (0.017)
High investor protection× Strategic holdings	-0.103*** (0.027)						
High ease shareholder suit× Strategic holdings		-0.106*** (0.027)					
High ease director liability× Strategic holdings			-0.103*** (0.027)				
High strength legal rights× Strategic holdings				-0.058** (0.028)			
Low stakeholder index × Strategic holdings					-0.123*** (0.027)		
High egalitarianism× Strategic holdings						0.105*** (0.027)	
High individualism× Strategic holdings							-0.122*** (0.027)
LnTA	1.504** (0.696)	1.509** (0.695)	1.501** (0.695)	1.453** (0.704)	1.577** (0.702)	1.495** (0.680)	1.573** (0.694)
ROA	1.757* (1.000)	1.758* (1.000)	1.759* (1.000)	1.771* (1.008)	1.661* (0.992)	1.483 (0.963)	1.740* (1.003)
Liabilities/TA	-1.059 (1.795)	-1.06 (1.795)	-1.049 (1.795)	-1.026 (1.804)	-1.164 (1.810)	-1.225 (1.796)	-1.023 (1.796)
CEO duality	0.344 (0.726)	0.345 (0.726)	0.35 (0.726)	0.315 (0.728)	0.387 (0.729)	0.412 (0.730)	0.329 (0.724)
Board Size	0.340** (0.157)	0.336** (0.157)	0.345** (0.157)	0.369** (0.158)	0.339** (0.159)	0.324** (0.159)	0.326** (0.157)
Ln(Size in industry)	6.081 (5.740)	6.06 (5.745)	6.066 (5.741)	5.69 (5.756)	5.489 (5.788)	5.527 (5.734)	6.072 (5.780)
Ln(Market capitalization / GDP)	1.812 (1.271)	1.764 (1.268)	1.836 (1.272)	1.384 (1.291)	-0.236 (1.309)	2.075 (1.277)	1.946 (1.265)
GDP growth	0.026 (0.088)	0.029 (0.088)	0.024 (0.088)	0.014 (0.088)	-0.025 (0.085)	0.017 (0.087)	-0.043 (0.085)
Ln(GDP per capita)	3.45 (2.216)	3.322 (2.213)	3.554 (2.216)	3.651* (2.218)	2.429 (2.283)	4.021* (2.280)	3.527 (2.202)
Ln(Health expenditure / GDP)	11.971 (8.096)	11.267 (8.082)	12.028 (8.090)	11.397 (8.123)	11.475 (8.137)	13.616* (7.928)	10.712 (8.017)
Firm fixed effects	yes	yes	yes	yes	yes	yes	yes
Year effects	yes	yes	yes	yes	yes	yes	yes
Constant	-57.897 (38.209)	-54.642 (38.122)	-59.221 (38.235)	-63.405* (37.344)	-44.984 (38.142)	-76.066** (37.119)	-63.932* (36.758)
R-squared	0.211	0.211	0.211	0.207	0.216	0.212	0.212
Observations	11155	11155	11155	11155	11077	10913	11155

Fixed effects panel data regressions (equation (2) in Section III). Dependent variable CSP index (social and environmental scores). Robust standard errors are presented in brackets. Note that that high investor protection, high ease of shareholder suit, high ease of director liability, high strength of legal rights, low stakeholder index, high egalitarianism and high individualism do not vary in time and therefore their direct effects are absorbed by the fixed effects. These specifications report eight less observations (except in model 6) with respect to Tables 4 and 5 due to missing values in the board size variable. Results do not change when this variable is removed. \*, \*\*, \*\*\* indicate significance at the 0.10, 0.05, and 0.01 levels, respectively.

**Table 8. Robustness analysis: Alternative specifications**

	(1)	(2)	(3)	(4)	(5)	(6)
	FE, Three pillars CSP	FE, Three pillars CSP	FE, Three pillars CSP	OLS, Two pillars CSP	OLS, Two pillars CSP	OLS, Two pillars CSP
Strategic holdings	-0.036** (0.014)	0.022 (0.033)		-0.092*** (0.011)	0.087*** (0.029)	
Board independence	0.048*** (0.016)	0.081*** (0.024)	0.049*** (0.016)	0.158*** (0.013)	0.252*** (0.020)	0.158*** (0.014)
Board Independence× Strategic holdings		-0.001* (0.000)			-0.003*** (0.000)	
Corporation holdings			-0.035 (0.022)			-0.082*** (0.019)
Individual holdings			-0.038 (0.028)			-0.208*** (0.020)
Foreign holdings			0.033 (0.022)			0.075*** (0.021)
Government holdings			0.063 (0.064)			0.145*** (0.045)
Financial companies holdings			-0.071*** (0.019)			-0.125*** (0.017)
LnTA	0.589 (0.654)	0.625 (0.650)	0.509 (0.650)	9.730*** (0.160)	9.653*** (0.161)	9.546*** (0.163)
ROA	1.136 (0.899)	1.092 (0.890)	1.157 (0.900)	8.389*** (2.053)	7.875*** (1.996)	8.576*** (2.061)
Liabilities/TA	-0.634 (1.666)	-0.623 (1.665)	-0.574 (1.669)	-0.983 (1.073)	-1.008 (1.072)	-0.793 (1.069)
Firm fixed effects	yes	yes	yes			
Year effects	yes	yes	yes	yes	yes	yes
Industry fixed effects				yes	yes	yes
Country fixed effects				yes	yes	yes
Constant	36.602*** (10.263)	33.762*** (10.244)	37.879*** (10.218)	-113.974*** (10.164)	-117.731*** (8.791)	-110.758*** (10.498)
R-squared	0.168	0.169	0.170	0.482	0.484	0.486
Observations	11161	11161	11161	11163	11163	11163

Fixed effects panel data (models (1) to (3)) and OLS (models (4) to (6)) regressions. The dependent variable is the CSP index including the social, environmental and economic dimensions for models (1) to (3) (fixed effects panel data regressions), and the CSP index based on social and environmental dimensions for models (4) to (6) (OLS regressions). Robust standard errors are presented in brackets. \*, \*\*, \*\*\* indicate significance at the 0.10, 0.05, and 0.01 levels, respectively.