The Representation of Managers, Shareholders and other Stakeholders inside the Boardroom: Does it Matter for CSR Commitment? *

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Abstract

Using multi-source extra-financial rating datasets (Vigéo and Asset4), this paper empirically investigates the relationships between CSR commitment (social, environment and societal) and board composition for French listed firms (SBF120) over the 2006-2011 period. This paper tests the two main hypotheses regarding CSR commitment from the corporate governance perspective: CEO's opportunistic behavior and stakeholder conflict resolution, and compares both shareholder and stakeholder board perspectives. We show that CSR commitment, except environment one, is driven by good corporate governance practices from the shareholder perspective (high independence and low share of insiders). From the stakeholder perspective, social commitment is positively associated with stakeholders' representation inside the boardroom and societal one is positively related to supply-chain stakeholders' representation. These results support the stakeholder conflict resolution hypothesis (value-enhancing view). However, the results are mixed for environmental CSR dimension, suggesting that environmental commitment reduces conflicts with employees but exacerbates them with other stakeholders.

Key words: Agency Theory, Board of directors, Corporate Governance, Corporate Social Responsibility, Stakeholder Theory.

JEL codes: C21, G34, L21, M14

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Abbreviations

AFEP - Association Francaises des Entreprises Privées

CAC40 - Cotation Assitée en Continu 40 - 40 first listed firms on Euronext-Paris

CEO- Chief Executive Officer

CG - Corporate Governance

CSR - Corporate Social Responsability

C&S - Customers and Suppliers (Vigéo)

ENV - Environment (Vigéo)

GRI - Global Reporting Initiative

ESG - Environment, Social and Governance factors

HR - Human Ressources (Vigéo)

KPI - Key Performance Indicator

MEDEF - Mouvement des Entreprises DE France

NGO - Non-Governmental Organization

OECD - Organisation for Economic Co-operation and Development

ROA - Return On Assets

R&D - Research and Development

SBF120 - Société des Bourses Francaises 120 -120 first listed firms on Euronext-Paris

UN - United Nation

1 Introduction

For decades, scandals and crises have focused attention on Corporate Social Responsibility (CSR) and Corporate Governance (CG) practices. Firms accept to bear extra-costs to take into account environmental, social, human rights issues through their CSR beyond what the law requires (McWilliams and Siegel, 2000). The aims are to comply with the legal, moral and ethical rules of the society (Hill et al., 2007), to produce welfare for strategic stakeholders (Freeman, 1984) and to maximize shareholders' long-term wealth (Friedman, 1970). Corporate Governance refers to "the ways in which the suppliers of finance to corporations assure themselves of getting a return on their investments" (shareholder model) (Shleifer and Vishny, 1997) but also the ways to protect firm's social interest and to balance the interests of various stakeholders, especially labor forces (stakeholder model) (Aglietta and Reberioux, 2005). Whereas there is a vivid literature on the link between corporate governance and financial performance, the relationship between governance and CSR commitment remains largely unclear (Governance-CSR nexus, see Harjoto and Jo (2011); Jo and Harjoto (2012)).

From an agency view, CSR, as a part of managers' discretionary area (Wood, 1991), may be opportunistically used by the Chief Executive Officer (CEO) in order to entrench himself (Cespa and Cestone, 2007) or to build a good citizen reputation (Barnea and Rubin, 2010). CSR is therefore an agency problem (opportunistic behavior hypothesis) (Ferrell et al., 2016). In this case, inefficient governance systems and CSR commitment should be positively correlated (Harjoto and Jo, 2011). In the opposite, from a stakeholder theory perspective, CSR is a way to reduce conflicts between managers, investors and non-investing stakeholders (Jensen, 2001; Scherer et al., 2006) in order to maintain firms' license to operate and to improve long-term financial performances (Post et al., 2002; Shahzad et al., 2016). CSR is therefore a value-enhancing strategy (the stakeholder conflict resolution hypothesis) (Ferrell et al., 2016). In this case, CSR commitment should be related to good corporate governance practices (Harjoto and Jo, 2011).

The board of directors plays here a central role. Board is indeed responsible for firm's objectives, legal compliance, and risk management, and looks after CSR as an extension of its fiduciary duties towards the shareholders (Mickels, 2009, OECD Principles). Board composition and organization are then the main drivers of governance effectiveness (Adams et al., 2010). Gender and ethnic diversities has been highlighted as good practices to increase CSR concerns (Post et al., 2011; Boulouta, 2013; Harjoto et al., 2015). However, more importantly, the bargaining power of CEO towards shareholders and at some extend stakeholders inside the boardroom appears as the crucial issue (Harjoto and Jo, 2011; Hillman et al., 2001). From the shareholder perspective, good corporate governance practice is defined by an independent board with the separation of Chairman and CEO jobs, in order to reduce the conflict of interest between the shareholders and the managers and to avoid CEO entrenchment and opportunistic behavior (Jo and Harjoto, 2011; Shaukat et al., 2016). From the stakeholder perspective, good corporate governance practices are related to the representation of the various strategic stakeholders inside the boardroom, especially the employee or the community representative, in order to maintain the license to operate and to integrate their interests (Hillman et al., 2001). Most of the literature adopts the shareholder perspective to study the relationship between board composition and CSR commitment (Hillman et al., 2001). Yet, regarding CSR issues, the stakeholder perspective could be very relevant to understand the link between corporate governance and firm performance.

This paper investigates the relationship between board composition from the shareholder and stakeholder perspectives and CSR commitments in social, environment and societal dimensions. The empirical analyses rely on an original database matching one corporate governance database and two extra-financial data sets (Vigéo and Asset4) for the largest French listed firms (SBF120) over the 2006-2011 period. Regarding board composition, from the shareholder perspective, directors are commonly identified as insider, affiliated [1] and independent in order to measure CEO's entrenchment and board monitoring abilities. From the stakeholder perspective, directors are classified as shareholders' representatives: insiders, employees' representatives, business directors (customers and suppliers), support directors (bankers and insurers) and extern directors (other stakeholders). Regarding CSR commitment (Environment, Social and Societal), Vigéo and Asset4 ratings enable to measure CSR commitment intensity (CSR commitment index) and to compare firm behavior (policy and practices). After aggregating data at the board level, the probit analyses estimate the propensity to care about CSR more than the industry-average firm behavior depending on board composition and firm characteristics as well as industry and year fixed effect. Moreover, non-linear effects of board composition are tested as suggested by de Villiers et al. (2011) and Chang et al. (2017).

The paper shows that the CEO's opportunistic behavior hypothesis is clearly rejected for social and societal dimensions. From the shareholder perspective, CSR, societal and social commitment intensities are negatively correlated with the share of insiders or positively related to the share of independent directors, depending on the extra-financial rating data sets. Environmental commitment is non significantly related to monitoring or entrenchment abilities. From the stakeholder perspective, the empirical evidences on Vigéo data suggest that social commitments may be used to resolve conflicts between managers, and non-investing stakeholders, whereas societal engagement is more likely to reduce conflicts with business stakeholders and employees. In the opposite, environmental seems to resolve conflicts only with the employees and to exacerbate conflicts with other stakeholders, especially with support stakeholders. However, Asset4 data remains inconclusive from the stakeholder perspective. Multi-dimensional CSR commitment is driven by the aim of conflict reduction with the stakeholders. Vigéo ratings seems to be more sensitive to stakeholders'demands than Asset4.

This paper makes the following contributions to the CSR-Governance nexus literature. First, this paper follows the recent papers testing the two main hypotheses (the opportunistic behavior or the stakeholder conflict resolution) explaining CSR commitment by board composition (Harjoto and Jo, 2011), governance quality (corporate governance rating) (Jo et al., 2016) and by an agency view of firm characteristics and decisions (cash flow, dividend, leverage) (Ferrell et al., 2016). This paper fills the gap between the shareholder and stakeholder perspectives to investigate the relationships between board composition and CSR commitment intensity. It analyzes the impacts of board monitoring and entrenchment abilities (Jo and Harjoto, 2011) and the stakeholder board representation, extending Hillman's typology (2001), on CSR engagements. The stakeholder perspective of board composition enables indeed to better understand the bargaining powers inside the boardroom leading to specific CSR commitment. The French stakeholder corporate governance model could better achieve sustainable objectives(Coles et al., 2008; Shahzad et al., 2016).

Second, the most recent studies on the link between CSR and financial performances highlight the CSR multi-dimensionality and the potential trade-offs and synergies between CSR dimensions (Harjoto and Jo, 2011; Jo and Harjoto, 2012; Cavaco and Crifo, 2014). Most of empirical studies on board of directors (with the noticeable exception of Hillman et al. (2001)) use however aggregated CSR measures or focused on a single criterion. Using Vigéo and Asset4 multi-dimensional extra-financial data, this paper separately tests the determinants of each CSR commitment. We show thus that social and societal engagements may be driven by the same stakeholders, whereas environment investment could exacerbate conflicts among firm's stakeholders. This evidence provides some pieces of explanation about some complementary and substitute effects highlighted in the CSR-performance nexus literature. In particular, Cavaco and Crifo (2014) show a complementary effect between social and societal engagement on firm performance, whereas social and environment are substitute. CSR commitment is then a choice regarding the firm's stakeholders.

Third, this paper contributes to the debate about the robustness and consistency of CSR practices evaluation and extra-financial ratings (Chatterji et al., 2009; Escrig-Olmedo et al., 2010). Extra-financial rating agencies differ by their CSR theorization, indicators and aggregation methodology (Chatterji et al., 2016). We propose here to analyze the same relationships on two independent data-sets coming from Vigéo and Asset4, the two leading European extra-financial rating agencies. Vigéo rates firms according a set of industry-related indicators and the knowledge of extra-financial analysts. Asset4 systematically uses the same indicators without any input of analysts. Asset4 provides then ESG (Environment, Social and Governance) information rather than extra-financial ratings like Vigéo (Escrig-Olmedo et al., 2010). Even if the results from both data sets are mainly consistent, Vigéo seems to be more sensitive to stakeholders'demands. The empirical results pinpoint the need of using multi-ESG sources to test the robustness of the results and to reduce the measurement and estimation biases (Chatterji et al., 2016).

Fourth, most of the previous studies are based on the American case (Harjoto and Jo, 2011; Ntim and Soobaroyen, 2013; Shaukat et al., 2016). However, some authors argue that the Anglo-Saxon governance model is less stakeholder-oriented than the continental European model (Martynova and Renneboog, 2011). We produce then the first evidence on the French case, defined by an hybrid model of corporate governance between shareholder and stakeholder models, that is driven by firm's social interest (Aglietta and Reberioux, 2005). This framework is then an appropriate setting to test the effects of both shareholder and stakeholder perspectives on CSR commitments (Crifo and Reberioux, 2016). In both cases, the empirical evidences reject the CEO's opportunistic behavior hypothesis and accept the stakeholder conflict resolution hypothesis (Harjoto and Jo, 2011). Nevertheless, the stake-holders representation seems to be a determinant of CSR commitment in the French case whereas the similar American study is quite inconclusive on this point (Hillman et al., 2001). It suggests that French governance may take better into account stakeholders' interests in the decision-making process, at least by improving stakeholders' representation inside the boardroom (Crifo and Reberioux, 2016).

The rest of this paper proceeds as follows. The second part discusses the literature and the hypotheses on the link between CSR and board composition. The third part presents the data and the fourth part the results. The fifth part discusses the results before concluding.

2 Literature review and hypotheses

CSR has received an important attention for decades (see Kitzmueller and Shimshack, 2012). Few recent studies focus on the link between corporate governance, especially board composition, and CSR commitments (see e.g. Hillman et al., 2001; Jo and Harjoto, 2011) without reaching any clear consensus. CSR is a delegated responsibility from directors to managers (Crifo and Forget, 2015). Two hypotheses support CSR engagement from the corporate governance perspective: the CEO opportunistic behavior hypothesis and the stakeholder conflict resolution hypothesis (Ferrell et al., 2016). In the first case, firms are over-committed in CSR at the expenses of the shareholders and CSR commitment reveals CEO's opportunistic behavior. In the second case, CSR commitment shows the ability of management to take into account shareholders' and stakeholders' interests in order to ensure firm's long-term wealth.

Regarding board composition, the corporate governance-CSR nexus can be analyzed according to the shareholder perspective (Harjoto and Jo, 2011) and to the stakeholder perspective (Hillman et al., 2001). The shareholder perspective reflects how directors represents the shareholders in the decision-making process (Adams et al., 2010). The literature highlights the role of independent directors to protect minority shareholders' interests and the role of insiders to support the CEO. Nevertheless, the shareholder perspective does not reflect the diversity of stakeholders (Shahzad et al., 2016) taken into account by the boardroom such as employees, business (customer and suppliers), support (banks) or outside (environmental activists for example) stakeholders. Directors regarding their background and their employment recognize and treat indeed various stakeholders differently (see Wang and Coffey, 1992). The stakeholder representation reveals then the bargaining power between managers and non-investing stakeholders in the decision-making process (Mitchell et al., 1997). This perspective could be more promising to understand CSR commitment.

The following literature review develops each hypothesis regarding both shareholder and stakeholder perspectives on board composition.

2.1 The CEO's opportunistic behavior hypothesis

According to the agency theory, Barnea and Rubin (2010) develop the hypothesis that CSR may be overly promoted by the CEO and the insiders (executive directors), as part of their discretionary area. Insider directors may indeed have some private benefits (career concerns) to support CEO decisions against shareholders' interests (Barnea and Rubin, 2010). They aim to receive some private benefits, like getting a personal reputation of good citizen, at the expense of the shareholders. The authors demonstrate that the ownership of insiders is negatively correlated with the likelihood that the firm adopts a responsible behavior. Insiders invest more in CSR policy when they do not bear the cost as shareholders. In the same direction, Coffey and Wang (1998) show that board dominated by insiders (management control) is significantly more likely to invest in philanthropic activities. More recently, Masulis and Reza (2015) confirm these results and show that philanthropic givings are more related to CEO preferences rather than to the interests of shareholders. These evidences legitimate CSR engagement as an opportunistic behavior from the managers. Thus, from the shareholder perspective, CSR performances should be correlated with boards dominated by the CEO and the insiders (entrenchment ability).

In order to reduce CEO's opportunism, Hermalin and Weisbach (1998) argue that independent directors, free of any conflict of interests, are more able to monitor CEO's choices and to reduce the bargaining power of the CEO in the decision-making process. In the same sens, the separation between Chairman and CEO positions leads to a more balanced power inside the boardroom and improves board monitoring ability (Rhoades et al., 2001). Surroca and Tribo (2008) demonstrated empirically that the proportion of independent directors and the Chairman-CEO separation are negatively correlated with CSR performances. The monitoring ability (Chairman-CEO separation and independent directors) are therefore able to improve governance efficiency (better alignment between managers' and shareholders' interests), to reduce the managerial discretionary area, and at the end to reduce CSR over-investment. In this perspective, a negative relationship between monitoring ability and CSR performances is therefore expected.

Hypothesis 1A (shareholder perspective): If the opportunistic behavior hypothesis is valid, a negative relationship between CSR commitment intensity and board monitoring ability and a positive relationship between CSR commitment intensity and the CEO's entrenchment ability are expected.

From a stakeholder perspective, Cespa and Cestone (2007) investigate the conflicts of interest between managers, shareholders and non-investing stakeholders. CEO invests in CSR in order to obtain stakeholders' support and protection against a firing threat in the case of poor performances. Surroca and Tribo (2008) confirm empirically a potential collusion between managers and non-investing stakeholders, especially the employees and environmental activists, thanks to specific CSR commitments.

The representatives of the other stakeholders should prone the reduction of CSR commitment. In this perspective, a positive relationship between the share of insiders and the representatives of the specific stakeholders on the one hand and CSR commitment on the other hand is expected. The other stakeholder representatives should be negatively related to CSR commitment.

Hypothesis 1B (stakeholder perspective): If the opportunistic behavior hypothesis is valid, CSR commitment intensity should be positively related to the share of insiders and the representatives of at least one strategic stakeholders, and negatively related to the share of the other stakeholders' representatives.

2.2 The stakeholder conflict resolution hypothesis

From the stakeholder theory perspective (Freeman, 1984), CSR commitment may be a way to ensure firm's license to operate and to protect shareholders' long-term interests. According to the New Stakeholder View (Post et al., 2002), maintaining good relationships with the network of legitimate stakeholders (social or environmental activists but also employees, customers and suppliers, see Donaldson and Preston (1995)) is a key objective in order to ensure firm survival. Firms are able to achieve some stakeholders' demands through CSR in order to reduce the conflicts of interest between shareholders' and non-investing stakeholders (Jensen, 2001) and to maximize shareholders' wealth (Harjoto and Jo, 2011; Shahzad et al., 2016). However, managers may be willing to under-commit to CSR, leading to worth CSR firm performances (McKendall, 1999), because CSR commitment may hurt short-term financial performances and the related manager compensation (McGuire et al., 2003; Coombs and Gilley, 2005) or is less attractive for CEO (Oh et al., 2016). Cai et al. (2011) show on US data that an interquartile increase of CSR commitment is related to a 4.35% decrease of executive total compensation. The board of directors is therefore responsible for aligning managers and shareholders' interests from a CSR perspective (Mallin et al., 2013).

According to Johnson and Greening (1999) and Ibrahim and Angelidis (1995), independent directors are more likely to protect long-term shareholders' interests by accepting environmental investments or sustainable behaviors even if they are in conflict with the short-term economic performances. In the opposite, insider directors may be more short term oriented (Galbreath, 2017). Moreover, Harjoto and Jo (2011) argue that efficient governance structure, characterized by strong board monitoring ability, may correctly represent stakeholders' interests and promote CSR commitment. Shaukat et al.

(2016) argue that a more independent board is able to construct a clearer CSR strategy and to lead to better social and environmental performances. Few other studies (Post et al., 2011; de Villiers et al., 2011; Ntim and Soobaroyen, 2013; Zhang et al., 2013) confirm the positive relationship between board monitoring ability (independent directors, CEO-chairman separation) and socially responsible status or CSR performances. From the shareholder perspective, a better monitoring governance structure, aligned with the long-term shareholders' interests, should lead firm to commit to CSR.

Hypothesis 2A (shareholder perspective): If the stakeholder conflict resolution hypothesis is valid, monitoring (entrenchment) ability should be positively (negatively) correlated with CSR commitment intensity.

From the stakeholder perspective, Hillman et al. (2001) argue that the stakeholder directors improve the recognition of stakeholders' interests and related CSR commitment. The authors propose four types of directors: community directors (academics, political leaders, NGO), customer and supplier directors and employees' representatives. They only show a positive relationship between community directors and diversity CSR dimension and a negative one with environment. They conclude that the divergence of stakeholders' interests may reduce the effectiveness of stakeholder representation inside the boardroom in terms of CSR commitment by increasing conflicts. Nevertheless, to our knowledge, this perspective has never been tested on a stakeholder-oriented corporate governance model, more sensitive to stakeholders' interests (Fauver and Fuerst, 2006; Kluge and Schomann, 2008).

According to the stakeholder theory, the presence of stakeholders' representatives may increase specific care about CSR in order to reduce conflicts between managers and the recognized stakeholders because board is more able to take into account their specific interests (Post et al., 2002). A positive relationship between the shares of stakeholder representatives and CSR commitment is expected, except for the share of insiders which reflects management entrenchment.

Hypothesis 2B (stakeholder perspective): If the stakeholder conflict resolution is valid, the proportion of stakeholders' representatives, except the proportion of insiders, should be positively correlated with specific CSR performances.

3 Data

We matched five data sets from Ethics&Boards, Vigéo, Asset4, ThomsonOneBanker and Infinancials for firms belonging to the SBF120 index in 2011 (the 120 largest listed firms on NYSE-EURONEXT Paris). Ethics&Boards, an international board watching agency, provides information on board composition and directors characteristics. Vigéo, the leading European ESG rating agency (since 2002), and Asset4, a worldwide provider of ESG data included in Datastream, furnish multi-dimensional CSR indicators for the largest coverage of the French market. Infinancials gives comprehensive financial data and ThomsonOneBanker ownership structure. After matching, 91 among the 120 largest French listed companies (SBF120) make up the sample for 461 firm-level observations over the 2006-2011 period. Tables 9 and 10 (Appendix A) provide the definition of variables.

3.1 Board variables

Ethics&Boards provides board composition and board-related information for directors such as status (insider, independent, or employees' representative) and functions (Chairman and CEO). The database includes individual characteristics such as gender, nationality, date of birth, and previous and actual professional activities. The missing information has been completed by hand collection from annual reports and internet researches. Table 1 presents board descriptive statistics.

——— Insert Table 1 ———

Panel A presents board control variables. French firms can choose between one tier (79%) and two tiers boards (supervisory boards, 21%, dummy variable) (see Belot et al., 2014) impeding the CEO bargaining power regarding CSR decisions (Rhoades et al., 2001; Shaukat et al., 2016). The average age of directors (59 years in the sample) enables to take into account the moral and CSR concerns among directors (Post et al., 2011). Board size (on average 12) reflects the cost of coordination between directors in the decision-making process (Yermack, 1996). Board diversity may impact CSR commitment (see Bear et al., 2010; Harjoto et al., 2015; Rao and Tilt, 2016). Women (11%) may be more pro-social than men and focus more attention on CSR (Wang and Coffey, 1992). Foreigners (23%) with different cultural and educational backgrounds may be more or less sensitive to CSR issues than French directors (Post et al., 2011). A CSR committee (dummy variable, 12%) may be a signal towards the stakeholders to highlight firm commitment (Eberhardt-Toth, 2017) as well as a way to improve the management of such issues (Mallin and Michelon, 2011; Dixon-Fowler et al., 2017).

Panel B provides descriptive statistics for monitoring and entrenchment abilities defining the shareholder perspective of board composition (Adams et al., 2010). The share of insiders, with an average of 10%, is the proxy for CEO's entrenchment ability (Harjoto and Jo, 2011). The monitoring ability is defined by the share of independent directors (according to AFEP/MEDEF French code of corporate governance[2]) and the separation of Chairman and CEO positions (dummy, 29%) (Shaukat et al., 2016). On average, there are 10% of insiders, 39% of affiliated and 51% of independent directors.

According to Post et al. (2002), a director may be a representative of intern stakeholders (shareholders, executives and employees), direct outside stakeholders (business and support stakeholders), or indirect outside stakeholders (Non-Governmental Organizations, environmental activists...). The insiders represent the executive managers and the employees' representatives the other workers. Business directors, representing the customers and suppliers, are defined as industry expert non independent directors. Support directors, representing the interests of banks and capital suppliers, are exclusively financial expert directors. Finally, extern directors, who represent other outside stakeholders (environmental activists, community), are defined as independent directors without any financial expertise as suggested by Johnson and Greening (1999); Cho et al. (2017). The reference group is made up by directors who represent blockholders (i.e. non-independent and non-expert directors). The board is made up by 4% of shareholders, 10% of insiders, 4% of employees, 19% of business directors, 32% of support directors and 30% of extern directors (Panel C).

3.2 CSR commitment indexes

CSR commitment indexes are defined as a comparative measure of firm policy (guide lines) and actions (tools,...) with respect to the industry average practices in the three CSR dimensions, covered by extra-financial agencies: social, environment and societal. A firm is qualified as a CSR leader (dummy) if its commitment is stronger than the average industry commitment. This study is based on Vigéo and Asset4 extra-financial ratings, two leading agencies in Europe. Vigéo and Asset4 are complementary because they differ in three folds (Escrig-Olmedo et al., 2010; Chatterji et al., 2016): the CSR theorization, the nature of scores and the methodology of aggregation (commensurability). Vigéo uses analysts' knowledge in addition to public information to rate firm behavior. Vigéo takes also into account the differences across industry to select the most relevant criteria, whereas Asset4 applies the same criteria across industry. There are 265 observations for Vigéo and 424 for Asset4 respectively covering 91 and 80 single firms over the 2006-2011 period.

Vigéo measures firms' CSR commitment in 6 main dimensions (Community Involvement, Corporate Governance, Customers and Suppliers, Environment, Human Resources, and Human Rights) with 38 criteria. Each criterion evaluates how firms address the related CSR issue in terms of leadership (integration into the strategy, objectives...), implementation (means to achieve the objectives) and results. Table 11 (Appendix B) gives more information about the CSR issues that are covered by each dimension. Vigéo provides in particular industry-adjusted ratings that rank firms, depending on their practices, in 5 levels according to a normal distribution. Our dimensional CSR commitment indexes are 3 dummy variables which take the value 1 if firm rating in the related dimension is above 3 and 0 otherwise (HR -human resources- for social dimension, ENV for environment, C&S - customer and supplier- for societal dimension). For the global CSR commitment, a firm is considered as a CSR leader (dummy equal to 1) if firm adopts at least the average behavior (level 3) in each CSR dimension and a stronger commitment above the average (level 4) in at least 2 dimensions.

Asset4 measures CSR commitment in 18 categories with 900 individual data points and firms' 250 Key Performance Indicators (KPIs). Here, the extra-financial score (between 0 and 100) is the z-score of the firm, relative to the Asset4 universe based on the equally weighted KPI scores. Table 12 (Appendix B) provides more details. The CSR commitment indexes are 3 dummies which take the value 1 if firm score is above the industry and year average score in either Social (Ind Social), environment (Ind Env) and societal (Ind Societal). The global CSR performance is a dummy which takes 1 if the average score of social, environmental and societal scores is higher than the industry and year average score.

————- Table 2 ————-

Table 2 presents the descriptive statistics of CSR commitment indexes. On average, according to Vigéo's ratings, there are 52% of leaders in CSR, 66% of social leaders, 51% of environmental leaders and 44% of societal leaders. According to Asset4, there are 61% of leaders in CSR, 59% in social, 63% in environment and 60% in societal.

Table 13 (Appendix C) shows the Spearman correlation matrix for some board variables and CSR commitment indexes. CSR commitment indexes are significantly positively correlated between each other, around 0.4 within the same data set and from 0.13 to 0.37 between data sets. Both data sets provide different information. From the shareholder perspective, the share of independent directors is positively correlated with each CSR commitment indexes whereas the insiders are negatively correlated except with environmental one. From the stakeholder perspective, the shares of extern directors and employees' representatives are positively correlated with CSR commitment indexes whereas the share of business directors and insiders negatively correlated, except with environmental commitment indexes. The correlations partly support the stakeholder conflict resolution hypothesis (H2).

3.3 Control variables

——— Insert Table 3 ———

Similar to Harjoto and Jo (2011), control variables are introduced in the econometric model: industry dummies in order to take into account different CSR pressures and industry issues (legal, competitiveness on the market, contestability...), operating performance with the return on assets (ROA) to control for reverse causality (Garcia-Castro et al., 2009), firm size measured by the logarithm of the total number of employees (Nb Employees) to control for market visibility (Margolis and Walsh, 2001), the leverage by total debt on equity and firm risk by the volatility of stock prices to control for financial constraints (Margolis et al., 2011). Two complementary control variables may play a significant role: the Research&Development investment proxied by the ratio of the R&D total expenditures on the total sales (RDonSales) to control for specific innovation ability in terms of social and environmental attributes (McWilliams and Siegel, 2000), and the advertising investment measured by the ratio of intangible assets on the total sales to take into account the heterogeneity of available public information (Elsayed and Paton, 2005). According to the agency theory, the significant shareholders (large blockholders) may be an important external monitoring factor. They have indeed more incentives to control the manager and to reduce their opportunism in order to maximize their own benefits (Shleifer and Vishny, 1997) and to fix the optimal CSR commitment (Oh et al., 2011; Dam and Scholtens, 2012). The ownership float is then used as an external monitoring proxy. State-owned firms may be driven by other societal objectives than traditional listed firms. A dummy "State Ownership" takes the value 1 if French state is a significant blockholders. Firms which belong to CAC40 (40 largest listed firms) are more likely to be scrutinized by analysts and NGOs regarding their externalities (Margolis and Walsh, 2001). A dummy CAC40 which takes 1 for firms belongs to CAC40 index, enables to control for this external monitoring factor. Business cycles are taken into account by year dummies. Table 3 presents the descriptive statistics of firm characteristics. Ten percent of firms have public ownership and the ownership float is around 35%. CAC40 index is over represented with 41% of the observations. The other variables do not show any specific pattern.

3.4 Methods

A probit analysis enables to evaluate firms' propensity to commit to each CSR dimension more than the industry average firm regarding board and firm characteristics. The model to explain CSR commitment indexes is written as follow:

$$P(CSR_{i,t+1} = 1|B_{i,t}, Z_{i,t}, X_{i,t}) = \alpha + \beta B_{i,t} + \gamma Z_{i,t} + \zeta X_{i,t} + \mu_t + \delta_i + \epsilon_{i,t} \quad (1)$$

Where $CSR_{i,t+1}$ is a dummy equal to 1 if firm i's policy in the specific CSR dimension is better than the average industry policy during the year $t + 1$ and 0 otherwise, $B_{i,t}$ are the variables of interest (monitoring and entrenchment variables or stakeholders representation), $Z_{i,t}$ are board control variables (shares of women, foreigners, log of board size), $X_{i,t}$ firm control variables (log of number of employees, leverage, R&D investment on Sales, Advertisement, ROA, CAC40, ownership structure), μ_t the year fixed effect, δ_i the industry fixed effect and $\epsilon_{i,t}$ is the error term. Board and firm control variables are lagged of one year to take into account the delay between decisions made by the board and consequences in the firm outcome. Board size and number of employees are transformed by a logarithm to avoid any bias from outliers. The regression are clustered at the firm level in order to take into account correlation of error terms within firm observations.

4 Results

4.1 Shareholder perspective on the link between CSR commitment and board composition

In this section, board composition is analyzed from the shareholder perspective. The entrenchment ability is proxied by the share of insiders and the monitoring ability by the share of independent directors and the separation of chairman and CEO positions. Table 4 and 5 present the results by CSR dimensions from Vigéo's and Asset4's data sets.

——————— Insert Tables 4 and 5 ———————

On Table 4 (Vigéo), except for environmental commitment (model 3), there is a negative correlation between the share of insiders and CSR commitment index at a 1% level. The link between the share of independent directors and performance is negative but non significant and the separation between chairman and CEO positions is positively related and significant only for human resources. On Table 5 (Asset4), there are positive and significant relationships between the share of independent directors and being a leader in CSR and social dimension at 1% level, and in societal dimension at 10% level. Entrenchment ability and the separation of chair and CEO positions are not significantly related with CSR commitment. These results support the stakeholder conflict resolution hypothesis for social and societal dimensions (H2A) whatever the extra-financial information providers. However, in both cases (Vigéo and Asset4), environmental commitment index is not significantly correlated with any entrenchment or monitoring ability. The results remain inconclusive for environmental dimension regarding our set of hypotheses.

The average marginal effect provides the potential average impact of board composition change. From Vigéo ratings, a 10% increase of insider share (one extra-director) is related with a 12% decrease of the propensity to be a CSR leader, 13% for human resources and 11% for customer and suppliers. The result suggests that the departure of one insider may significantly increase the chance to be a CSR leader. From Asset4 ratings, a 10% increase of independent share (one independent director) is related to a 7% increase of the propensity to be a CSR leader, 8% to be a social leader and 5% to be a societal leader. The marginal effect of an independent director is lower than the previous effect of an insider, possibly due to a higher share of independent directors (decreasing marginal effect).

Other control variables are positively correlated with CSR commitment indexes. In particular, having a CSR committee is positively related to being CSR leader at least according to Vigéo ratings, suggesting that CSR committee is a signal of larger commitment. CAC40 firms are more likely to commit to CSR, except for customer and suppliers. It is consistent with the visibility hypothesis (Margolis and Walsh, 2001). State-owned firms are more likely to commit to community involvement. Ownership float is positively related to CSR commitment indexes according to Asset4 assessment, especially for social and environmental dimensions. Finally, board diversity is not significantly related to CSR performance in contrast with Bear et al. (2010) and Harjoto et al. (2015) that show a positive correlation. Board diversity may be then less discriminant among firms to tackle CSR issues in the French context.

As conclusion, engaging in societal or social dimensions may be driven by the stakeholder conflict resolution motivation (H2A) rather than an opportunistic behavior from the management (H1A). At the aggregate level, the same motivation seems to dominate the overall CSR commitment. CSR may become now a mainstream strategy, and the entrenchment strategy through a specific CSR commitment may not be anymore very efficient, especially thanks to the growing compulsory CSR disclosure (Lattemann et al., 2009). Consistent with the previous literature (Harjoto and Jo, 2011;

de Villiers et al., 2011; Post et al., 2011), the results suggest that good corporate governance practices and social and societal commitments are positively related. However, environment commitment is not related with board composition from the shareholder perspective contrary with the main results on the US cases (for example Post et al., 2011). It may be due to the French stakeholder-oriented corporate governance model.

4.2 Stakeholder perspective on the link between CSR commitment and board composition

CSR is a way to answer some stakeholders' demands beyond the shareholders' interests (Post et al., 2002) and the stakeholders may be represented inside the boardroom (Hillman et al., 2001). Six different stakeholder representatives have been highlighted: shareholders' representative, insiders, employees' representatives, business directors, support directors, and extern directors. The stakeholder representation variables included in the probit model are the share of each stakeholder director type. The proportion of shareholders' representatives is taken as the reference. Both Vigéo and Asset4 commitment indexes are used as dependent variables.

On Tables 6 and 7, the uneven models make the assumption of a linear relation with the proportion of each stakeholder's representative whereas the even models make the assumption of a non-linear relationship with these variables. The coordination cost among stakeholders' directors may indeed be a determinant trigger of directors' effectiveness inside the boardroom (de Villiers et al., 2011; Chang et al., 2017)[3]. This hypothesis is tested by introducing the square of the share of each stakeholder director type. This issue is more important from a stakeholder perspective because there is an important heterogeneity of board composition among firms.

——————— Insert Tables 6 and 7 ———————

The CSR commitment index according to Vigéo is positively correlated with the share of employees' representatives (see model 1, Table 6) and the share of business directors at a 10% level. A 10% increase of the proportion of employees' representatives (business directors) is related with an 24% (9%) increase of the probability of being a CSR leader. Even there is no causal direction, this correlation suggests that CSR policy may target the employees and direct strategic stakeholders. The hypothesis 2B (stakeholder conflict resolution) is accepted for direct stakeholders. The non-linear model (model 2) highlights a non-linear negative correlation for the business directors suggesting a coordination problem among directors when their share is increasing. This model shows also a negative correlation with the share of support directors for the low share of support directors. Support directors, who represent the financial industry (ie bank, insurance), seem to reduce the commitment in CSR, suggesting an antagonism between CSR commitment and financial objectives. For extern directors, there is a positive non-significant relation. From the stakeholder perspective, engaging in CSR may exacerbate conflicts with support one but reduce conflicts with the other strategic stakeholders. We need to investigate each CSR dimension in order to validate or reject the hypothesis.

For social dimension, the linear model (model 3) shows a positive correlation, at a 1% level, with the shares of employees' representatives, business directors, support and extern directors. The more employees' representatives, business directors, support directors or extern directors there are, the more firm is likely to invest in social dimension. Their average marginal effects related to an 10% increase of those shares are respectively 26 %, 14%, 15% and 10%. Hypothesis 2B related to CSR as a way to reduce conflicts with stakeholders is clearly accepted for social dimension. By allowing non-linear relationships (models 4), the shares of employees' representatives, business and extern directors are significantly positively linearly and negatively non-linearly correlated at 1 % (or 10%)) level with social commitment index. The non-linear pattern suggests that an increasing share of stakeholders' representatives may weaken their action due to coordination problem for example. Social dimension is very consensual among stakeholders because it may benefit to any stakeholder: to the employees through the improvement of working conditions and career development, to business stakeholders thanks to the supply chain development and functioning, to support ones by improving productivity and cash flow and to other outside stakeholders tanks to the satisfaction of ethical and moral values. Only shareholders and insiders seem to be financially hurt by social commitment.

For environmental dimension, the linear model (model 5) explaining the commitment by the stakeholder board composition shows only a 10% positive correlation with the representation of employees inside the boardroom. The non-linear model (model 6) highlights a positive linear and a negative non-linear correlation with the proportion of employees' representatives. The non-linear pattern might be viewed as a coordination cost among employees' representatives. A 10% increase of the proportion of employees' representatives is related with an 25% increase of the propensity to be an environmental leader. This strong result suggests that environmental commitment may help to resolve conflicts with employees. Consistent with the increasing literature about the role of environmental commitment in employees' motivation and productivity (see Lanfranchi and Pekovic, 2014; Delmas and Pekovic, 2013), employees may be very sensitive to environmental friendly firms. Nevertheless, the model 8 also shows a negative linear and a positive non-linear correlations with the share of support directors at a level of 1%. The marginal effect of business, support directors and extern directors are negative but insignificant. Environmental commitment may exacerbate conflicts with the other stakeholders. The stakeholder conflict resolution hypothesis is only partly accepted (H2B).

For societal dimension, the linear model (9) explaining the customers and suppliers (business) commitment by stakeholder board composition does not show any significant result. However, by allowing non-linear relationships (model 10), the proportion of business directors and employees' representative are positively linearly and negatively non-linearly correlated with societal commitment intensity. These results support that C&S commitment may reduce conflicts within the supply chain (customers and suppliers) and inside the firm. However, the decreasing slope tends to highlight the increasing coordination cost between directors. The average marginal effects for an increase of one business directors and employees' representative are 8% and 23%. Societal commitment index supports the conflict resolution hypothesis for supply-chain stakeholders (employees, customers and suppliers) (H2B).

In contrast with Vigéo perspective, there is no significant linear correlation between the shares of any stakeholder director type and CSR commitment indexes from Asset4's ratings. The non-linear models present some significant correlation. The share of employees' representatives is positively and negatively non-linearly correlated with environmental commitment index like for Vigéo data. For societal dimension, the share of employees' representative is positively non-linearly correlated with commitment index. This result suggests that there is a threshold above whom there is a positive effect of employees' representatives. Finally, the share of insiders is positively and negatively non-linearly related with social engagement. The stakeholder perspective on Asset4 suggests that CSR commitment is motivated by reducing conflicts with employees and at some extend business stakeholders.

As conclusion, the evidences show that CSR commitment may be a way to manage stakeholders' interests. The CEO's opportunistic behavior hypothesis is indeed rejected for any CSR dimension (H1B). The stakeholder conflict resolution hypothesis is supported by social and societal dimensions (H2B). All results are also consistent with the shareholder perspective. Environment dimension seems to exacerbate conflicts with some stakeholders and to only reduce conflicts with employees or business stakeholders. In this case, the stakeholders' conflicts resolution hypothesis is only partly supported and may explain the mixed result from the shareholder perspective. We conclude that stakeholders' interests may converge for social or societal goals but diverge for environmental one. Employees' representatives may use CSR as a bargaining power inside the boardroom and as a way to improve their working conditions and motivation (Lanfranchi and Pekovic, 2014). Business stakeholders may promote commitment in societal and social dimensions in order to improve the relationships within the supply-chain. Support directors may be focused on the solvency of firms and their financial performances thanks to social commitment. Finally, extern directors are unlikely to protect environmental goals as we may expect. This latter result is opposite with the findings of Hillman et al. (2001) and may highlight divergence between the shareholder model and the French stakeholder model of corporate governance.

5 Discussion

5.1 Robustness checks

Both Vigéo and Asset4 performances validate the same hypothesis for the corporate governance motivation of CSR commitment. However, the drivers are different: CSR commitment indexes from Vigéo are negatively related to entrenchment ability whereas Asset4's CSR commitment indexes are positively related to monitoring ability. From the stakeholder perspective, only the models explaining Vigéo's commitment indexes highlight significant correlations with stakeholder board composition. Two reasons may explain these differences. First, the sample of firms rated by both agencies are different and lead to inconsistent estimations (selection bias hypothesis). Vigéo and Asset4 do not cover the same French universe, even if the rating only depends in both case on the overall international universe. Second, the informational content of both rating agencies are divergent even if similar issues are analyzed. The difference may reflect the heterogeneity among the extra-financial rating agencies to measure CSR firm practices and to aggregate information (analysts' rating versus quantitative approaches) (Chatterji et al., 2009; Escrig-Olmedo et al., 2010) (informational content hypothesis).

We first run the same regressions on the sub-sample of firms which are rated by both agencies over the period in order to test the selection bias hypothesis (results available upon request). For Vigéo data, the results are consistent. The share of insiders is negatively related to social and societal commitment indexes at the 1% and 10% levels. Environment is not associated with insiders' representation as previously demonstrated. For Asset4, there is a positive correlation between the share of independent directors and social commitment index and a negative between the separation between CEO and chairman position and social commitment index. This latter correlation suggests that chairman-CEO separation may help to promote social commitment. Only societal commitment is not anymore related to the share of independent directors. The results support the stakeholder conflict resolution hypothesis. From the stakeholder perspective, the regressions show similar relationships as previously from Vigéo data, especially the significant positive correlations with the share of employees' representatives, business representatives for social and societal dimensions and the mixed results for support directors. The stakeholder conflict resolution hypothesis is then accepted. For Asset4, the analysis is still inconclusive. These results confirm the robustness of our results on the sub-sample of firms rated by Vigéo and Asset4. There is therefore no selection bias due to the data availability.

In order to test the informational content hypothesis, we regress Vigéo scores on Asset4 scores and industry and year fixed effects for each dimension. Both sets of scores are comprised between 0 and 100. Year and industry fixed effects are necessary to take into account that criteria and methodology may change over time, and that Vigéo uses different sets of criteria depending on the firm industry whereas Asset4 evaluates the same indicators whatever the firm industry (difference in CSR theorization, see Chatterji et al. (2016)).

——————— Insert Table 8 ———————

Table 8 presents the regression for the 3 dimensions of Vigéo framework. First, the R2s are quite low (between 33 and 48%) whereas both scores should measure the same issues. Asset4 does not explain well Vigéo scores and variations, even if we take into account the difference of CSR theorization by industry fixed effects. The discrepancy between Vigéo and Asset4 scores and then CSR commitment indexes may explain why the results on Vigéo and Asset4 data are not fully similar.

Second, the point estimates of Asset4 score variables are smaller than 1 for each model. An increase of the social score from the Asset4 perspective is only related to 55% increase of human resources scores after controlling for year and industry heterogeneities. The environmental score is related to 43% of the related Vigéo score whereas the societal score is associated with 38% of customers and suppliers scores. Asset4 scores seem to be more lenient (less stringent) towards firms practices than Vigéo scores. Indeed, firms go up faster in the CSR commitment scale with Asset4 rating than with Vigéo rating. It questions the way how extra-financial rating agencies measure CSR practices and calculate the scores for each dimension (Chatterji et al., 2016). Assuming that the industry fixed effects capture the CSR theorization effect (the fact that Vigéo and Asset4 differently deal with industry heterogeneity), the results show that the commensurability of CSR indicators across extra-financial ratings is quite low. These results are convergent with Chatterji et al. (2016) who show the lack of agreement between extra-financial rating agencies on US data, especially Asset4 and KLD. In our framework, the main differences between Vigéo and Asset4 are two folds (Escrig-Olmedo et al., 2010). On the one hand, both Vigéo and Asset4 diverge about the relevant CSR issues that a rating agency should evaluate, and the international standards applied as benchmark. For example, Asset4 does not take into account business behavior issues whereas Vigéo cares less about diversity issues. Regarding the international standards, Vigéo uses OECD (Organisation for Economic Co-operation and Development) guidelines or ILO (International Labour Organization) core labour standards, whereas Asset4 relies on UN (United Nation) Global compact or GRI (Global Reporting Initiative). On the other hand, both agencies have different way to measure CSR practices. Asset4 uses as a primary source of information only quantitative or qualitative indicators that are transformed in z-scores, whereas Vigéo uses the knowledge of analysts to rate CSR dimensions before ranking firms in the 5 level ratings. The commensurability of CSR indicators across extra-financial ratings is certainly the main reason to explain the divergent results on the relationships between board composition and CSR commitment indexes. The informational content hypothesis is therefore validated. It justifies also the need to use multi-sources of extra-financial information to measure the robustness of our analysis.

5.2 Endogeneity issues

Simultaneous evolution, endogeneity and causal relationships constitute the major issues in the literature about corporate governance and firm performances (Adams et al., 2010). In this sens, the observed correlations between board composition and CSR commitment indexes do not mean a causal relationship from board composition to CSR commitment. We discuss here the main endogeneity concerns arisen by the empirical design and the research question.

Simultaneity means that CSR commitment increase and board change, although driven by different determinants, happen at the same time. Simultaneity reflects then some spurious correlations. Regarding board composition, over the period, on SBF120 index, the share of independent directors has on average increased around 4% over the period relative to the share in 2006, but the share of insiders decreases around 8%. From the stakeholder perspective, the proportion of employees' representatives and business directors have decreased around respectively 13% and 8%, but the support directors have grown up around 3%. On average, the board composition changes are however very limited, less than one director per board. There is also no severe temporal trend in the stakeholder representation. For CSR commitment indexes, there is no temporal trend because the scores or ratings are annual normalized evaluation of firm behavior relative to the CSR practices of the whole firm universe. It is then very unlikely to have simultaneous changes in board and CSR commitment indexes. Moreover, the 1-year lag between board composition and CSR commitment index variables in the probit model should induce enough delay to avoid this bias.

Another explanation of the relationships between CSR commitment and board composition could be the reverse causality; the most committed firms in social, environmental or societal dimensions could change their board composition afterward to fit with the expected standard of a responsible corporate governance (for example, independent board) or to send a signal of CSR commitment towards the strategic stakeholders (Post et al., 2002). In particular, employees' representation inside the boardroom could be one CSR action to improve the social dialogue with the intern stakeholders and reflects a better firm commitment regarding social issues. The representation of employees is mainly driven in our case by other corporate governance determinants. Most of former State-owned firms have compulsory employees' representatives (around one third) since the mid 2000's. Only two firms appoint for the first time employees' representatives over the period. It is then very unlikely that social commitment intensity drives employees' representation. Furthermore, the French corporate governance model has been defined for decades by a high share of affiliated directors, including business directors. CSR commitment is not related to an increase of affiliated directors inside the boardroom. The reverse causality is therefore not an issue in the French context. To confirm, some robustness checks have been done with 2-years lag between board composition and CSR commitment index variables. The results are consistent but the significance levels are lower.

Finally, controlling for endogeneity issue requires either an quasi-natural experiment due to an exogenous shock or an exogenous instrument variable (Wintoki et al., 2012). Our framework does unfortunately not allow us to find a better identification strategy. Most of good corporate governance practices are promoted by code of governance. In the literature, there are few examples of instruments for board composition variables. Kruger (2010) uses for example the Sarbanes-Oxley regulation as an instrument for the bargaining power of insiders inside the boardroom. The lack of exogenous regulation in the French context prevent using such strategy. Furthermore, most of papers instrument the CSR commitment rather than board composition (Harjoto and Jo, 2011; Jo and Harjoto, 2011; Ntim and Soobaroyen, 2013). From the stakeholder perspective, we are unaware about the use of instrumental variables (Hillman et al., 2001).

6 Conclusion

Despite an extended literature on the relationships between corporate governance and financial performance (Adams et al., 2010), the corporate Governance-CSR nexus has received limited attention from academics. Recent papers have yet investigated the links between board composition, CSR commitment and firm performance (Harjoto and Jo, 2011; Jo and Harjoto, 2011, 2012; Ntim and Soobaroyen, 2013) from the shareholder perspective. In this literature, two main competing hypotheses have been highlighted to explain CSR commitment from a corporate governance perspective: CEO's opportunistic behavior and stakeholder conflict resolution. More recently, there is also an new interest for the stakeholder board orientation (Shaukat et al., 2016) but without investigating the representation of stakeholders inside the boardroom and the related consequences on CSR commitment intensity (with the exception of Hillman et al. (2001)). This paper analyzes the relationships between board composition and CSR commitment intensity from the shareholder and stakeholder perspectives. This specific empirical design helps to better understand the governance mechanisms behind CSR commitments, especially if CSR is a way to answer stakeholders' interests (stakeholder conflict resolution hypothesis).

We show that from the shareholder and stakeholder perspectives, the CEO's opportunistic behavior hypothesis is rejected for any CSR dimension. Consistent with the stakeholder conflict hypothesis, we highlight from the shareholder perspective that social and societal commitment intensities are either negatively related to the share of insiders or positively related to board independence. From the stakeholder perspective, the shares of employees' representatives, business, support and extern directors are positively related to social commitment. For societal dimension, the positive relationships are limited to employees and business stakeholders (direct strategic stakeholders). Nevertheless, for environment, the commitment may help to reduce conflicts within the supply-chain, but may exacerbate conflicts with support stakeholders. The shareholder and stakeholder perspectives are consistent and support the stakeholder conflict resolution hypothesis. But the stakeholder board representation enables to better understand the bargaining power of each stakeholder inside the boardroom. The stakeholder board composition appears then as an new promising perspective of research to analyze CSR commitment.

This paper demonstrates that CSR has to be analyzed as a multi-dimensional concept whom the determinants could be different or even opposite depending on the CSR dimension. That echoes the emerging literature about multi-dimensional CSR commitments and financial performance (Cavaco and Crifo, 2014; Crifo et al., 2016). In particular, according to our analysis, investing in both social and societal dimensions help to decrease conflicts with all firm stakeholders. That could explain the complementary effect of these two commitments on financial performance, demonstrated by Cavaco and Crifo (2014). In the opposite, engaging in social and environment could exacerbate some conflicts between stakeholders' interests, leading to a substitute effect between both commitments on financial performance Cavaco and Crifo (2014). Merging the literature on board composition, CSR commitment and financial performance from the stakeholder perspective gives some new promising perspectives to analyze and understand trade-offs and synergies between CSR practices. These analysis shows also that non-linear effects should be taken into account in order to understand the relationship between board composition and CSR performances (de Villiers et al., 2011; Chang et al., 2017). The results suggest that some coordination problems within the boardroom could happens and may reduce the effectiveness of stakeholders' representatives to foster CSR commitment. Finally, the paper shows that extra-financial ratings from different providers (here Vigéo and Asset4) do not provide the same information (Chatterji et al., 2016). Even if the results coming from Asset4 and Vigéo are consistent for the shareholder perspective, the stakeholder perspective remains inconclusive on Asset4 data and meaningful on Vigéo. Vigéo's methodology and ratings may be more stakeholder-oriented whereas Asset4 might be more shareholder-oriented (Escrig-Olmedo et al., 2010).

Due to limited CSR-governance data and the lack of exogenous shock, the main limitation of this paper is the untreated endogeneity issue between board composition, CSR performances, and financial performance. Nevertheless, without underestimating endogeneity issue (Harjoto and Jo, 2011), this paper strategically enlarges the question of Governance-CSR nexus outside the classical CSR-Governance-Performance framework. Understanding the impact of corporate governance on CSR commitment could help to better design policy and incentives to promote sustainable firm strategy. Corporate governance is indeed subjected to an increasing regulation pressure (e.g. gender diversity, employees' representative law in France) and there is a crucial debate to define good corporate governance practices in order to manage firm in a sustainable way. From this perspective, this paper contributes firstly to understand how stakeholders could be recognized inside the boardroom, especially the employees' representatives, and how they may influence the decision-making process, especially in terms of CSR commitment and sustainability management. The shareholder perspective, adopted by the code of corporate governance, seems to fail to correctly take into account the heterogeneity of stakeholders' interests.

A Variables

Tables 9 and 10 present the definition of variables.

——————— Insert Tables 9 and 10 ———————

B Extra-financial data

Vigéo is the leading extra-financial rating agency in France and cover the largest spectrum in terms of firms. Table 11 provides the description of issues covered by each CSR dimension according to Vigéo's methodology.

Asset4 is a worldwide extra-financial rating agency providing quantitative and qualitative ESG data. Table 12 details the criteria used by Asset4 to analyze the social, societal and environmental dimensions.

——————— Insert Tables 11 and 12 ———————

C Correlation matrix

Table 13 shows the correlation matrix between board variables and CSR commitment indexes.

——————— Insert Tables 13 ———————

Notes

[1]Affiliated directors have a business relationship with the firm or the significant shareholders without being executive.

[2]AFEP, Association Francaise des Entreprises Privees, and MEDEF, MouvEment Des Entreprises de France, are two professional associations which are representative of private sector at the national level. According to AFEP/MEDEF recommendations, a director is qualified as an independent if (s)he satisfies the following criteria: (1) Not to be an employee or executive director of the corporation, or an employee, or director of its parent or a company that it consolidates, and not having been in such a position for the previous five years; (2) Not to be an executive director of a company in which the corporation holds a directorship, directly or indirectly, or in which an employee appointed as such or an executive director of the corporation (currently in office or having held such office going back five years) is a director; (3) Not to be a customer, supplier, investment banker or commercial banker: that is material for the corporation or its group; or for a significant part of whose business the corporation or its group accounts; (4) Not to be related by close family ties to an executive director; (5) Not to have been an auditor of the corporation within the previous five years; (6) Not to have been a director of the corporation for more than twelve years.

[3]The non-linear model for shareholder perspective do not provide significant output for our topic. Tables are available upon request.

References

Adams, R. B., Hermalin, B. E., and Weisbach, M. S. (2010). The Role of Boards of Directors in Corporate Governance: A Conceptual Framework and Survey. *Journal of Economic Literature*, 48(1):58–107.

Aglietta, M. and Reberioux, A. (2005). *Corporate Governance Adrift. A Critique of Shareholder Value.*

Barnea, A. and Rubin, A. (2010). Corporate Social Responsibility as a Conflict Between Shareholders. *Journal of Business Ethics*, 97(1):71–86.

Bear, S., Rahman, N., and Post, C. (2010). The Impact of Board Diversity and Gender Composition on Corporate Social Responsibility and Firm Reputation. *Journal of Business Ethics*, 97(2):207–221.

Belot, F., Ginglinger, E., Slovin, M. B., and Sushka, M. E. (2014). Freedom of Choice between Unitary and Two-Tier Boards: An Empirical Analysis. *Journal of Financial Economics*, 112(3):364–385.

Boulouta, I. (2013). Hidden Connections: The Link Between Board Gender Diversity and Corporate Social Performance. *Journal of Business Ethics*, 113(2):185–197.

Cai, Y., Jo, H., and Pan, C. (2011). Vice or Virtue? The Impact of Corporate Social Responsibility on Executive Compensation. *Journal of Business Ethics*, 104(2):159–173.

Cavaco, S. and Crifo, P. (2014). CSR and Financial Performance: Complementarity between Environmental, Social and Business Behaviours. *Applied Economics*, 46(27):3323–3338.

Cespa, G. and Cestone, G. (2007). Corporate Social Responsibility and Managerial Entrenchment. *Journal of Economics & Management Strategy*, 16(3):741–771.

Chang, Y. K., Oh, W.-Y., Park, J. H., and Jang, M. G. (2017). Exploring the Relationship Between Board Characteristics and CSR: Empirical Evidence from Korea. *Journal of Business Ethics*, 140(2):225–242.

Chatterji, A. K., Durand, R., Levine, D. I., and Touboul, S. (2016). Do Ratings of Firms Converge? Implications for Managers, Investors and Strategy Researchers. *Strategic Management Journal*, 37(8):1597–1614.

Chatterji, A. K., Levine, D. I., and Toffel, M. W. (2009). How Well Do Social Ratings Actually Measure Corporate Social Responsibility? *Journal of Economics & Management Strategy*, 18(1):125–169.

Cho, C. H., Jung, J. H., Kwak, B., Lee, J., and Yoo, C.-Y. (2017). Professors on the Board: Do They Contribute to Society Outside the Classroom? *Journal of Business Ethics*, 141(2):393–409.

Coffey, B. S. and Wang, J. (1998). Board Diversity and Managerial Control as Predictors of Corporate Social Performance. *Journal of Business Ethics*, 17(14):1595–1603.

Coles, J. L., Daniel, N. D., and Naveen, L. (2008). Boards: Does One Size Fit All? *Journal of Financial Economics*, 87(2):329–356.

Coombs, J. E. and Gilley, K. M. (2005). Stakeholder Management as a Predictor of CEO Compensation: Main Effects and Interactions with Financial Performance. *Strategic Management Journal*, 26(9):827–840.

Crifo, P., Diaye, M.-A., and Pekovic, S. (2016). CSR Related Management Practices and Firm Performance: An Empirical Analysis of the QuantityQuality Trade-off on French data. *International Journal of Production Economics*, 171:405–416.

Crifo, P. and Forget, V. D. (2015). The Economics of Corporate Social Responsibility: A Firm-Level Perspective Survey. *Journal of Economic Surveys*, 29(1):112–130.

Crifo, P. and Reberioux, A. (2016). Corporate Governance Aand Corporate Social Responsibility: a Typology of OECD Countries. *Journal of Governance and Regulation*, 5(2).

Dam, L. and Scholtens, B. (2012). Does Ownership Type Matter for Corporate Social Responsibility? *Corporate Governance: An International Review*, 20(3):233–252.

de Villiers, C., Naiker, V., and van Staden, C. J. (2011). The Effect of Board Characteristics on Firm Environmental Performance. *Journal of Management*, 37(6):1636–1663.

Delmas, M. A. and Pekovic, S. (2013). Environmental Standards and Labor Productivity: Understanding the Mechanisms that Sustain Sustainability. *Journal of Organizational Behavior*, 34(2):230–252.

Dixon-Fowler, H. R., Ellstrand, A. E., and Johnson, J. L. (2017). The Role of Board Environmental Committees in Corporate Environmental Performance. *Journal of Business Ethics*, 140(3):423–438.

Donaldson, T. and Preston, L. E. (1995). The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications. *Academy of Management Review*, 20(1):65–91.

Eberhardt-Toth, E. (2017). Who should be on a Board Corporate Social Responsibility Committee? *Journal of Cleaner Production*, 140:1926–1935.

Elsayed, K. and Paton, D. (2005). The Impact of Environmental Performance on Firm Performance: Static and Dynamic Panel Data Evidence. *Structural Change and Economic Dynamics*, 16(3):395–412.

Escrig-Olmedo, E., Munoz-Torres, M. J., and Fernandez-Izquierdo, M. A. (2010). Socially Responsible Investing: Sustainability Indices, ESG Rating and Information Provider Agencies. *International Journal of Sustainable Economy*, 2(4):442–461.

Fauver, L. and Fuerst, M. E. (2006). Does Good Corporate Governance Include Employee Representation? Evidence from German Corporate Boards. *Journal of Financial Economics*, 82(3):673–710.

Ferrell, A., Liang, H., and Renneboog, L. (2016). Socially responsible firms. *Journal of Financial Economics*, 122(3):585–606.

Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Pitman Boston.

Friedman, M. (1970). The Social Responsibility of Business is to Make Profit. *New York Times Magazine*, 13.

Galbreath, J. (2017). The Impact of Board Structure on Corporate Social Responsibility: A Temporal View. *Business Strategy and the Environment*, 26(3):358–370.

Garcia-Castro, R., Arino, M. A., and Canela, M. A. (2009). Does Social Performance Really Lead to Financial Performance? Accounting for Endogeneity. *Journal of Business Ethics*, 92(1):107–126.

Harjoto, M., Laksmana, I., and Lee, R. (2015). Board Diversity and Corporate Social Responsibility. *Journal of Business Ethics*, 132(4):641–660.

Harjoto, M. A. and Jo, H. (2011). Corporate Governance and CSR Nexus. *Journal of Business Ethics*, 100(1):45–67.

Hermalin, B. E. and Weisbach, M. S. (1998). Endogenously Chosen Boards of Directors and Their Monitoring of the CEO. *The American Economic Review*, 88(1):96–118.

Hill, R. P., Ainscough, T., Shank, T., and Manullang, D. (2007). Corporate Social Responsibility and Socially Responsible Investing: A Global Perspective. *Journal of Business Ethics*, 70(2):165–174.

Hillman, A. J., Keim, G. D., and Luce, R. A. (2001). Board Composition and Stakeholder Performance: Do Stakeholder Directors Make a Difference? *Business & Society*, 40(3):295–314.

Ibrahim, N. A. and Angelidis, J. P. (1995). The Corporate Social Responsiveness Orientation of Board Members: Are there Differences between Inside and Outside Directors? *Journal of Business Ethics*, 14(5):405–410.

Jensen, M. C. (2001). Value Maximization, Stakeholder Theory, and the Corporate Objective Function. *Journal of Applied Corporate Finance*, 14(3):8–21.

Jo, H. and Harjoto, M. A. (2011). Corporate Governance and Firm Value: The Impact of Corporate Social Responsibility. *Journal of Business Ethics*, 103(3):351–383.

Jo, H. and Harjoto, M. A. (2012). The Causal Effect of Corporate Governance on Corporate Social Responsibility. *Journal of Business Ethics*, 106(1):53–72.

Jo, H., Song, M. H., and Tsang, A. (2016). Corporate Social Responsibility and Stakeholder Governance around the World. *Global Finance Journal*, 29:42–69.

Johnson, R. A. and Greening, D. W. (1999). The Effects of Corporate Governance and Institutional Ownership Types on Corporate Social Performance. *The Academy of Management Journal*, 42(5):564–576.

Kitzmueller, M. and Shimshack, J. (2012). Economic Perspectives on Corporate Social Responsibility. *Journal of Economic Literature*, 50:51–84.

Kluge, N. and Schomann, I. (2008). Corporate Governance, Workers' Participation and CSR: the Way to a Good Company. *European Review of Labour and Research*, 14(1):13–26.

Kruger, P. (2010). Corporate Social Responsability and the Board of Directors. *Working paper.*

Lanfranchi, J. and Pekovic, S. (2014). How Green is my Firm? Workers' Attitudes towards Job, Job Involvement and Effort in Environmentally-Related Firms. *Ecological Economics*, 100:16–29.

Lattemann, C., Fetscherin, M., Alon, I., Li, S., and Schneider, A.-M. (2009). CSR Communication Intensity in Chinese and Indian Multinational Companies. *Corporate Governance: An International Review*, 17(4):426–442.

Mallin, C., Michelon, G., and Raggi, D. (2013). Monitoring Intensity and Stakeholders' Orientation: How Does Governance Affect Social and Environmental Disclosure? *Journal of Business Ethics*, 114(1):29–43.

Mallin, C. A. and Michelon, G. (2011). Board Reputation Attributes and Corporate Social Performance: an Empirical Investigation of the US Best Corporate Citizens. *Accounting and Business Research*, 41(2):119–144.

Margolis, J. D., Elfenbein, H. A., and Walsh, J. P. (2011). Does it Pay to Be Good...And Does it Matter? A Meta-Analysis of the Relationship between Corporate Social and Financial Performance. *SSRN.*

Margolis, J. D. and Walsh, J. P. (2001). *People and Profits?: The Search for a Link between a Company's Social and Financial Performance*. Psychology Press.

Martynova, M. and Renneboog, L. (2011). Evidence on the International Evolution and Convergence of Corporate Governance Regulations. *Journal of Corporate Finance*, 17(5):1531–1557.

Masulis, R. W. and Reza, S. W. (2015). Agency Problems of Corporate Philanthropy. *Review of Financial Studies*, 28(2):592–636.

McGuire, J., Dow, S., and Argheyd, K. (2003). CEO Incentives and Corporate Social Performance. *Journal of Business Ethics*, 45(4):341–359.

McKendall, M. (1999). Corporate Governance and Corporate Illegality: the Effects of Board Structure on Environmental Violations. *International Journal of Organizational Analysis*, 7(3):201–223.

McWilliams, A. and Siegel, D. S. (2000). Corporate Social Responsibility and Financial Performance: Correlation or Misspecification. *Strategic management journal*, 21(5):603–609.

Mickels, A. (2009). Beyond Corporate Social Responsibility: Reconciling the Ideals of a For-Benefit Corporation with Director Fiduciary Duties in the US and Europe. *Hastings Int'l & Comp. L. Rev.*, 32:271.

Mitchell, R. K., Agle, B. R., and Wood, D. J. (1997). Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *Academy of Management Review*, 22(4):853–886.

Ntim, C. G. and Soobaroyen, T. (2013). Corporate Governance and Performance in Socially Responsible Corporations: New Empirical Insights from a Neo-Institutional Framework. *Corporate Governance: An International Review*, 21(5):468–494.

Oh, W.-Y., Chang, Y. K., and Cheng, Z. (2016). When CEO Career Horizon Problems Matter for Corporate Social Responsibility: The Moderating Roles of Industry-Level Discretion and Blockholder Ownership. *Journal of Business Ethics*, 133(2):279–291.

Oh, W. Y., Chang, Y. K., and Martynov, A. (2011). The Effect of Ownership Structure on Corporate Social Responsibility: Empirical Evidence from Korea. *Journal of Business Ethics*, 104(2):283–297.

Post, C., Rahman, N., and Rubow, E. (2011). Green Governance: Boards of Directors' Composition and Environmental Corporate Social Responsibility. *Business&Society*, 50(1):189–223.

Post, J. E., Sachs, S., and Preston, L. E. (2002). Managing the Extended Enterprise: the New Stakeholder View. *California Management Review*, 45(1):6–28.

Rao, K. and Tilt, C. (2016). Board Composition and Corporate Social Responsibility: The Role of Diversity, Gender, Strategy and Decision Making. *Journal of Business Ethics*, 138(2):327–347.

Rhoades, D. L., Rechner, P. L., and Sundaramurthy, C. (2001). A Meta-Analysis of Board Leadership Structure and Financial Performance: Are Two Heads Better than One? *Corporate Governance: An International Review*, 9(4):311–319.

Scherer, A., Palazzo, G., and Baumann, D. (2006). Global Rules and Private Actors, Toward a New Role of the TNC in Global Governance. *Business Ethics*, 16:502–532.

Shahzad, A. M., Rutherford, M. A., and Sharfman, M. P. (2016). Stakeholder-Centric Governance and Corporate Social Performance: A Cross-National Study. *Corporate Social Responsibility and Environmental Management*, 23(2):100–112.

Shaukat, A., Qiu, Y., and Trojanowski, G. (2016). Board Attributes, Corporate Social Responsibility Strategy, and Corporate Environmental and Social Performance. *Journal of Business Ethics*, 135(3):569–585.

Shleifer, A. and Vishny, R. W. (1997). A Survey of Corporate Governance. *The Journal of Finance*, 52(2):737–783.

Surroca, J. and Tribo, J. A. (2008). Managerial Entrenchment and Corporate Social Performance. *Journal of Business Finance & Accounting*, 35(5-6):748–789.

Wang, J. and Coffey, B. S. (1992). Board Composition and Corporate Philanthropy. *Journal of Business Ethics*, 11(10):771–778.

Wintoki, M. B., Linck, J. S., and Netter, J. M. (2012). Endogeneity and the Dynamics of Internal Corporate Governance. *Journal of Financial Economics*, 105(3):581–606.

Wood, D. J. (1991). Corporate Social Performance Revisited. *Academy of Management Review*, 16(4):691–718.

Yermack, D. (1996). Higher Market Valuation of Companies with a Small Board of Directors. *Journal of Financial Economics*, 40(2):185–211.

Zhang, J. Q., Zhu, H., and Ding, H.-b. (2013). Board Composition and Corporate Social Responsibility: An Empirical Investigation in the Post Sarbanes-Oxley Era. *Journal of Business Ethics*, 114(3):381–392.

D Tables

Table 1: Board descriptive statistics

Variables	Obs	Mean	Std. Dev.	Min	Max
Panel A: Board Characteristics					
Supervisory Board	461	0.21	0.41	0	1
Board Size	461	12.36	3.46	3	23
Avg Age	461	58.91	4.32	41.91	68.75
Sh of Women	461	0.11	0.09	0	0.44
Sh of Foreigner Directors	461	0.23	0.20	0	1
CSR Committee	461	0.12	0.33	0	1
Panel B: Monitoring and Entrenchment Abilities					
Sh of Insider Directors	461	0.10	0.12	0	0.83
Chairman/CEO Separation	461	0.29	0.45	0	1
Sh of Independent Directors	461	0.51	0.21	0	1
Panel C: Stakeholder Representation					
Sh of Shareholders' Representatives	461	0.04	0.07	0	0.50
Sh of Employees' Representatives	461	0.04	0.08	0	0.39
Sh of Business Directors	461	0.19	0.16	0	0.80
Sh of Support Directors	461	0.32	0.17	0	0.90
Sh of Extern Directors	461	0.30	0.19	0	1

Notes: Table provides the descriptive statistics relative to the board composition: board size, average age of directors, Supervisory Board dummy, the Chairman/CEO separation dummy, the shares of each individual characteristic (women, foreigners, independent -according to the AFEP/MEDEF criteria-, insider -executive directors-, shareholders' representatives, employees' representatives, business, support and extern directors).

Table 2: CSR commitment indexes

Variables	Obs	Mean	Std. Dev.	Min	Max
Measure 1: Vigéo's Commitment indexes					
CSR	265	0.52	0.50	0	1
HR	265	0.66	0.48	0	1
ENV	265	0.51	0.50	0	1
C&S	265	0.44	0.50	0	1
Measure 2: Asset4's Commitment indexes					
Ind CSR	418	0.61	0.49	0	1
Ind Social	418	0.59	0.49	0	1
Ind Environmental	424	0.63	0.48	0	1
Ind Societal	424	0.60	0.49	0	1

Notes: Table reports descriptive statistics for CSR commitment indexes (dummy variables) based on Vigéo's and Asset4's ratings. The dummies are equal to 1 if firm's commitment is over the industry average behavior. CSR is the overall CSR evaluation by Vigéo, HR means Human Resources, ENV Environment, and C&S Customers and Suppliers. Ind CSR is the overall CSR evaluation by Asset4, Ind Social means index for social dimension, Ind Societal for societal dimension and Ind Env for environmental dimension.

Table 3: Firm descriptive statistics

Variables	Meaning	Obs	Mean	Std. Dev.	Min	Max
Nb Employees	Number of employees	461	68894	85943	238	479072
Cac40	Cac40 index	461	0.43	0.50	0	1
State Ownership	1 if state Ownership	461	0.10	0.30	0	1
Ownership Float	Ownership Float (>5%)	461	0.34	0.22	0	0.95
Prox Volatility	Stock volatility	461	0.49	2.21	0	38.31
RDonSales	R&D expenditures on sales	461	0.03	0.05	0	0.36
Advertisment	Intangibles assets on sales revenues	461	0.55	0.58	0	7.54
Leverage	Debt on equity	461	0.73	1.55	-21.36	8.79
ROA	Return On Assets	461	0.05	0.05	-0.31	0.30

Notes: Table displays the descriptive statistics for the control variables. There are the number of employees, State-owned firm, ownership float, CAC40 index, stock volatility, investments in R&D, Advertisement, the leverage and the return on asset and equity. State-Owned firm is a dummy which takes 1 if firm has a significant share of the capital held by State. Ownership float is the share of capital held by significant shareholders (at least 5% of the shares). Prox Volatility is the stock volatility measured as the standard deviation of the monthly stock returns over the previous 50 months. RDonSales is the R&D investment on total sales. Advertisement is measured as total of intangibles assets on total sales. Leverage is equal to total debt over total equity. Return on assets is equal to the ratio between EBITDA (earnings before interest, taxes, depreciation and amortization) and total assets.

Table 4: Propensity to commit to CSR from a shareholder perspective (Vigéo)

Model	(1)	(2)	(3)	(4)
Variables	CSR	HR	ENV	C&S
Monitoring ability				
Sh independents	-1.053	0.000	-0.262	-0.647
	(0.964)	(0.844)	(0.951)	(0.734)
Chair/CEO separation	0.082	-0.315	0.001	0.485*
	(0.290)	(0.275)	(0.321)	(0.257)
Entrenchment ability				
Sh insiders	-4.439***	-5.529***	-1.435	-3.287***
	(1.567)	(1.442)	(1.209)	(1.214)
Board Variables				
Supervisory board	-0.282	-0.802**	0.269	-0.200
	(0.472)	(0.397)	(0.467)	(0.363)
Size of the board (log)	-0.692	-0.372	-0.077	-0.692
	(0.455)	(0.512)	(0.396)	(0.429)
Sh foreigners	-0.588	-0.440	-1.258*	-0.984
	(0.697)	(0.653)	(0.707)	(0.654)
Sh women	-0.974	0.091	-1.679	-0.390
	(1.475)	(1.273)	(1.537)	(1.250)
CSR Committee	1.129***	1.434***	0.517	0.853***
	(0.426)	(0.523)	(0.341)	(0.298)
Marginal effects				
Independent directors	-0.280	0.001	-0.074	-0.208
Insider directors	-1.181***	-1.330***	-0.404	-1.057***
Observations	265	265	265	265
Nb Firms	91	91	91	91
R2	0.317	0.337	0.282	0.174

Notes: Table displays the estimated coefficients of probit analysis for multi-dimensional CSR commitment indexes regarding board monitoring abilities and the related marginal effects. CSR commitment indexes are based on Vigéo extra-financial ratings. (1) These dependent variables are dummies which equal to one if firms are committed more than the industry-average commitment in CSR policy or specifically in each CSR dimension, and zero otherwise. The social dimension is covered by HR (Human Resources); environmental dimension by ENV (Environment) and societal dimension by C&S (Customers & Suppliers). (2) The independent variables are the share of insiders and independent directors, the dummy of separation of Chairman and CEO positions. The reference group of directors is affiliated directors. The control variables are the log of board size, the share of women and foreigner directors, the supervisory board dummy, the CSR committee dummy, the number of employees, the leverage, the ownership float, the CAC40 dummy, the CSR committee dummy, the stock volatility, the advertisement expenses, the R&D investment, and the return on asset (3) Probit Models include industry and year fixed effects. (4) Standard errors are clustered at firm level. (5)***, **, * mark statistically significant coefficient at the 1%, 5% and 10% levels, respectively.

Table 5: Propensity to commit to CSR regarding monitoring board abilities (Asset4)

Model	(1)	(2)	(3)	(4)
Variables	Ind CSR	Ind Social	Ind Env	Ind Societal
Monitoring Abilities				
Sh independents	2.528***	2.863***	1.090	1.589*
	(0.981)	(0.868)	(0.967)	(0.874)
Chair/CEO Separation	-0.345	-0.332	-0.065	-0.055
	(0.273)	(0.250)	(0.266)	(0.252)
Entrenchment ability				
Sh insiders	-0.843	0.105	0.585	-0.579
	(1.384)	(1.192)	(1.135)	(1.196)
Board Variables				
Supervisory board	-0.784*	-0.079	-0.730*	-0.704*
	(0.418)	(0.377)	(0.415)	(0.386)
Size of the board (log)	0.523	1.454***	-0.783	0.550
	(0.519)	(0.522)	(0.521)	(0.448)
Sh foreigner directors	-0.513	0.437	-0.472	-0.202
	(1.445)	(1.303)	(1.378)	(1.185)
Sh Women	-0.742	-1.151	0.502	-0.882
	(0.815)	(0.824)	(0.817)	(0.775)
CSR Committee	0.619*	0.375	-0.421	0.921***
	(0.346)	(0.301)	(0.322)	(0.324
Marginal effects				
Independent directors	0.658***	0.824***	0.255	0.456*
Insider directors	-0.219	0.030	0.137	-0.166
Observations	418	418	424	424
Nb Firms	79	79	80	80
R2	0.301	0.242	0.368	0.242

Notes: Using Asset4 data, Table displays the estimated coefficients of the probit analysis for multi-dimensional CSR commitment indexes regarding board monitoring abilities and the related marginal effects. (1) These dependent variables are dummies which equal to one if firms are committed in CSR policy or specifically in each CSR dimension (Ind CSR, Ind Social for social, Ind Env for environment and Ind Societal for societal), and zero otherwise. (2) The independent variables are the share of insiders and independent directors, the dummy of separation of Chairman and CEO positions. The control variables are the board size, the share of women and foreigner directors, the supervisory board dummy, the CSR committee dummy, the number of employees, the leverage, the ownership dummies, the CAC40 dummy, the CSR committee dummy, the stock volatility, the advertisement expenses, the R&D investment, and the return on asset. (3) Probit Models include industry and year fixed effects. (4) Standard errors are clustered at firm level. (5) ***, **, * mark statistically significant coefficient at the 1%, 5% and 10% levels, respectively.

Table 6: Propensity to commit to CSR regarding stakeholder board composition (Vigéo)

Model Variables (Sh)	(1) CSR	(2) CSR	(3) HR	(4) HR	(5) ENV	(6) ENV	(7) C&S	(8) C&S
Insiders	-1.094	7.674	-0.652	-1.012	-0.259	-1.484	-2.364	-2.601
	(2.451)	(5.679)	(2.207)	(3.362)	(2.250)	(3.064)	(1.992)	(3.154)
Insiders (square)		-28.327*		-1.917		-1.386		-2.903
		(14.803)		(7.601)		(3.497)		(4.439)
Employees	**9.463*** **	**12.631** **	**11.709*** **	**19.078*** **	**5.933* **	**13.340** **	2.271	**11.380** **
	(3.605)	(6.164)	(3.422)	(5.379)	(3.304)	(5.343)	(3.468)	(5.063)
Employees (square)		-22.166		**-37.926*** **		**-38.356*** **		**-36.250** **
		(19.761)		(14.293)		(14.544)		(15.737)
Business	**3.565* **	**6.406** **	**6.370*** **	**10.265*** **	0.952	0.983	0.704	**7.698*** **
	(2.098)	(2.978)	(1.998)	(2.702)	(1.954)	(2.888)	(1.673)	(2.683)
Business (square)		**-7.158** **		**-7.795** **		-3.023		**-13.353*** **
		(3.634)		(3.299)		(3.470)		(4.536)
Supports	2.572	**-7.806* **	**6.563*** **	-0.468	0.467	**-10.840*** **	-0.097	-1.758
	(2.270)	(4.167)	(2.069)	(3.246)	(2.222)	(3.731)	(1.638)	(2.816)
Supports (square)		**11.423*** **		**8.470*** **		**12.216*** **		1.643
		(3.941)		(2.942)	(3.802)		(2.951)	
Externs	1.690	1.475	**4.367** **	**6.781*** **	0.078	-1.280	0.227	-3.301
	(2.149)	(2.475)	(1.973)	(2.313)	(1.937)	(2.198)	(1.554)	(2.089)
Externs (square)		-2.256		**-4.125*** **		-1.138		**4.395** **
		(1.751)		(1.580)		(1.887)		(1.990)
Marginal Effects								
Insiders	-0.277	0.564	-0.146	-0.278	-0.07	-0.428	-0.755	-0.919
Employees	2.397***	2.489***	2.621***	3.398***	1.612*	2.481**	0.725	2.331***
Business	0.903*	0.862*	1.426***	1.507***	0.259	-0.040	0.225	0.822*
Supports	0.651	-0.013	1.469***	1.041***	0.127	-0.652	-0.031	-0.196
Externs	0.428	0.024	0.978**	0.859**	0.021	-0.472	0.072	-0.199
Observations	265	265	265	265	265	265	265	265
R2	0.348	0.348	0.385	0.385	0.303	0.303	0.178	0.178

Notes: Table displays the estimated coefficients of the probit analysis for multi-dimensional CSR commitment indexes regarding stakeholder board composition perspective and the related marginal effects. (1) These dependent variables are dummies which equal to one if firms are more committed in CSR policy or specifically in each CSR dimension than the average firm behavior according to Vigéo, and zero otherwise. The social dimension is covered by HR (Human Resources); environmental dimension by ENV (Environment) and societal dimension by C&S (Customers & Suppliers). (2) The independent variables are the share of stakeholders' representatives and the square of the shares (Models 2, 4, 6 and 8). The control variables are the board size, the share of women and foreigner directors, the supervisory board dummy, the CSR committee dummy, the number of employees, the leverage, the ownership dummies, the CAC40 dummy, the stock volatility, the advertisement expenses, the R&D investment and the return on asset. (3) Probit Models include industry and year fixed effects. (4) Standard errors are clustered at the firm level. (5) ***, **, * mark the statistical significance at the 1%, 5% and 10% levels, respectively.

Table 7: Propensity to commit to CSR regarding stakeholder board composition (Asset4)

Model Variables (Sh)	(1) Ind CSR	(2) Ind CSR	(3) Ind Social	(4) Ind Social	(5) Ind Env	(6) Ind Env	(7) Ind Societal	(8) Ind Societal
Insiders	-2.216	9.633	-1.138	**10.065***	0.502	0.725	-1.612	-0.252
	(2.446)	(6.113)	(2.337)	(5.836)	(2.167)	(3.162)	(2.181)	(3.283)
Insiders (Square)		**-27.369***		**-30.817****		-0.823		-0.932
		(14.628)		(15.460)		(3.031)		(3.037)
Employees	1.200	**-10.131***	-2.867	-5.136	3.836	**13.617*****	2.095	-4.316
	(4.257)	(5.415)	(3.975)	(5.064)	(3.179)	(4.724)	(3.923)	(5.254)
Employees (Square)		**56.586*****		-0.139		**-38.434*****		**34.150****
		(21.815)		(11.688)		(13.218)		(16.006)
Business	-2.718	-3.826	-1.914	-3.918	-1.738	2.096	-1.272	-2.565
	(2.195)	(3.389)	(2.077)	(2.771)	(1.899)	(2.983)	(1.956)	(2.629)
Business (Square)		2.752		2.535		-8.482*		3.193
		(4.685)		(3.928)		(4.857)		(3.919)
Supports	-0.823	-1.384	-0.073	-3.819	0.450	1.041	-1.082	1.996
	(2.214)	(3.554)	(2.131)	(3.231)	(1.920)	(3.400)	(1.937)	(3.101)
Supports (Squared)		1.446		4.285		-1.497		-3.506
		(3.358)		(3.095)		(3.915)		(3.028)
Externs	0.116	0.844	1.391	-1.906	0.075	-0.015	-0.195	1.537
	(2.087)	(2.893)	(2.106)	(2.870)	(1.921)	(2.409)	(1.945)	(2.656)
Externs (Squared)		-0.399		3.482		-0.474		-1.327
		(2.015)		(2.741)		(1.827)		(1.909)
Marginal Effects								
Insiders	-0.575	2.379	-0.328	2.782*	0.114	0.156	-0.462	-0.071
Employees	0.311	-2.502*	-0.827	-1.419	0.870	2.925***	0.601	-1.211
Business	-0.705	-0.945	-0.552	-1.083	-0.394	0.450	-0.365	-0.720
Supports	-0.213	-0.342	-0.021	-1.056	0.102	0.224	-0.310	0.560
Externs	0.030	0.209	0.401	-0.527	0.017	-0.003	-0.056	0.431
Observations	418	418	418	418	424	424	424	424
R2	0.304	0.339	0.240	0.272	0.389	0.416	0.244	0.261

Notes: Table displays the estimated coefficients of the probit analysis for multi-dimensional CSR commitment indexes regarding stakeholder board composition and the related marginal effects. (1) These dependent variables are dummies which equal to one if firms are more committed than the industry average behavior in CSR policy or in each CSR dimension (ind CSR for global policy, Ind Social for social, Ind Env for environment and Ind Societal for societal) according Asset4, and otherwise equal to zero. (2) The independent variables are the share of each stakeholder's representative and the square of the share. The control variables are the board size, the share of women and foreigner directors, the supervisory board dummy, the CSR committee dummy, the number of employees, the leverage, the ownership dummies, the Cac40 dummy, the stock volatility, the advertisement expenses, the R&D investment, and the return on asset. (3) Probit models include industry and year fixed effects. (4) Standard errors are clustered at firm-level. (5) ***, **, * mark the statistical significance at the 1%, 5% and 10% levels, respectively.

Table 8: Informational contents: Vigéo and Asset4

Variables	(1) HR	(2) ENV	(3) CS
Ind Social	0.551***		
	(0.058)		
Ind Environment		0.433***	
		(0.053)	
Ind Societal			0.381***
			(0.051)
Observations	224	228	228
R-squared	0.480	0.409	0.353

Notes: Table displays the regressions of Vigéo scores on Asset4 scores. (1) These dependent variables are Vigéo scores (0 to 100) which evaluates CSR firm commitments. The social dimension is covered by HR (Human Resources) ; environmental dimension by ENV (Environment) and societal dimension by C&S (Customers & Suppliers). (2) The independent variables are the Asset4 scores on social issue (models 1), on environmental issue (model 2) and societal issue (models 3). (3) Models include industry and year fixed effects. (4) Standard errors are clustered at the firm level. (5) ***, **, * mark the statistical significance at the 1%, 5% and 10% levels, respectively.

Table 9: Definition of variables

Variables	Description
Panel A: Board characteristics	Ethics & Boards
Board Size	Size of the board
Sh Women	Share of women
Sh Foreigners	Share of foreign directors
CSR Committee	Board committee dedicated to CSR issues
Sh Independent	Share of independent directors (according AFEP/MEDEF code of corporate governance)
Sh Insider	Share of executive directors
Supervisory Board	Dummy equal to 1 if two tier board
Chair/CEO separation	Dummy equal to 1 if chairman and CEO are split
Sh Employees	Share of employees' representatives
Sh Business	Share of business' representatives (outside non-independent directors with industry expertise)
Sh Supports	Share of support directors (directors with financial expertise)
Sh Externs	Share of extern directors (independent directors without any expertise)
Panel B: Firm characteristics	Infinancials &Thomson One Bankers
Nb employees	Number of employees
CAC40 Index	Dummy equal to 1 if firm belongs to the first 40 listed firms by market capitalization and/or market trade
State Owned Firm	Dummy equal to 1 if the French State owns at least 5% of the equity capital
Ownership Float	Share of ownership which is held by significant shareholders ($> 5\%$)
Prox volatility	Stock volatility measures as the standard deviation of the monthly stock returns over the previous 50 months
RDonSales	Research and development expenses on total Sales
Advertisement	Total of intangibles assets on total sales
leverage	Leverage equal to total debt over total equity
ROA	Return on assets equal to the ratio between EBITDA (earnings before interest, taxes, depreciation and amortization) and beginning-year total assets

Notes: Table describes board and firm variables. Board characteristics are provided by Ethics&Boards. Firm characteristics are provided by Infinancials, except ownership structure by ThomsonOneBankers.

Table 10: Description of CSR Commitment indexes

Variables	Description	Provider
CSR	Dummy equal to 1 if CSR ratings (sum of ratings in the 5 dimensions) is higher than 17 without any CSR dimension below 3	
HR	Dummy equal to 1 if firm's Human Resources rating is above 3	Vigéo
ENV	Dummy equal to 1 if firm's Environment rating is above 3	
C&S	Dummy equal to 1 if firm's Customer and suppliers rating is above 3	
Ind CSR	Dummy equal to 1 if firm average score in social, societal and environmental dimensions is above the annual industry average score	
Ind Social	Dummy equal to 1 if firm score is above the annual industry average score in social	Asset4
Ind Environment	Dummy equal to 1 if firm score is above the annual industry average score in Environment	
Ind Societal	Dummy equal to 1 if firm score is above the annual industry average score in societal	

Notes: Table describes the CSR commitment variables. Vigéo and Asset4 are two extra-financial rating agencies.

Table 11: Vigéo dimensions and issues

Dimension	**Issues**
Social / Human resources	Promotion of labor relations Encouraging employee participation Training and Development Career management and promotion of employability Quality of remuneration systems Improvement of health and safety conditions Respect and management of working hours
Environment	Environmental strategy and eco-design Pollution prevention and control Development of green products and services Protection of biodiversity Protection of water resources Minimizing environmental impacts from energy use Environmental supply chain management Waste management Management of environmental nuisances (pollution) Management of environmental impacts from transportation Management of environmental impacts from the use and disposal of products and services
Societal / Customers and suppliers	Product safety Information to costumers Responsible contractual agreement Integration of CSR in purchasing process Sustainable relationship with suppliers Integration of CSR factors in the supply chain Prevention of corruption Prevention of anti-competitive practices Transparency and integrity

Notes: Table gives the main issues analyzed by Vigéo in the various CSR dimensions.

Table 12: Asset4 dimensions and issues

Dimension	Issues	
Social	Employment Quality	Providing high-quality fair employment benefits and job conditions (long-term employment, trade unions)
	Health & Safety	Providing a healthy and safe workplace
	Training and Development	Providing training and development (education)
	Diversity and Opportunity	Maintaining diversity and equal opportunities regardless of gender, age, ethnicity, religion or sexual orientation and creating an effective life-work balance and a family friendly environment
Environment	Emission Reduction	Reducing environmental emission in the production and operational processes (air emissions, waste, hazardous waste, water discharges) and the related environmental impacts (biodiversity)
	Resource Reduction	Achieving an efficient use of natural resources in the production and in the supply chain management.
	Product Innovation	Supporting the research and development of eco-efficient products or services and creating new market opportunities
Societal	Human Rights	Respecting the fundamental human rights conventions (freedom of association and excluding child, forced or compulsory labor)
	Community	Maintaining the company's reputation within the general community (local, national and global) as good citizen (philanthropy), protecting public health and respecting business ethics (avoiding bribery and corruption)
	Product Responsibility	Creating value-added products and services upholding the customer's security (health and safety,integrity and privacy, information and labeling)

Notes: This table gives the main issues analyzed by Asset4 in the various CSR dimensions.

Table 13: Bivariate correlation matrix CSR commitment indexes and board variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
CSR	0.01	0.26*	0.12	-0.15*	0.23*	0.02	-0.08	-0.03	0.10	1.00							
C&S	0.12	0.19*	0.10	-0.11	0.12*	0.08	-0.02	-0.07	0.12*	0.60*	1.00						
ENV	0.25*	0.22*	0.15*	-0.08	-0.02	0.23*	-0.15*	-0.05	0.12	0.71*	0.44*	1.00					
HR	0.27*	0.24*	0.23*	-0.21*	0.00	0.19*	-0.14*	0.07	0.14*	0.74*	0.45*	0.56*	1.00				
Ind CSR	0.17*	0.19*	0.28*	-0.13*	-0.05	0.12*	-0.18*	-0.02	0.19*	0.35*	0.25*	0.31*	0.31*	1.00			
Ind Social	0.19*	0.16*	0.27*	-0.15*	-0.11*	0.08	-0.18*	-0.03	0.22*	0.25*	0.17*	0.29*	0.25*	0.68*	1.00		
Ind Societal	0.21*	0.22*	0.18*	-0.07	0.01	0.15*	-0.10*	-0.07	0.12*	0.37*	0.30*	0.32*	0.30*	0.73*	0.55*	1.00	
Ind Environment	0.06	0.06	0.27*	-0.05	-0.02	0.10*	-0.19*	-0.03	0.21*	0.28*	0.12	0.30*	0.29*	0.58*	0.47*	0.42*	1.00

Notes: Table presents Spearman bivariate correlation coefficients for the whole sample (461 firm-year observations). * indicates significant correlation between variables at least at the 5% level. Variabls are labeled by numbers:(1) board size (2) CSR Committee (dummy) (3) share of independent directors (4) share of insiders (5) Chairman/CEO separation (dummy), (6) share of employees' representatives, (7) share of business directors, (8) share of support directors, (9) share of extern directors, (10 - 13) CSR commitment indexes for Vigéo (dummy): CSR for the overall CSR evaluation, HR for Human Resources, ENV for Environment, C&S for Customers and Suppliers, (14-17) CSR commitment indexes for Asset4 (dummy): Ind CSR for the overall CSR evaluation, Ind Social for social dimension, Ind Societal for societal dimension and Ind Env for environmental dimension.