

The Foundations of Corporate Social Responsibility

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ABSTRACT

We investigate the roles of legal origins and political institutions – believed to be the fundamental determinants of economic outcomes – in corporate social responsibility (CSR). We argue that CSR is a crucial path to economic sustainability, and document significantly high correlations between country-level sustainability ratings and various extensive firm-level CSR ratings with global coverage. We contrast different views on how legal origins and political institutions can function on corporations' tradeoff between shareholder rights and stakeholder rights, which is arguably the main underlying mechanism for them to influence CSR. Our empirical evidence suggest that: (a) Legal origins are more fundamental sources of CSR adoption than firms' financial and operational performance; (b) Among different legal origins, the English common law – widely believed to be mostly shareholder-oriented – fosters CSR the least, while companies under the Scandinavian legal origin assume most social responsibilities; (c) Political institutions – democratic rules and constraints to political executives – are not preconditions for CSR and sustainability, and sometimes even hinder CSR implementation. Our results are robust after controlling for corporate governance, culture, firm-level financial performance and constraints, and different indices of political institutions.

Keywords: Corporate social responsibility, sustainability, legal origins, political institutions, shareholder orientation, stakeholder orientation.

JEL Code: G30, K22, M14, O10, O57

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“Business cannot succeed in a society that fails. Likewise, where and when business is stifled, societies fail to thrive”

*-- Björn Stigson, President, World Business Council
for Sustainable Development*

“Driving shareholder wealth at the expense of everything else will not create a company that’s built to last.”

*-- Paul Polman, CEO of Unilever,
Harvard Business Review (May 2012)*

I. Introduction

A fundamental issue in business and economics is the sustainability – not merely the growth – of economic development, which crucially hinges on the socially responsible operational and investment behavior of modern corporations (Porter, 1991). There is now widespread recognition, as well as growing empirical evidence that corporate social responsibility (CSR) can substantially contribute to social progress and stakeholder wealth, including the wealth of shareholders (e.g., Dimson, Karakas, and Li, 2012; Deng, Kang, and Low, 2013). But what forces, among the many documented factors, that fundamentally drive companies to behave as good citizens in the society is still under fierce debate. This is the key question we investigate in this article.

Some Conceptual Issues

Our goal is to discover the foundations of CSR and how such foundations translate into the sustainability of our society. This ambitious research inquiry immediately poses some conceptual issues. To begin, one key issue is what we are actually measuring. Various studies have attempted to model and measure CSR but usually from only one perspective, such as employee satisfaction (Edmans, 2011, 2012), environmental protection (e.g., Dowell, Hart, & Yeung, 2000; Konar & Cohen, 2001), corporate philanthropy (e.g., Seifert, Morris, & Bartkus, 2004), and consumer satisfaction (e.g., Luo & Bhattacharya, 2006; Servaes & Tamayo, 2013; Larkin, 2013). However, CSR is by nature a multidimensional concept, as it captures various stakeholders’ interests. In this sense, the most comprehensive concept of CSR is defined

as and measured by a firm's *engagement* and *compliance* in **environmental, social, and governance (ESG)** issues. It addresses concerns for the environment (such as climate change, hazardous waste, nuclear energy, ecological balance, etc.), society (social diversity, human rights, consumer protection, consumer consciousness, etc.), and corporate governance (including management/board structures and representation, employee relations, executive compensation, anti-corruption measures, etc.).^{2,3}

A closely related issue concerns the nature of CSR. As indicated by its very name, CSR is not mainly about regulations and policies, but more about the corporations' tradeoff between shareholders' rights and stakeholders' rights. The concept of stakeholders includes shareholders, but also involves *other* stakeholders who do not necessarily have the same interests and claims from the firm as shareholders do. Therefore, our theoretical base is how the underlying "foundations" function through such shareholder-stakeholder tradeoff.

Some scholars, such as Friedman (1970), Jensen (2001, 2002), and most recently Chen, Hong and Shue (2012), are skeptical that CSR is a value diversion activity that does not contribute to aggregate social welfare and sustainability. In this paper, we quantify this CSR-sustainability relationship by showing that comprehensive firm-level CSR scores are significantly correlated with country-level sustainability ratings in many dimensions.⁴ Some correlations are almost 30% which is substantial given that the CSR scores and country sustainability ratings are from very different data sources and use different rating metrics. These significant correlations imply that CSR is closely linked to economic sustainability, which represents the preservation of resources, order, and wealth. We argue that CSR is a crucial path to economic sustainability and they have similar macro foundations. Therefore, although our focus in this paper is on the firm-level CSR adoption, in most cases we also refer to the country-level sustainability interchangeably throughout the rest of the paper.

The Literature

Most of the extant literature relates CSR to the firm's financial and operational performance (*doing well by doing good*), or studies the inverse, whether it is only well-performing firms that can afford to adhere to

² Similarly, The European Federation of Financial Analysts Societies (EFFAS) interprets ESG as the need to focus on: (1) energy efficiency, (2) greenhouse gas emissions, (3) staff turnover, (4) training and qualification, (5) maturity of workforce, (6) absenteeism rate, (7) litigation risks, (8) corruption, and (9) revenues from new products.

³ In some definitions and measurement of CSR, the "G" component is often taken out as it coincides with the traditional corporate governance concerns. In such case, the main focus of CSR is on the external non-shareholder issues.

⁴ The firm-level scores are from the CSR databases (some are proprietary): the MSCI corporate ESG ratings, MSCI Impact Monitors, Vigeo corporate ESG ratings, and Asset4 corporate ESG ratings, all with global coverage. The country-level sustainability ratings are from the Vigeo Sustainability Country Rating.

ESG criteria (*doing good by doing well*). Both the theoretical models and empirical evidence are rather ambiguous on the causality in this relationship. The theoretical debate on *doing well by doing good* started with the Porter hypothesis (Porter, 1991; Porter and van der Linde, 1995): the financial benefits from innovation induced by CSR more than offset the engagement and compliance costs. Furthermore, a good ESG rating also enhances a firm's reputation as a decent company (manager) which (who) respects its employees, communities, and the environment, and thus increases the financial returns for investors (Guenster, Bauer, Derwall & Koedijk, 2011). Whereas some recent papers have studied the profit motives for CSR (Hong, Kubik and Scheinkman, 2011, Chen, Hong and Shue, 2012), others concentrate on the question as to how delegated philanthropy and the stakeholder theory (Tirole, 2001; Benabou and Tirole, 2010) can explain why firms are *doing good by doing well*. Stakeholders require that corporations engage in socially responsible behavior and thereby be willing to sacrifice profit for a good cause. The most profitable firms (or least financially constrained firms) are most able to afford the expenses of adopting a CSR policy. While some evidence is found for both the theoretical arguments underlying *doing good by doing well* (e.g., Hong *et al.*, 2012) and *doing well by doing good* (e.g., Orlitzky *et al.*, 2003; Dowell *et al.*, 2000; Bauer *et al.*, 2011), a causal relationship cannot be identified or is statistically insignificant (Margolis, Elfenbein and Walsh, 2007). Besides the ambiguous theoretical predictions and empirical evidence, some unexplored exogenous and latent factors may influence both *doing good* (representing the stakeholders' interests) and *doing well* (representing mainly the shareholders' interests) simultaneously. Apparently in response to this concern, some more recent studies go one step further to investigate the governance determinants of CSR (such as Johnson and Greening (1999), Barnea and Rubin (2010), Li and Zhang (2010), and Lopez-Ithurriague & Lopez de Foronda (2009)). However, these are mostly single-country analyses and not really analyze the latent factors but rather another set of endogenous firm-level variables. Ioannou & Serafeim (2012) investigate the association between "national institutions" and the score on the CSR index. However, most of their measurements on "institutions"⁵ are not truly institutions with persistent and durable features (as defined in North, 1980), but rather the economic consequences of institutions (Glaeser, La Porta, Lopez-de-Silanes, Shleifer, 2004), which implies that those proxies for institutions may still be endogenously determined. This motivates us to think deeper about the potential fundamental and latent (and thus other than financial and operational) determinants of CSR, as well as their different effects on

⁵ These variables include the measurement of regulations promoting competition, the level of corruption, leftist political ideologies, the power of labor unions, the availability of human capital, the presence of market-based financial systems, the existence of CSR stock market index, etc.

shareholders and stakeholders.

Currently, the consensus in finance and economics on the *fundamental* factors of economic outcomes are the institutional arrangements that define rules and rights, such as **legal origins** (e.g., La Porta, Lopez-de-Silanes, Shleifer, and Vishny [hereafter LLSV] 1997, 1998; La Porta *et al.*, 2008) and the **political institutions** (e.g., Rajan and Zingales, 2003; Pagano and Volpin, 2005; Perotti and von Thadden, 2006; Roe, 2003, 2006). The institutional framework of a country determines key structural features of the firm (Matten & Moon, 2008), “including the degree to which private hierarchies control economic processes, the degree of discretion owners allow managers in running the company, and organizational capabilities to respond to changing and differentiated demands (2008: 408).” Meanwhile, according to the theory of the firm (Williamson, 1981), the firm is to be seen as a nexus of contracts between interested parties – in addition to shareholders, these are customers, suppliers, owners, managers, employees and communities (“stakeholders”)⁶ – who realize economic gains through their participation in these contractual relationships. Therefore, we expect that these historically established laws and institutions which define rules and rights for stakeholders, rather than financial performance and constraints, are the more basic source of CSR. In this paper, we contrast two competing views – the principal-agent view versus the stakeholder perspective – on legal origins, as well as two competing views – the institutional view versus the development view – on political institutions to address their fundamental impact on CSR and sustainability.

Our paper contributes in the following ways. First, while the majority of cross-country studies on the role of fundamental institutions focus on country-level differences and use macro-level data (e.g., Acemoglu *et al.*, 2001; Acemoglu & Johnson, 2002, 2005), which usually suffer from small sample inference and sensitivity to outliers, our unit of analysis is the firm for which we have extensive proprietary data on their performance on ESG issues. The fact that we combine a macro- and micro-level analysis enables us to better understand the mechanisms of how fundamental institutions determine corporate behavior. Second, our data enable us to differentiate between CSR *engagement* and *compliance*, which has not yet been explored to date. However, as we show later, the impact of laws and institutions does not distinguish between these two aspects of CSR. Third, our study has policy and welfare implications: if institutional

⁶ The stakeholder perspective dates back to Edward Freeman’s (1984) influential book *Strategic Management: A Stakeholder Approach*. The book describes and recommends the methods by which management can give due regard to the interests of the stakeholder groups. Similar definitions and arguments can be found in Donaldson and Preston (1995), Mitchell, Agle, and Wood (1997), Tirole (2001), Friedman and Miles (2002) and Phillips (2003).

origins are found to be of first-order importance, then policymakers could imitate the tools associated with the winning origin and shun those associated with the loser (Roe and Siegel, 2009). Hence, our empirical findings can offer a guide for institutional reform aiming at stimulating economic and societal sustainability. Many large corporations and countries worldwide today find it hard to achieve good citizenship and sustainable development, in part because of their institutional heritage.

The rest of the paper is organized as follows. Section II revisits the roles of legal origins and political institutions that have been documented in the literature as fundamental determinants of corporate behavior and economic outcomes, and discusses their theoretical relevance to CSR and sustainability. Section III describes our data and empirical strategies. Section IV exhibits the empirical results while Section V discusses the validity of alternative explanations on our results. Section VI concludes with theoretical and policy implications.

II. Institutional Origins, Finance, and Corporate Social Responsibility

A considerable body of economic research has suggested that the historical origins of a country's laws and political institutions are highly correlated with a broad range of its legal rules, regulations, and modern political systems, as well as with economic outcomes (La Porta *et al.*, 2008; Acemoglu and Johnson, 2005). Therefore, our baseline hypothesis is that CSR and sustainability – both as crucial economic outcomes – are also fundamentally governed by these origins. What similar or different effects the institutional origins have on CSR and sustainability are central to our inquiry. In this section, we revisit the theoretical framework of legal origins and political institutions, and try to identify how they matter for CSR.

II.1. Revisiting the Roles of Legal Origins

The fundamental roles of legal origins on economic outcomes are advocated by La Porta *et al.* (1997, 1998) and have been adopted by much of the law and finance literature. The legal origin theory argues that the largely exogenous legal origins – common versus civil law, and the legal subfamilies within the civil law tradition such as German, French, and Scandinavian legal systems – set legal rules and their enforcement, which differ in terms of the priority to protect the rights of private investors vis-a-vis the state (Beck, Demirgüç-Kunt & Levine, 2003) and the mutual rights of different types of investors (shareholders versus creditor; majority versus minority shareholders). These differences form the basis of contracting and capital market development that is believed to be the foundations of financial and economic prosperity.

Since the seminal work by LLSV (1998), it has almost become a convention that the English common law system is globally superior to other civil law systems in protecting investor rights and facilitating desirable economic outcomes.⁷ Various studies argue that the standards of the common law system are those to which corporate governance practices worldwide are converging (e.g., Hansmann and Kraakman, 2001; Goergen and Renneboog, 2008; Aggarwal, Erel, Stulz & Williamson, 2009).

There are two distinct views on the roles and effects of legal origins. The predominant view of legal origins – the “law and finance” view – rests on the principal-agent paradigm. Under this paradigm, corporate law aims to address the agency conflicts between managers and shareholders (under a dispersed ownership structure) and between controlling and minority shareholders (under concentrated ownership). The common law origin is inherently linked to better protection of shareholders against the corporate management. However, stakeholder rights are vaguely defined under the principal-agent paradigm. Sacrificing profits to social interests can violate the shareholder primacy principle and fiduciary duty embedded in company law, especially in common law countries. Protecting the interests of other constituencies is thought to be counterproductive and economically inefficient, as long as it cannot be explained by “enlightened shareholder value” (Gelter, 2009). Therefore, maximizing shareholder value is also maximizing social value, which is central to the principle of capitalism (Williamson, 1985).

The alternative view – the stakeholder capitalism perspective – answers why companies exist and take the demands of other stakeholders on the firm’s resources into account. In this view, the company should be managed for the benefits and needs of all stakeholders, not merely its shareholders, in order to gain legitimacy in society (Freeman, 1984). Purely focusing on the maximization of shareholder value does not necessarily lead to the maximization of social wealth in the long run, and could create large externalities. In the comparative corporate governance literature, the civil law traditions are more characterized by such stakeholder orientation than the common law one (Matten & Moon, 2008). For example, in Germany, firms are legally required to pursue the interests of parties beyond just shareholders through the system of *co-determination* in which employees and shareholders in large corporations have an equal number of seats on the supervisory board of the company (Allen, Carletti, and Marquez, 2009). The “harmonization” laws of the European Community include provisions permitting corporations to take into account the interests

⁷ However, the superiority of the common law has been questioned in some other studies. For example, Roe (2006) argues that the outperformance of common law countries in financial development is not due to legal origin, but due to the postwar legislatures and political ideologies. Spamann (2010) reconstructed the LLSV’s legal data, and concludes that the superiority of the common law is not valid.

of creditors, customers, potential investors, and employees (Orts, 1992). The corporate governance model in Japan – through both law and custom – presumes that Japanese corporations exist within a tightly connected and interrelated set of stakeholders, including suppliers, customers, lending institutions, and friendly corporations (Donaldson & Preston, 1995).

Both views on legal origins are rooted in the shareholder-stakeholder tradeoff and have strong implications on CSR and sustainability. The law and finance view favors the common law tradition, while the stakeholder view favors civil law system to maximize social wealth over the long run. In addition to these debates on the fundamental roles of legal origins, many have argued that legal origin cannot fully explain the cross-country variation in economic outcomes, and ought to be complemented by an institutional view (e.g., Rajan & Zingales, 2003; Pagano & Volpin, 2005; Roe & Siegel, 2009; etc) Therefore in the next section, we review the political institutions as alternative origins of CSR.

II.2. Revisiting the Roles of Political Institutions

The determinant roles of political institutions on economic outcomes – in particular economic growth and financial development – have been advocated in recent years by Acemoglu *et al.* (2001, 2002, 2005), Easterly & Levine (2003), Rodrik, Subramanian, & Trebbi (2004), and Roe (2006). The political institutions refer to the set of rules such as democracy, the electoral rules, the legislative procedures, the constraints to the political executives, etc (North, 1981; LLSV, 1999; Shleifer & Vishny, 1993; 1994; Glaeser, La Porta, Lopez-de-Silanes, & Shleifer, 2004; Roe, 2006; Matten & Moon, 2008). The conventional wisdom is that good institutions lead to good economic outcomes. Well-established institutions such as democracy and constraints on government protect investors and facilitate business transactions, thus are the preconditions of financial development and economic growth.

We also contrast two different views on political institutions: (1) the institutional view which regards political institutions, democracy in particular, as a *pre-condition* of economic outcomes, and (2) the development view which considers democratic participation as a *consequence* of economic development. The institutional view, often seen as ‘conventional wisdom’, considers good institutions as the fundamental determinants of good economic outcomes (Acemoglu & Johnson, 2005). Here, the degree of democratic participation determines to what extent other stakeholders (including shareholders and creditors) can have in terms of active political participation and vote to influence decisions. The prevalence of democratic suffrage institutions facilitates broader access to finance (Barth, Caprio, and Levine, 2006) and helps

protect property rights and investor rights (North and Weingast, 1989). Therefore, in order to foster CSR and achieve economic sustainability, good political institutions must come first: let people vote to influence their fortune, and to constrain the government from abusing power.

The development view on institutions is motivated by the empirical evidence of Glaeser *et al.* (2004): institutions result from economic development, thus constituting a key component rather than a precondition of sustainability. This then implies that key political institutions do not predict CSR and sustainability. In addition, democratic participation represents differences in opinions due to heterogeneous preferences of voters on various social issues, which can very often create difficulties in consensus building (Allen *et al.*, 2012). In a corporate context, this can be an impediment for innovation and for some socially-desirable practices. This may discourage socially-minded firms and managers from engaging in non-shareholder-oriented activities due to the rigidity of laws, and hurt long-run incentives at the expense of stakeholders. In reality, we observe that historically less democratic countries such as Singapore and South Korea outperform many of their more democratic counterparties in terms of environmental protection and other issues related to social welfare.

Several studies have analyzed how the macro-level political institutions shape the micro-level foundations of the tradeoff between shareholders' rights and other stakeholders' rights (e.g., Roe, 2003; Pagano & Volpin, 2005; Perotti & von Thadden, 2006; Perotti & Schwenbacher, 2009; etc.), though the scope of those analyses is limited to one specific group of stakeholders (for sample, the labor force), and one specific aspect of political institutions (for example, the electoral system and the preference of median the voter), which arguably are not institutions per se. Based on our above discussion, in the following sections we aim to empirically test the roles of the genuine legal and political institutions on the comprehensive definitions of CSR and sustainability.

III. Data and Empirical Strategy

III.1. CSR Data and Descriptive Statistics

As there are many ESG indices with different rating methodologies, we strive to obtain as objective and comprehensive data as possible. We have discussed extensively with practitioners, policymakers, and data providers about the reliability of these ratings, and checked their correlations with standard environmental, social, and corporate governance indices, respectively. One could raise the concern that the

“G” component of ESG measurement is overlapping with the traditional corporate governance issues. Therefore, we have deliberately chosen databases that minimize the weight on corporate governance while giving more emphasis on environmental and social issues⁸.

Our main data on ESG performance are from MSCI’s Intangible Value Assessment (IVA) database. The IVA indices measure a corporation’s environmental and social *risks and opportunities*, and focus on firms’ CSR engagement⁹. The IVA Rating is compiled using company profiles, ratings, scores, and industry reports, and is available from 1999 to 2011. Its coverage comprises the top 1,500 companies of the MSCI World Index (expanding to the full MSCI World Index over the course of the sample period); the top 25 companies of the MSCI Emerging Markets Index; the top 275 companies by market cap of the FTSE 100 and the FTSE 250 (excluding investment trusts); and the ASX 200. For this large sample with global coverage, MSCI constructs a series of 29 ESG scores¹⁰ covering the following dimensions: strategic governance, human capital, stakeholder capital, products and services, emerging markets, environmental risk factors, environmental management capacity, and environmental opportunity factors.¹¹ Among the total of 29 sub-dimensions of MSCI’s IVA rating, *Labor Relations*, *Industry Specific Risk*, *Environmental Opportunity* receive the highest weights in the global rating (they account for 80%). The detailed composition of the IVA rating is shown in Table 1. One can observe that the weight on traditional corporate governance concerns is below 2%, which largely eliminates the aforementioned “overlapping” concern. Furthermore, we have complemented the IVA rating from MSCI with the *RiskMetrics EcoValue21 Rating* and the *RiskMetrics Social Rating*, which are provided by RiskMetrics Group and so capture the environmental and social aspects of CSR respectively.

⁸ As we discuss below, our main dataset – the MSCI Intangible Value Assessment data – best fulfills this requirement, as the weight for the traditional corporate governance is below 2% (the weight on the “G” component is thus kept minimal).

⁹ The well-known KLD data with US coverage on corporate ESG engagement have been acquired by MSCI, and the rating methodologies of KLD and several other famous databases (such as ISS) have been reconciled by MSCI. Therefore we are confident on the objectiveness and consistency in rating methodologies of this IVA data.

¹⁰ A key ESG issue is defined as an environmental and/or social externality that has the potential to become internalized by the industry or the company through one or more of the following triggers: (a) Pending or proposed regulation; (b) A potential supply constraint; (c) A notable shift in demand; (d) A major strategic response by an established competitor; (e) Growing public awareness or concern. Once up to five key issues have been selected, analysts work with sector team leaders to make any necessary adjustments to the weightings in the model. Each key issue typically comprises 10-30% of the total IVA rating. The weightings take into account the impact of companies, their supply chains, and their products and the financial implications of these impacts, illustrated in the matrix below. On each key issue, a wide range of data are collected to address the question: “To what extent is risk management commensurate with risk exposure?”

¹¹ The information on which the IVA ratings are based is extracted from the following sources: (a) Corporate documents: annual reports, environmental and social reports, securities filings, websites, and Carbon Disclosure Project responses; (b) Government data: central bank data, U.S. Toxic Release Inventory, Comprehensive Environmental Response and Liability Information System (CERCLIS), RCRA Hazardous Waste Data Management System, etc. In particular for European companies, the information is verified by means of many other information sources: (c) Trade and academic journals included in Factiva and Nexis; and (d) professional organizations and experts: reports from and interviews with trade groups, industry experts, and non-governmental organizations familiar with the companies’ operations.

[Insert Table 1 about here]

Our sample covers 91,373 firm-time observations from 59 countries. By means of the Standard Industrial Classification (SIC) and Kompass sector classification, we classify our sample firms into 17 aggregated industries. The industry distribution is shown in Table 2.

[Insert Table 2 about here]

In the following sections, we also utilize other widely used CSR indices provided by various ESG rating agencies with a global scope in order to validate our results. These indices include MSCI's Impact Monitor data, Vigeo's corporate ESG ratings, and Thomson Reuters' Asset4 ratings of which the country coverage and number of observations are shown in Appendix 1. In contrast to the MSCI IVA data that focus on engagement, the Vigeo ESG data set focuses on CSR *compliance*; it applies a check-the-box approach to rate how a firm and the country where it operates comply with the conventions, guidelines, and declarations by international organizations such as UN, ILO, and OECD. This enables us to directly compare the institutional effects on the engagement and the compliance of CSR, so as to better gauge their policy implications.

We further obtained a cross-sectional dataset on country-level sustainability rating from Vigeo, which rates each country based on the laws and regulations that fulfill the country's (1) environmental responsibility, (2) social responsibility and solidarity and (3) institutional responsibility. These three country-level domains echo the firm-level "E", "S" and "G", respectively, but with different metrics: the latter measures corporate CSR engagement and compliance while the former measures a country's legal and regulatory framework in sustainability, rather than an aggregation of firm-level CSR data.

III.2. Methodology

To investigate the difference in corporate ESG performance across legal origins, we first conduct a descriptive analysis. As the IVA ratings measuring a company's ESG performance are not normally distributed but integers ranging from 0 to 6, we use the nonparametric Wilcoxon-Mann-Whitney test to compare the median ESG values across different legal origins, and between capitalist and socialist countries. We subsequently apply a reduced form regression technique to analyze the impact of legal origin and political institutions on CSR. Given that some of our independent variables are time-invariant (e.g., legal origins) and that we would like to draw inferences on the population, random-effect models are most

suitable in this panel setting. Our estimations are based on both random-effect generalized least squares (GLS) and random-effects ordered probit models. The latter model is estimated by means of maximum likelihood and considers the discrete, ordinal nature of the ratings and the rating changes in a panel data set (as in e.g., Alsakka & Gwilym, 2010). The general regression equation can be expressed as:

$$y_{it}^* = \alpha_{it} + \beta_1' Legal_c + \beta_2' Political_{ct} + \beta_3' X_{it} + \gamma' Z_{ct} + \delta_{it}$$

Where *Legal* is a vector of different types of civil law origins, *Political* is a vector of political institutions, *X_{it}* is the vector of firm-level financial and governance variables, while *Z_{ct}* is a vector of country-level control variables. The subscript *i* refers to the individual firm, *t* to the time, and *c* to the country. *y_{it}^{*}* is the firm-level ESG rating. In the case of ordered probit models, *y_{it}^{*}* is an unobserved latent variable linked to the observed ordinal response categories *y_{it}* by the measurement model:

$$y_{it} = \begin{cases} 0 & \text{if } y_{it}^* \leq \mu_1 \\ 1 & \text{if } \mu_1 < y_{it}^* \leq \mu_2 \\ 2 & \text{if } \mu_2 < y_{it}^* \leq \mu_3 \\ 3 & \text{if } \mu_3 < y_{it}^* \leq \mu_4 \\ 4 & \text{if } \mu_4 < y_{it}^* \leq \mu_5 \\ 5 & \text{if } \mu_5 < y_{it}^* \leq \mu_6 \\ 6 & \text{if } \mu_6 < y_{it}^* \end{cases}$$

The μ 's represent thresholds to be estimated (along with the β and γ coefficients) using maximum likelihood estimation, subject to the constraint that $\mu_1 < \mu_2 < \mu_3 < \mu_4 < \mu_5 < \mu_6$.

III.3. The Variables

In the above equation, the dependent variables are various CSR measures that capture the different dimensions of firms' engagement and compliance to ESG issues. In addition to the global IVA Rating, we use the main factors (with the highest weights) within the IVA data, namely *Labor Relations*, *Industry Specific Risk*, and *Environmental Opportunity*. Furthermore, we will re-estimate our models using *RiskMetrics EcoValue21 Rating* and the *RiskMetrics Social Rating* (both are converted to ordered integer scores ranging from 0 to 6) as additional dependent variables. As explanatory variables, we include:

A. Legal Origins

The *legal origin* refers to the type of law in the country where the firm operates. To examine whether legal origins matter fundamentally, we follow LLSV's (1998) definition and classification of legal origins, which include the English common law, the French/German/Scandinavian civil law systems, and the

Socialist origins (both current and former socialist countries).

B. Political Institutions

For political institutions, we first include the variable *Democracy* which is measured by a country-level democracy index. While democracy is a broad term containing many different aspects, Glaeser *et al.* (2004) suggest that only those relating to electoral rules are good proxy for “institutions”. Therefore we mainly focus on the index that measures democratic participation and rules that define voting and elections. For our main regressions, we use the Polity IV democracy index and Vanhanen democracy index which are the two mostly used indices measuring democratic participation in the political economy literature.

The next political variable is called *Political Executive Constraints* and is a proxy for the constraints to potential expropriation by the political elites. While there are many country-level political variables available, Glaeser *et al.* (2004) argue that most variables are actually the result of political institutions, rather than the institution itself. “[Political executive constraints] is the only measure that is clearly not a consequence of dictatorial choices, and can at least loosely be thought of as relating to constraints to government” (p. 282). The variable is measured by the executive constraints index from Polity IV.

Our third political variable is *Corruption Control* which measures the extent to which politicians are constrained from pursuing their self-interests through corruption, and is obtained from the World Bank’s World Governance Indicator. According to Glaeser *et al.* (2004) and La Porta *et al.* (2008), this variable is not measuring institutions per se but is speaking the outcome of how institutions function. However, the variable to some extent still captures the constraints to political executives, and also measures the “benevolence” (lack of corruption) of the government. Therefore we include this variable combined with the democracy variable in some regressions to help with better interpreting the results on democracy.

C. Corporate Governance and Financial Variables

We also control for corporate governance structures. Among the various governance structures, ownership and board structures are the important components. Good corporate governance increases access to external financing, lowers the cost of capital and operational/lawsuit risks, and facilitates better relationships with all stakeholders. These governance structures themselves are institutionally determined and help explain how the macro-level institutions function on the micro-level corporate structure and behavior (Aslan & Kumar, 2012).

We first include *Ownership Concentration* as it is an important corporate governance mechanism directly influenced by legal origins and political institutions (Roe, 2003, 2006), but may at the same time jeopardize the protection of stakeholder rights. On one hand, the literature highlights the negative consequences of the *dominant shareholder agency problem* for minority shareholders and creditors (Claessens *et al.*, 2002; La Porta *et al.*, 2002; Lins, 2003; Aslan & Kumar, 2012). On the other hand, ownership concentration – especially by institutional investors – also helps to foster shareholder activism and alleviate *managerial agency problems* for shareholders at large, especially in the absence of strong legal protection. Conflicts between shareholders and stakeholders regarding CSR expenditures can arise. Data on the firm-level ownership concentration are obtained from Orbis database's Independence Indicator.

The second group of corporate governance variables capture the *Ultimate Owner Types* which include (i) the state; (ii) wealthy individuals or families; (iii) foundations or research institutes (e.g. universities); (iv) pension funds; (v) venture capital and private equity; (vi) banks, insurance companies and other financial institutions (financial consortia) (Claessens *et al.* [2000], Faccio & Lang [2002]). The type of ultimate ownership determines which stakeholder's (including shareholder's) preference would be reflected in the firm's final decisions.¹² The state as ultimate owner exerts its influence through state-owned or state-controlled enterprises (SOEs or SCEs) which help to retain political influence on soft budget constraints and provide public goods, but can also expropriate private firms through distorting resource allocation and impedes development (Fogel *et al.*, 2008). Family firms are usually considered as long-term oriented (Anderson & Reeb, 2003). Banks, financial firms, and insurance companies are the dominant controlling parties in firms and are prevalent in many countries. Those institutions are believed to play a strong monitoring role and help release financial constraints of the companies they invest in. In recent years, many pension funds and private equity (including venture capital) investors advocate “socially responsible investing” in their investment strategies, as do foundations and research institutes. However, it should be noted that these funds differ in terms of investment horizons. The immediate redemption rights of private equity encourage fund managers to adopt a short-term investment horizon and favor ownership of firms with high trading liquidity from which exit can take place quickly. We therefore would like to test their relevance for CSR.

The board of directors' *Tier Structure* mainly refers to the adoption of a one-tier board system that

¹² Ultimate shareholder influence can be realized through the use of multiple classes of shares, pyramidal structures, cross-holdings, and holdings through multiple control chains (Faccio & Lang, 2002).

combines the management and supervisory directors into one body, or a two-tier system that separates them. LLSV (1998) exclude tier structures in their analysis because it is difficult to predict the effects of board structure choice on the shareholders, but that such tier structure may play a crucial role in stakeholders participation in corporate decision making, thus affect CSR practice. Under the two-tier structure, the supervisory board usually consists of employees and independent directors representing the large shareholders, which fosters codetermination between corporate boards and other stakeholders such as employees and unions. In the majority of countries (about three quarters), the one-tier board system based on the Anglo-American corporate model is adopted. Elsewhere, notably in Germany, the Netherlands, Austria and Scandinavia, the two-tier structure has been adopted. We therefore include a firm-level dummy variable capturing the existence of a supervisor board. (As a robustness check, we will substitute the firm-level dummy by a country-level tier-structure variable).

We also include a set of control variables such as firm-level financial constraints to investigate whether firms are “doing good by doing well” (in other words, do firms engaging in CSR do so because they can afford it; Hong, Kubik, & Scheinkman [2011]) or whether CSR performance is reflected in corporate returns. Our variables capture different aspects of financial constraints but with low correlations: (1) short-term investment to cash flow sensitivity (Fazzari, Hubbard, & Petersen, 1988), (2) interest coverage, and (3) financial slack measured by current ratio. We also control for financial performance by including return on assets (ROA).

D. Country-level Controls

We also control in the above equation for a country’s level of economic development: the (logarithm of the) GDP per capita and the KOF index of globalization from the Swiss Federal Institute of Technology Zurich (ETH). GDP per capita captures income and wealth effects – people in richer countries may be more likely to care about sustainability while those in poor countries merely care more about daily economic survival. The globalization index may capture the spillover effect of CSR standards across countries – corporations in more globalized countries are under higher compliance pressure from international conventions and principles that outline the norms for acceptable corporate social conduct.

The detailed definitions and sources of our key dependent, explanatory, and control variables are summarized in Appendix 1.

As most of our key independent variables are stable and in some cases even time-invariant (legal

origins, democracy indices, executive constraints, tier-structure, etc), it is inappropriate to control for country fixed effects. Instead, we control for industry and year fixed effects in the GLS models to (partially) take unobserved heterogeneity into account. The estimated standard errors are clustered at the country level. In unreported regressions, standard errors are also clustered at the firm level; the results are very similar, and even stronger.

One could raise the issue of potential endogeneity, as legal and political systems may be reversely affected by the virtue and behavior of large corporations who could attempt to influence regulation and politics through lobbying. However, the concept of CSR has only emerged since the last two decades (Matten & Moon, 2008), while political institutions worldwide have been established and relatively stable after WWII (Roe, 2003, 2006). Therefore, laws and institutions preceded the emergence of CSR and are largely exogenous to CSR and sustainability. Moreover, ownership and board structure are relatively sticky as they are determined by law, thus are not likely to be reversely affected by CSR either. This makes the panel data analysis linking a firm's current CSR performance and long-established laws and institutions (as well as the firm's related governance mechanisms) feasible.

IV. Results

IV.1. Descriptive Results

We first examine the correlations between the firm-level CSR ratings from MSCI IVA and the country-level sustainability ratings in different dimensions, which are shown in Table 3. The average correlation coefficient between these two datasets is above 25% and statistically significant at the 99% level; the correlation between the aggregated IVA rating and the overall country rating is almost 30%. Given that two datasets are from different sources using different rating metrics, such positive correlations are remarkable. It confirms the aforementioned normative argument that CSR is closely related to societal sustainability.

[Insert Table 3 about Here]

We then compare the mean ESG ratings for the countries belonging to different legal origins in Table 4. Apart from the three aggregated scores (*Overall IVA Rating*, *EcoValue21 Rating*, *Social Rating*), the various subcategories listed in Table 4 comprise very different elements of CSR that represent benefits for different types of stakeholders. For example, the CSR benefits for shareholders and creditors can be

inferred from *Strategic Governance, Strategic Capability & Adaptability, Traditional Governance Concerns*, etc. The benefits for employees – the recognition of human capital - are manifested in *Employee Motivation Development, Labor Relations, Health & Safety*, etc. The benefits for customers can be derived from the categories *Customer Stakeholder Partnerships, Intellectual Capital & Product Development, Product Safety*, etc. The environmental issues – categories *Environmental Management capacity through (Environmental) Performance* – are crucial to all types of stakeholders. It is shown that the standard deviations within a legal family are small – in most cases smaller than 2 – manifesting that legal origins do explain most of the variation in CSR performance.

The means comparisons clearly show that the English common law system is inferior to the civil law systems – except for Socialist – in terms of fostering good corporate ESG performance. The table exhibits that firms from the Scandinavian and German legal origins outperform those from the English common law system, especially in terms of environmental issues, as indicated by the scores in EcoValue21 Rating and the subcategories Environment, Environmental Management Capacity, Environmental Opportunity, Industry Specific Risk (Carbon), Environmental strategy, Environmental Management Systems, Environmental Accounting Reporting, Certification (e.g., ISO14000), etc. In social- and labor-related issues, firms from the French legal origins outperform those from the English and German legal origins, as indicated by the scores in Social Rating and the subcategories Human Capital, Stakeholder Capital, Employee Motivation and Development, Labor Relations, Health Safety, Customer Stakeholder Partnerships, Human Rights Child and Forced Labor, etc. The English common law system is only superior to civil law systems in the domain of the firm's interactions with local communities and traditional corporate governance concerns. Moreover, companies from the Socialist legal origin perform the worst in all categories.

[Insert Tables 4 about here]

We also investigate the difference across legal origins for various aspects of CSR using the Wilcoxon-Mann-Whitney test. Table 5 shows that the differences in ESG performance in all dimensions across different legal families are highly statistically significant, and that civil law countries consistently outperform common law countries in all ESG subfields. Within the civil law countries, we find that firms of countries with German legal origin outperform their French counterparts in terms of ecological and environmental policy (EcoValue 21 rating, Industry specific Risk (Carbon), and

Environmental Opportunity), but that the French legal origin firms underperform German legal origin companies in social issues and labor relations. Capitalist economies attach more attention to ESG relative to the current and former socialist countries (Russia, China, and some Eastern European countries).

[Insert Table 5 about here]

IV.2. ESG Models

In Table 6 we present the results from random-effect GLS models explaining the variation of the IVA rating – the ESG performance measurement score ranges from 0 to 6 – as the dependent variable. Similar to LLSV (1998), we exclude socialist countries from regressions.¹³ We treat the English common law origin as our benchmark thus it is omitted from the regression model. Model (1) shows the results from regressing the overall IVA rating only on country-level variables: legal origins, the Polity IV democracy index, the logarithm of GDP per capita and the KOF globalization index. In Model (2), we add Corruption Control, the firm-level ownership dispersion index, the board's tier-structure dummy, control variables, and year fixed effects. In Model (3) of Table 6, we replace *Democracy* and *Corruption Control* with *Executive Constraints* following Glaeser *et al.* (2004)¹⁴, and also cluster the standard errors at the firm-level rather than at the country-level. We further expand Models (4) and (5) with the types of ultimate owner (whereby industrial companies as the ultimate owners are the benchmark) and industry fixed effects.¹⁵ Model (6) has the same specification as in Model (5), except that it is estimated by a pooled OLS rather than by a random-effect GLS, considering the possible criticism that estimations based on random-effect models are sensitive to model specification.

Several important observations can be made: First, the coefficients on the French, German, and Scandinavian civil law origins from models (1) to (6) are almost all positive and statistically significant, indicating that firms under civil law systems do better in terms of ESG adoption than those under the English common law system. The economic significance is also nontrivial: compared with the English

¹³ Given the consistent ESG underperformance of firms in (current or former) socialist countries, which are still under an autocratic or dictatorial regime, we exclude these countries from our sample, and focus on the differences between common law systems and civil law systems (and their subsystems).

¹⁴ We do not include the Polity IV democracy index and the Executive Constraints index in the same regression as they are strongly correlated (96%). In the Polity IV definition, “executive constraint” is part of democracy.

¹⁵ In Model (5), we further exclude *Financial Constraints* measured as the sensitivity of short-term investment to cash flow, considering Chen & Chen's (2012) criticism on this measure. We also exclude *Financial Slack* (current ratio) – a measure of liquidity and the ability to meet creditors' demand – which is sensitive to types of ultimate owners. Given that not all firms have dominant shareholders as the ultimate owner, the number of observations declines (if a company does not have ultimate owner, the observations for the UO variable are treated as missing values).

common law origin, companies in countries with Scandinavian civil law outperform by about one grade of the ESG rating in the random-effects model, and by more than 2.5 grades in the pooled OLS model. Similar economic magnitudes are found for French and German legal origins. In contrary to the law and finance literature, when it comes to shareholder protection, the common-law countries generally have the strongest, and French civil-law countries the weakest, investor protection and financial development (LLSV, 1998). This echoes the stakeholder view of legal origins: while common law focuses more on the legal protection of shareholders which are the premise of stronger financial development, it largely neglects the rights of the broader stakeholder group (beyond the shareholders) that are crucial to societal sustainability.

Second, in Models (1)-(3) which include the Polity IV democracy index, none of the coefficients on political institutions – captured by democracy, corruption control and the executive constraints – are statistically significant, even when standard errors are clustered at the firm-level and thus become much smaller in Model (3). In Model (4), the democracy variable is replaced by the Vanhanen’s democracy index¹⁶, and corruption control and executive constraints are all included, along with ultimate owner types and the full set of financial variables. The coefficients on democracy and executive constraints remain insignificant, although the one on corruption control, a non-institutional variable, is positive and significant. When corruption control is excluded from Models (5)-(6), the coefficients on democracy have a negative and statistically significant correlation with the ESG rating. This is in line with the development view on political institutions, which states that higher degree of democracy does not necessarily lead to more CSR adoption, as the coefficients are not significantly positive. Given that we have excluded the Socialist countries, these findings imply that within the group of democratic countries, a higher degree of democracy actually hinders ESG engagement, even after controlling for corruption control and political executive constraints. These results are consistent with the development view on institutions: good institutions, especially democratic rules, are not necessarily the precondition of CSR as a good economic outcome. In particular, due to its complex nature and difficulty in consensus building, democratic participation in political decision making may be a burden for corporations’ fulfillment of social responsibilities which are often beyond laws and regulations, and discourage socially-minded managers from engaging in such activities. In unreported regressions in which we include all ultimate owner dummies and treat “no ultimate owner” as the baseline variable, the number of observations increases to

¹⁶ The Vanhanen Index is taken for 2000, the initial year of data available for most companies in our sample.

33,913, while the main results on legal origins and political institutions remain unchanged.

We are cautious in interpreting the negative coefficient on Democracy. It is widely accepted that in democratic systems the accountability of government to the electorates is secured through elected political representatives (Moon & Vogel, 2008), and we have already taken this into account by excluding dictatorship countries (those with socialist traditions) from our regressions. Therefore, we tend not to interpret the negative sign as the unaccountability of democracy on social issues. Instead, we emphasize the inefficiency of democratic participation process in dealing with changes and in aggregating social preferences. This is consistent with many empirical findings (e.g. Barro, 1996; Rodrik, 1999; IMF, 2005) that economically free but politically repressed countries tend to achieve more rapid growth. It is also in line with Glaeser *et al.* (2004) that democratic institutions do not cause growth and *create* wealth; rather, they are the consequence of growth. Our findings may contribute to these arguments and further suggest that democratic institutions do not function to *sustain* wealth, and may hinder the fulfillment of sustainability through discouraging CSR.

For the firm-level variables, Table 6 also shows that in some specifications ownership dispersion and two-tier board structure (presence of a supervisory board) are positively related to a firm's ESG performance. In addition, controlling shareholders – the state, individuals or families, financial institutions, pension funds, and private equity – do not positively affect ESG performance¹⁷ in most cases. These results indicate that broader participation of stakeholders, through either ownership or board representation, is beneficial for CSR adoption. Furthermore, most of the financial performance and constraints variables are statistically insignificant, indicating they are not the primary source of CSR. The signs of ROA remain negative and those on Financial Constraints remain positive, which does not support the 'doing good by doing well' hypothesis, in that more profitable and less financially constrained firms are able to assume more social responsibilities (Hong *et al.*, 2012). All these variables indicate that 'doing well' is not a determinant of 'doing good', while fundamental institutional factors seem to play a more stable role in fostering socially responsible practices by corporations.

[Insert Table 6 about Here]

To further investigate the effects of legal origins and political institutions on different aspects of CSR,

¹⁷ In unreported regressions, we cluster the standard errors of the models of Table 6 at the firm-level and find that their coefficients are significantly negative.

we take the RiskMetrics' *EcoValue21 Rating* and *Social Rating* (both are ordinal integer scores ranging from 0 to 6 and measure the environmental and social dimensions of ESG engagement), and the most heavily-weighted components of the IVA index: *Labor Relations*, *Industry Specific Risk (Carbon)*, *Environmental Opportunity* (which are ordinal integer scores ranging from 0 to 10) as our respective dependent variables. For each dependent variable, we estimate in Table 7 random-effect GLS models with specifications similar to those of Table 6¹⁸. In line with the results in Table 6, the coefficients on the three civil law dummies are mostly positive and statistically significant, especially those for Scandinavian legal origin. This further reinforces the argument that companies in countries with civil law origins outperform those with the common law origin in terms of engagement in environmental (including industry specific risk related to carbon exhaust) and social (including labor relations) issues. In the ecology-friendly areas, companies from all the three civil law origins outperform common law firms by almost one index grade on average. In areas related to social issues and labor relations, companies from the civil law origins still mostly outperform common law firms, though the magnitudes from the German legal origin is smaller than those from the French and Scandinavian legal origins (except for Model 4). In addition, the coefficients on democracy and executive constraints are mostly insignificant; even though the coefficient on democracy index in Model 4 is statistically significant, the sign is negative. The presence of a two-tier board is positively and significantly related to the firm's ESG performance. In most cases, controlling shareholders do not play a positive role in ESG engagement, except for companies that are ultimately controlled by foundations/research institutes. The coefficients on ROA and financial slacks (current ratio) are mostly negative and that on financial constraints are mostly insignificant, which again do not support the *doing good by doing well* hypothesis. All in all, the conclusions drawn from Table 6 are largely supported by the robustness checks in Table 7.

[Insert Table 7 about Here]

We also follow La Porta *et al.* (2008) and use legal origins and political institutions as instrumental variables as well as the moment conditions for corporate governance, profitability, and financial constraints variables. We then run 2SLS and GMM regressions to deal with potential endogeneity issues on these firm-level variables. In unreported results, the above findings are still upheld. Notwithstanding, the key focus of our paper is on the institutional variables that theoretically do not suffer from endogeneity

¹⁸ To demonstrate the results of the overall sample and that of the subsample containing only firms with ultimate owners are similar, in Model 10 of Table 7, we show the results of the regression that include all ultimate owner type variables (thus including UO – industrial) and treating “no ultimate owner” as the baseline dummy.

concerns.

IV.3. Robustness

Random-Effects Ordered Probit Models

Since we use ordinal dependent variables, we re-estimate the above models by means of random-effects ordered probit models¹⁹. The first three columns (Model (1)-(3)) in Table 8 report the results when we only include legal origins in the models with *IVA Rating*, *EcoValue21 Rating* and *Social Rating* as the dependent variables, respectively. Similar to the GLS results of Tables 6 and 7, the coefficients on the three civil law origins are mostly positive and statistically significant at the 99% confidence level (with exception of the French origin in environmental performance and the German origin in social performance). The economic significance of the Scandinavian origin remains the highest across the civil law origins: Scandinavian origin increases the ESG rating by over 2 grades relative to the English origin, which confirms our earlier findings in Tables 6 and 7. Models (4) – (6) of Table 8 show the results of further including political institutions as well as other country- and firm-level covariates. We use *Executive Constraints* – suggested by Glaeser *et al.* (2004) and Acemoglu and Johnson (2005) – as our key proxy for political institutions. *Regulatory Quality*, although not strictly a measure of institutions per se, is used to help reach convergent estimations.²⁰ Again, we find similar results: for the *IVA Rating* and, the *EcoValue21 Rating*, and the *Social Rating*, companies in civil law countries still mostly outperform those in common law countries (though for Model (2) the sign on French origin flips while its economic effect decreases to much smaller compared to others). The signs on *Executive Constraints* remain negative. The signs on *Regulatory Quality* are ambiguous, but this is possibly due to that regulatory quality is not strictly an institutional variable but mainly used for reaching convergent estimations. A positive sign of regulatory quality, as in Model (4) and (5), should indicate the importance of government regulations on stakeholder protection from state expropriation. Moreover, ownership dispersion and tier structure are mostly positively and significantly related to a firm's ESG engagement, while the signs on the four financial control variables persistently contradict “doing good by doing well” predictions.

¹⁹ Given the complex nature of our non-linear estimation models, we cannot add in all the possible explanatory variables as they sometimes may not result in convergent estimations, and need to make some choices. We do not include the ultimate owner type in the estimation as these dummy variables account for only a small portion of the sample and including them will lead to non-convergence in the estimation. We also exclude the globalization index from all models, and include *Corruption Control* in Model (4), for the same reason. In addition, the firm-level *Supervisory Board* dummy is replaced by a country-level *Board Tier Structure* variable (see definition in Appendix 1) for convergent estimations.

²⁰ In contrast, La Porta *et al.* (2008) consider “Regulation of entry” as an institution.

[Insert Table 8 about Here]

Alternative Democracy Indices

An at first sight counterintuitive result is the insignificant and sometimes negative association between CSR scores and our two indices on democratic participation: the Polity IV democracy index and the Vanhanen index. The negative signs signify that the dispersion of political power over various political parties and a high degree of political participation does not constitute sufficient political clout to impose CSR policies on corporations. However, one could argue that democracy is a very broad concept including rule of laws, systems of checks and balances on political power, civil liberties, and freedom of the press, etc.²¹ However, as argued by Glaeser *et al.* (2004), democracy as an *institution* is the civic participation in decision making through voting and election rules and compliance procedures. To check the robustness of the previous results on political institutions, democracy in particular, we try several other democracy indices that measure similar aspects of political participation and democratic rule: the Democracy Ranking, the Economist Intelligence Unit's (EIU) Democracy Index (both the overall EIU democracy index in 2006²², and the EIU index of electoral rules and political participation over different years), the Free House Political Rights Index, the Unified Democracy Scores, and the Polyarchy Democracy Index 2000 (for definitions see Appendix 1). The results of our models with those indices are reported in Table 9; for reasons of parsimoniousness, we only show the most salient variables. Most of the previous results are upheld: (1) Legal origins remain to be the most persistent determinants of CSR, and firms with civil law origins outperform those with the common law origin in ESG terms; (2) different democracy indices are either insignificantly or negatively associated with various CSR ratings; (3) in most cases, firms with more dispersed ownership and with a supervisory board tend to have higher CSR scores; (4) ROA is mostly negative while interest coverage is always insignificant, which do not support the *doing good by doing well* argument. In unreported extended regressions (including UO-type dummies, and industry and year fixed effects), these results survive.

[Insert Table 9 about here]

Alternative CSR Data

²¹ For example, *Democracy Barometer* defines democracy as (1) freedom (including individual liberties, rule of law, public sphere), (2) control (including competition, mutual constraints, governmental capability), and (3) equality (including transparency, participation, representation).

²² The Economist launched the EIU democracy index in 2006. Therefore we treated the democracy in 2006 as the “initial institution” in this setting.

One may raise the concern that our empirical results are driven by the peculiarity of our CSR data. The similarity in the results from the MSCI IVA data and from RiskMetrics data (EcoValue21 Rating and Social Rating) could be due to the fact that they use similar rating methodologies.²³ To address this issue, we have conducted our tests on other CSR databases with global coverage: (i) the ESG Impact Monitor data,²⁴ (ii) Vigeo’s corporate ESG data,²⁵ and (iii) Thomson Reuters’ Asset4 data. The Impact Monitor data are cross-sectional while the Vigeo and Asset4 databases comprise panel data;²⁶ Vigeo and Asset4 data provide industry information while Impact Monitor does not. We use both the Vanhanen democracy index and the Polity IV democracy index to capture democratic institution. We also in- and exclude the variable *Corruption Control* as a robustness check. For the Vigeo ESG data, we specifically examine three stakeholder-oriented dimensions included in the dataset that did not appear in the other CSR measurements: human resources, consumer & supplier relations, and human rights, and they measure corporate *compliance* rather than engagement in these dimensions. Table 10 shows that that our previous results largely survive with different ESG measures from these alternative CSR databases. In most cases, firms with civil law origins outperform those with common law origin in terms of CSR. The exception is in model (3) in which the dependent variable is the score for traditional corporate governance compliance from the Vigeo database. Here, the signs on legal origins are reversed which is not unexpected because the Vigeo corporate governance variable measures the traditional governance from agency perspective (shareholder protection). The fact that firms with civil law origins in this context do worse than those with a common law origin is consistent with the traditional law and finance view. In terms of compliance to human resources rules, firms under civil law do better than those under common law (model (4) of Table 10), but in the domain of consumer and supplier concerns, only firms under Scandinavian legal origin outperform (model (5)). In the domain of human rights, the French origin is superior to the common law. In addition, the sign of the coefficient on the democracy index is still persistently either negative or

²³ RiskMetrics/ISS was acquired by MSCI in 2010, although their original rating methodologies have been maintained.

²⁴ The ESG Impact Monitor data, also developed by MSCI, put significantly different emphasis on companies’ ESG performance (“impact”). It gauges the significance of a company’s social and environmental impact and its ability to manage those impacts. The database captures a company’s involvement in major ESG controversies, how well a company adheres to international norms and principles such as the *UN Global Compact* and *ILO Core Conventions*. In addition, the data assess corporate strategies, disclosure and performance with respect to these norms and principles. The dataset is cross-sectional (no repeated firm observation in consecutive years).

²⁵ The Vigeo data rate firms’ ESG performance by focusing on six domains: (1) environment, (2) human rights, (3) human resources, (4) business behavior (customers & suppliers), (5) community involvement, and (6) corporate governance.

²⁶ The Asset4 data provides ESG information on 4,300+ global companies based on 250+ key performance indicators and 750+ individual data points covering every aspect of sustainability reporting. The sample includes MSCI World, MSCI Europe, STOXX 600, NASDAQ 100, Russell 1000, S&P 500, FTSE 100, ASX 300 and MSCI Emerging Market. On average, 10 years (from 2002) of history is available for most companies.

insignificant, and the signs of the coefficients of ROA, interest coverage, and financial slack are mostly negative, which do not support *doing good by doing well*.

[Insert Table 10 about here]

In sum, our empirical results suggest that the countries with an English common law origin do not foster CSR adoption – both the engagement and compliance – as much as the civil law countries. Democratic institution and executive constraints do not seem to be the fundamental determinants of CSR, and often even slow CSR adoption down. Furthermore, ownership dispersion and two-tier board structure is often positively associated with CSR implementation, but financial performance is not.

V. Alternative Explanations

In this section, we discuss possible alternative explanations on the impact of legal origins and political institutions on CSR and examine cultural influence.

V.1. Alternative Explanations on Legal Origins and Political Institutions

Varieties of Capitalism

Our finding that civil law companies outperform common law companies in CSR performance may have an alternative explanation. That is, legal origins simply capture different ideologies, and our findings are driven by the existence of different types of capitalism and social norms. Essentially, French like equality, Germans like the environment, and Americans like money. Therefore, CSR may already be implicitly embedded in countries' ideologies and social norms, and the differences across legal origins just reflect the varieties of capitalism and norms. However, our MSCI IVA sample covers 59 countries and Asset4 sample covers 70 countries across the world – not merely transatlantic advanced economies, but also those with completely different cultures and values. The most common feature among sets of countries is the legal origin which was transplanted through colonization, conquest, and imitation. While cultures and values can vary a lot from country to country, legal rules and systems within the same legal family have much lower variation. In addition, as argued by La Porta *et al* (2008), legal origins are central to understanding the varieties of capitalism as legal rules have incorporated the ideologies and cultures and transmitted them over time. “It is this incorporation of beliefs and ideologies into the legal and political infrastructure than enables legal origins to have persistent consequences for rules, regulations, and economic outcomes” (La Porta *et al*, 2008: 308).

Mutual Exclusion of Responsibilities

One could conjecture that CSR and governmental responsibilities are mutually exclusive. The scope of CSR is defined by the absence of regulation and public policy (Friedman, 1970): the weaker a country's democracy is, the more likely it is that corporations will take on the social responsibilities that should be assumed by the government. However, as already shown in Table 3, the high correlations between firm-level CSR and country-level sustainability refutes this conjecture: in countries with high sustainability (the government's duty), CSR (corporations' duty) also tends to be high. In another word, they work towards the same goal rather than being mutually exclusive.

Unbundling Institutions

One may argue that the concept of political institutions can be further unbundled into contracting institutions and property rights institutions (North, 1981; Acemoglu & Robinson, 2005). However, according to Acemoglu & Johnson (2005), the contracting institutions, as measured by the Djankov *et al.* (2003) index of legal formalism and the World Bank index of procedural complexity in their paper, appear to matter only for the form of financial intermediation, but not for other crucial economic outcomes. In contrary, property rights institutions may have broader implications on economic outcomes, and it is measured by the Polity IV executive constraints index in their work, same as in our paper. Therefore, this “unbundling” of institutions is already captured by our measurements.

Other nuances in political regimes, such as legislative systems (e.g., presidential vs. parliamentary, Persson, Roland, and Tabellini, 1997, 2000) and electoral rules (majoritarian vs. proportional, Persson & Tabellini, 2003, 2004; Pagano & Volpin, 2005), may also have implications on CSR and stakeholder value. However, these different dimensions of political regimes and their consequences have been more or less captured by our democracy indices already. For example, the effects of electoral rules are included in the Vanhanen index and the EIU democracy index, and the effects of legislative systems are also embedded in the EIU index (Economist, 2011). Furthermore, they are more likely to represent the “outcomes” of the constraints on government, rather than the constraint itself (institutions per se). Again, our results in Table 9 preclude the fundamental impact of political institutions on CSR.

V.2. CSR, Shareholder Protection and Culture

We also investigate whether the persistently strong effects of legal origins on CSR function through

other channels, such as corporate governance rules and cultures. Presumably, legal origins can have a direct impact on CSR or an indirect one through laws and regulations related to investor protection and corporate governance (which in turn shares ownership concentration and board structures). To capture this indirect corporate governance channel, we further include in our regressions several investor protection indices: the anti-director rights index (ADRI),²⁷ the one-share one-vote index that are first introduced in LLSV (1998) and then adjusted in Spamann (2010),²⁸ which we then replace by the Martynova-Renneboog (2011) (M-R) corporate governance regulation index (which was developed for 30 European countries and the US and account for about 80% of our MSCI IVA world sample). The M-R index is more stakeholder-based as it distinguishes between shareholder protection (against management), minority shareholder protection (against major shareholders), and creditor protection.

The corporate ESG rating is regressed in Table 11 on investor protection indices, legal origins (as in Spamann (2010)), and the Polity IV democracy index and the Vanhanen index which are interchanged. In most specifications, the results on legal origins mentioned above remain valid, and the coefficients on the revised ADRI are consistently positive and statistically significant, as in models (1), (7), and (13). Given that ADRI captures the protection of minority shareholders against managers or dominant shareholders in the corporate decision-making process, this positive sign indicates that protecting stakeholders' interests is in line with protecting the interests of minority shareholders. The coefficients on shareholder rights protection (M-R) are negative and significant for both the overall *IVA Rating* and the *EcoValue Rating*, and the statistical significance of the coefficients on their legal origin dummies disappear, as in models (4) and (10). Econometrically, this indicates that the effects of legal origins on CSR are absorbed by the M-R shareholder rights index which captures more dimensions than ADRI. The results also make good economic sense: civil law systems are inherently linked to weaker shareholder protection compared with the common law (thus the significance of legal dummies is reduced), while shareholder rights protection is negatively related to CSR due to the shareholder-stakeholder tradeoff (thus the coefficient is negative). Moreover, the coefficient on minority rights protection is positive and significant for the overall *IVA Rating*

²⁷ Both the original LLSV (1998) ADRI and Spamann's (2010) revised ADRI consists of six key components: (1) proxy by mail allowed; (2) shares not blocked before shareholder meeting; (3) cumulative voting/ proportional representation; (4) oppressed minority protection; (5) preemptive rights to new share issues; (6) percentage of share capital to call an extraordinary shareholder meeting;

²⁸ In his online appendix, Spamann (2010) offers several versions of his revised ADRI. We have chosen the one which has the highest correlation with the original LLSV (1998) ADRI to enhance the comparability. For the revised one-share one-vote index, we have also chosen the index that represents the proportionality of voting and cash flow rights which concerns "preferred" shares (as used in Spamann's paper), rather than the one that represents default rules.

as in model (5), which further supports the results for ADRI, in that legal mechanisms protecting minority shareholders are in line with those protecting other stakeholders. This is also consistent with the argument that minority shareholders represent part of the broader stakeholder group, other than large shareholders. In unreported results in which standard errors are clustered at the firm-level, the coefficient on minority shareholder protection is significant for the *Social Rating* as well, and so is the coefficient on creditor protection for the *IVA Rating*. These results imply that the laws and regulations that better protect investors other than the major shareholders quite often also foster CSR practices, and the idea of stakeholder (including minority shareholder) orientation through CSR is consistent with value maximization. The impact of legal origins can to some extent function indirectly through investor protection, but such positive impact mainly derives from minority shareholder and creditor protection, rather than from majority shareholders (or shareholders at large). In addition, due to conflicts between shareholders and other stakeholders, institutions that *purely* focus on majority shareholders can harm *other* stakeholders through discouraging CSR.

[Insert Table 11 about here]

Culture could be a major factor that is related both to the legal origins and political institutions, and to CSR performance. We therefore control for culture by introducing the widely-used Hofstede five cultural dimensions at the country level (Hofstede & Hofstede, 2005) in our models: (1) power distance, (2) individualism, (3) masculinity/femininity, (4) uncertainty avoidance, and (5) long-term orientation (for definitions see Appendix 1). In these tests presented in Table 12, we follow the setup of Table 7; we interchange between the Polity IV democracy index and the Vanhanen democracy index as the proxy for democratic participation, and between simple and extended specifications (whereby the latter includes executive constraints, ultimate owner types, and industry and year fixed effects). Given that the ADRI has been shown to explain CSR scores over and above legal origin, we retain it as an explanatory variable. As culture (which can be seen a set of informal institutions), formal institutions, and economic performance are usually endogenously determined (Frederking, 2002; Sapienza, Zingales, and Guiso, 2006; Tabellini, 2010), we exclude the two economic development variables, Ln(GDP per capita) and the globalization index. While our previous results on legal origins, democratic participation and political executive constraints, as well as ownership and board structures are maintained when we include a set of culture variables into our models, the effect of culture per se on CSR is not strong. We conclude that culture is not a persistent predictor of CSR, whereas legal origins are.

[Insert Table 12 about here]

V.3. Generalizability

One concern is on the generalizability of our empirical results, especially to the past, a critique similar to the one made by Rajan & Zingales (2003) and Musacchio (2008) on the LLSV work. That is to say, the fact that civil law countries do better in CSR and sustainability issues may be due to civil law countries having found compensating mechanisms to overcome the baggage of their legal tradition in the long run (La Porta *et al.*, 2008). La Porta *et al.* (2008) convincingly address the issue of “legal origins and history”, but mainly in the sphere of financial development. Do legal origins also have persistent effects on CSR over time?

Although in our empirical analysis we take into account of the time factors by controlling for year fixed effects, the situation before the 1990s are still unclear due to the lack of data. Nevertheless, the eloquent arguments and systematic examinations of La Porta *et al.* (2008) on the consistent roles of legal origins in financial development in the past is already an indication of the persistence of legal origins’ effects on other economic outcomes. Moreover, civil law countries have a history of stronger labor movement, trade unions, and social democracies, not merely in the most recent decades, but more of an equilibrium result (Acemoglu *et al.*, 2012). In contrary, even during the era of “managerial capitalism”, company laws under the common law system still strongly forced managers to pursue the interests of shareholders in return for controlling the firm, while pursue market transactions with suppliers and customers in an unconstrained manner (Freeman, 1988). All these seem to suggest that at least looking back over the course of the twentieth century, the basic effects of difference legal traditions on businesses’ social responsibilities. However, unlike legal rules which can last for centuries, political institutions change more rapidly and dramatically – from autocratic to democratic, and from leftist to the rightist – so as the ideology of capitalism. These conceptual differences also indicate that political institutions are not likely to be persistent predictors of CSR.

VI. Discussion and Conclusion

VI.1. Is What Is Good for Shareholders (at Large) Also Good for Society?

Over decades, economic theory appeared to predict that the common law version of capitalism, in which firms feed on huge and liquid equity markets and exclusive shareholder protection, should be the

most efficient one for social welfare. We cast doubts on this prediction based on our empirical observations. Fogel, Morck, Yeung (2008) ask the question “*Is what’s good for General Motors good for America?*” and their answer is negative from cross-country empirical evidence. Countries that have lower bankruptcy rates of their top businesses also suffer from slower economic growth. Tensions between big business stability and national economic growth arise from the fact that they are based on different institutional arrangements. A similar logic applies to the tensions between shareholder (investor) orientation and stakeholder (society at large) orientation, since the benefits of CSR accrue over the long run whereas most financial returns are generated in the short run. Differences between pure shareholder orientation and a broader stakeholder-orientation could lead to and reflect tensions between financial development and sustainability at the macro-level.

Figure 1 shows the relationship between country-level sustainability ratings from Vigeo and financial development as measured by the logarithm of the ratio of stock market capitalization to total GDP in 2009.²⁹ The fitted line is negative for the overall country sustainability rating, the environmental responsibility, the institutional responsibility, and the social responsibility and solidarity. This implies that in countries with higher financial development (which is partially induced by stronger shareholder orientation; LLSV, 1998), the sustainability scores are indeed lower. This finding is consistent with some recent studies on the role of finance in society and social welfare (e.g., Rajan, 2005; Greenwood & Scharfstein, 2013; Philippon & Reshef, 2013).

[Insert Figure 1 about here]

However, this is not to deny the importance of shareholder protection and value maximization. The positive impact of shareholder protection on *economic growth* through efficiently allocating resources has been well documented in the literature (e.g., King and Levine, 1993; Levine, 1997; Rajan & Zingales, 1998; Beck, Levine and Loayza, 2000; etc). What we intend to express is that overemphasizing the benefits to only one party in the stakeholder group – shareholders – at the cost of other parties such as customers, suppliers, employees, communities, governments, and the environment may not be a sustainable strategy.

VI.2. Do Institutions Cause Country-Level Sustainability?

Gleaser *et al.* (2004) ask the question “*Do institutions cause growth?*” and answer it negatively based on

²⁹ We pick 2009 because we focus on the “lagged” impact of financial development on sustainability, and believe that a 3-4 year lag is a reasonable time window. Using different lags (and going back in time), we still find a negative slope.

cross-country evidence. Poor countries get out of poverty through the right policies, often even pursued by dictators, and subsequently improve their political institutions. Similarly, our results do not support the view that for the economy and society to achieve sustainability, good institutions must come first. Rather, as countries become more environmentally and socially sustainable, they also gradually improve their institutions. In fact, institutional responsibility – democracy and constraints on government – does not seem to be a precondition for economic sustainability that hinges on the collective adoption of CSR by firms. Democracy, due to its difficulty in consensus building, can often impede the adoption of sustainability at the micro-level through discouraging socially-minded managers from engaging in CSR. Many emerging economies under authoritarian regimes have achieved impressive progress in CSR and sustainability metrics with their corporations.

Table 13 shows the results of regressing the Vigeo sustainable country ratings (175 countries worldwide, including socialist countries) on our afore-used country-level variables – legal origins, ADRI, political institutions, and economic development variables – which suggest that: (1) Legal origins are the main persistent determinants of country sustainability, and more persistent than shareholder-orientation (ADRI) and economic development; (2) The effects of political institutions are not significant, both over long time spans or short ones. (3) Only since around 2005, democracy has a slightly positive impact on sustainability, which implies that well-developed institutions are not a pre-condition for sustainability but co-evolves with it. Thus, our country-level results are largely consistent with the firm-level results.

[Insert Table 13 about Here]

None of this is to deny the merits of democracy and the constraints on government as essential human values in their own right. As we have already discussed, good institutions are a key component of sustainability that the society would like to achieve. However, our empirical evidence suggests some skepticism on imposing democracy and other institutions to pursue for economic prosperity, especially when lacking stakeholder-oriented legal framework.

VI.3. Conclusions

In the economic development literature, the nature of the truly fundamental, and largely exogenous, determinants of various economic outcomes is still debated. Our research questions and empirical results lead to a more normative evaluation of which fundamental institutions have a lasting impact on businesses and economies. La Porta *et al.* (2008: 326) claim that “.... legal origins – broadly interpreted as highly

persistent systems of social control of economic life – have significant consequences for the legal and regulatory framework of the society, as well as for economic outcomes.” In this paper, we focus on an important economic outcome, namely corporate social responsibility, and societal sustainability that largely hinges on it. In particular, by means of large-scale public and proprietary databases of CSR engagement and compliance to ESG issues, we find that legal origins are the most persistent predictors of CSR, while political institutions such as democracy and constraints on government, cultures, firm-level corporate governance, and financial performance are not. Country-level regressions confirm our firm-level results: legal origins are the most fundamental sources of sustainability, while political institutions are correlated with the economic outcome of sustainable development toward recent decade, but are not a pre-condition.

However, our results present a strikingly different picture of legal origins than that suggested by LLSV and numerous other law and finance studies which draw implications on social welfare. In particular, we find that the English common law origin fosters CSR significantly less than countries under civil law origins. Instead, companies under the Scandinavian legal origin assume most CSR. Companies under the German legal origin tend to outperform in terms of the adoption of environmental policies, while companies under the French legal origin tend to outperform in social and labor-related issues. These results hold for both CSR engagement and CSR compliance. Moreover, civil law countries are more economically, socially, and institutionally sustainable than common law countries.

Our study has strong implications that can be useful for policymakers aiming at achieving socially responsible and sustainable development of our economy. All the above discussions on the macro-level foundations of CSR and economic sustainability are rooted in the corporation’s tradeoff between shareholder rights and stakeholder rights. While shareholders may bear the costs of CSR, other stakeholders and society benefit from them, which ultimately benefit shareholders. Legal mechanisms that focus exclusively on shareholder protection may reduce the welfare of other stakeholders, as well as the sustainability of the society. The world economy is still far from free of war, major financial crises, and other extraordinary disturbances, a crucial condition outlined by La Porta *et al.* (2008) in support of the common law approach. We have to some extent already witnessed a “renaissance” of the German and Scandinavian stakeholder-oriented governance model due to some poor experiences with the model of pure shareholder value orientation during the recent financial crisis. A systematic reform is a difficult task, as the nature of stakeholder protection is deeply rooted in the legal structure of each country and in the origin of its laws, and existing corporate governance arrangements tend to benefit the entrenched

economic interests (Bebchuk & Roe, 1999; La Porta *et al.*, 2000). Despite these, our study casts doubts on the pure shareholder-based reform and the convergence of corporate governance practice taking place worldwide, and offers an alternative direction of legally feasible reform focusing on stakeholder protection that can bring significant benefits to social welfare.

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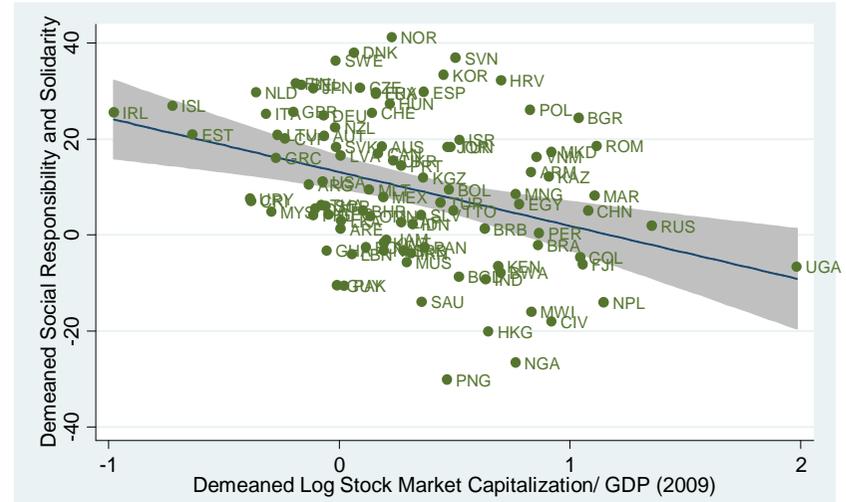
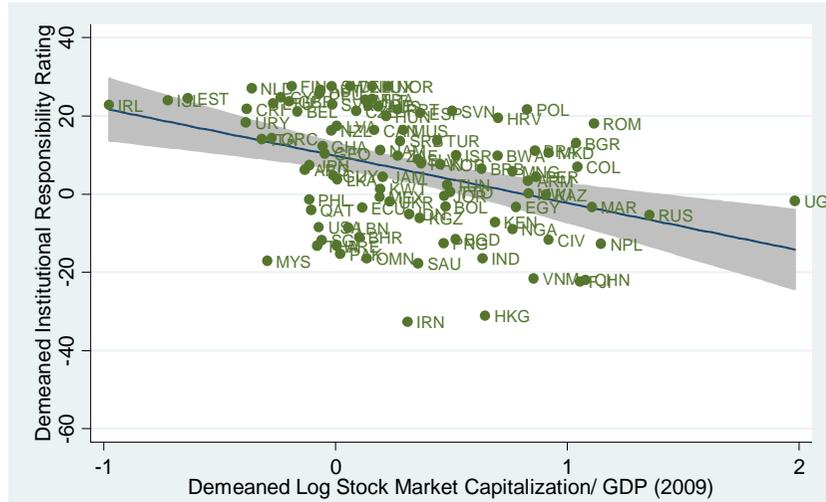
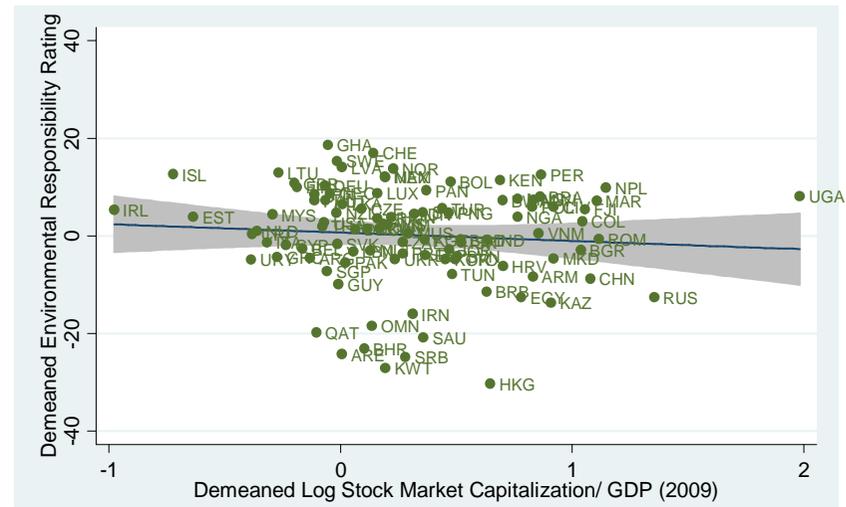
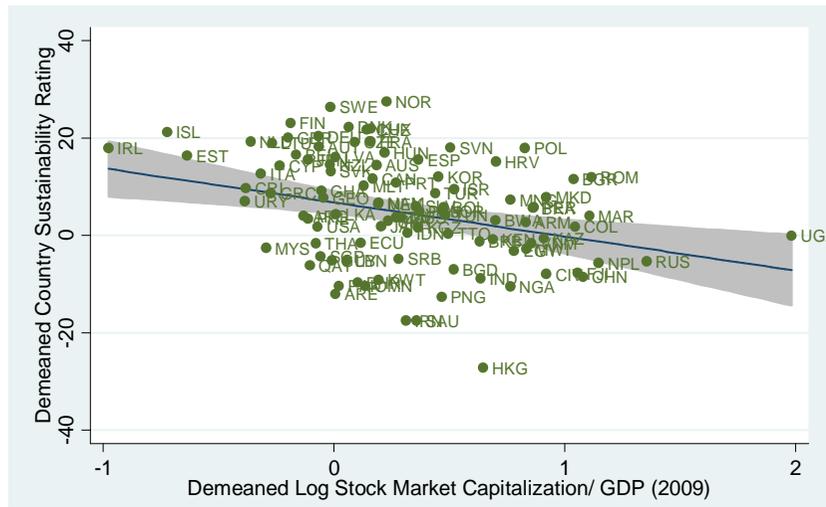


Figure 1. Country Sustainability (2013) and Log Stock Market Capitalization to GDP (2009)

Table 1. Intangible Value Assessment (IVA) Data Description

IVA Factor	IVA Subscore	weight	Key Metrics
Strategic governance	SG1) Strategy	<2%	Overall governance; rating composed of total scores of non-Key Issues
	SG2) Strategic Capability / Adaptability	<2%	Management of CSR issues, partnership in multi-stakeholder initiatives
	SG3) Traditional Governance Concerns	<2%	Board independence, management of CSR issues, board diversity, compensation practices, controversies involving executive compensation and governance.
Human capital	HC1) Workplace Practices	<2%	Workforce diversity, policies and programs to promote diversity, work/life benefits, discrimination-related controversies
	HC2) Labor Relations	20%	KEY ISSUE: Labor Relations Benefits, strikes, union relations, controversies, risk of work stoppages, etc.
	HC3) Health & Safety	<2%	H&S policies and systems, implementation and monitoring of those systems, performance (injury rate, etc.), safety-related incidents and controversies
Stakeholder capital	SC1) Stakeholder Partnerships	<2%	Customer initiatives, customer-related controversies, firm's support for public policies with noteworthy benefits for stakeholders
	SC2) Local Communities	<2%	Policies, systems and initiatives involving local communities (esp. indigenous peoples), controversies related to firm's interactions with communities
	SC3) Supply Chain	<2%	Policies and systems to protect supply-chain workers' and contractors' rights, initiatives toward improving labor conditions, supply-chain-related controversies
Products and services	PS1) Intellectual Capital/ Product Development	<2%	Beneficial products and services, including efforts that benefit the disadvantaged, reduce consumption of energy and resources, and production of hazardous chemicals; average of two scores
	PS2) Product Safety	<2%	Product quality, health and safety initiatives, controversies related to the quality or safety of a firm's products, including legal cases, recalls, criticism
Emerging markets	EM1) EM Strategy	<2%	Default = 5, unless there is company specific exposure that is highly significant
	EM2) Human Rights/ Child and Forced Labor	<2%	Policies, support for values in Universal Declaration of Human Rights, initiatives to promote human rights, human rights controversies
	EM3) Oppressive regimes	<2%	Controversies, substantive involvement in countries with poor HR records

Environmental risk factors	ER1) Historic Liabilities	<2%	Controversies including natural resource-related cases, widespread or egregious environmental impacts
	ER2) Operating Risk	<2%	Emissions to air, discharges to water, emission of toxic chemicals, nuclear energy, controversies involving non-GHG emissions
	ER3) Leading/Sustainability Risk Indicators	<2%	Water management and use, use of recycled materials, sourcing, sustainable resource management, climate change policy and transparency, climate change initiatives, absolute and normalized emissions output, controversies
	ER4) Industry Specific Risk	25%	KEY ISSUE: Carbon Targets, emissions intensity relative to peers, estimated cost of compliance
Environmental management capacity	EMC1) Environmental Strategy	<2%	Policies to integrate environmental considerations into all operations, environmental management systems, regulatory compliance, controversies
	EMC2) Corporate Governance	<2%	Board independence, management of CSR issues, board diversity, compensation practices, controversies involving executive compensation and governance.
	EMC3) Environmental Management Systems	<2%	Establishment and monitoring of environmental performance targets, presence of environmental training, stakeholder engagement
	EMC4) Audit	<2%	External independent audits of environmental performance
	EMC5) Environmental Accounting/Reporting	<2%	Reporting frequency, reporting quality
	EMC6) Environmental Training & Development	<2%	Presence of environmental training and communications programs for employees
	EMC7) Certification	<2%	Certifications by ISO or other industry- and country-specific third party auditors
	EMC8) Products/ Materials	<2%	Positive and negative impact of products & services, end-of-life product management, controversies related to environmental impact of P&S.
Environmental opportunity factors	EO1) Strategic Competence	<2%	Policies to integrate environmental considerations into all operations and reduce environmental impact of operations, products & services, environmental management systems, regulatory compliance
	EO2) Environmental Opportunity	35%	KEY ISSUE: Opportunities in clean technology Product development in clean technology, R&D relative to sales and trend, innovation capacity
	EO3) Performance	<2%	Percent of revenue represented by identified beneficial products & services

Table 2. IVA Industry distribution

Aggregated industries	Sub-industries	firm-year observations
Agriculture & Food	Beverage, tobacco, foods, forestry, etc.	4031
Extraction & Downstream Industries	Metal mining, gas, oil, etc.	5904
Utilities	Electric power, gas utilities, water utilities	4859
Manufacturing	Machinery, equipment, automobiles & auto components, textiles, apparel & luxury goods, paper & forest products, household & personal products, household durables, etc.	12712
Chemicals & Pharmaceuticals	Chemicals, pharmaceuticals, biotechnology, etc.	5996
Information Technology	Computers & peripherals, software, IT services, etc.	2896
Wholesale & Distribution	Retails, trading companies & distributors, multiline retail, specialty retail, apparel retail, etc.	6621
Transport & Storage	Surface transport, airlines, marine transport, transportation infrastructure, road & rail transport, containers & packaging, etc.	4437
Business Services (non-financial)	Business services, human resource & employment services, advertising, professional services, commercial services & supplies, air freight & couriers & logistics, publishing, etc.	4367
Banking & Financial Services	Banks & banking services, investment banking & brokerage, asset management, insurance (life & health, property & casualty), consumer finance, diversified financials, etc.	10051
Insurance (Non-financial)	Life & health insurance, property & casualty insurance, reinsurance, multi-line insurance, etc.	3482
Telecommunications	Telecommunications, wireless telecommunication services, broadcasting & cable TV, integrated telecommunication services, alternative telecommunication carriers, semiconductor equipment & products, media, etc.	7359
Leisure & Entertainment	Hotels, restaurants, leisure, travel, casino & gaming, leisure equipment & products, etc.	3080
Building & Construction	Homebuilding, building products, construction & engineering, construction & farm machinery & heavy trucks, construction materials, etc.	4405
Real Estate	Real estate, real estate management & development, real estate investment trusts, etc.	3181
Health Care	Health care, public (social) services, health care equipment & supplies	3342
Others	Aerospace & defense, energy equipment & services, industry conglomerate, etc.	4428

Table 3. Correlation between MSCI IVA Corporate ESG Rating and Vigeo Sustainability Country Rating

The MSCI IVA Rating, RiskMetrics EcoValue21 Rating, and RiskMetrics Social Rating are firm-level ESG scores provided by MSCI IVA. The Over Country Score, Country Environmental Responsibility, Country Institutional Responsibility, and Country Social Responsibility and Solidarity are country-level sustainability indices provided by Vigeo. Overall Country Score is the average of the other three responsibility domain scores. *** stands for statistical significance at the 1% level.

	MSCI IVA rating	RiskMetricsEcoValue21 rating	RiskMetrics Social rating
Overall Country Score	0.29***	0.23***	0.26***
Country Environmental Responsibility	0.21***	0.24***	0.20***
Country Institutional Responsibility	0.28***	0.21***	0.25***
Country Social Responsibility and Solidarity	0.26***	0.20***	0.24***

Table 4. Average CSR Score across Different Legal Origins.

The Overall IVA Rating is the weighted average score for different subcategories from the fourth row (strategic governance) onwards. EcoValue 21 Rating and Social Rating are from RiskMetrics. Higher score means the company put more emphasis on the issue. Standard deviations are in brackets.

	English legal origin	French legal origin	Socialist legal origin	German legal origin	Scandinavian legal origin
Overall IVA Rating	2.72 (1.74)	3.10 (1.73)	1.26 (1.21)	2.83 (1.72)	3.93 (1.74)
EcoValue 21 Rating	2.65 (1.77)	2.92 (1.78)	1.20 (1.21)	3.59 (1.85)	3.88 (1.70)
Social Rating	2.75 (1.73)	2.99 (1.75)	1.40 (1.36)	2.84 (1.63)	3.85 (1.66)
Strategic Governance	5.42 (1.85)	5.58 (1.85)	3.89 (1.57)	5.49 (1.82)	6.66 (1.73)
Human Capital	5.56 (1.69)	5.88 (1.74)	4.06 (1.67)	5.44 (1.73)	6.39 (1.72)
Environment	4.66 (1.64)	4.87 (1.76)	3.06 (1.29)	5.49 (1.70)	5.70 (1.56)
Stakeholder Capital	5.33 (1.87)	5.44 (1.86)	3.97 (1.25)	5.23 (1.78)	5.78 (1.91)
Strategic Governance Strategy	5.47 (2.23)	5.91 (2.23)	4.01 (2.09)	6.01 (2.05)	6.76 (2.02)
Strategic Capability Adaptability	5.28 (2.30)	5.63 (2.15)	3.83 (2.17)	5.76 (2.16)	6.38 (2.17)
Traditional Governance Concerns	5.57 (1.97)	5.31 (2.00)	4.56 (2.21)	4.93 (2.07)	6.60 (1.84)
Employee Motivation Development	5.93 (2.00)	6.30 (2.01)	4.85 (2.12)	5.71 (1.92)	6.61 (2.10)
Labor Relations	5.26 (1.85)	5.62 (2.03)	4.25 (2.25)	5.51 (1.76)	6.13 (2.01)
Health Safety	5.45 (2.14)	5.51 (2.01)	3.75 (1.97)	5.27 (2.09)	6.07 (2.11)
Customer Stakeholder Partnerships	5.21 (2.14)	5.46 (2.14)	4.01 (2.03)	5.42 (2.00)	6.09 (2.10)
Local Communities	5.86 (2.21)	5.63 (2.10)	4.84 (1.88)	5.51 (2.01)	5.28 (1.96)
Supply Chain	5.12 (2.31)	5.09 (2.20)	3.65 (2.32)	5.21 (2.15)	5.75 (2.38)
Intellectual Capital Product Development	5.42 (2.34)	5.78 (2.25)	3.98 (1.96)	6.18 (2.29)	6.34 (1.95)
Product Safety	5.17 (2.02)	5.37 (2.25)	3.84 (2.34)	5.39 (2.11)	5.88 (2.07)
Emerging Market Strategy	5.37 (1.90)	5.61 (1.87)	4.54 (1.85)	5.27 (1.80)	5.85 (1.97)
Human Rights Child and Forced Labor	5.10 (2.12)	5.16 (2.05)	4.60 (2.08)	5.11 (1.94)	5.98 (2.13)
Oppressive Regimes	5.11 (2.13)	5.00 (1.98)	4.78 (2.08)	4.97 (1.97)	5.34 (2.05)

Risk Factors	5.13 (1.92)	5.09 (1.75)	3.57 (1.38)	5.47 (1.57)	6.03 (1.40)
Environmental Management Capacity	4.07 (2.19)	4.55 (2.13)	3.21 (1.76)	5.46 (2.13)	5.59 (2.17)
Opportunity	4.47 (2.25)	4.93 (2.21)	3.49 (1.83)	5.75 (2.21)	5.87 (2.08)
Historic Liabilities	5.22 (2.59)	4.92 (2.35)	3.21 (1.64)	5.25 (2.14)	6.02 (2.03)
Operating Risk	4.96 (2.40)	4.52 (2.46)	3.01 (2.08)	5.14 (2.22)	5.59 (2.48)
Leading Sustainability Risk Indicator	4.80 (2.02)	5.01 (1.99)	3.41 (1.65)	5.63 (1.94)	5.83 (1.90)
Industry Specific Risk (Carbon)	4.35 (2.59)	4.39 (2.75)	3.66 (2.35)	4.84 (2.54)	5.33 (2.38)
Environmental Strategy	4.93 (2.41)	5.34 (2.38)	4.06 (2.13)	6.15 (2.28)	6.54 (2.24)
Corporate Governance	4.00 (2.45)	4.06 (2.30)	3.38 (2.18)	5.09 (2.31)	4.90 (2.31)
Environmental Management Systems	3.93 (2.57)	4.68 (2.66)	2.98 (2.20)	5.83 (2.64)	5.77 (2.62)
Audit	4.03 (2.77)	4.26 (2.79)	3.36 (2.66)	5.35 (2.84)	5.20 (2.94)
Environmental Accounting Reporting	3.54 (2.54)	4.26 (2.47)	2.72 (2.18)	5.57 (2.90)	5.39 (2.71)
Environmental Training Development	4.18 (2.77)	4.71 (2.64)	3.52 (2.62)	5.67 (2.60)	5.69 (2.84)
Certification	2.75 (2.54)	3.07 (2.52)	2.13 (2.11)	3.46 (2.55)	3.57 (2.85)
Products Materials	3.51 (2.53)	4.11 (2.43)	2.28 (1.81)	4.94 (2.68)	5.36 (2.61)
Strategic Competence	4.38 (2.54)	4.92 (2.48)	3.52 (1.93)	6.06 (2.43)	5.98 (2.51)
Environmental Opportunity	5.14 (1.89)	5.17 (2.09)	4.17 (1.62)	5.59 (1.90)	6.09 (1.83)
Performance	4.20 (2.71)	4.63 (2.64)	3.30 (2.15)	5.57 (2.68)	5.65 (2.45)

**Table 5. Non-parametric Tests of Means by Different Legal Origins.
(Wilcoxon-Mann-Whitney Test Statistics)**

	Overall IVA Rating	EcoValue 21 Rating	Social Rating	Labor Relations	Industry Specific Risk (Carbon)	Environmental Opportunity
Civil vs. common legal origin	18.676***	58.391***	19.059***	23.905***	22.369***	34.366***
French vs. English origin	16.044***	15.241***	12.046***	16.333***	1.855*	4.907***
German vs. English origin	3.994***	58.977***	5.906***	13.480***	22.050***	33.680***
Scandinavian vs. English origin	29.299***	40.474***	32.592***	24.327***	24.112***	33.527***
French vs. German origin	11.026***	-30.546***	6.623***	5.194***	-13.318***	-18.235***
French vs. Scandinavian origin	-18.879***	-28.764***	-23.121***	-12.277***	-19.137***	-25.728***
German vs. Scandinavian origin	-26.137***	-8.600***	-29.329***	-17.580***	-11.923***	-16.326***
Capitalist vs. Socialist origin	16.994***	27.184***	22.259***	12.920***	10.496***	19.474***

**Table 6. The Impact of
Legal Origins and Political Institutions on Corporate Social Responsibility
(Random-Effect GLS and Pooled OLS Models).**

The dependent variable is the ordinal IVA rating (from 0 to 6). Independent variables are legal origins (omitting the English legal origin as the baseline), political institutions (democracy index, corruption control, and political executive constraints), economic development (the logarithm of GDP per capita, and the KOF index of globalization), ownership and governance (ownership dispersion, tier structure or a supervisory board dummy, the ultimate owner [UO] dummies) and control variables (ROA, financial constraints, interest coverage, financial slack). The democracy index used in Column (1) - (3) are from the Polity IV index, while in Column (4) – (6) are from the Vanhanen democracy index. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level – except for Column (3) in which standard errors are clustered at the firm level – and are reported in parentheses.

Dep. Var = IVA rating	(1) Random Ef. GLS		(2) Random Ef. GLS		(3) Random Ef. GLS		(4) Random Ef. GLS		(5) Random Ef. GLS		(6) Pooled . OLS	
<i>Law</i>												
French origin	0.753**	(0.347)	0.616*	(0.346)	0.813***	(0.146)	1.364**	(0.547)	0.758*	(0.440)	1.346**	(0.571)
German origin	0.576**	(0.277)	0.797***	(0.283)	0.758***	(0.149)	1.649***	(0.339)	0.823**	(0.403)	0.765	(0.514)
Scandinavian origin	0.677**	(0.292)	0.935***	(0.235)	0.784***	(0.208)	1.440***	(0.457)	1.503***	(0.536)	2.489***	(0.695)
<i>Political institutions</i>												
Democracy index	-0.053	(0.045)	0.015	(0.097)			-0.004	(0.020)	-0.057**	(0.024)	-0.071*	(0.040)
Corruption control			-0.278	(0.190)			0.913**	(0.400)				
Executive constraints					0.182	(0.146)	0.095	(0.260)	0.456**	(0.174)	0.269	(0.238)
<i>Economic development</i>												
Ln(GDP per capita)	0.809***	(0.217)	0.490**	(0.239)	0.395***	(0.142)	-0.655**	(0.268)	-0.035	(0.283)	-0.066	(0.365)
Globalization index	0.034**	(0.015)	0.048***	(0.015)	0.041***	(0.009)	0.047	(0.029)	0.072***	(0.023)	0.040	(0.025)
<i>Ownership and governance</i>												
Ownership dispersion			0.043*	(0.024)	0.038**	(0.017)	-0.002	(0.161)	0.087	(0.142)	0.003	(0.125)
Supervisory board			0.371	(0.244)	0.321*	(0.182)	0.742**	(0.298)	1.109***	(0.273)	0.972***	(0.343)
UO – state							-0.479	(0.547)	-0.645	(0.443)	0.069	(0.444)
UO – families							-0.378	(0.626)	0.185	(0.422)	0.472	(0.357)
UO – foundation							0.043	(0.384)	1.637*	(0.808)	0.492	(0.675)
UO – financial							0.568	(0.513)	-0.269	(0.489)	-0.568	(0.559)
UO – pension							-1.312***	(0.467)	-0.777*	(0.434)	-0.478	(0.525)
UO – VC/PE							1.139	(1.346)	1.480	(0.991)	-0.913	(0.703)
<i>Controls</i>												
ROA			-0.317	(0.337)	-0.338	(0.424)	-2.542	(2.575)	-2.213	(2.472)	-0.870	(2.570)
Interest coverage			0.001	(0.001)	0.001	(0.001)	0.004	(0.004)	0.006	(0.004)	0.001*	(0.000)
Financial constraints			0.004**	(0.002)	0.004	(0.003)	0.005	(0.115)				
Financial slack			-0.017	(0.015)	-0.018	(0.015)	0.185**	(0.079)				
Constant	-8.142***	(3.031)	-6.217**	(2.660)	-6.178***	(1.402)	2.390	(2.916)	-4.278	(2.690)	-0.631	(2.786)
No. observations	45789		26124		26124		2436		3185		3185	
R-squared adj.	3.6%		7.3%		7.4%		60.0%		51.9%		22.3%	
Year FE	No		Yes		Yes		Yes		Yes		No	
Industry FE	No		No		No		Yes		Yes		No	

Table 7. Legal Origins, Political Institutions, and Corporate Social Responsibility (Random-Effects GLS).

The dependent variables are the ordinal (ranging from 0 to 6) EcoValue21 Rating, and Social Rating, as well as the ordinal (ranging from 0 to 10) Labor Relations, Industry Specific Risks (Carbon), and Environmental Opportunity, respectively. Independent variables are legal origins (omitting the English legal origin as the base case), political institutions (democracy index, corruption control, and political executive constraints), ownership and governance (ownership dispersion, tier structure or a supervisory board dummy, the ultimate owner [UO] dummies), and control variables (ROA, financial constraints, interest coverage, financial slack, and Ln(GDP per capita)). The democracy index used in columns (1), (3), (5), (7), and (9) is from Polity IV, and that used in columns (2), (4), (6), (8), and (10) is from the Vanhanen index. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

	EcoValue21 Rating				Social Rating				Labor Relations			Industry Specific Risks (Carbon)			Environmental Opportunity					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)										
<i>Law</i>																				
French origin	0.952**	(0.395)	0.369	(0.349)	0.563	(0.360)	0.601	(0.402)	0.576**	(0.291)	0.726***	(0.250)	0.155	(0.253)	-0.117	(0.397)	0.243	(0.221)	0.206	(0.212)
German origin	1.024*	(0.613)	0.550**	(0.247)	0.101	(0.342)	0.901**	(0.371)	0.317	(0.216)	0.776	(0.569)	0.675***	(0.253)	-0.377	(0.342)	0.547***	(0.124)	0.543***	(0.072)
Scandinavian origin	0.948***	(0.324)	1.203**	(0.491)	0.944***	(0.300)	1.476***	(0.494)	0.655***	(0.224)	0.837*	(0.430)	1.046***	(0.296)	0.611*	(0.344)	0.800***	(0.170)	0.627***	(0.197)
<i>Political institutions</i>																				
Democracy index	-0.047	(0.062)	-0.030	(0.022)	0.013	(0.065)	-0.042**	(0.020)	-0.047	(0.039)	-0.001	(0.016)	-0.120	(0.117)	-0.005	(0.019)	-0.101	(0.067)	0.013	(0.009)
Executive constraints			0.308*	(0.160)			0.235	(0.176)			-0.158	(0.182)			0.127	(0.188)			-0.090	(0.117)
<i>Economic development</i>																				
Ln(GDP per capita)	1.025*	(0.558)	0.698***	(0.219)	0.652***	(0.210)	-0.045	(0.237)	0.670***	(0.164)	0.042	(0.356)	0.026	(0.294)	0.607*	(0.313)	0.342*	(0.188)	0.378***	(0.129)
Globalization index	0.002	(0.031)	-0.017	(0.018)	-0.004	(0.009)	0.056***	(0.018)	-0.004	(0.011)	0.052**	(0.024)	-0.003	(0.020)	-0.050**	(0.023)	0.002	(0.006)	0.001	(0.005)
<i>Ownership and governance</i>																				
Ownership dispersion	0.004	(0.018)	0.089	(0.131)	0.035	(0.021)	0.138	(0.135)	0.041	(0.031)	0.137	(0.093)	0.039	(0.040)	0.001	(0.124)	0.029*	(0.019)	0.027*	(0.015)
Supervisory board	0.160	(0.465)	0.847**	(0.318)	0.756**	(0.317)	0.618**	(0.301)	0.609***	(0.190)	0.660**	(0.260)	-0.127	(0.455)	0.929***	(0.245)	-0.007	(0.175)	0.044	(0.106)
UO – state			-0.029	(0.497)			-0.795**	(0.375)			-1.144***	(0.346)			-0.563	(0.574)			0.003	(0.335)
UO – families			0.786**	(0.334)			0.047	(0.362)			0.187	(0.223)			0.796*	(0.403)			0.115	(0.305)
UO – foundation			2.587***	(0.675)			1.535*	(0.816)			0.582	(1.058)			2.664***	(0.345)			0.578**	(0.278)
UO – financial			0.453	(0.352)			-0.282	(0.405)			0.703**	(0.322)			0.726**	(0.295)			-0.610*	(0.333)
UO – pension			0.236	(0.523)			-0.928**	(0.363)			-0.468	(0.435)			-0.217	(0.310)			-0.444	(0.318)
UO – VC/PE			1.553*	(0.896)			1.163	(1.034)			-0.332	(0.315)			-0.022	(1.303)			-0.770	(0.875)
UO -- industrial																			-0.375	(0.291)
<i>Controls</i>																				
ROA	-0.824***	(0.250)	-0.767	(1.924)	-0.576	(0.421)	-0.722	(2.192)	0.550	(0.400)	3.112	(1.879)	-2.942***	(0.647)	-1.705	(3.086)	0.029	(0.409)	1.193***	(0.440)
Interest coverage	0.000	(0.001)	0.004	(0.003)	0.001	(0.001)	0.004	(0.003)	-0.001	(0.001)	0.002	(0.004)	0.002	(0.002)	-0.003	(0.004)	-0.001	(0.001)	-0.003**	(0.001)
Fin. constraints	0.000	(0.004)			0.004	(0.004)			0.004	(0.005)			0.016	(0.010)			-0.001	(0.003)		
Financial slack	-0.040**	(0.020)			-0.035*	(0.021)			-0.007	(0.016)			-0.040	(0.054)			-0.061*	(0.036)		
Constant	-7.824*	(4.420)	-5.945**	(2.725)	-4.060*	(2.248)	-2.032	(2.286)	-1.299	(1.602)	1.095	(2.691)	5.384**	(2.116)	0.157	(3.123)	2.121	(1.701)	1.372	(1.310)
No. observations	50783		5342		33295		4090		33431		4084		41889		4740		49891		62557	
R-squared adj.	5.7%		48.8%		3.6%		45.6%		1.9%		42.4%		3.5%		62.3%		2.8%		24.2%	
Year FE	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry FE	No		Yes		No		Yes		No		Yes		No		Yes		No		Yes	

Table 8. The Impact of Legal Origins and Political Institutions on Corporate Social Responsibility (Random-Effects Ordered Probit Models).

The dependent variables are the ordinal (ranging from 0 to 6) EcoValue21 Rating, and Social Rating, respectively. Independent variables are legal origins (omitting the English legal origin as the base case), political institutions (democracy index [the Vanhanen's index], corruption control, and political executive constraints), ownership and governance (ownership dispersion, tier structure or a supervisory board dummy, the ultimate owner [UO] dummies) and control variables (ROA, financial constraints, interest coverage, financial slack). *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the firm level and reported in parentheses.

<i>Dependent Variable</i>	(1) <i>IVA Rating</i>	(2) <i>Eco value 21 Rating</i>	(3) <i>Social Rating</i>	(4) <i>IVA Rating</i>	(5) <i>Eco value 21 Rating</i>	(6) <i>Social Rating</i>
<i>Law</i>						
French origin	1.403*** (0.030)	-0.048* (0.027)	0.181*** (0.024)	0.699*** (0.053)	0.656*** (0.036)	0.447*** (0.036)
German origin	2.377*** (0.033)	0.929*** (0.027)	0.040 (0.026)	1.758*** (0.041)	1.606*** (0.030)	0.049 (0.033)
Scandinavian origin	2.557*** (0.044)	1.204*** (0.031)	2.128*** (0.051)	1.700*** (0.064)	2.067*** (0.05)	1.815*** (0.037)
<i>Political institutions</i>						
Executive constraints				-0.054** (0.027)	-0.300*** (0.019)	-0.223*** (0.019)
Corruption control				-0.123** (0.052)		
Regulatory quality				0.360*** (0.095)	0.318*** (0.039)	-0.372*** (0.063)
<i>Economic development</i>						
Ln (GDP per capita)				0.631*** (0.049)	0.638*** (0.025)	0.943*** (0.048)
<i>Ownership and governance</i>						
Ownership dispersion				0.001 (0.005)	0.025*** (0.003)	0.034*** (0.004)
Board tier structure				-0.130*** (0.027)	1.629*** (0.033)	1.399*** (0.038)
<i>Controls</i>						
ROA				-1.270*** (0.179)	-0.303*** (0.105)	-0.756*** (0.203)
Interest coverage				-0.0003 (0.0004)	0.0001* (0.0003)	0.000 (0.0003)
Financial constraints				0.006* (0.003)	0.002 (0.002)	0.002 (0.002)
Financial slack				-0.022*** (0.008)	-0.050*** (0.007)	-0.024* (0.010)
No. of observations	47775	90496	61119	26335	51211	33596
Log likelihood	-56053.969	-119273.51	-80403.812	-29953.443	-65409.731	-42362.352

Table 9. Corporate Social Responsibility and Democratic Participation Indices (Random-Effects GLS)

The dependent variables are the ordinal (ranging from 0 to 6) overall IVA Rating, EcoValue21 Rating, and Social Rating, respectively. Independent variables are legal origins (omitting the English legal origin as the baseline), political institutions (democracy index and political executive constraints), ownership and governance (ownership dispersion and a supervisory board dummy) and control variables (ROA, interest coverage, and logarithm of GDP per capita). The definitions of the various democracy indices are given in Appendix 1. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

Dependent Variable	Democracy ranking index						Economist Intelligence Unit (EIU) index of democracy						EIU index of electoral rules and political participation					
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)	
	IVA Rating		EcoValue Rating		Social Rating		IVA Rating		EcoValue Rating		Social Rating		IVA Rating		EcoValue Rating		Social Rating	
<i>Laws</i>																		
French origin	0.690*	(0.355)	0.712**	(0.284)	0.613*	(0.341)	0.685*	(0.374)	0.693**	(0.292)	0.607*	(0.369)	0.731**	(0.367)	0.626**	(0.263)	0.653**	(0.329)
German origin	0.478**	(0.226)	0.902**	(0.418)	0.003	(0.282)	0.560**	(0.271)	0.909**	(0.411)	0.020	(0.283)	0.540*	(0.294)	0.716**	(0.349)	0.031	(0.305)
Scandinavian origin	0.925***	(0.246)	1.094***	(0.426)	0.968**	(0.438)	1.118***	(0.222)	1.254***	(0.255)	0.991***	(0.272)	0.627***	(0.243)	1.504***	(0.403)	0.759*	(0.415)
<i>Political institutions</i>																		
Democracy index	-0.023	(0.016)	-0.008	(0.017)	-0.020	(0.017)	-0.386*	(0.212)	-0.204	(0.397)	-0.170	(0.297)	0.083	(0.281)	-0.227*	(0.137)	0.022	(0.089)
Executive constraints	0.044	(0.179)	-0.074	(0.149)	0.025	(0.170)	0.115	(0.131)	-0.024	(0.165)	0.023	(0.174)	-0.078	(0.203)	0.024	(0.118)	-0.070	(0.102)
<i>Economic development</i>																		
Ln(GDP per capita)	0.724***	(0.245)	0.904**	(0.445)	1.076***	(0.280)	0.780***	(0.270)	0.914**	(0.450)	1.030***	(0.313)	0.712***	(0.268)	0.926**	(0.436)	1.007***	(0.293)
Globalization index	0.033**	(0.015)	0.000	(0.026)	-0.004	(0.009)	0.038**	(0.018)	0.001	(0.027)	-0.004	(0.010)	0.034**	(0.017)	0.001	(0.026)	-0.006	(0.008)
<i>Ownership and governance</i>																		
Ownership dispersion	0.046**	(0.020)	0.018	(0.016)	0.035**	(0.017)	0.039*	(0.022)	0.017	(0.016)	0.031*	(0.018)	0.038*	(0.023)	0.018	(0.016)	0.031*	(0.019)
Supervisory board	0.295	(0.247)	0.102	(0.364)	0.605*	(0.346)	0.308	(0.240)	0.156	(0.305)	0.600**	(0.306)	0.137	(0.265)	0.383	(0.321)	0.503*	(0.297)
<i>Controls</i>																		
ROA	-0.531*	(0.282)	-0.637**	(0.296)	0.147	(0.330)	-0.569*	(0.298)	-0.648**	(0.281)	0.029	(0.322)	-0.563*	(0.288)	-0.654**	(0.292)	0.040	(0.332)
Interest coverage	-0.000	(0.001)	-0.000	(0.001)	0.000	(0.001)	-0.000	(0.001)	-0.000	(0.001)	0.000	(0.001)	-0.000	(0.001)	-0.000	(0.001)	0.000	(0.001)
Constant	-6.453**	(2.694)	-6.018**	(4.877)	-7.253**	(3.180)	-6.502**	(2.872)	-5.463*	(3.304)	-6.827***	(2.660)	-8.055***	(2.585)	-6.053**	(4.725)	-7.334**	(3.157)
No. of observations	33867		63460		43257		33937		63877		43475		33937		63877		43475	
R-square adj.	5.1%		4.1%		1.5%		4.5%		4.2%		1.5%		5.5%		5.5%		1.6%	

Table 9 (Ctd). Corporate Social Responsibility and Democratic Participation Indices (Random-Effects GLS)

The dependent variables are the ordinal (ranging from 0 to 6) overall IVA Rating, EcoValue21 Rating, and Social Rating, respectively. Independent variables are legal origins (omitting the English legal origin as the baseline), political institutions (democracy index and political executive constraints), ownership and governance (ownership dispersion and a supervisory board dummy) and control variables (ROA, interest coverage, and logarithm of GDP per capita). *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

Dependent Variable	Freedom House political rights index						United Democracy Score						Polyarchy democracy index 2000					
	(10) IVA Rating	(11) EcoValue Rating	(12) Social Rating	(13) IVA Rating	(14) EcoValue Rating	(15) Social Rating	(16) IVA Rating	(17) EcoValue Rating	(18) Social Rating									
<i>Laws</i>																		
French origin	0.783**	(0.335)	0.750***	(0.258)	0.669**	(0.331)	0.775**	(0.313)	0.732***	(0.251)	0.663**	(0.305)	0.776**	(0.344)	0.732***	(0.248)	0.644*	(0.334)
German origin	0.602**	(0.288)	0.950**	(0.432)	0.070	(0.254)	0.542***	(0.212)	0.887**	(0.437)	0.065	(0.228)	0.546*	(0.289)	0.896**	(0.436)	0.014	(0.280)
Scandinavian origin	0.715**	(0.293)	1.050**	(0.425)	0.827**	(0.390)	1.000***	(0.270)	0.944**	(0.448)	1.117***	(0.375)	0.694***	(0.24)	1.014**	(0.441)	0.806**	(0.398)
<i>Political institutions</i>																		
Democracy index	-0.395*	(0.215)	-0.393*	(0.227)	-0.465**	(0.233)	-0.613***	(0.229)	0.190	(0.220)	-0.713**	(0.302)	0.004	(0.155)	-0.087	(0.123)	0.015	(0.094)
Executive constraints	-0.004	(0.143)	-0.038	(0.120)	0.039	(0.164)	0.217*	(0.117)	-0.174*	(0.094)	0.249	(0.157)	-0.024	(0.082)	-0.143*	(0.078)	-0.047	(0.094)
<i>Economic development</i>																		
Ln(GDP per capita)	0.784***	(0.264)	0.921**	(0.435)	1.069***	(0.293)	0.679***	(0.228)	0.886**	(0.428)	0.961***	(0.266)	0.720***	(0.266)	0.898**	(0.433)	1.008***	(0.291)
Globalization index	0.036**	(0.017)	0.001	(0.025)	-0.004	(0.009)	0.039**	(0.017)	-0.004	(0.025)	0.005	(0.010)	0.034**	(0.017)	-0.001	(0.025)	-0.006	(0.008)
<i>Ownership and governance</i>																		
Ownership dispersion	0.047**	(0.021)	0.026*	(0.014)	0.041**	(0.017)	0.044**	(0.021)	0.015	(0.017)	0.037**	(0.018)	0.038*	(0.023)	0.014	(0.017)	0.031	(0.019)
Supervisory board	0.157	(0.294)	0.082	(0.374)	0.542*	(0.305)	0.365	(0.290)	0.026	(0.380)	0.715*	(0.388)	0.151	(0.296)	0.065	(0.380)	0.533*	(0.310)
<i>Controls</i>																		
ROA	-0.569*	(0.297)	-0.658**	(0.286)	0.011	(0.328)	-0.531*	(0.279)	-0.649**	(0.293)	0.066	(0.339)	-0.560*	(0.293)	-0.634***	(0.293)	0.040	(0.335)
Interest coverage	-0.000	(0.001)	-0.000	(0.001)	0.000	(0.001)	-0.000	(0.001)	-0.000	(0.001)	0.0002	(0.001)	-0.0001	(0.001)	-0.000	(0.001)	0.0001	(0.001)
Constant	-6.065**	(3.091)	-4.465	(4.246)	-5.626*	(3.086)	-8.572***	(2.836)	-5.669**	(4.952)	-8.859***	(3.095)	-7.775**	(3.369)	-5.974	(5.192)	-7.373**	(3.389)
No. of observations	33937		63877		43475		33937		63877		43475		33937		63877		43475	
R-square adj.	5.0%		4.2%		1.7%		6.3%		4.0%		2.8%		5.0%		4.4%		1.7%	

Table 10. Testing Legal Origins and Political Institutions on Other CSR Data (Random-Effects GLS)

The dependent variables are the different ESG Ratings from MSCI Impact Monitor, Vigeo ESG Ratings, and the Asset4 database, respectively. Independent variables are legal origins (omitting the English legal origin as the baseline), political institutions (democracy index, corruption control, and political executive constraints), ownership and governance (ownership dispersion and a supervisory board dummy) and control variables (ROA, interest coverage, and Ln(GDP per capita)). The democracy index used in Column (1), (3)-(7) is from the Vanhanen index. The democracy index used in Column (2), (8)-(9) is from the Polity IV democracy index. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

	MSCI Impact Monitor				Vigeo ESG								Asset 4 ESG					
	Management Score		Controversy Score		Corporate Governance		Human Resources Rating		Consumer & Supplier Rating		Human Rights Rating		Environmental Rating		Social Rating		Overall CSR Rating	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)									
<i>Laws</i>																		
French origin	0.723**	(0.325)	1.162*	(0.612)	-18.87***	(2.632)	7.743*	(4.171)	2.088	(3.015)	5.766**	(2.842)	21.411**	(9.678)	12.046	(9.044)	2.152	(8.389)
German origin	0.397**	(0.185)	1.509***	(0.496)	-22.42***	(2.262)	6.399***	(1.781)	-1.624	(1.773)	-1.253	(1.240)	10.729*	(5.647)	-3.437	(3.326)	-16.603*	(3.913)
Scandinavian origin	0.772**	(0.280)	1.207***	(0.406)	-17.85***	(4.638)	7.590**	(3.011)	5.070***	(1.893)	3.161	(2.959)	22.881**	(11.56)	20.925**	(8.639)	17.273**	(8.508)
<i>Political institutions</i>																		
Democracy index	-0.007	(0.011)	-0.046	(0.068)	0.100	(0.166)	-0.000	(0.107)	-0.289**	(0.115)	-0.017	(0.119)	0.221	(0.722)	-1.233	(1.536)	-1.274	(1.613)
Corruption control			1.052	(0.624)											-16.97***	(2.699)	-18.056*	(2.798)
Executive constraints	0.379***	(0.111)			1.242	(2.162)	-1.171	(3.763)	2.833	(2.349)	0.909	(2.179)	-2.445	(5.311)				
<i>Economic development</i>																		
Ln(GDP per capita)	0.342	(0.529)	-3.168***	(0.875)	-1.828	(4.532)	-15.37***	(3.305)	-10.61***	(2.284)	6.815**	(3.086)	13.849*	(7.112)	15.471***	(6.036)	21.329**	(5.900)
Globalization index	0.045***	(0.015)	-0.052	(0.031)	0.936***	(0.132)	0.637***	(0.132)	0.160*	(0.096)	0.105	(0.084)	-0.729	(0.544)	0.189	(0.554)	0.028	(0.471)
<i>Ownership and governance</i>																		
Ownership dispersion	0.040	(0.024)	-0.069*	(0.039)	0.477***	(0.114)	0.119	(0.146)	0.055	(0.131)	0.251**	(0.122)	0.238	(0.306)	0.252	(0.285)	0.737***	(0.270)
Supervisory board	-0.119	(0.244)	-0.288	(0.824)	4.578*	(2.530)	1.241	(2.506)	3.443*	(1.881)	1.662	(2.213)	7.575	(5.366)	16.893**	(6.936)	18.097**	(6.631)
<i>Controls</i>																		
ROA	0.859	(1.450)	-3.347*	(1.865)	15.189**	(7.706)	-13.91**	(6.271)	-7.500	(5.804)	-4.211	(4.221)	4.849	(4.036)	-1.399	(7.690)	25.939**	(6.324)
Interest coverage	-0.001	(0.003)	0.014***	(0.003)	-0.041***	(0.007)	-0.012	(0.021)	-0.012	(0.017)	-0.031*	(0.017)	-0.037***	(0.009)	-0.000***	(0.000)	-0.012	(0.013)
Financial constraints	-0.017	(0.012)	-0.008	(0.020)	0.001	(0.003)	-0.013***	(0.001)	-0.011***	(0.001)	0.034	(0.160)	-0.004***	(0.001)	0.001	(0.001)	-0.006***	(0.001)
Financial slack	0.165	(0.108)	-0.114	(0.200)	0.777	(0.919)	-1.584**	(0.610)	-0.782	(1.001)	0.583	(1.168)	-0.406	(0.709)	-0.408	(0.715)	-1.132	(0.711)
Constant	-5.643	(4.674)	42.185***	(8.680)	-16.365	(52.79)	145.87**	(36.13)	127.23***	(30.10)	-51.61*	(31.37)	-34.250	(49.04)	-92.968*	(50.82)	-139.42*	(47.15)
No. of observations	677		751		4283		4283		4283		3590		13583		13583		13583	
R- square adj.	8.4%		12.5%		44.2%		28.5%		5.1%		5.3%		6.2%		3.5%		3.6%	

Table 11. Corporate Social Responsibility and Investor Protection Indices (Random-Effects GLS)

The dependent variables are the ordinal (ranging from 0 to 6) EcoValue21 Rating, and Social Rating, respectively. Only coefficients and robust standard errors for investor protections, legal origins (omitting the English legal origin as the base case), and political institutions (democracy index and political executive constraints) are shown. All regressions control for economic development (Ln(GDP per capita) and KOF globalization index), ownership and governance (ownership dispersion, tier structure or a supervisory board dummy, firm-level financial variables (ROA, financial constraints, interest coverage, and financial slack), year fixed effects and industry fixed effects. The democracy index used in columns (1)-(4), (7)-(10), (13)-(16) is from the Vanhanen democracy index, and that used in columns (5)-(6), (11)-(12), (17)-(18) is from the Polity IV democracy index. *, **, *** stand for statistical significance at the 10%, 5%, and 1%. Standard errors are clustered at the country level and reported in parentheses.

	IVA Rating						RiskMetrics EcoValue Rating						RiskMetrics Social Rating					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
<i>Investor protection indices</i>																		
Adjusted ADRI (highest correlation with LLSV (1998))	0.393*** (0.056)	0.462*** (0.098)					0.454*** (0.048)	0.443*** (0.125)					0.269*** (0.043)	0.452*** (0.104)				
Corrected one-share-one-vote (proportionality of voting and cash flow)			0.721 (0.639)						0.818 (0.762)						0.019 (0.600)			
M-Re shareholder rights				-0.015** (0.01)						-0.053* (0.027)						0.003 (0.015)		
M-R minority rights					0.133*** (0.043)						0.022 (0.057)						0.100 (0.069)	
M-R creditor rights						0.261 (0.251)						-0.160 (0.324)						-0.228 (0.349)
<i>Law</i>																		
French origin		0.719** (0.289)	0.726** (0.360)	-0.026 (0.643)	0.654** (0.279)	0.754* (0.455)		0.530* (0.298)	0.519 (0.339)	-0.399 (0.959)	1.456*** (0.290)	1.647*** (0.466)	0.433* (0.245)	0.501 (0.337)	-0.084 (0.615)	0.836** (0.363)	1.187* (0.660)	
German origin		-0.200 (0.310)	0.053 (0.525)	0.774** (0.342)	0.770*** (0.247)	0.571 (0.579)		0.151 (0.462)	0.285 (0.544)	0.723 (0.719)	0.288 (0.515)	0.503 (0.789)	-0.754* (0.404)	-0.011 (0.573)	0.888* (0.503)	0.663** (0.327)	0.961 (0.709)	
Scandinavian origin		0.736*** (0.217)	0.699** (0.305)	-0.073 (0.499)	1.128*** (0.421)	0.690 (0.482)		0.863*** (0.329)	0.823** (0.401)	-0.557 (1.050)	0.464 (0.376)	0.548 (0.514)	0.617** (0.279)	0.595* (0.355)	0.104 (0.576)	0.840* (0.515)	0.758 (0.589)	
<i>Political institutions</i>																		
Democracy index	-0.016 (0.019)	-0.041** (0.05)	-0.005 (0.027)	0.073** (0.034)	-0.254*** (0.039)	-0.264*** (0.050)	-0.005 (0.009)	-0.022 (0.026)	0.012 (0.032)	0.144* (0.075)	-0.003 (0.064)	0.015 (0.060)	0.009 (0.008)	-0.021 (0.020)	0.017 (0.030)	0.077 (0.049)	-0.099* (0.052)	-0.075 (0.068)
Corruption control					0.006 (0.134)	0.027 (0.127)					1.037*** (0.296)	1.090*** (0.302)				0.376 (0.231)	0.506** (0.230)	
Political executive constraints	0.063 (0.113)	0.167 (0.128)	-0.013 (0.107)	-1.076** (0.490)			-0.006 (0.051)	0.042 (0.120)	-0.135 (0.102)	-1.055 (0.719)			-0.047 (0.068)	0.122 (0.119)	-0.099 (0.138)	-1.051* (0.548)		
No. observations	33896	33896	33896	18748	18760	18760	63836	63836	63836	38934	38946	38946	43434	43434	43434	24332	24344	24344
R-squared adj.	7.9%	8.3%	4.1%	9.8%	11.8%	8.2%	7.4%	7.6%	4.5%	3.8%	5.4%	4.1%	4.1%	5.1%	2.3%	6.8%	8.7%	4.9%

Table 12. Corporate Social Responsibility and Cultures (Random-Effects GLS)

The dependent variables are the ordinal (ranging from 0 to 6) IVA Rating, EcoValue21 Rating, and Social Rating, respectively. Independent variables are legal origins (omitting the English legal origin as the baseline), political institutions (democracy index, corruption control, and political executive constraints), ownership and governance (ownership dispersion, tier structure or a supervisory board dummy, the ultimate owner [UO] dummies) and control variables (ROA, financial constraints, interest coverage, financial slack, and Ln(GDP per capita)). The democracy index used in columns (1), (3), and (5) is from Polity IV, and that used in columns (2), (4), and (6) is from the Vanhanen index. The five cultural dimensions are from Hofstede & Hofstede (2005) and measured at the country-level. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the firm level for columns (1), (3), and (5), and at the country level for columns (2), (4), and (6), and reported in parentheses.

	IVA Rating		EcoValue21 Rating				Social Rating	
	(1)	(2)	(3)	(4)	(5)	(6)		
<i>Law</i>								
French origin	1.040*** (0.680)	1.568*** (0.504)	0.922* (0.481)	1.793*** (0.517)	0.735*** (0.275)	1.123** (0.505)		
German origin	1.294*** (0.326)	2.197*** (0.350)	0.335 (0.609)	1.138** (0.549)	1.053*** (0.302)	2.397*** (0.269)		
Scandinavian origin	1.378*** (0.303)	1.623*** (0.461)	0.90** (0.600)	1.150* (0.608)	1.129** (0.285)	1.737*** (0.476)		
Adjusted ADRI	0.321*** (0.071)	0.667*** (0.093)	0.101 (0.121)	0.735*** (0.160)	0.288*** (0.084)	0.582*** (0.083)		
<i>Political institutions</i>								
Democracy index	0.014 (0.139)	-0.037** (0.017)	0.055 (0.065)	-0.048** (0.020)	0.030 (0.097)	-0.026 (0.017)		
Corruption control	-0.120 (0.159)		0.961*** (0.284)		0.048 (0.380)			
Exec. constraints		-0.174 (0.251)		0.369 (0.371)		-0.326 (0.276)		
<i>Ownership and governance</i>								
Ownership dispersion	0.056** (0.024)	0.095 (0.158)	0.028 (0.021)	-0.015 (0.144)	0.054** (0.023)	0.122 (0.155)		
Supervisory board	0.303* (0.184)	1.360*** (0.276)	0.318 (0.276)	0.741*** (0.260)	0.209 (0.155)	0.584** (0.237)		
UO – state		0.019 (0.457)		0.495 (0.609)		-0.032 (0.387)		
UO – families		-1.136*** (0.378)		-0.560* (0.325)		-1.034** (0.375)		
UO – foundation		0.043 (0.428)		0.960** (0.359)		0.013 (0.294)		
UO – financial		0.765** (0.363)		1.082*** (0.320)		0.589* (0.321)		
UO – pension		-1.864*** (0.454)		-1.861*** (0.425)		-1.736*** (0.382)		
UO – VC/PE		-1.064 (1.092)		0.050 (0.713)		-0.877 (1.201)		
<i>Cultural dimensions</i>								
Power distance	0.003 (0.010)	-0.004 (0.017)	0.012 (0.009)	-0.032 (0.022)	0.006 (0.008)	0.002 (0.016)		
Individualism	0.009 (0.009)	0.040*** (0.007)	-0.009 (0.009)	0.013* (0.007)	0.006 (0.009)	0.034*** (0.006)		
Masculinity/Femininity	0.001 (0.005)	-0.023*** (0.008)	0.015* (0.009)	-0.007 (0.008)	0.001 (0.004)	-0.022** (0.008)		
Uncertainty avoidance	-0.006 (0.007)	0.004 (0.008)	0.003 (0.012)	-0.011 (0.011)	-0.006 (0.005)	0.008*** (0.008)		
Long term orientation	-0.026*** (0.004)	-0.026*** (0.006)	-0.005 (0.007)	0.002 (0.013)	-0.024*** (0.005)	-0.032*** (0.007)		
<i>Controls</i>								
ROA	-0.332 (0.317)	-1.923 (2.191)	-0.559** (0.267)	-0.641 (2.131)	-0.486 (0.409)	-0.483 (2.287)		
Interest coverage	0.001 (0.001)	0.003 (0.004)	-0.000 (0.001)	-0.004 (0.004)	0.001 (0.001)	0.001 (0.004)		
Fin. constraints	0.004** (0.002)	0.019 (0.098)	0.000 (0.004)	0.005 (0.092)	0.004 (0.004)	-0.081 (0.133)		
Financial slack	-0.012 (0.016)	0.0004 (0.080)	-0.044** (0.021)	0.098 (0.079)	-0.030 (0.019)	0.063 (0.062)		
Constant	-1.475 (0.957)	1.612 (2.418)	-0.945 (1.116)	-1.061 (2.754)	1.489* (0.803)	2.060 (2.219)		
No. observations	26042	2336	50717	3898	33202	2939		
R-squared adj.	10.2%	69.0%	8.7%	62.5%	8.7%	63.0%		
Year FE	Yes	Yes	Yes	Yes	Yes	Yes		
Industry FE	No	Yes	No	Yes	No	Yes		

Table 13. The Determinants of Country-Level Sustainability

The table shows OLS regressions for the cross-section of countries. The dependent variables in Panel A are indicated for each for models (1)-(5). The dependent variable in all specifications of Panels B and C is the overall sustainable country rating. In Panel A, the democracy index used in model (1) is from Polity IV, and that used in model (2)-(5) is from Vanhanen index. The democracy index used in Panel B is from Vanhanen index, and that used in Panel C is from Polity IV. The specifications include a constant but we do not report the estimates in the table. Robust standard errors are clustered at the country-level and reported in parentheses.

Panel A										
	Overall sustainable country rating		Overall sustainable country rating		Environmental sustainability		Social sustainability and solidarity		Institutional sustainability	
	(1)		(2)		(3)		(4)		(5)	
<i>Legal origins</i>										
French origin	5.377***	(1.779)	4.936***	(1.640)	-0.272	(0.187)	5.158*	(2.858)	11.40***	(2.764)
German origin	7.103***	(2.123)	7.575***	(2.413)	8.028***	(2.456)	4.429	(3.570)	9.413*	(4.908)
Scandinavian origin	11.691***	(2.283)	11.278***	(2.016)	9.305***	(3.063)	12.30***	(2.432)	11.08***	(2.996)
Adjusted ADRI	1.108	(0.740)	1.204**	(0.579)	0.146	(0.874)	1.109	(1.168)	3.123***	(1.108)
<i>Political institutions</i>										
Democracy index (1960-2000)	0.344	(0.385)	0.088	(0.094)	-0.136	(0.116)	0.227	(0.170)	0.248	(0.195)
Corruption control (1996-2008)	0.372	(1.723)								
Executive constraints (1960-2008)			0.229	(0.369)	0.579	(0.472)	-0.039	(0.696)	0.187	(0.628)
<i>Economic development</i>										
Ln(GDP per capita) (1960-2011)	2.325	(1.723)	2.573	(1.594)	-0.008	(1.453)	7.097***	(2.093)	2.915	(2.896)
Globalization index (1970-2010)	0.139	(0.111)	0.127	(0.114)	-0.024	(0.114)	0.075	(0.158)	0.246	(0.244)
Observations	41		41		41		41		41	
Adj. R-square	80.1%		80.2%				84.8%		75.1%	
	1970		1980		1990		2000		2005	
Panel B										
<i>Legal origins</i>										
French origin	5.226**	(2.107)	4.275**	(2.074)	4.939**	(1.879)	3.306*	(1.873)		
German origin	6.167**	(2.806)	6.056**	(2.603)	7.424***	(2.488)	8.389***	(2.839)		
Scandinavian origin	11.263***	(2.655)	10.715***	(2.293)	12.30***	(2.605)	10.72***	(2.453)		
Corrected ADRI	1.695**	(0.774)	1.237*	(0.691)	0.769	(0.903)	0.932	(0.645)		
<i>Political institutions</i>										
Democracy index (Vanhanen)	0.110	(0.173)	0.109	(0.114)	-0.046	(0.124)	0.230	(0.152)		
Executive constraints	0.150	(0.710)	-0.213	(0.569)	0.664	(1.082)	-0.036	(0.022)		
<i>Economic development</i>										
Ln(GDP per capita)	2.754	(2.166)	4.214**	(1.710)	2.636*	(1.325)	0.709	(1.255)		
Globalization index	0.107	(0.178)	0.037	(0.137)	0.144*	(0.072)	0.214***	(0.072)		
Observations	37		40		41		41			
Adj. R-square	78.9%		80.6%		78.7%		80.3%			
Panel C										
<i>Legal origins</i>										
French origin	5.354**	(2.085)	4.846**	(2.123)	5.133**	(1.975)	5.333**	(2.044)	4.020**	(1.881)
German origin	7.414***	(2.571)	5.813**	(2.354)	7.436***	(2.418)	8.409***	(2.869)	7.628***	(2.203)
Scandinavian origin	12.19***	(2.989)	11.02***	(2.578)	11.85***	(2.843)	12.42***	(3.288)	11.73***	(2.408)
Corrected ADRI	1.751*	(0.948)	1.324*	(0.764)	0.743	(0.794)	0.853	(0.777)	0.978	(0.841)
<i>Political institutions</i>										
Democracy index (Polity IV)	0.268	(0.315)	0.109	(0.314)	0.142	(0.676)	0.010	(0.029)	1.206**	(2.408)
Corruption control (1996-2008)	-0.435	(2.568)	0.472	(1.691)	1.037	(2.044)	1.403	(2.148)	0.621	(2.044)
<i>Economic development</i>										
Ln(GDP per capita)	2.807	(2.303)	4.242**	(1.660)	2.290**	(1.061)	1.311	(1.103)	0.387	(1.664)
Globalization index	0.169	(0.157)	0.046	(0.125)	0.096	(0.089)	0.179	(0.102)	0.242**	(0.111)
Observations	37		40		41		41		41	
Adj. R-square	77.9%		80.0%		78.4%		77.4%		84.5%	

Appendix 1. Definitions of Independent Variables

Variable Name	Definition	Sources
<i>I. Law</i>		
Legal origins	The legal origin of the company law or commercial code of each country in which the focal firm is headquartered. We distinguish five major legal origins: English common law, French commercial code (civil law), German commercial code (civil law), Scandinavian civil law, and Socialist law.	La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998)
Anti-director rights index (ADRI)	The anti-director rights index (ADRI) was first developed in LLSV (1998) as a measure of investor protection against corporate management, and later on revised in La Porta <i>et al.</i> (2008) and Spamann (2010). All the three ADRI consist of the same six key components: (1) proxy by mail allowed; (2) shares not blocked before shareholder meeting; (3) cumulative voting/ proportional representation; (4) oppressed minority protection; (5) preemptive rights to new share issues; (6) percentage of share capital to call an extraordinary shareholder meeting. Each component is a dummy variable and the ADRI is formed by aggregating the value of all six components. The index ranges from 0 to 6, whereby a higher value of the index indicates stronger shareholder protection.	LLSV (1998); La Porta <i>et al.</i> (2008); Spamann (2010)
Martynova-Renneboog (M-R) corporate governance index	The M-R index comprises three subindices on corporate governance regulations since 1990 in 30 European countries and the US. The three subindices covering 50 dimensions correspond to three types of agency conflicts: (1) between shareholder and manager, (2) between majority and minority shareholders, and (3) between shareholders and creditors. The index includes the following regulatory standards: (1) shareholder and creditor protection regulation, (2) accounting standards, (3) disclosure rules, (4) takeover regulation (mandatory bid, squeeze-out rules, takeover defense measures, etc.), (5) insider trading regulation, (6) regulation regarding the structure of the board of directors and voting power distribution, and (7) adoption of codes of good practice.	Martynova & Renneboog (2011)
<i>II. Political Institutions</i>		
Vanhanen's index of democracy	Tutu Vanhanen's index of democracy is computed by multiplying the political competition and political participation variables (also defined and calculated by WDR2011) ³⁰ and by dividing the outcome by 100. Higher value of the index implies higher level of democracy.	PRIO/CSCW – World Bank
Polity IV democracy index	Institutionalized Democracy: Democracy is conceived as three essential, interdependent elements: (i) the presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders; (ii) the existence of institutionalized constraints on the exercise of power by the executive; (iii) the guarantee of civil liberties to all citizens in their daily lives and in acts of political participation. Other aspects of plural democracy, such as the rule of law, systems of checks and balances, freedom of the press, and so on are means to, or specific manifestations of, these general principles. The Democracy indicator is an additive eleven-point scale (0-10). Higher value of the index implies higher level of democracy.	Polity IV

³⁰ The Vanhanen's measure on political competition is used to denote the electoral success of the smaller parties (i.e., the proportion of the votes won by those parties in parliamentary and/or presidential elections) to indicate the degree of competition in a political system. This index is calculated by subtracting the percentage of the votes won by the largest party from 100 percent. The Vanhanen's measure on political participation is the percentage of the population that actually voted in these elections (electoral participation). The total population is used as denominator and not the adult or enfranchised population). A combination of the two variables is expected to yield a more realistic indicator of democratization than either as a stand-alone measure.

Democracy ranking index	The Democracy ranking is the index that measures the quality of democracy based on political (among others, Freedom House, CPI, etc.) and socioeconomic factors and is available for 100 countries from 2001. It is carried by the Democracy Ranking Association (“Democracy Ranking Association – Förderung von Demokratiequalität”) in Vienna, Austria. http://www.democracyranking.org . Higher value of the index implies higher level of democracy.	Democracy Ranking Association
Freedom house political rights index	The Freedom house political rights Index is offered by World Bank’s World Development Report, and is measured by the extent political rights in a country as calculated by Freedom House. Coded from 1-7 (7 being the worst). The order of rating is then reversed in our paper. Therefore, higher value of the index signifies higher level of democracy.	Freedom House
Unified democracy score	The Unified democracy scores (UDS) is the democracy measure developed by James Melton (IMT Lucca). It combines measures from 12 existent democracy measures (among others, Freedom House, Polity, Polyarchy, Vanhanen) and is available for all the countries worldwide between 1946 and 2008. The index goes from -2.5 to 3.5 whereby a higher score signifies higher level of democracy.	Unified Democracy Score (UDS)
Economist intelligence unit democracy index	The Economist Intelligence Unit’s democracy index is based on 60 indicators grouped in five different categories: electoral process and pluralism, civil liberties, functioning of government, political participation, and political culture. In addition to a numeric score and a ranking, the index categorizes countries as one of four regime types <i>full democracies</i> , <i>flawed democracies</i> , <i>hybrid regimes</i> , and <i>authoritarian regimes</i> . The index was first produced for 2006, with updates for 2008, 2010, 2011, and 2012. Higher value of the index implies a higher level of democracy.	The Economist Intelligence Unit
Polyarchy democracy index	The Polyarchy Democracy index is based on Robert Dahl’s (1971) concept of polyarchy. These are Guttman scales, and their component variables, measuring levels of the contestation dimension of polyarchy in every independent state in the world as of mid-2000. Higher value of the index implies a higher level of democracy.	Brinks & Coppedge (2006)
Corruption control	The extent to which public power is exercised for private gain, including petty and grand forms of corruption, as well as the “capture” of the state by elites and private interests. Coded from -2.5 to 2.5 with higher values corresponding with better governance outcomes. Higher value of the index implies a higher level of corruption control.	World Governance Indicator – World Bank
Political executive constraints	Political Executive Constraints (Decision Rules): (1) Unlimited Authority: There are no regular limitations on the political executive’s actions (as distinct from irregular limitations such as the threat or actuality of coups and assassinations); (2) Intermediate Category; (3) Slight to Moderate Limitation on Political Executive Authority: There are some real but limited restraints on the executive; (4) Intermediate Category; (5) Substantial Limitations on Political Executive Authority: The executive has more effective authority than any group to which it is accountable but the executive is subject to substantial constraints that group imposes in it; (6) Intermediate Category; (7) Executive Parity or Subordination: Accountability groups have effective authority equal to or greater than the executive in most areas of activity. Higher value of the index implies more constraints on political executives.	Polity IV
Regulatory quality	The ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Coded from -2.5 to 2.5 with higher values corresponding with better governance outcomes. Higher value of the index implies a higher level of regulatory quality.	World Governance Indicator – World Bank

III. Economic Development

GDP per capita	GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars.	World Bank
Globalization index	The KOF Index of Globalization measures the three main dimensions of globalization: (1) economic, (2) social, and (3) political. In addition to three indices measuring these dimensions, an overall index of globalization and sub-indices are also calculated referring to (1) actual economic flows, (2) economic restrictions, (3) data on information flows, (4) data on personal contact, and (5) data on cultural proximity. Data are available on a yearly basis over the period 1970-2010. A higher score indicates higher degree of globalization.	Swiss Federal Institute of Technology Zurich (ETH)
<i>IV. Cultures</i>		
Power distance	“Power distance” deals with the fact that all individuals are not equal and is defined as <i>the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally</i> . The concept captures whether or not a society’s inequality is endorsed by the followers as much as by the leaders. A higher score signifies a large power distance between individuals.	Hofstede & Hofstede (2005)
Individualism	Individualism is <i>the degree of interdependence a society maintains among its members</i> and defines people’s self-image in terms of “I” or “We”. In individualist societies, people are supposed to look only after themselves and their direct family whereas in collectivist societies people belong to ‘in groups’ that take care of them in exchange for loyalty. A higher score indicates more individualism in society.	Hofstede & Hofstede (2005)
Masculinity/ Femininity	A high score on the Masculinity/Femininity dimension indicates that a masculine society is driven by competition, achievement and success, with success being defined by the “winner” or “best-in-the-field.” This value system starts in school and continues throughout one’s life – both in work and leisure pursuits. A low score means that the dominant values in the feminine society consist of caring for others and quality of life. A feminine society is one where quality of life is the sign of success and standing out from the crowd is not admirable. <i>The fundamental issue here is what motivates people, wanting to be the best (masculine) or liking what you do (feminine)</i> .	Hofstede & Hofstede (2005)
Uncertainty avoidance	Uncertainty avoidance represents how a society deals with the fact that the future is uncertain: should one try to control the future or just let it happen? This ambiguity brings with it anxiety and different cultures have learnt to deal with this anxiety in different ways. <i>The extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these</i> is reflected in the UAI score. A higher score implies a higher level of uncertainty avoidance.	Hofstede & Hofstede (2005)
Long term orientation	Long term orientation is closely related to the teachings of Confucius and can be interpreted as dealing with society’s search for virtue, <i>the extent to which a society shows a pragmatic future-oriented perspective rather than a conventional historical short-term point of view</i> .	Hofstede & Hofstede (2005)
<i>V. Ownership and Governance</i>		
Ownership dispersion	Bureau van Dijk’s Independence indicator shows different categories ranging from A to D. Category A (divided into A+, A, and A-) represents the group of “independent companies” and consists of companies without any shareholders holding more than 25% of the direct or total ownership. Category B (divided into B+, B, and B-) consists of companies without shareholders holding more than 50% of direct, indirect or total ownership, but with one or more shareholders	ORBIS (Bureau van Dijk)

	holding more than 25% of direct or total ownership. Category C (divided into C+ and C) represents the group of “indirectly majority owned companies” and consists of companies without shareholder holding more than 50% of direct ownership, but with one shareholder holding more than 50% of total ownership. Category D represents the group of “directly majority owned companies” and consists of companies with one shareholder holding more than 50% of direct ownership. The ratings translated into these numbers: A+ = 9, A= 8, A-= 7, B+= 6, B= 5, B-= 4, C+= 3, C= 2, D= 1.	
Ultimate owner – state	The ultimate owner (UO) is the state, the government or a public authority. UO stands for the percentage of direct voting rights owned by this shareholder who is identified by following the path of uninterrupted control rights (at 50%) throughout the ownership pyramid	ORBIS (Bureau van Dijk)
Ultimate owner – individuals/ families	The ultimate owner (UO) of the subject company is one or more named individuals or families. For the definition of UO: see (Ultimate owner – state).	ORBIS (Bureau van Dijk)
Ultimate owner – foundation and research institute	The ultimate owner (UO) of the subject company is a foundation or research institute. For the definition of UO: see (Ultimate owner – state).	ORBIS (Bureau van Dijk)
Ultimate owner – financial/ insurance	The ultimate owner (UO) of the subject company is a bank or financial company, or an insurance company. For the definition of UO: see (Ultimate owner – state).	ORBIS (Bureau van Dijk)
Ultimate owner – pension fund	The ultimate owner (UO) of the subject company is a mutual fund or pension fund, or a nominee/trust/trustee from the pension fund. For the definition of UO: see (Ultimate owner – state).	ORBIS (Bureau van Dijk)
Ultimate owner – VC/ PE	The ultimate owner (UO) is a venture capital or private equity firm. For the definition of UO: see (Ultimate owner – state).	ORBIS (Bureau van Dijk)
Ultimate owner – industrial company	The ultimate owner (UO) of the subject company is an industrial conglomerate. For the definition of UO: see (Ultimate owner – state).	ORBIS (Bureau van Dijk)
Supervisory board	Dummy variable which equals one if the subject company has a supervisory board, and zero otherwise.	ORBIS (Bureau van Dijk)
Tier structure	The country-level tier structure of the boards of directors as indicated by company law, securities law, and stock exchange regulations. The dummy variable equals one if the country imposes the one-tier board system, two if the country allows firms to choose between the one-tier and the two-tier board system, and three if the country imposes a two-tier board system.	Company laws and securities regulation documents in each country
<i>VI. Financial Performance and Constraints</i>		
ROA	Return on assets: net income divided by total assets	Compustat Global and North America
Financial constraints	Measured by the ratio of the change in short-term investment to the change in operational cash flow.	Compustat Global and North America
Interest coverage	Earnings before interests and taxes (EBIT) divided by interest expenses.	Compustat Global and North America
Current ratio (financial slack)	Current debts divided by current assets.	Compustat Global and North America
<i>VII. Country-level Sustainability</i>		
Sustainable country rating	Country-level sovereign ESG scores and benchmarks based on 120 ESG risk and performance indicators in three domains: (1) environmental protection, (2) social protection and solidarity, (3) rule of law and governance. Countries are graded on a scale of 100 on their commitment and performance in these indicators (e.g., ratification of the Kyoto convention, the Vienna convention, the Stockholm convention, CO2 emissions per head, Gini index, etc).	Vigeo

Appendix 2b. Vigeo ESG Country Distribution

Country	Firm-year obs.	Country	Firm-year obs.
Australia	154	Italy	291
Austria	57	Japan	655
Belgium	120	Luxembourg	30
Bermuda	1	Netherlands	288
China	5	New Zealand	7
Canada	133	Norway	67
Denmark	97	Portugal	61
Finland	123	Russia	2
France	1038	Singapore	37
Germany	508	Spain	259
Greece	57	Sweden	194
Hong Kong, China	96	Switzerland	301
Iceland	4	United Kingdom	1,157
Ireland	97	United States	1,209

Appendix 2c. Asset 4 ESG Country Distribution

Country	Firm-year obs.	Firm obs.	Country	Firm-year obs.	Firm obs.
United Arab Emirates	22	2	Kuwait	44	4
Netherlands Antilles	11	1	Cayman Islands	451	41
Austria	220	20	Kazakhstan	11	1
Australia	3113	283	Sri Lanka	11	1
Belgium	297	27	Liberia	11	1
Bermuda	660	60	Luxembourg	88	8
Brazil	517	47	Morocco	22	2
Canada	3135	285	Marshall Islands	11	1
Switzerland	792	72	Mauritius	11	1
Chile	154	14	Mexico	220	20
China	660	60	Malaysia	418	38
Colombia	44	4	Nigeria	11	1
Cyprus	22	2	Netherlands	473	43
Czech Republic	33	3	Norway	209	19
Germany	913	83	New Zealand	121	11
Denmark	253	23	Oman	11	1
Egypt	33	3	Panama	33	3
Spain	594	54	Peru	11	1
Finland	297	27	Papua New Guinea	22	2
France	1012	92	Philippines	121	11
United Kingdom	3905	355	Poland	209	19
Guernsey	11	1	Puerto Rico	11	1
Gibraltar	11	1	Portugal	132	12
Greece	275	25	Qatar	22	2
Hong Kong, China	539	49	Russia	341	31
Hungary	44	4	Saudi Arabia	66	6
Indonesia	220	20	Sweden	605	55
Ireland	264	24	Singapore	528	48
Israel	154	14	Thailand	198	18
India	484	44	Turkey	187	17
Iceland	33	3	Taiwan, China	550	50
Italy	561	51	United States	11770	1070
Jersey	110	10	Virgin Islands (British)	22	2
Japan	4653	423	South Africa	506	46
Korea, South	693	63	Zimbabwe	11	1