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On the Foundations of Corporate Social Responsibility

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Abstract

A firm's corporate social responsibility (CSR) practice and its country's legal origin are strongly correlated. This relation is valid for various CSR ratings coming from several large datasets that comprise more than 23,000 large companies from 114 countries. We find that CSR is more strongly and consistently related to legal origins than to "doing good by doing well"-factors, and most firm and country characteristics such as ownership concentration, political institutions, and degree of globalization. In particular, companies from common law countries have lower level of CSR than companies from civil law countries, and Scandinavian civil law firms assume highest level of CSR. This link between legal origins and CSR seems to be explained by differences in ex post shareholder litigation risk as well as in stakeholder regulations and state involvement in the economy. Evidence from quasi-natural experiments such as scandals and natural disasters suggest that civil law firms are more responsive to CSR shocks than common law firms, and such responsiveness is not likely driven by declining market shares following the shock.

Keywords: Corporate social responsibility, legal origins, stakeholder orientation, firm value

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

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ABSTRACT

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On the Foundations of Corporate Social Responsibility

The classical view in finance on modern corporations has long embraced the shareholder value maximization approach, which posits that corporations are only accountable to profit-maximizing shareholders, and have—apart from the contractually determined obligations—no duties to serve other stakeholders' interests or to enhance the society's moral standards (Friedman, 1970; Benabou and Tirole, 2010). In reality, however, corporations often engage in activities beyond profit maximization, and are voluntarily involved in issues related to various stakeholders' welfare, such as providing generous employee benefits, investing in environmental-friendly production processes, selecting suppliers that avoid the use of child labor, and initiating projects aimed at helping the poor in less-developed countries. Corporate social responsibility (CSR), a term frequently used to describe these stakeholder-oriented behaviors, has increasingly become a mainstream business activity (Kitzmueller and Shimshack, 2012). Why do some firms want to be more socially responsible rather than pure profit maximizers? More importantly, why do firms in some countries engage more in CSR than firms in other countries? These are the key questions of this study.

The classical explanation of why companies do CSR is that it enhances profitability and firm value,[2] a relationship usually dubbed as "doing well by doing good" (e.g., Dowell, Hart, and Yeung, 2000; Orlitzky, Schmidt, and Rynes, 2003; Renneboog, Ter Horst and Zhang, 2008 and 2011; Guenster, Bauer, Derwall, and Koedijk, 2011; Deng, Kang, and Low, 2013; Flammer, 2015; Krueger, 2015; Dimson, Karakas, and Li, 2015). Others study the inverse, namely "doing good by doing well", by addressing whether it is only well-performing firms that can afford investing in CSR (e.g., Hong, Kubik, and Scheinkman, 2012). However, such "doing good—doing well" arguments do not explain the cross-firm and cross-country variations in CSR. That is, if CSR on average enhances firm value, why do some companies adopt a CSR-oriented strategy whereas others do so to a lesser extent, and why do companies in some countries systematically invest more in CSR than companies in other countries? In addition, the argument of "doing good by doing well" (or of "doing well by

[2] While Benabou and Tirole (2010: 2) define CSR as "sacrificing profits in the social interest", we—following many other studies—adopt a broader definition of CSR, which is about fulfilling social interest but not necessarily sacrificing profits (or shareholder value).

doing good") mostly considers CSR as a firm's voluntary initiative, and extant studies in this literature usually take only one perspective on CSR, such as employee satisfaction (Edmans, 2011, 2012; Edmans, Li, and Zhang, 2014), environmental protection (e.g., Dowell et al., 2000; Konar and Cohen, 2001), corporate philanthropy (e.g., Seifert, Morris, and Bartkus, 2004; Masulis and Reza, 2015), or consumer satisfaction (e.g., Luo and Bhattacharya, 2006; Servaes and Tamayo, 2013), and test CSR relations for only one specific country (mostly the U.S.). In fact, CSR spans multiple dimensions of firm behavior, and captures a firm's endeavor in dealing with various externalities that it generates on stakeholders in the process of pursuing profit maximization (Tirole, 2001) and that are not internalized by shareholders (Magill, Quinzii, and Rochet, 2015). This multi-dimensional and externality-driven nature of CSR suggests that it should be fundamentally related to not merely a firm's own choice but also legal rules, institutional arrangements, and societal preferences. Moreover, beyond the lens of capital investment to address externalities, we consider CSR as a more fundamental tradeoff between a shareholder and other stakeholder focus (at the firm level), as well as between rules and discretion by institutions governing economic life. Such tradeoffs, as we argue, crucially hinge on a firm's explicit and implicit contractual environment, which is likely to be shaped by legal rules and enforcement mechanisms that differ by jurisdiction.

In this paper, we try to explain the difference in CSR practice across countries by relating it to a country's legal origin, which has been argued to systematically shape various country-level institutional arrangements and the firm-level contracting framework (La Porta, Lopez-de-Silanes, and Shleifer, 2008; Doidge, Karolyi and Stulz, 2007). In the context of CSR, the institutional arrangements under different legal regimes determine how many and in what ways "public goods" should be provided by the private sector (corporations): through regulations and rules, firms' discretion, or government involvement in business (Kitzmueller and Shimshack, 2012). The contracting framework governed by different legal origins shapes the explicit and also (more often) implicit contracts between shareholders and other stakeholders through governance structures and the decision making process.[3] In this regard, common law is widely known as a more discretion-oriented system that

[3] For example, in Germany, corporations are legally required to pursue the interests of parties other than only shareholders through the system of *co-determination* in which employees and shareholders have an equal number of seats on the supervisory board (Allen, Carletti, and Marquez, 2015). The harmonization laws of the European Community include provisions permitting corporations to take into account the interests of creditors, customers, potential investors, and employees. The corporate laws in Japan presume that Japanese corporations exist within a tightly connected and interrelated set of stakeholders, including suppliers, customers, lending institutions, and friendly corporations (Donaldson

supports private market outcomes, places fewer ex ante restrictions on managerial behavior (but discourages inappropriate or unacceptable behavior by means of relying on ex post sanctions such as litigation or other judicial mechanisms), and favors shareholder protection. Civil law, in contrast, is known for the state's proclivity to intervene in economic life through rules and regulations (e.g. an ex ante delineation of acceptable behavior), and embracing a "stakeholder view" (La Porta et al., 2008; Allen et al., 2015; Magill et al., 2015). As a result, the level of CSR in a country is a result of a governance tradeoff concerning the rights and preferences of shareholders and stakeholders, as well as how this tradeoff is crystalized, i.e., by rules or by discretion, which are both fundamentally related to the country's legal regime.

We empirically test the legal origin view of CSR by utilizing several newly assembled international databases on firm-level CSR that cumulatively cover more than 25,000 large public companies around the globe. Our CSR data measure corporations' engagement in and compliance to environmental, social, and traditional corporate governance ("ESG") issues. Engagement refers to a firm's voluntary initiation of CSR projects, while compliance refers to regulatory mandated conduct that a firm has to or is encouraged to follow.[4] These engagement and compliance activities in various ESG dimensions properly capture different aspects of stakeholder issues.[5] As the main focus of CSR is on non-financial stakeholders (other than shareholders which are protected by corporate governance mechanisms), our choices of CSR samples mostly reply on the "E" and "S" dimensions while giving little weight on the "G" dimension.

Using these comprehensive global CSR data, we find that legal origins appear to be the strongest predictors of CSR adoption and performance at the firm level, stronger than alternative factors such as political institutions, regulations, social preferences, and a firm's financial and operational performance. Firms with a common law origin score significantly lower on various CSR ratings than civil law firms, and firms from the Scandinavian legal regime obtain the highest scores on most of these CSR ratings. This result survives the inclusion of a large

and Preston, 1995).

[4] For example, engagement in ESG may include a company's voluntary R&D investment project deemed as environmental friendly (the "E" dimension), or an employee training program aimed at increasing employee welfare and productivity (the "S" dimension), or a voluntary increase in gender and racial diversity of the board of directors (the "G" dimension). Compliance to ESG issues may include following environmental regulations (in terms of either hard or soft law) on CO_2 emissions (the "E" dimension), guaranteeing working conditions above the minimum requirements in factories located in developing countries (the "S" dimension), and consulting investors on management compensation (say on pay) (the "G" dimension).

[5] 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.

set of country- and firm-level control variables and different estimation methods such as OLS, GLS, and random-effects ordered probit models. The result is further supported by several quasi-natural experiments of global disasters and scandals that shift societal demand for CSR and in which we are able to control for country fixed effects to rule out alternative explanations regarding other country-level channels. In these experiments, we find that firms in civil law countries are more responsive to large natural disasters and industry scandals such as food safety and oil spill pollution. Such responsiveness does not seem to be explained by changes of firms' market shares. Furthermore, we investigate a number of economic mechanisms for the association between legal origin and CSR, and find that firms in civil law countries face less shareholder litigation risk but more regulations concerning stakeholder welfare, rely more on super-majority rules among shareholders, and have stronger state involvement in their businesses, all of which are strongly related to higher levels of CSR. Overall, these results suggest that there is a strong link between firm-level CSR and country-level legal origins, which may explain cross-country variations in CSR around the globe.

The paper proceeds in the following way: Section I lays out the theoretical foundations on the relation between legal origins and CSR. Section II describes the data and empirical strategies. Sections III, IV, and V show empirical results of the baseline models, the evidence from disasters and scandals, and tests for the economic mechanisms, respectively. Section VI concludes.

I. The Legal Origins and Corporate Social Responsibility

Social arrangements between private citizens, corporations, and the government vary significant across countries of different legal origins. La Porta et al. (2008: 286) consider legal origin as a style of social control of economic life, namely that "common law stands for the strategy of social control that seeks to support private market outcomes, whereas civil law seeks to replace such outcomes with state-desired allocations." Common law countries appear to rely more heavily on the working of private market resolutions: with perfect markets, maximizing profit in the exclusive interest of shareholders leads to acting in the best interest of all stakeholders such as consumers, workers, and shareholders (Magill et al., 2015). In contrast, in civil law countries, the state plays a stronger coordinating role in factor markets: these countries typically have stronger unions, which has led to stricter regulations regarding e.g. dismissal policies or a wider scope of collective bargaining agreements (at the industry level), and they have stricter consumer protection laws, which place more restrictions on prices

and regulate product markets to address the various stakeholders' interests (Djankov et al., 2002; Botero et al., 2004; La Porta et al., 2008).

In addition, countries under different legal regimes also manage the possible conflicts between firms, their suppliers and their customers differently. Countries with a common law origin rely to a greater degree on ex post settling up through judicial mechanisms, whereas civil law countries rely more heavily on rules-based mechanisms that restrict behavior ex ante (Enriques, 2004; Cheffins and Black, 2006; La Porta et al., 2008 Issacharoff and Miller, 2009; Cox and Thomas, 2009; Gelter, 2012). Such different balances between rules and discretion in corporate decision making in civil versus common law countries is likely driven by supply-side and demand-side considerations, which make natural predictions about the patterns of CSR activity across legal regimes. On the supply side, CSR may arise as an alternative response to market and redistributive failures due to inefficient regulations (e.g., de Bettignies and Robinson, 2015). The fact that a wider variety of stakeholders can more easily make claims and benefit from stronger protection in civil law than in common law countries may entail that there is less need for firms in civil law countries to behave in a socially responsible way over and above regulation. Then, their CSR strategies are largely redundant in the light of the constraints and requirements already in place under the civil law regime. On the demand side, the level of CSR in a country may reflect consumers' and other citizens' preferences for corporations to be more altruistic and prosocial (Benabou and Tirole, 2006, 2010). Based on this demand-side consideration, the fact that civil law countries have stricter regulatory protection of stakeholder claims may be a reflection of stronger social preferences. This implies that we expect stronger CSR behavior in civil law countries because more is expected of firms in this environment. In sum, CSR is an equilibrium outcome reflecting the demand for voluntary 'good behavior' in the society and the availability as well as efficacy of substitutes for corporate behavior; the CSR relation with legal origin depends on which set of forces (the supply- versus demand-side considerations) weighs heaviest.

The above tradeoff leads to empirical predictions on the underlying mechanisms that connect legal origins and CSR. In common law countries, firms rely more on corporate discretion on CSR adoption. In contrast, firms in civil law countries rely on rules, which can be either explicit (such as laws and regulations) or implicit (such as societal preferences), to engage more in CSR and cater to stakeholder preferences. For example, when the risk of shareholder litigation towards management or directors is low, firms have more freedom to engage in CSR activities (which are often beyond regulation), and it is well established that in common law countries, ex

post shareholder litigation mechanisms empowering shareholders to sue corporate management and directors are used to a larger extent than in civil law countries (Enriques, 2004; Cheffins and Black, 2006; La Porta et al., 2008; Issacharoff and Miller, 2009; Cox and Thomas, 2009; Gelter, 2012). Similarly, when a firm's decision-making process is ex ante insulated from the short-term shareholders pressures (for example, through the presence of a supermajority vote requirement in corporate charter or bylaws), the firm will be more willing to engage in CSR activities, which are often long-term orientated in nature (Cremers and Sepe, 2016). Furthermore, CSR would be more prevalent with stronger regulations and state interventions on stakeholder issues. We argue that these mechanisms could potentially serve to "safeguard" a firm's fiduciary duty as mandated by laws, and their working under different legal regimes again depends on the relative strengths of supply-side and demand-side forces, which we will empirically explore in more detail.

II. Data and Empirical Strategy

A. CSR Data and Descriptive Statistics

In recent years, a variety of ESG indices measuring firm-level CSR performance has been constructed by means of different rating methodologies (e.g. some based on a box-ticking approach—"compliance", or on interpretative analysis—"engagement"). We have extensively discussed the reliability of these ratings with practitioners, policymakers, and data providers. One could raise the concern that the "G" component of ESG measurement is overlapping with the traditional corporate governance issues, which are materially different from the other stakeholder issues (Krueger, 2015). Therefore, we have deliberately selected databases that minimize the weight on corporate governance issues, while putting more emphasis on environmental and social ones.

Our main data on CSR performance are from MSCI's Intangible Value Assessment (IVA) database[6]. The IVA indices measure a corporation's environmental and social risks and opportunities, which refer to issues where companies generate large environmental and social externalities and may be forced to internalize (future) unanticipated costs associated with those externalities. The rating then takes into account the extent to which a company has developed robust CSR strategies and demonstrated a strong track record in managing these specific

[6] In contrast to credit rating agencies, which are paid by the firms (whose products) they rate, CSR rating agencies are financially independent from the rated firms such that conflicts of interest are largely avoided.

risks and opportunities. Such rating methods capture both the legally mandated aspects (unanticipated costs associated with regulatory penalties and lawsuits) and voluntary aspects (risk management strategies and strategies to capture potential opportunities) of CSR. An important note is that companies are rated and ranked in comparison to their *industry peers* from international markets, and therefore the rating does not depend on the local CSR situations and rules. The data is then converted to a relative rating, by allocating the companies with the best "performance" (the CSR level) *within its industry sector on a global scale* in a given category an AAA (the top rating), by giving the companies with the worst performance a CCC (the lowest rating), and by pro-rata rating the remainder firms between AAA and CCC (which we converted to a score from 6 to 0). Information needed to complete the IVA ratings is gathered from several sources, including corporate documents (environmental and social reports, annual reports, securities filings such as 10Ks and 10Qs, websites, etc.), environmental groups and other NGOs, trade groups and other industry associations, government data bases[7], periodical searches (e.g., in Factiva and Nexis), and financial analysts' reports. Following a review of various corporate documents, the MSCI analysts usually interview senior executives at the companies, most often in the environmental area. When comparing companies, the data is normalized by the most relevant, available factor, such as domestic sales or production levels. The ratings are available from 1999 to 2014,[8] and cover over 23,000 large public companies (past and current) in major equity indices worldwide, including all companies of the MSCI World Index, the MSCI Emerging Markets Index, the MSCI US, Canada, UK, Australia, and South Africa indexes, the FTSE 100 and the FTSE 250 (excluding investment trusts) indexes, the ASX 200 Index, and the Barclays Global Aggregate – Corporate Index. For this large sample with global coverage, MSCI constructs a series of 29 ESG categories,[9] among which a few categories such as *Labor Relations*, *Industry Specific*

[7] Government databases include e.g., 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 expanded by means of many other information sources.

[8] There are two waves of IVA data: the first wave is from 1999-2011, and the second wave is from 2011-2015. To match with our financial data we truncate the IVA ratings to 2014. The metrics of calculating the overall IVA rating are the same across the two waves, and the first-wave data have more detailed information on the ratings of the 29 sub-ESG-categories.

[9] 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 weights in the model. Each key issue typically comprises 10-30% of the total IVA rating. The weights take into account the impact of companies, their supply chains, and their products and the financial implications of these impacts. For each key issue, a wide range of data are collected to address the question: "To what extent is risk management commensurate with risk exposure?"

Carbon Risk, and *Environmental Opportunity* receive the highest weights in the global rating, and the weight on traditional corporate governance is below 2%. The detailed composition of the IVA rating is shown in Table 1. Furthermore, we triangulate our analysis based on the IVA rating (the overall CSR rating) by the RiskMetrics EcoValue21 Rating and the RiskMetrics Social Rating (hereafter *EcoValue Rating* and *Social Rating*) to capture the environmental and social aspects of CSR, respectively.

Our main sample comprises 403,633 firm-time observations from 114 countries and economies and span 123 industries (based on MSCI's industry classification). We also employ other CSR indices provided by various ESG rating agencies with a global scope in order to cross-validate our results. These indices include Vigeo's corporate ESG ratings and Thomson Reuters' ASSET4 ratings of which the country coverage and number of observations are shown in Appendix 2. In contrast to the MSCI IVA data that focus on engagement (developing strategies to manage its risks and opportunities), the Vigeo ESG data is more CSR compliance-oriented as it applies a check-the-box approach to rate how a firm and the country in which it operates comply with the conventions, guidelines, and declarations by international organizations such as the UN, ILO, and OECD.

[Insert Table 1 about here]

B. Methodology

As the IVA ratings measuring a company's ESG performance are integers ranging from 0 to 6 and are not normally distributed, we first use the nonparametric Wilcoxon rank-sum (Mann-Whitney) test in a univariate analysis which compares the median ESG values across different legal origins, and between capitalist and socialist countries. We subsequently apply reduced-form regressions to analyze the association between a company's CSR and its country's legal origin, political institutions, social preferences, and corporate characteristics (including financial performance). Given that some of our key explanatory variables (e.g., legal origins) are time-invariant and that we would like to draw inferences on the population, random-effect models are used in this panel setting. Our estimations are made by OLS, random-effects generalized least squares (GLS), and random-effects ordered probit models. The latter are estimated by means of maximum likelihood and consider the discrete, ordinal nature of the ratings and the rating changes in a panel data setting (the same method has been used in e.g., Alsakka and Gwilym, 2010). The general specification can be expressed as:

$$y_{it}^{*} = \alpha_t + \beta' Legal_c + \delta' X_{it} + \gamma' Z_{ct} + \varepsilon_{it} \qquad (1)$$

Where *Legal* is a vector of different types of civil law origins, X_{it} is the vector of firm-level financial and governance variables, while Z_{ct} is a vector of country-level control variables. Except for legal origins, all the other variables are time-variant in nature. The subscript *i* refers to the individual firm, *t* to the time, and *c* to the country. y_{it}^{*} is the firm-level CSR rating. In the case of ordered probit models, y_{it}^{*} is an unobserved latent variable linked to the observed ordinal response categories y_{it}:

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

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

Moreover, we explore a few quasi-natural experiments on some (largely) exogenous shocks to CSR demand and examine the differences in response by legal regime using OLS estimation while controlling for country-, industry-, and year-fixed effects. Controlling for country-fixed effects in these quasi-natural experiments enables us to rule out alternative explanations based on other country-level factors such as ideologies, cultures, and social norms. In these quasi-natural experimental settings, we also investigate the change in market shares in order to disentangle it from possible consequences induced by legal origin. Furthermore, we explicitly test several institutional and governance variables as potential mechanisms linking a firm's CSR and its country's legal origin in a two-stage set-up.

C. The Variables

For our main analysis, the dependent variable in equation (1) is the overall IVA rating which aggregates all environmental and social dimensions of CSR. All are converted to ordered integer scores ranging from 0 to 6. In robustness tests, we also use different individual dimensions of the IVA rating as alternative dependent variables, as well as the CSR ratings from two alternative CSR samples—Vigeo and ASSET4—which are normalized ratings ranging from 0 to 100. As explanatory variables in the main analysis, we include:

Legal origins

Legal origins are our main explanatory variables; they refer to the legal tradition adopted by the country where the firm is headquartered. We follow La Porta, Lopez-de-Silanes, Shleifer and Vishny (LLSV, 1998), La Porta et al. (2008), Djankov et al. (2008), and Spamann (2010) and classify five legal families proxied by five dummy variables: English common law, French civil law, German civil law, Scandinavian civil law, and Socialist law (both current and former socialist countries). In robustness tests, we also reclassify current and former socialist law countries into their pre-socialist legal origin (either French civil law or German civil law).

Political institutions

We use several country-level variables to capture the effects of political institutions, which may both shape and reflect social preferences for CSR. First, we use the variable Political Executive Constraints which proxies for the constraints to potential expropriation by the political elites as suggested by Glaeser et al. (2004): "[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). We use the same index, developed by Polity IV.

Our second political variable is Corruption Control which measures the extent to which politicians are constrained from pursuing their self-interest (through corruption). There are more political variables that stand for democracy and aggregate social (stakeholder) preferences, but we stick to the above because they are most closely connected to North's (1981) conception of institutions as "constraints".

Third, we use the World Bank index of a country's Regulatory Quality to proxy for the government's effectiveness in taking social responsibility and dealing with market externalities by formulating and implementing sound policies and regulations that permit and promote private sector development. As a result, CSR may be induced or confined by a country's regulatory regimes.

In robustness tests, we also control for a country's capitalist model using the Heritage Index of Economic Freedom, which consists of a broad series of sub-indexes measuring different aspects of government interference in business activities, such as government spending, fiscal freedom, business freedom, labor freedom, and monetary freedom. Understandably, these sub-indexes are highly correlated with one another, and we therefore only include the overall score as a control, rather than all individual sub-indices. In unreported regressions, we also include those sub-indexes one by one in the regression, and this does not affect the results on our key explanatory variables.

Blockholder Ownership

Including different types of blockholder ownership into our model is important as they are proxies for investor preferences; different types of blockholders may favor different corporate CSR policies and can use their voting power to implement those policies. Blockholders are defined as those who hold more than 5% of the company's total shares and their ownership stakes are classified into Government Held Shares, Corporation Held Shares, Pension Fund Held Shares, Investment Company Held Shares, Employee Held Shares, Other Holdings, Foreign Held Shares. The sum of all blockholder ownership stakes is defined as a company's Total Strategic Holdings, and the rest is defined as Free Float Shares.

Firm-level Financial Variables

A standard control variable is firm size, proxied by the (logarithm of) total assets of the company. In order to capture the "doing good by doing well" effect, we control for firm performance by including returns on assets (ROA), and in further robustness tests we add the market valuation of the firm, proxied by Tobin's Q (the market-to-book ratio of assets).

Other Country-level Controls

In Equation (1), we further control for a country's level of economic development by using the (logarithm of the) GDP per capita and a globalization index. GDP per capita captures income and wealth effects, as people in richer countries are more likely to care about sustainability, whereas those in poor countries merely worry about daily economic survival. The globalization index is expected to capture the spillover effect of CSR standards across countries, as corporations in more globalized countries are under higher pressure to comply with international conventions and principles that outline the norms for acceptable corporate social conduct.

From Vigeo, we also obtained the sustainable country ratings which comprise the ESG scores of more than 170 sovereign countries, based on the analysis of more than 130 CSR risk and performance indicators in three domains: (1) environmental protection, (2) social protection and solidarity, and (3) rule of law and governance of the country. These country-level ESG ratings supplement our firm-level CSR ratings and give a more comprehensive picture of social responsibility and stakeholder orientation around the world.

Detailed definitions and sources of all our variables are summarized in Table 1 (for various CSR variables and sustainable country ratings) and in Appendix 1 (for explanatory variables).

III. Results

A. Descriptive Results

We first visualize in Figure 1a the distribution of sustainable development of countries around the globe on a world map using the adjusted Vigeo sustainable country ratings. Ratings are rescaled to eight categories representing the degree of sustainable development—environmental responsibility, social responsibility, and institutional responsibility (rule of law and governance)—of a country, with a darker color indicating higher sustainability ratings. In Figure 1b, we also plot the distribution of legal origins throughout the world. Countries with higher social responsibility (sustainability) ratings are also more likely to be civil law countries than common law countries, and Scandinavian countries have the highest scores.

[Insert Figures 1a and 1b about here]

We turn the countries' color map into numbers in Table 2, but this time we use firm-level CSR data; we then compare the mean CSR ratings for the countries belonging to different legal origins. In addition to the overall CSR rating (IVA Rating) and two general ratings on environmental and social policies (EcoValue Rating and Social Rating), we also show the various components of the CSR subcategories representing benefits for different types of stakeholders.[10] Again, a darker color indicates a higher CSR rating, and the variance of the rating is shown in the parenthesis. The comparisons of the means of the CSR indices across legal origins in Table 2 show that firms under the English common law system have lower CSR scores in most ESG dimensions than those under the civil law systems. Firms from the Scandinavian and German legal origins assume more CSR than those from the English common law system, especially in terms of environmental issues, as indicated by the scores in EcoValue Rating and the subcategories Environment, Environmental Management Capacity, Environmental Opportunity, Industry Specific Carbon Risk, 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 assume more CSR than those from the English and

[10] 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.

German legal origins, as can be derived from the scores of the 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 has higher scores than the civil law systems in the domain of the firm's interactions with local communities and traditional corporate governance concerns. Companies from the Socialist legal origin have the lowest levels of CSR across the board.

We further compare the differences across legal origins for various aspects of CSR using a non-parametric test (Wilcoxon rank-sum (Mann-Whitney) test). Table 3 shows that the differences in ESG performance (overall and by component) are highly statistically significant across legal families, and that civil law countries consistently score higher than common law countries in all ESG subfields. Within the civil law countries, we find that firms of countries with German legal origin have higher levels of CSR than their counterparts with French legal origin in terms of ecological and environmental policy (EcoValue rating, Industry Specific Carbon Risk, and Environmental Opportunity), but that the French legal origin firms have higher levels of CSR in social issues and labor relations than German legal origin companies. Finally, firms from capitalist economies attach more attention to ESG issues relative to those from the current and former socialist countries (Russia, China, and some Eastern European countries). Overall, these descriptive results of mean comparison suggest that there are systematic differences in various ESG ratings across different legal origins.

[Insert Tables 2 and 3 about here]

B. Main Results

We then move to the regression analysis to formally test the relation between CSR and legal origins as well as other country-level and firm-level characteristics. In Table 4, we present the results from different estimation methods: column (1) shows the OLS results with the baseline control variable set. Column (2) has the same variable set as column (1) but the model is estimated by means of GLS; to the models of columns (3)—(5) extra control variables are added (with GLS estimations). The results in columns (6)—(7) are obtained using random-effect ordered probit models (with some control variables missing due to the issue of convergence in maximum likelihood estimations). The dependent variable in all regressions is the overall IVA rating at the firm-level, which is a proxy for a company's engagement and compliance to various environmental and social issues.

Following LLSV (1998), La Porta et al. (2008), Djankov et al. (2008) and Spamann (2010), we take the English common law origin as our benchmark which is therefore omitted from the models, and we exclude former and current socialist countries, which, as argued by Aghion et al. (2010), are in transition and not in equilibrium.[11] Only as a robustness test do we include these socialist countries and recategorize them according to their pre-socialist legal origin (either German civil law or French civil law) (e.g. in column (7)). We include industry- and year-fixed effects, and cluster standard errors at the country-level in all estimations.

Several important observations can be made: First, the coefficients on the French, German, and Scandinavian civil law origins are positive and statistically significant throughout all specifications, regardless what estimation method is used. The results imply that firms under civil law systems on average have higher levels of CSR than those under the English common law system. The economic effects are substantial: firms in civil law countries have on average a 7% higher CSR score (or half grade on a scale of 7) than those in common law countries (columns (1)—(2)). The difference is even larger—at more than 14% or 0.85 to 1 grade—when more control variables are added such as a firm's investment opportunities (market to book ratio of assets), the firm's degree of shareholder-orientation (anti-director rights index) and the economic freedom index capturing the country's capitalist model (column (5)). So, the civil law firms score significantly higher than common law firms on the overall IVA index. The traditional legal origin theory in the law and finance literature argues that the common-law countries generally have the strongest and French civil-law countries the weakest investor protection, financial development, and economic efficiency (LLSV, 1998; La Porta et al., 2008). Our findings echo the legal origin theory and are consistent with the predictions under the demand-side story that higher CSR is a reflection of stronger social preferences for stakeholder claims in civil law countries.

Second, political institutions—corruption control, political executive constraints, regulatory quality, and economic freedom (the type of capitalist model)—are not strongly associated with firm-level CSR. GDP per capita is not a predictor of CSR, whereas a country's degree of globalization whose correlations with the legal origins dummies are low (below 20%), is a strong predictor of the firm-level CSR: companies in more open and globalized economies have a higher level of CSR practice.[12]

[11] This is also confirmed by the consistent CSR 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 of main specification, and focus on the differences between common law systems and civil law systems (and their subsystems).

[12] Before we conducted the regression analysis, we checked the correlations between different explanatory variables to

For the firm-level variables, Table 4 shows that firm size is strongly related to CSR performance: larger firms on average do more CSR. The coefficients on ROA are positive and significant in most specifications, in line with the "doing good by doing well" hypothesis. Market valuation (Tobin's Q) is not strongly related, except in specification (7). We also find that a firm that has better investor protection (as captured by a high anti-director rights index) on average invests more in CSR.

One may be concerned about the weighting of countries by the number of their firm-years in the data when using random effect models. We therefore construct a new sample consisting of the ten largest companies in terms of market capitalization in each country (countries with fewer than ten companies are dropped). In unreported regressions, we conduct OLS tests on this equally-weighted sample with the same variables, and the above main results survive.

[Insert Table 4 about here]

C. Robustness Tests

a. Alternative theories

As LLSV (1998, 1999) state that legal origins may shape the ownership structure of a company, we wonder whether the relation between CSR and legal origins somehow captures the effects of ownership structures. Therefore, we add to the benchmark GLS model (Model (2) of Table 4) total ownership concentration and the share stakes held by different types of shareholders, the results of which are shown in Panel A of Table 5. A first observation is that both the statistical and economic effects of legal origins are not eroded by the inclusion of various ownership variables. Furthermore, the coefficients on these ownership variables themselves are mostly insignificant. Therefore, the type of ownership in the hands of different blockholders and their percentage stakes are not likely to be proxies for legal origins.

A key criticism of the legal origin theory could be that legal origins are proxies for national cultures, norms, and values, which have been shown to be strongly related to economic outcomes (Stulz and Williamson, 2003; Guiso, Sapienza, and Zingales, 2006; Tabellini, 2010). We follow La Porta et al. (2008) and control for religion

verify whether multicollinearity concerns would arise, but this is not the case. For example, the correlations of Ln(GDP per capita) with three legal origin dummies are 30.2%, 8.7% and 9.2%, respectively, and the correlations of Political executive constraints with regulatory constraints and corruption controls are 35.6% and 32.1%, respectively.

as well as the most widely used culture indices—the Hofstede cultural dimensions—which capture social attitudes and norms (Hofstede and Hofstede, 2005). The six cultural indices comprise Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Pragmatism, and Indulgence (for definitions see Appendix 1). In addition, in line with the Weber thesis that differences between Protestantism and Catholicism in terms of work and social ethics have affected capitalist development and corporate growth (see Iannacone (1998) for an overview of the economics of religion), we include the binary variable Protestant that captures whether a country has a protestant majority. We present the tests in Panel B of Table 5. Again, the cultural and religion variables do not make much of a dent in the explanatory power of legal origins, and the explanatory powers of cultural variables themselves are statistically insignificant, or weak and not persistent. Therefore, the cultural explanation does not seem to hold.

[Insert Table 5 about here]

b. Alternative dependent variables

As mentioned above, we obtained the IVA data in two waves: the first wave spans the period 1999 to 2011, and the second wave covers 2011 to 2014. The overall IVA rating we have used in the above tests combines the IVA ratings in two waves, but we also have information on ratings of different CSR dimensions for the first wave sample. As additional robustness checks, we conduct similar tests as for the baseline results but replace the dependent variable in Tables 4-5—the overall IVA rating—by (i) the general *IVA scores* for each of the waves (Models (1) and (4) of Table 6) in order to verify whether possible changes in the CSR measurement methodology affect results, (ii) environmental scores capturing a CSR focus on ecological targets and efficiency (the *Environmental Score* (for the 2011-2014 wave) in Model (2), the *RiskMetrics EcoValue Rating* (for the 1999-2011 wave) in Model (5), *Opportunity in cleantech* in Model (8), *Environmental opportunity factors* in Model (11), *Sustainability risk* in Model (12), *Industry specific carbon risk* in Model (13), *Environmental strategy* in Model (14), *Environmental management systems* in Model (15), *Environmental accounting reporting* in Model (16), *Environmental training & development* in Model (17), *Environmental strategic competence* in Model (19), and *Environmental performance* in Model (20)), and (iii) social scores capturing the firm's social dimension and hence the importance of employees, customers, suppliers, and the community at large (the *Social score* (for the 2011-2014 wave) in Model (3), the *RiskMetrics Social Rating* (for the 1999-2011 wave) in Model

(6), Labor relations in Model (9), Product Development, Safety, and Materials in Models (7) , (10) and (18)). Table 6 reveals that the general, and the various environmental and social indices are strongly and consistently correlated to legal origins, and we confirm that, relative to firms with English legal origin, firms from civil law have higher levels of CSR. In all twenty models (with exception of Models (2) and (9), firms with Scandinavian legal origin have the highest CSR scores.

[Insert Table 6 about here]

c. Alternative CSR samples

One possible concern could be that our results showing that civil law firms have higher CSR ratings than their common law counterparts are driven by the peculiarity of our CSR data. Although we have shown that the results are consistent across specifications with different dependent variables, such similarity could be due to the fact that they use similar rating methodologies (developed by MSCI). To address this issue, we conduct the benchmark tests for two alternative CSR samples with global coverage: (i) the Vigeo's corporate ESG (panel) data which comprise six domains: (1) environment, (2) human rights, (3) human resources, (4) business behavior (customers & suppliers), (5) community involvement, and (6) corporate governance, and (ii) the Thomson Reuters' ASSET4 (panel) data, which comprise a company's engagement in and compliance to environmental, and social aspects.[13] Table 7 shows that that our previous results largely survive with different CSR measures from the two alternative samples: firms with civil law origins have higher CSR ratings than those with common law origin. The only exception is Model (6): when Corporate Governance is the dependent variable, the three civil law dummies have a negative sign, indicating that firms with English legal origin have higher scores in corporate governance than firms with French or German legal origin. This finding is not unexpected in the light of the empirical evidence in the literature, because this Vigeo sub-index measures the traditional governance concerns that focus on shareholder protection (rather than stakeholder protection). The fact that firms with common law origin have better shareholder-orientation (stronger corporate governance) is indeed consistent with the traditional law and finance view. Our results across all these robustness tests are still in line with the

[13] ESG information is available for more than 4,300 global companies based on more than 250 key performance indicators and more than 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.

demand-side prediction that firms in civil law countries have higher levels of CSR.

[Insert Table 7 about here]

IV. Evidence from Scandals and Disasters

The previous results have shown that there is a strong and consistent correlation between a firm's level of CSR and its country's legal origin, with civil law firms assuming more CSR than common law firms. This is the *average effect*. Based on the demand-side arguments, one potential mechanism that explains why firms in civil law countries on average have higher levels of CSR may be that they are more responsive than common law firms when the societal demand for CSR changes, which is the *marginal effect*. To investigate such "responsiveness" channel, we execute several quasi-natural experiments of "shocks" to CSR demand by the society across the world. This also enables us to control for country fixed effects (so as to take into account the influence of all time-invariant country-level factors) while still examining the effects of legal origins by means of interaction terms. We estimate models using a differences-in-difference (DiD) approach. In general, a DiD estimation can be specified as:

$$CSR_{ict} = A_c + B_t + C_s + \beta X_{ict} + \gamma I_{lt} + \epsilon_{ict} \qquad (3)$$

where A_c, B_t, and C_s are fixed effects for countries, years, and sectors (industries), respectively. X_{ict} are relevant firm- and country-level controls as in the previous specifications, and ϵ_{ict} is an error term. I_{lt} is the interaction between legal origin (civil law) and the year dummy such that the estimated impact of legal origin (civil law in year *t*) is then the OLS estimate $\hat{\gamma}$. Standard errors are clustered across firms and time to account for serial and cross-sectional correlations.

We conduct three quasi-experiments related to unexpected shocks of corporate scandals or natural disasters, which, as we argue, move firms in relevant industries worldwide "out of equilibrium" and magnify the costs and benefits of different legal regimes. We deliberately choose shocks that had a huge global impact such that we can make cross-legal-regimes comparisons. These shocks include the Chinese milk scandal (November 2008), the 2010 Deepwater Horizon oil spill (March/April 2010), and the Asian earthquake and tsunami (December 2004). We distinguish two responsiveness channels of CSR: one is a consumer channel, in which these shocks trigger shifts in consumer demand and changes of firms' market shares that force companies to adjust their CSR. The other is a legal channel, in that firms in a more CSR-friendly legal environment (stronger

stakeholder-orientation in the spirit of the law) tend to be more responsive to shocks and supply more social goods. In our analyses below, we try to disentangle these two channels. We use the ASSET4 sample for these scandal and disaster analyses because it has specific and detailed sub-CSR data and scores (such as cash donations, and spill and pollution control) that directly correspond to each of the shocks.

The Chinese Milk Scandal and Product Responsibility

The 2008 Chinese milk scandal was a food safety incident in China, involving milk and infant formulae, and other food materials and components, adulterated with melamine. Twenty-two Chinese diary companies, including market leaders such as Mengniu, were reported to have this problem. By November 2008, China reported an estimated 300,000 victims, with six infants dying from kidney stones and other kidney damage, and an estimated 54,000 babies were hospitalized. The World Health Organization referred to the incident as one of the largest food safety events it had had to deal with in recent years. The issue raised severe concerns about food safety, not only in China but all over the world, as many food manufacturing and processing companies import food materials and components from China, or had foreign operations in China. The European Union, European Commission, and the United States Food and Drug Administration all tightened up food safety checks and regulations.

The Chinese milk scandal raised worldwide awareness of companies in food-related industries of their product safety and responsibility. We therefore utilize the "product responsibility" rating offered by ASSET4 and compared companies in their reactions—across legal regimes—in terms of upgrading their own product safety, measured by their product responsibility scores. We exclude Chinese firms from the sample because we want to avoid the (expectedly strong) local impact on our international results. Column (1) of Table 8 shows the results, and the DiD estimator is the coefficient of "Civil law × Post-2009". The coefficient is positive and statistically significant with a non-trivial economic magnitude, indicating that food-related companies in civil law countries upgraded their product responsibility performance by more than 5% (a coefficient of 5.344 on a scale of 100) on average, in relation to firms in common law countries. As a robustness check, we run the same regression on the product safety rating from the IVA sample. As shown in column (2) of Table 8, the coefficient on "Civil law × Post-2009" is still positive and significant. Given that the IVA rating is on a scale of 0-10, the economic magnitudes are similar across the two regressions (5-7%). This points at a higher responsiveness of firms in civil law countries in the wake of this food product safety scandal.

The Indian Ocean Earthquake and Corporate Donations

The 2004 Indian Ocean earthquake and tsunami, was an undersea megathrust earthquake that occurred on Sunday, 26 December 2004, and was one of the deadliest natural disasters in recorded history. The earthquake triggered a series of devastating tsunamis along the coasts of most landmasses bordering the Indian Ocean, killing over 230,000 people in fourteen countries, and inundating many coastal communities. The plight of the affected people and countries prompted a worldwide humanitarian response. In all, the worldwide community donated more than $14 billion in humanitarian aid; while some funds were from the national governments, most were corporate cash donations.

Corporations constantly donate money in normal times, but the earthquake and tsunami magnified the amount of corporate donations as a relief effort. Godfrey (2005) and Patten (2008) argue that philanthropic giving (as a response to disasters) is perceived as a genuine manifestation of the firm's underlying social responsiveness. We therefore compare the cash donations (including both direct cash giving and cash giving via a corporate foundation) made in 2005—right after the disaster—by corporations in our world sample. We calculate corporate cash donations following the standard approach as used in Masulis and Reza (2015), and focus on cash donations as a proportion of total cash: $\text{Ln}(1 + \text{cash donations} / \text{total cash}) \times 10^3$. Column (3) of Table 8 shows the results from this natural experiment with the same control variables as before, and the coefficient on "Civil law × Year-2005" is the DiD estimator. The reason for interacting the civil law dummy with a year dummy rather than with a post-disaster dummy (i.e., Post-2005) is that, unlike food scandal which may shift CSR demand and have lasting effects on corporate CSR policies, donations are disaster-specific and are only made in the year of (or following) a disaster, rather than in all subsequent years. (Below, in a placebo test, we will test the issues of donation timing). Again, the interaction coefficient (Column (3)) is positive and statistically significant, indicating that firms in civil law countries donated on average more money than those in common law countries, right after the Asian earthquake disaster. This finding suggests that a firm's underlying social responsiveness (as manifested by philanthropic giving after natural disasters) is stronger in civil law countries than in common law countries.

The Deepwater Horizon Oil Spill and Corporate Environmental Concerns

The *Deepwater Horizon* oil spill, also known as the BP oil disaster, began on 20 April 2010 in the Gulf of Mexico on the BP-operated Macondo Prospect, following the explosion and sinking of the Deepwater Horizon oil rig. It is considered the largest accidental marine oil spill in the history of the petroleum industry. The spill had a severe environmental impact. The US Government estimated the total discharge at 4.9 million barrels (210 million US gal; 780,000 m^3), which directly polluted 68,000 square miles (180,000 km^2) of ocean and had a devastating effect on marine life in the Gulf and led to the gulf ecosystem being in crisis.

The Deepwater Horizon oil spill was an environmental shock to all energy-related industries in terms of the environmental consequences of their production and operations. We therefore compare, across legal regimes, corporations' upgrading of their environmental concerns after the oil spill. Utilizing the detailed CSR indices of ASSET4, we measure a company's environmental concerns by three variables that are mostly related to oil spill and pollution under the ASSET4 environment pillar, all of which are normalized on a scale of 100: (a) "Spill and Pollution Control", which captures a company's direct risk management policies related to oil spills and pollution; (b) "Environmental R&D Spending", which captures a company's efforts in developing new technologies that are more environmental friendly; (c) "Clean Energy Products", which captures whether a company substitutes its energy-intensive products with products using new technologies and clean energies. Columns (4)—(6) of Table 8 show the results in a similar way as columns (1) and (2), except that the DiD estimator is the coefficient of "Civil law × Post-2010". The coefficients on the three environmental performance variables are all positive and statistically significant, indicating that energy-related firms in civil law countries upgraded various aspects of their environmental performance—by strengthening their spill and pollution controls, investing more in environmental R&D, and developing more clean-energy products—by 7% (7 grades increase on a scale of 100) on average, relative to energy-related firms in common law countries. We also conduct a robustness check by interacting the Civil law dummy with the Year-2010 dummy (columns (7)—(10)), and find similar results, both statistically and economically. Taken together, these results suggest that companies from different legal regimes respond differently to the oil spill shock, and such different responses are both immediate and persistent over time.

[Insert Table 8 about here]

A. Placebo Tests

We conduct several placebo tests on alternative industries and alternative event years for the scandals and disasters analyzed above to rule out potential industry- and year-specific confounding effects. For the food scandal, we estimate identical models for a few non-food industries (including the oil and gas industry). Similarly, for the oil spill disaster, we estimate identical models for a few non-oil-and-gas industries (including the food industry). The alternative industries other than the food industry and the oil and gas industry include software & IT services, professional & commercial services, and financials. For the Indian Ocean tsunami disaster, which triggered corporate donations from firms across *all industries*, we apply the base model for alternative years during our sample period. The results for these placebo tests are shown in Table 9, with Panels A and B exhibiting the results for product responsibility and environmental performance ratings in alternative industries after the food scandal and oil spill disaster, respectively, and Panel C exhibiting the results on corporate donations for alternative years. From Panel A, we learn that the milk scandal had no impact on the non-food industries for firms in civil law countries as the interaction terms of Civil law and the Post-2009 period are nowhere statistically significant. This finding supports the results presented in Table 8 and suggests that firms' CSR reactions in food safety are specific to the food industry. Likewise, we note that the oil spill disaster did not affect other industries in terms of corporate environmental actions after the disaster (Panel B of Table 9). The placebo tests on alternative years for the Indian Ocean tsunami also further support our previous results: the interactions of the Civil law dummy with alternative years that were not affected by global disasters are not statistically significant, whereas only the interaction of the Civil law dummy with the post-disaster year (Year 2005) is positive and significant. This implies that the difference in cash donations between common law firms and civil law firms is likely to be triggered by the year-specific (December 2004) disaster event.

[Insert Table 9 about here]

B. Changing Market Shares following Scandals

As mentioned above, there are two potential channels that may explain the differences across legal regimes in terms of responding to these shocks. The first is that CSR responsiveness is driven by changes in firms' market shares, that is, consumers in some countries are more appalled by these shocks and their demand for products shifts more, which forces companies to react more strongly in terms of improving their CSR (de Bettignies and Robinson, 2015). The difference in such consumer demand shifts may coincide with different

legal regimes. The second one is that firms in more CSR-conducive legal regimes (i.e., civil law countries) actually respond more per unit of shock, which is a direct legal channel.

We try to disentangle these two different channels by investigating whether the above shocks are associated with changes of firms' market shares, whether such market share changes are further related to the change of CSR practice, and whether these relations differ across legal regimes. The Chinese milk scandal and the Deepwater Horizon oil spill disaster provide us with differing settings in terms of industry composition, which are ideal for investigating the existence of the consumer channel. The oil and gas industry is dominated by large *international* players originating from different legal regimes, such as Total S.A. in France, BP in UK, ExxonMobil in the US, Royal Dutch Shell in the Netherlands, and Statoil in Norway, whereas the food industry comprises many smaller *local* players. A food scandal may create a consumer demand shift away from the larger food companies (that are tracked by CSR data providers) towards small, *local* producers (that are largely untracked). In contrast, the domestic consumer demand for oil and gas is relatively inelastic due to the oligopolistic nature of the local industry (though consumers may shift their demands across large international players following an energy scandal). If our above findings regarding the differences in CSR responsiveness across legal regimes are mainly driven by changes of market shares (i.e., companies change their CSR practice as a response to declining market shares as consumers shift to other companies), we would expect both a varying effect of the shock on market shares for food/energy, and a varying effect of market share changes on firms' CSR practices across different legal regimes.

We test this consumer channel by using the change in a company's market share of sales revenues in its industry following the shock as a proxy for consumer demand shifts. For the food scandal, we define "industry" as the *domestic* industry of *all companies* in a certain year, and for the oil spill disaster, as the *global* industry of companies *within our sample*[14] in a certain year. Panel A of Table 10 shows the results of changing *domestic* market shares of our sample companies, which are mostly large firms, as a response to the Chinese milk scandal and its correlation with the product responsibility score (ASSET4) of companies in food-related industries after the scandal. We document that the domestic market share of our sample firms (mostly large firms with CSR

[14] The market shares for oil and gas companies are calculated on an "in-sample" basis: all the firms in the ASSET4 database with a CSR score are considered. When we calculate the market shares on all listed firms (on a global scale), irrespective of the availability of a CSR score, the results presented below do not change.

ratings) declines following the scandal, most likely towards smaller local food producers (which do not have CSR ratings), and that this takes place not in the year of the scandal but over the 5-year period subsequent to the scandal. We then test whether the shifts in our sample firms' market shares following the food scandal are related to the product responsibility scores in the post-scandal period of food sector firms in civil and common law countries. We find that the changing market shares after the scandal are not significantly correlated with changes in CSR in either civil law or common law countries, which does not render support to the argument that the difference in responsiveness of CSR between common law and civil law countries is driven by the decline in market shares. Panel B of Table 10 shows the results of changing *international* market shares as a response to the oil spill and their correlation with oil and gas companies' spill and pollution control scores after the shock. Subsequent to the oil spill shock, we observe a small (though significant) change in market share in firms operating in the traditional energy sector (which could result from a consumer demand shift away from the energy mastodons towards firms active in alternative energy). A large shift in market share was not expected given that the alternative energy production is growing but still remains small relative to the traditional carbon-based energy production. Panel B also shows that the market share shift does not differ between firms with civil or common origin: we do not find a significant correlation between changes in oil and gas companies' market shares after the spill and changes in the spill and pollution control index. These results give support to the legal view rather than the perspective of pressure from declining market shares.

[Insert Table 10 about here]

V. Economic Mechanisms

The results above show that systematic differences in CSR across legal regimes are not likely to be driven by changing market shares. In addition, in our benchmark models of Table 4, we have already considered a few institutional variables such as Regulatory Quality, Political Executive Constraints, and the Anti-Director-Rights Index, but they were not statistically significant and their inclusion has not made much of a dent in the significance of legal origins dummies. This suggests that they are not likely to be 'channels' for legal origins. In this section, we also directly test some mechanisms at both the country-level and the firm-level as outlined in Section I: CSR in civil law countries may be more rule-driven whereas, CSR in common law countries relies more on ex ante discretion and ex post settlement.

First, we use a shareholder litigation risk index as developed by LLSV (1998) and Djankov et al. (2008) to

test for the ex post settling up mechanisms in the common law (as opposed to the rule-based mechanisms in the civil law). When the risk of shareholder litigation is low, firms are more willing to engage in CSR activities which are often beyond the law, and it is well established that common law countries tend to utilize more ex post shareholder litigation mechanisms to empower shareholders to sue corporate directors (LLSV, 1998; Issacharoff and Miller, 2009; Cox and Thomas, 2009; Gelter, 2012). Similarly, we investigate whether the level of CSR is higher when a firm's decision-making process is ex ante insulated from the pressures of its (different types of) shareholders through the presence of a supermajority vote requirement in corporate charter or bylaws, which is more prevalent under the civil law system (Hopt, 1997; Cheffins and Black, 2006).

Another mechanism relates to regulations and the direct involvement of the government in business. As argued by La Porta et al. (1999) and Botero et al. (2004), legal origin proxies for the state's proclivity to intervene in economic life: civil law countries tend to rely more on regulation and state interventionism, whereas common law countries tend to rely more on markets and contracts. To test this mechanism, we use several country-level indices including an employment laws index, a collective relations laws index, and the prevalence of state involvement in the economy.

We conduct our tests on these economic mechanisms in two stages: in the first stage, we regress each of the channel variables on the civil law dummy, and in the second stage, we regress the overall CSR rating on the channel variable "predicted" from the first stage, that is, the variations in the channel variables that are explained by legal origins. Control variables are included in both stages. This is akin to an IV approach except that the civil law dummy is not treated as the IV for the channel variable. That is, we acknowledge the possibilities that civil law can function on CSR through channels other than the ones that we are mentioning here.

Table 11 presents the results; the variable definitions are given in Appendix 1. We show that, in the first stage, the civil law origin is negatively correlated with shareholder litigation risk (Model 1), and positively correlated with the presence of supermajority rules (Model 3), stronger labor and union laws (Models 5 and 7), and higher degree of state involvement in the economy (Model 9). In the second stage, we observe that shareholder litigation risk is negatively correlated with the level of CSR (Model 2), whereas the other channel variables are all positively correlated with CSR (Models 4, 6, 8, and 10). These results are consistent with the notion that civil law countries rely more heavily on rules-based mechanisms that restrict behavior ex ante and reflect a stronger focus on (or demand for) stakeholder orientation in these societies, which implies that such

rule-based mechanisms are related to higher levels of CSR. We acknowledge that this is not an exhaustive list of channels that can potentially explain the link between legal origin and CSR, and civil law may function through other mechanisms that drive up firms' CSR as well. Nevertheless, the significance in both stages is indicative of a potential link between civil law and higher level of CSR via stronger ex ante constraints and less ex post settling up mechanisms.

[Insert Table 11 about here]

VI. Conclusion

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." Inspired by this, our paper makes the point that legal origin explains an important part of the cross-country variations in an increasingly important business activity, namely corporate social responsibility. We assess a firm's CSR by using proxies for corporate stakeholder concerns, such as environmental and social policies, and by analyzing large-scale public and proprietary databases covering over 25,000 large corporations around the world. We find strong support for the legal origins explanation of the levels of CSR, much more so than for the alternative perspectives on CSR, such as its relation with social preferences, regulatory quality, political institutions, culture and values at the country level, and firm-level ownership, corporate governance, and financial performance. The level of CSR is higher in civil law countries than in common law countries, and companies under the Scandinavian legal origin on average have the highest levels of CSR. This is consistent with demand-side arguments that CSR reflects social preferences for good corporate behavior and stakeholder orientation, and such social preferences are more embedded in rule-based mechanisms that restrict firm behavior ex ante, which are more prevalent in civil law countries. Such rule-based managerial constraints are less prevalent in common law countries where ex post settling up mechanisms (e.g. through judicial resolutions) are relatively more important. We find supporting evidence that the positive link between civil law and CSR can be explained by, among other potential channels: lower shareholder litigation risk, the presence of supermajority rule in a firm, stronger labor regulations, and the prevalence of state involvement in business. Evidence from exogenous scandals and disasters suggest that companies in civil law countries are also more responsive than those in common law countries in terms of upgrading their CSR practices when these

shocks occur, and that this responsiveness is not likely to be driven by shifts in market shares.

The relevance of our findings is two-fold. At the macro-level, they could (re-)shed light on the role of legal origin in driving finance and other economic outcomes, which has been a long-lasting debate since the original thesis of LLSV (e.g., Rajan and Zingales, 2003; Roe, 2006; Spamann, 2010; La Porta et al., 2008). Still, while the debate in the law and finance literature mostly focuses on the protection of investor rights as well as economic freedom and efficiency based on contracting and institutional arrangements as governed by legal rules (for which the common law appears to be "superior"), little is known about how similar mechanisms relate to the welfare of other stakeholders. We show that the common law system embraces less CSR than the civil law regimes. This is consistent with LLSV's premise: the common law tradition emphasizes the shareholder primacy and private market-oriented strategy of social control more, and perhaps *because of this emphasis*, it is also less stakeholder-oriented. Stakeholder rights are usually concretized by rules and a state-desired approach of social control. Of course, CSR may be a result of both rules and firm choices, as we find the level of CSR is highest in the Scandinavian legal regime, which lies between heavily rule-based and discretion-oriented systems.

At the micro-level, our findings contribute to the understanding of what drives CSR, which has recently attracted much interest in finance. While the existing studies mostly focus on the financial and strategic motives of CSR for specific countries and in specific settings, we extend the scope of CSR research to a global scale by using a variety of large CSR samples with international coverage to analyze its determinants at the country-level, which has received little attention to date. In addition, our findings hold for both CSR engagement and CSR compliance, which further suggests that CSR is not merely a corporate strategic action (engagement) to boost financial performance, nor is it simply compliance to the rules (including soft law). Rather, both compliance and engagement are systematically related to differences in legal regimes across countries. This focus on the legal contexts of CSR also contributes to the broader theme of corporate governance, especially to the roots of the shareholder-stakeholder tradeoff in modern corporations.

Of course, none of our arguments and findings is to suggest that the equilibrium level of "total" social responsibility is higher in civil countries, but rather that common law societies on average have less CSR. Indeed, some recent studies have discussed how CSR may crowd out the provision of public goods provided by other actors (Graff Zivin and Small, 2005; Baron, 2007). In this sense, the higher levels of CSR in civil law countries may be partially a reflection of constraints rather than of managerial objectives. Therefore, we acknowledge

that firms in different countries may have different value-maximizing levels of CSR, and it is possible that legal regimes in some countries can constrain their firms from achieving such value-maximizing levels, either by regulations or by shaping a firm's attitude towards stakeholders via governance arrangements. Overall, the level of CSR in society reflects the intersection of the supply of socially responsible behavior from various actors as well as the demand for CSR practice by citizens, and our findings suggest that legal regimes may be a primary force that shapes such equilibrium result. This confirms the profound roles that the law plays in economic life and suggests how CSR as an increasingly important mainstream business activity is fundamentally related to legal rules.

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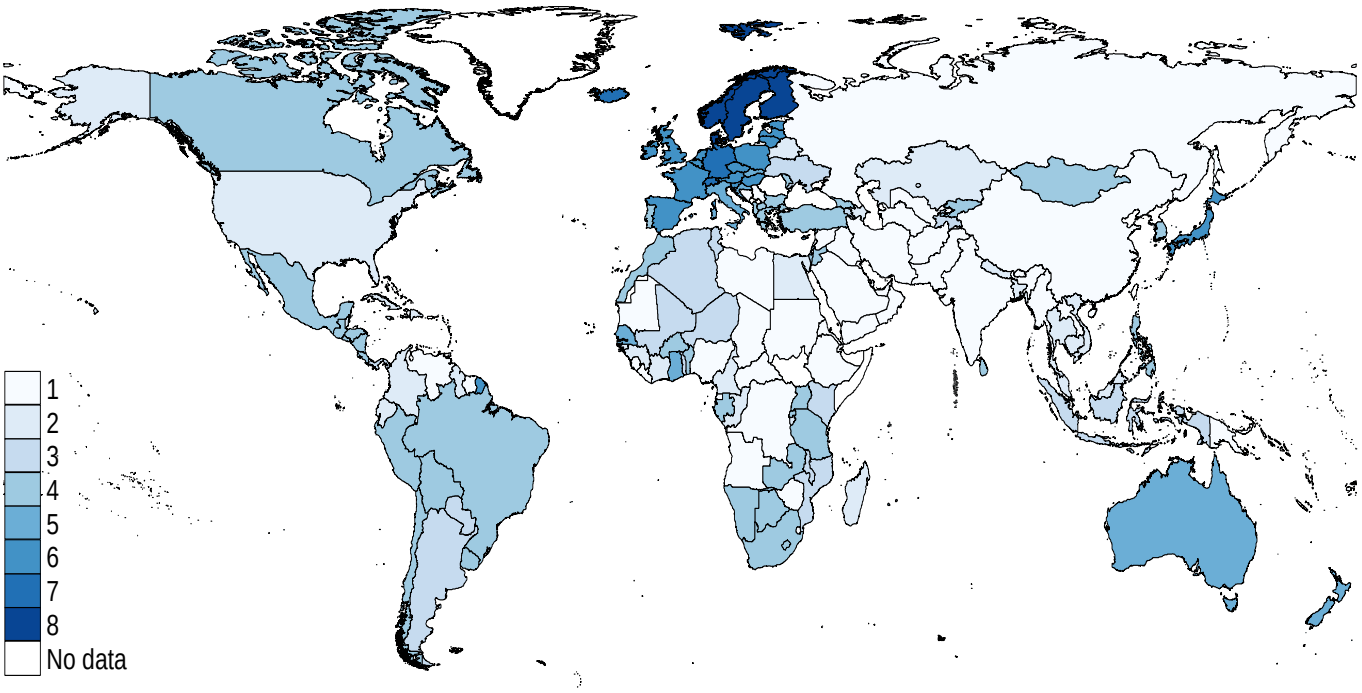

Figure 1a. Adjusted Country-level Sustainability Ratings around the World

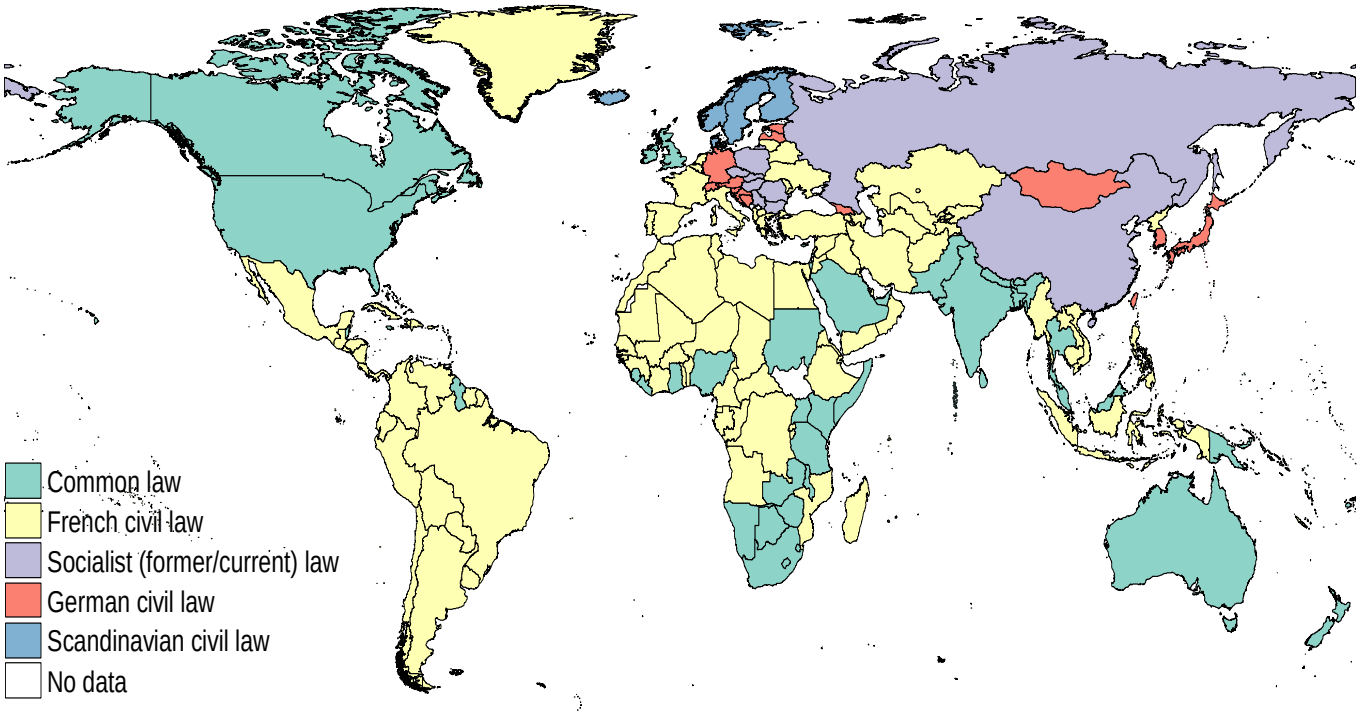

Figure 1b. Legal Origins around the World

Table 1. Description of the CSR Indices

	Panel A. Descriptions of CSR Ratings Used as Dependent Variables and the Sustainable Country Rating
Overall IVA rating	The IVA rating identifies key environmental, social, and governance issues that hold the greatest potential risk or opportunity for each industry sector. Themes on "environment" include climate change, natural resources, pollution & waste, and environmental opportunities. Themes on "social" include human capital, product liability, stakeholder opposition, and social opportunities. More detailed decompositions of key issues under each theme are mentioned below in Environmental score and Social score. IVA analyzes each company's risk exposure, measuring the extent to which a company's core business is at risk of incurring unanticipated losses. When comparing companies, data is normalized by the most relevant, available factor, such as sales or production levels. The data is then converted to a relative rating, by allocating the company with the best performance within its industry sector in a given category an AAA, the top rating, giving the company with the worst performance a CCC, the lowest, and scoring the remainder pro-rata between AAA and CCC, which are then converted to 6 to 0. It has two waves (as in our sample): 1999-2011 and 2011-2014. Source: MSCI Intangible Value Assessment.
Environmental score	The Environmental Score is the environmental pillar of IVA and applies the same rating metrics based on potential risk or opportunity in each industry. The score includes the following issues: carbon emissions, product carbon footprint, energy efficiency, insuring climate change risk, water stress, biodiversity and land use, raw material sourcing, financing environmental impact, toxic emissions and waste, packaging material and waste, electronic waste, opportunities in clean tech, opportunities in green building, opportunities in renewable energy, etc. The data is then converted to a relative score, by allocating the company with the best performance within its industry sector in a given category a 10, the top score, giving the company with the worst performance a 0, the lowest, and scoring the remainder pro-rata between 10 and 0. Source: MSCI Intangible Value Assessment (the 2011-2014 wave).
Social score	The Social Score is the social pillar of IVA and applies the same rating metrics based on potential risk or opportunity in each industry. The score includes the following issues: labor management, human capital development, health and safety, supply chain labor standards, controversial sourcing, product safety and quality, chemical safety, privacy and data security, responsible investing, insuring health and demographic risk, opportunities in health and nutrition, access to communications, access to healthcare, etc. Similar to the Environmental score, the Social score is industry-adjusted (compared within the same industry sector on a global scale) and ranges from 0 to 10. Source: MSCI Intangible Value Assessment (the 2011-2014 wave).
EcoValue rating	The EcoValue ratings measure a company's environmental performance on 3 major aspects: a) environmental strategy and management; b) environmental risks and c) environmental strategic profit opportunities. The rating methods are similar to that of the overall IVA ratings, and also range from AAA to CCC (which are then converted to 6 to 0). Source: RiskMetrics (provided by the MSCI Intangible Value Assessment: the 1999-2011 wave).
Social rating	The Social ratings measure a company's social performance on aspects similar to those in the Social score. The rating methods are similar to that of the overall IVA ratings, and also range from AAA to CCC (which are then converted to 6 to 0). Source: RiskMetrics (provided by the MSCI Intangible Value Assessment: the 1999-2011 wave). Source: RiskMetrics (provided by the MSCI Intangible Value Assessment: the 1999-2011 wave).
Product responsibility	The customer/product responsibility category measures a company's management commitment and effectiveness towards creating value-added products and services upholding the customers' security. It reflects a company's capacity to maintain its license to operate by producing quality goods and services integrating the customer's health and safety, and preserving its integrity and privacy, also through accurate product information and labelling. Source: ASSET4 ESG data.
Product safety	A score measuring a company's product quality, health and safety initiatives, controversies related to the quality or safety of the company's products, including legal cases, recalls, criticism. The score is normalized on a scale of 0-10, with higher score indicating a higher level of product safety. Source: MSCI Intangible Value Assessment.
Cash donations to cash	The amount of cash donations to charitable (i.e. tax-exempt) organizations scaled by total cash. Cash donations include direct cash giving and cash giving via a corporate foundation. The variable is calculated as: Ln (1 + cash donations / cash) × 103, then winsorized at 1%. Source: ASSET4 ESG data.
Spill and pollution control	A score measuring to what extent is the company directly or indirectly (through a supplier) under the spotlight of the media because of a controversy linked to the spill of chemicals, oils and fuels, gases (flaring) or controversy relating to the overall impacts of the company on the environment. The score is normalized on a scale of 0-100. Source: ASSET4 ESG data.
Environmental R&D	A score measuring to what extent does the company invest in R&D on new environmentally friendly products or services that will limit the amount of emissions and resources needed during product use. The score is normalized on a scale of 0-100. Source: ASSET4 ESG data.
Clean energy products	A score measuring to what extent does the company develop products or technologies for use in the clean, renewable energy (such as wind, solar, hydro and geo-thermal and biomass power). The score is normalized on a scale of 0-100. Source: ASSET4 ESG data.
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.). Source: Vigeo.

Table 1 (Continued). Description of the CSR Indices

Panel B. Decomposition of the Intangible Value Assessment (IVA) Rating (Based on the 1999-2011 Wave)

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 Carbon 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. Average CSR Score across Different Legal Origins

The Overall IVA Rating is the weighted average score for different subcategories onwards. EcoValue Rating and Social Rating are from RiskMetrics. A higher score signifies that the company put more effort in the issue, and is marked by a darker color. Standard deviations are in brackets.

	English origin	*French origin*	*Socialist origin*	*German origin*	*Scandinavian origin*
Overall IVA Rating (whole sample)	2.65 (1.58)	3.15 (1.59)	1.77 (1.53)	2.98 (1.61)	3.83 (1.50)
Overall IVA Rating (1999-2011 wave)	2.72 (1.74)	3.10 (1.73)	1.26 (1.21)	2.83 (1.72)	3.93 (1.74)
EcoValue Rating (1999-2011 wave)	2.65 (1.77)	2.92 (1.78)	1.20 (1.21)	3.59 (1.85)	3.88 (1.70)
Social Rating (1999-2011 wave)	2.75 (1.73)	2.99 (1.75)	1.40 (1.36)	2.84 (1.63)	3.85 (1.66)
Overall IVA Rating (2011-2014 wave)	2.64 (1.50)	3.16 (1.57)	1.81 (1.53)	3.02 (1.58)	3.79 (1.41)
Environmental Score (2011-2014 wave)	4.68 (2.25)	5.48 (2.27)	4.07 (2.28)	5.17 (2.17)	5.63 (1.82)
Social Score (2011-2014 wave)	4.55 (1.83)	5.22 (1.75)	3.67 (2.10)	4.83 (1.71)	5.45 (1.72)
Strategic Governance	5.42 (1.85)	5.58 (1.85)	3.89 (1.57)	5.49 (1.82)	6.66 (1.73)
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)
Human Capital	5.56 (1.69)	5.88 (1.74)	4.06 (1.67)	5.44 (1.73)	6.39 (1.72)
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)
Stakeholder Capital	5.33 (1.87)	5.44 (1.86)	3.97 (1.25)	5.23 (1.78)	5.78 (1.91)
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 Develop.	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)
Environment (Overall)	4.66 (1.64)	4.87 (1.76)	3.06 (1.29)	5.49 (1.70)	5.70 (1.56)
Environmental Risk Factors	5.13 (1.92)	5.09 (1.75)	3.57 (1.38)	5.47 (1.57)	6.03 (1.40)
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 Carbon Risk	4.35 (2.59)	4.39 (2.75)	3.66 (2.35)	4.84 (2.54)	5.33 (2.38)
Environmental Mgmt. Capacity	4.07 (2.19)	4.55 (2.13)	3.21 (1.76)	5.46 (2.13)	5.59 (2.17)
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)
Environmental Opportunity Factors	5.14 (1.89)	5.17 (2.09)	4.17 (1.62)	5.59 (1.90)	6.09 (1.83)
Strategic Competence	4.38 (2.54)	4.92 (2.48)	3.52 (1.93)	6.06 (2.43)	5.98 (2.51)
Environmental Opportunity	4.47 (2.25)	4.93 (2.21)	3.49 (1.83)	5.75 (2.21)	5.87 (2.08)
Performance	4.20 (2.71)	4.63 (2.64)	3.30 (2.15)	5.57 (2.68)	5.65 (2.45)

Table 3. Non-parametric Tests on the Means of CSR indices by Legal Origin

The Wilcoxon rank-sum (Mann-Whitney) test compares two subsamples of different legal origins to assess whether their population firm-time mean ranks differ. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively.

	Overall IVA Rating	*IVA Rating (2011-2014)*	*Environm. Score (2011-2014)*	*Social Score (2011-2014)*	*IVA Rating (1999-2011)*	*EcoValue Rating (1999-2011)*	*Social Rating (1999-2011)*
Civil vs. common legal origin	85.010***	82.855***	80.125***	76.784***	20.492***	57.952***	18.915***
French vs. English origin	66.356***	64.520***	69.198***	74.000***	16.631***	15.241***	12.046***
German vs. English origin	44.281***	45.354***	44.484***	32.746***	5.932***	58.977***	5.906***
Scandinavian vs. English origin	68.193***	59.590***	37.251***	40.801***	30.167***	40.474***	32.592***
French vs. German origin	16.692***	13.235***	20.393***	34.411***	10.060***	-30.546***	6.623***
French vs. Scandinavian origin	-36.843***	-30.505***	-3.232***	-9.323***	-19.514***	-28.764***	-23.121***
German vs. Scandinavian origin	-45.155***	-36.963***	-15.533***	-27.377***	-26.137***	-8.600***	-29.329***
Capitalist vs. Socialist origin	61.978***	58.472***	33.561***	46.198***	16.994***	27.184***	22.259***

Table 4. Main Results on CSR and Legal Origin

The dependent variables are the ordinal (ranging from 0 to 6) CSR ratings from MSCI IVA. Model (1) is estimated by means of a pooled OLS regression. Models (2)-(5) are estimated by means of random-effects GLS, and models (6) and (7) are estimated by means of random effects ordered probit. All models control for time and industry fixed effects. Definitions of the dependent variables are in Table 1 and of the independent variable 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.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
DV = IVA rating	Pooled OLS	GLS	GLS	GLS	GLS	RE ordered probit	RE ordered probit (socialist relabeled)
French civil origin	0.468**	0.521**	0.555***	0.581***	0.905***	0.234***	1.801***
	(0.213)	(0.212)	(0.215)	(0.216)	(0.249)	(0.0168)	(0.0176)
German civil origin	0.355***	0.524***	0.541***	0.556***	0.845***	0.124***	0.0848***
	(0.131)	(0.179)	(0.176)	(0.171)	(0.188)	(0.0125)	(0.0138)
Scandinavian civil origin	0.502***	0.757***	0.801***	0.800***	1.027***	1.881***	1.862***
	(0.177)	(0.188)	(0.171)	(0.177)	(0.198)	(0.025)	(0.0238)
Ln(GDP per capita)	-0.454**	-0.0808	-0.0912	-0.0688	-0.062	0.0112	-0.00774
	(0.175)	(0.101)	(0.0941)	(0.0973)	(0.101)	(0.0148)	(0.0101)
Ln(total assets)	0.0757***	0.0341***	0.0337***	0.0323***	0.0328***		
	(0.025)	(0.010)	(0.0098)	(0.0100)	(0.010)		
ROA (winsor .05)	-0.0357	0.0282*	0.0279*	0.027	0.0263*	0.0157*	0.0224***
	(0.024)	(0.0156)	(0.0161)	(0.0178)	(0.018)	(0.008)	(0.00343)
Globalization index	0.0351***	0.0275**	0.0271**	0.0274**	0.0337***		
	(0.0124)	(0.0111)	(0.0113)	(0.0111)	(0.0123)		
Regulatory quality	-0.121	0.104	0.0787	0.0753	0.0868	0.141***	0.221***
	(0.354)	(0.155)	(0.162)	(0.162)	(0.161)	(0.032)	(0.028)
Corruption control	0.608***	0.083	0.0748	0.0698	0.0338	-0.052***	-0.0675***
	(0.195)	(0.126)	(0.125)	(0.124)	(0.126)	(0.019)	(0.022)
Political Exec. constraints	0.0222	-0.0029	-0.00284	-0.00486	-0.005	-0.012***	0.00954***
	(0.0227)	(0.0020)	(0.0021)	(0.0035)	(0.003)	(0.004)	(0.003)
Economic freedom index			0.00554	0.00556	0.004		
			(0.0095)	(0.0096)	(0.010)		
MTB assets (winsor .05)				0.0188	0.020	0.00696	0.015***
				(0.0298)	(0.030)	(0.00472)	(0.004)
Anti-director rights index					0.138**		
					(0.066)		
Observations	201,420	201,420	201,324	195,378	193,982	195,474	201,836
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 5. Robustness Tests: Alternative Theories

This table repeats the GLS estimations of Model (2) of Table 4 but adds a set of new control variables: ownership concentration and ownership by type of shareholder (Panel A) and cultural dimensions (Panel B). The definitions of the (in)dependent variables are given in Table 1 and Appendix 1.

Panel A. Blockholder Ownership

DV = IVA rating	(1) GLS	(2) GLS	(3) GLS	(4) GLS	(5) GLS	(6) GLS	(7) GLS	(8) GLS	(9) GLS	(10) GLS
French civil origin	0.572***	0.591***	0.575***	0.596***	0.592***	0.596***	0.582***	0.579***	0.584***	0.584***
	(0.216)	(0.216)	(0.221)	(0.218)	(0.220)	(0.212)	(0.217)	(0.216)	(0.212)	(0.212)
German civil origin	0.540***	0.550***	0.538***	0.556***	0.551***	0.552***	0.549***	0.542***	0.549***	0.549***
	(0.165)	(0.169)	(0.169)	(0.165)	(0.171)	(0.168)	(0.170)	(0.171)	(0.170)	(0.170)
Scandinavian civil origin	0.811***	0.802***	0.792***	0.826***	0.804***	0.804***	0.800***	0.800***	0.799***	0.798***
	(0.169)	(0.175)	(0.180)	(0.170)	(0.179)	(0.177)	(0.180)	(0.176)	(0.178)	(0.178)
Government held shares %	0.0296	0.0301								
	(0.263)	(0.244)								
Corporation held shares %	0.0451		0.104							
	(0.133)		(0.0973)							
Pension fund held shares %	-1.205*			-1.321*						
	(0.687)			(0.777)						
Investment companies held shares %	-0.0227				0.00840					
	(0.138)				(0.143)					
Employees held shares %	-0.146					-0.181				
	(0.389)					(0.379)				
Other holdings %	0.207						0.269			
	(0.210)						(0.264)			
Foreign held shares %	0.227							0.262		
	(0.219)							(0.216)		
Total strategic holdings %									0.0420	
									(0.111)	
Total free-float shares %										-0.0435
										(0.114)
Observations	196,232	196,232	196,232	196,232	196,232	196,232	196,232	196,232	196,232	196,232
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 5 (Continued). Robustness Tests: Alternative Theories

Panel B. Cultures

DV = IVA rating	(1) GLS	(2) GLS	(3) GLS	(4) GLS	(5) GLS	(6) GLS	(7) GLS
French civil origin	0.774***	0.667***	0.633***	0.667***	0.465*	0.507**	0.579***
	(0.282)	(0.226)	(0.243)	(0.229)	(0.268)	(0.213)	(0.201)
German civil origin	0.873***	0.600***	0.635***	0.445**	0.421*	0.101	0.471**
	(0.185)	(0.179)	(0.233)	(0.179)	(0.241)	(0.428)	(0.202)
Scandinavian civil origin	0.660***	0.749***	0.822***	1.116***	0.796***	0.762***	0.803***
	(0.179)	(0.175)	(0.206)	(0.236)	(0.183)	(0.173)	(0.175)
Protestant	0.201						
	(0.155)						
Hofstede power distance		-0.00498					
		(0.00767)					
Hofstede individualism			0.00178				
			(0.00497)				
Hofstede masculinity				0.00739*			
				(0.00407)			
Hofstede uncertainty avoidance					0.00405		
					(0.00626)		
Hofstede long-term orientation						0.00926	
						(0.00670)	
Hofstede indulgence							-0.00679
							(0.00522)
Observations	185,705	199,938	199,938	199,938	199,938	197,295	196,628
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 6. Robustness Tests: Alternative Dependent Variables

This table shows twenty different models estimated by means of the same methodology and using the same control variables as Model (2) of Table 4, but with different CSR indices from the MSCI IVA ratings as dependent variables. The definitions of the dependent variables are given in Panel A and Panel B of Table 1. All regressions control for time and industry fixed effects. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dependent variable =	*IVA score (2011-2014)*	*Environm. score (2011-2014)*	*Social score (2011-2014)*	*IVA rating (1999-2011)*	*EcoValue rating (1999-2011)*	*Social rating (1999-2011)*	*Product development*	*Opportunity in cleantech*	*Labor relations*	*Product safety*
French civil origin	0.699***	1.108***	0.566***	0.514*	1.087**	0.566***	0.611**	0.709*	0.592**	0.597***
	(0.219)	(0.244)	(0.198)	(0.311)	(0.442)	(0.198)	(0.306)	(0.379)	(0.279)	(0.225)
German civil origin	0.490***	0.743***	0.445*	0.536**	0.780***	0.445*	0.648***	0.743**	0.305	0.607**
	(0.189)	(0.213)	(0.261)	(0.232)	(0.301)	(0.261)	(0.163)	(0.305)	(0.250)	(0.283)
Scandinavian civil origin	0.748***	0.591*	0.931***	0.727***	1.117***	0.931***	0.815***	1.260***	0.374*	0.929***
	(0.275)	(0.315)	(0.258)	(0.273)	(0.349)	(0.258)	(0.173)	(0.194)	(0.201)	(0.143)
Observations	167,076	156,621	167,075	39,769	75,303	51,193	51,224	75,047	51,462	50,521
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Dependent variable =	*Environm. opportunity factors*	*Leading sustainability risk indicator*	*Industry specific (carbon) risk*	*Environm. strategy*	*Environm. management systems*	*Environm. accounting reporting*	*Environm. training development*	*Products materials*	*Environm. Strategic competence*	*Environm. performance*
French civil origin	0.695*	0.389	0.0975	0.621	0.720	1.042*	0.822*	0.942**	0.661	0.542
	(0.382)	(0.332)	(0.241)	(0.490)	(0.518)	(0.611)	(0.433)	(0.453)	(0.490)	(0.355)
German civil origin	0.774***	0.678**	0.451*	0.975***	1.266***	1.385***	0.908***	1.048***	1.179***	0.789***
	(0.295)	(0.273)	(0.273)	(0.330)	(0.417)	(0.416)	(0.351)	(0.312)	(0.385)	(0.286)
Scandinavian civil origin	1.258***	0.854**	0.634*	1.292***	1.691***	1.745***	1.300***	1.788***	1.380***	1.247***
	(0.192)	(0.332)	(0.370)	(0.407)	(0.513)	(0.475)	(0.340)	(0.417)	(0.305)	(0.206)
Observations	75,632	75,054	64,862	75,638	75,689	75,436	75,252	75,373	75,518	75,236
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 7. Robustness Tests: Alternative CSR Samples

This table repeats the GLS estimations of Model (2) of Table 4 but uses alternative samples (Vigeo Corporate ESG sample, and ASSET4 ESG sample) with different ESG sub-indices as dependent variables (Human resources, environment, customer and supplier, community involvement, human rights, corporate governance, and the environment and social scores from ASSET4 ESG) that are defined in Appendix 1. All regressions control for time and industry fixed effects. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

	Vigeo Corporate ESG Sample						ASSET4 ESG Sample	
Dependent variable =	(1) *Human resources*	(2) *Environment*	(3) *Customer & supplier*	(4) *Community involvement*	(5) *Human rights*	(6) *Corporate governance*	(7) *Environment score*	(8) *Social score*
French civil origin	16.74***	18.58***	7.663***	3.205**	6.516***	-16.12***	8.330*	12.83***
	(5.056)	(6.882)	(2.614)	(1.379)	(2.163)	(3.750)	(4.646)	(4.815)
German civil origin	12.69***	9.227**	5.787***	1.374	3.410**	-17.86***	12.80***	3.598
	(4.680)	(4.027)	(1.937)	(0.889)	(1.326)	(3.454)	(3.414)	(3.170)
Scandinavian civil origin	18.90***	12.92**	7.379***	3.191**	10.37***	-2.223	16.34***	14.27***
	(3.507)	(6.202)	(2.544)	(1.308)	(1.520)	(4.218)	(3.975)	(5.244)
Observations	7,765	8,341	4,163	5,786	7,707	8,341	20,692	20,692
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 8. Evidence from Scandals and Disasters: Direct Effects on CSR

The dependent variables are the product responsibility (from ASSET4) and product safety (from MSCI IVA) ratings in Panel A, the amount of corporate donations (from Datastream) in Panel B, and the spill and pollution control index, the environmental R&D investment score, and the clean energy product score (from ASSET4) in Panel C. The differences-indifferences (DiD) estimator is the coefficient on "Civil law × Post 2009" in Panel A, the coefficient on "Civil law × Year 2005" in Panel B, and the coefficients on "Civil law × Year 2010" and "Civil law × Post 2010" in Panel C. The control variables are the same as in Table 7. All regressions control for country, year, and industry fixed effects. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

	Panel A. *Chinese milk scandal*		*Panel B.* *Indian Ocean tsunami*	*Panel C.* *Deepwater Horizon oil spill*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent variable =	*Product responsibility (ASSET4)*	*Product safety (IVA)*	*Cash donation/ cash*	*Spill and pollution control*	*Environm. R&D*	*Clean energy products*	*Spill and pollution control*	*Environm. R&D*	*Clean energy products*
Civil law × Post-2009	5.344**	0.667***							
	(2.693)	(0.196)							
Civil law × Year-2005			16.87*						
			(9.563)						
Civil law × Year-2010				6.393**	7.578**	6.587**			
				(2.801)	(2.944)	(2.691)			
Civil law × Post-2010							7.679***	7.393*	6.208*
							(2.533)	(4.081)	(3.387)
Observations	1,212	2,380	10,353	1,522	1,509	1,522	1,522	1,509	1,522
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 9. Evidence from Scandals and Disasters: Placebo Tests

This table reports placebo tests related to the results of Table 8. In Panel A, the dependent variable is the product responsibility score (from ASSET4) for which a differences-indifferences (DiD) estimation is made for industries expected not to be affected by the Chinese milk scandal. In Panel B, a DiD estimation is performed for the spill and pollution control index, the environmental R&D investment score, and the clean energy product score (from ASSET4) on industries expected not to be affected by the oil spill disaster. In Panel C, a DiD estimation is performed for cash donations on years expected not to be affected by the tsunami disaster. The control variables are the same as in Table 8. All regressions control for country, year, and industry fixed effects. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

Panel A. Chinese Milk Scandal: Alternative Industries

Industry:	Oil & Gas	Software & IT Services	Professional & Commercial Services	Financials
DV = product responsibility	(1)	(2)	(3)	(4)
Civil law × Post-2009	4.159	0.291	-4.583	15.87
	(3.846)	(4.723)	(4.669)	(13.53)
Observations	1,517	665	780	1,754
Control variables	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes

Panel B. Deepwater Horizon Oil Spill: Alternative Industries

Industry:	Consumer Goods			Software & IT Services			Professional & Commercial Services			Financials		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dependent variable =	*Spill and pollution control*	*Environ. R&D*	*Clean energy products*	*Spill and pollution control*	*Environ. R&D*	*Clean energy products*	*Spill and pollution control*	*Environ. R&D*	*Clean energy products*	*Spill and pollution control*	*Environ. R&D*	*Clean energy products*
Civil law × Post-2010	0.746	4.667	2.508	1.114	4.001	5.968	2.535	9.553	-5.261	0.812	-2.383	-8.779***
	(0.950)	(3.747)	(1.981)	(0.807)	(4.970)	(4.140)	(1.580)	(9.962)	(4.543)	(0.942)	(6.074)	(2.367)
Observations	2,381	1,296	2,382	663	652	667	773	264	780	216	101	1,759
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 9 (Continued). Evidence from Scandals and Disasters: Placebo Tests

Panel C. Indian Ocean Tsunami: Alternative Years

DV = Cash donation/cash	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Civil law × Year-2004	11.82									
	(18.03)									
Civil law × Year-2005		16.87*								
		(9.563)								
Civil law × Year-2006			-15.90							
			(9.813)							
Civil law × Year-2007				2.971						
				(6.119)						
Civil law × Year-2008					10.79					
					(9.493)					
Civil law × Year-2009						5.840				
						(7.049)				
Civil law × Year-2010							-24.80			
							(19.77)			
Civil law × Year-2011								-0.233		
								(6.389)		
Civil law × Year-2012									4.664	
									(11.88)	
Civil law × Year-2013										-0.888
										(7.778)
Observations	10,353	10,353	10,353	10,353	10,353	10,353	10,353	10,353	10,353	10,353
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 10. Evidence from Scandals and Disasters: The Role of Consumer Demand

This table shows the results of the changes in market shares in the food industry and the oil and gas industry following the Chinese milk scandal (Panel A) and the oil spill disaster (Panel B), respectively. Each panel also shows the results of the relation between changes in firm CSR indices such as product responsibility and spill and pollution control scores and changes in consumer demand (proxied by changes in market share) across different legal regimes following these two shocks. In each models, country, industry, and year fixed effects are included. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

Panel A. Chinese Milk Scandal and Domestic Market Shares

	DV = domestic market shares				*DV = product responsibility (ASSET4)*	
					Civil law countries	Common law countries
	(1)	(2)	(3)	(4)	(5)	(6)
Post-2009	-20.18***					
	(2.318)					
Post-2009 × Civil law		-6.387***				
		(2.379)				
Year-2009			-1.433			
			(1.022)			
Year-2009 × Civil law				1.265		
				(1.194)		
Market shares					0.127	-0.0350
					(0.236)	(0.0304)
Post-2009 × Market shares					-0.139	-0.0282
					(0.126)	(0.0224)
Observations	3,216	3,216	3,216	3,216	1,184	1,193
Year FE	No	Yes	No	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes

Table 10 (Continued). Evidence from Scandals and Disasters: The Roles of Consumer Demands

Panel B. Deepwater Horizon Oil Spill Scandal and International Market Shares						
	DV = international market shares				*DV = spill and pollution control*	
					Civil law	Common law
	(1)	(2)	(3)	(4)	(5)	(6)
Post-2010	-0.0012***					
	(0.0004)					
Post-2010 × Civil law		-0.0028				
		(0.0019)				
Year-2010			-0.0017***			
			(0.0004)			
Year-2010 × Civil law				-0.003		
				(0.002)		
Market shares					28.10	-5.790
					(23.01)	(32.82)
Post-2010 × Market shares					-20.99	23.09
					(14.42)	(25.81)
Observations	2,186	2,186	2186	2,186	359	1,154
Year FE	No	Yes	No	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes

Table 11. Economic Mechanisms

This table shows the results of testing potential mechanisms ("channels") that may explain the link between legal origin and CSR. The channel variables include the shareholder litigation index, supermajority rule, the employment laws index, the collective relations laws index, and state involvement in the economy. Detailed definitions of these variables Each set of tests contains two stages of regression (but not an IV regression), In the first stage, a channel variable is regressed on the civil law origin dummy, and in the second stage, the overall IVA rating is regressed on the channel variable "predicted" from the first stage regression. The same control variables as in Model (2) of Table 4 are included in both stages. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	DV= Shareholder litigation	*DV= IVA rating*	*DV= Super-majority*	*DV= IVA rating*	*DV= Employment laws*	*DV= IVA rating*	*DV= Collective relations laws*	*DV= IVA rating*	*DV= State involvement*	*DV= IVA rating*
Civil law origin	-0.490***		0.2895***		0.2405***		0.2745***		0.0336***	
	(0.0013)		(0.0068)		(0.0006)		(0.0004)		(0.0003)	
Shareholder litigation		-1.174***								
		(0.059)								
Supermajority				1.702***						
				(0.0983)						
Employment laws						2.362***				
						(0.119)				
Collective relations laws								2.069***		
								(0.104)		
State involvement										15.55***
										(1.353)
Observations	199,769	199,769	69,799	69,799	200,492	200,492	200,492	200,492	134,424	134,424
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Appendix 1. Definitions of Independent Variables	
Variable	Definition
	I. Laws and Regulation
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 (former or current) law. In alternative specifications, Socialist law is relabeled to either French civil law (e.g. Russian Federation) or German civil law (e.g. China). Source: LLSV (1998), Djankov et al. (2008), La Porta et al. (2008), Spamann (2010).
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 et al. (2008) and Spamann (2010). All the three ADRIs 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. Source: LLSV (1998); La Porta et al. (2008); Spamann (2010).
Shareholder litigation	The shareholder litigation index is from the "judicial remedies" component of the anti-director rights index and measures whether shareholders can challenge resolutions of the board and/or management if they are "unfair, prejudicial, oppressive, or abusive." It equals one if the company law or commercial code grants shareholders either a judicial venue to challenge the decisions of management or of the assembly or the right to step out of the company by requiring the company to purchase their shares when they object to certain fundamental changes, such as mergers, asset dispositions, and changes in the articles of incorporation, and zero otherwise. Minority shareholders are defined as those shareholders who own 10% of share capital or less. Source: LLSV (1998); La Porta et al. (2008); Spamann (2010).
Employment laws index	This index measures the protection of labor and employment laws, calculated as the average of (a) alternative employment contracts; (b) cost of increasing hours worked; (c) cost of firing workers; and (d) dismissal procedures. Source: Botero et al. (2004).
Collective actions laws index	This index measures the protection of collective relations laws as the average of: (a) Labor union power and (b) Collective disputes. Source: Botero et al. (2004).
	II. Political Institutions
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 is 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. Source: Polity IV.
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. Source: World Governance Indicator – World Bank.
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 to better governance outcomes. Higher value of the index implies a higher level of regulatory quality. Source: World Governance Indicator – World Bank.

Economic freedom index	The Heritage Index of Economic Freedom focuses on four key aspects of the economic environment over which governments typically exercise policy control: Rule of law (including property rights and freedom from corruption), Government size (including fiscal freedom and government spending), Regulatory efficiency (including business freedom – the efficiency of government regulation of business, labor freedom, and monetary freedom), and Market openness (including trade freedom, investment freedom, and financial freedom). The index ranges from 0 to 100, with higher score indicating the country has higher degree of freedom (e.g. 0 indicating "repressive" and 100 indicating "negligible government interference"). More detailed definition of each individual category of freedom can be found at: www.heritage.org. Source: Heritage Index of Economic Freedom.
	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. Source: 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. Source: Swiss Federal Institute of Technology Zurich (ETH).
State involvement	Fraction of non-agricultural GDP due to state-owned enterprises (SOEs). Source: World Bank
	IV. Cultures
Power distance	"Power distance" deals with the fact that all individuals are not equal and is defined as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally. 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. Source: Hofstede and Hofstede (2005).
Individualism	"Individualism" is the degree of interdependence a society maintains among its members 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. Source: Ibid.
Masculinity versus 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." 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. Source: Ibid.
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? 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 is reflected in the UAI score. A higher score implies a higher level of uncertainty avoidance. Source: Ibid.
Pragmatism	"Pragmatism" describes how every society has to maintain some links with its own past while dealing with the challenges of the present and future. Normative societies who score low prefer to maintain time-honored traditions and norms while viewing societal change with suspicion. Those with a culture which scores high take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future. Source: Ibid.

Indulgence versus Restraint	"Indulgence" stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. "Restraint" stands for a society that suppresses gratification of needs and regulates it by means of strict social norms. This dimension is the extent to which people try to control their desires and impulses, based on the way they were raised. Relatively weak control is called "Indulgence" and relatively strong control is called "Restraint". Cultures can, therefore, be described as Indulgent or Restrained. Source: Ibid.
Protestant	A binary variable that measures if the country has a protestant majority or not. Source: Chen (2012)
	V. Ownership and Board Structure
Government held shares %	The percentage of total shares in issue of holdings of 5% or more held by a government or government institution. Source: Datastream.
Corporation held shares %	The percentage of total shares in issue of holdings of 5% or more held by one company in another. Source: Datastream.
Pension fund held shares %	The percentage of total shares in issue of holdings of 5% or more held by pension funds or endowment funds. Source: Datastream.
Investment company held shares %	The percentage of total shares in issue of holdings of 5% or more held as long term strategic holdings by investment banks or institutions seeking a long-term return. Holdings by Hedge Funds are not included. Source: Datastream.
Employees held shares %	The percentage of total shares in issue of 5% or more held by employees, or by those with a substantial position in a company that provides significant voting power at an annual general meeting (typically family members). Source: Datastream.
Other holdings%	The percentage of total shares in issue of 5% or more held strategically, and outside one of the above categories (government, corporations, pension funds, investment companies, employees). Source: Datastream.
Foreign held shares%	The percentage of total shares in issue of holdings of 5% or more held by a shareholder domiciled in a country other than that of the issuer. Source: Datastream.
Total strategic holdings%	The percentage of total shares in issue of 5% or more held strategically and not available to ordinary investors. Holdings of 5% or more held by the Hedge Fund owner type or the Investment Advisor/Hedge Fund owner type are regarded as active, and not counted as strategic. Total strategic holdings represent the sum of all the above categories (government, corporations, pension fund, investment company, employees, other holdings, foreign held, etc.). Source: Datastream.
Total free floats%	The percentage of total shares in issue available to ordinary investors or the total number of shares less the strategic holdings as defined above. Source: Datastream.
Supermajority rule	Dummy variable which equals one if the company has a supermajority vote requirement (75%) or qualified majority for amendments of charters and bylaws or lock-in provisions. Source: Source: ASSET4 (Thomson Reuters), BoardEx, and Orbis.
	VI. Financial Variables
ROA	Return on assets: net income divided by total assets. Sources: Compustat Global and Compustat North America, cross-validated and supplemented by means of Datastream.
Tobin's Q	The sum of the market value of equity and the book value of debt, divided by the sum of the book value of equity and the book value of debt (MTB assets). Source: Datastream.
Firm size	The logarithm of total assets. Total assets reported in local currencies are converted to US dollars using the corresponding year-end exchange rates. Sources: Compustat Global and Compustat North America, cross-validated and supplemented by means of Datastream.
Market shares	The market share is calculated as the company's sales revenue as a proportion of the total sales revenues of its industry.

Appendix 2a. MSCI IVA Sample Country (Region) Distribution

country	IVA	Legal origin	obs.	country	IVA	Legal origin	obs.
United Arab Emirates	2.390	English	372	Korea, Republic of	2.652	German	6,948
Netherlands Antilles	2.437	French	135	Kuwait	3.056	French	18
Argentina	3.606	French	648	Cayman Islands	2.689	English	4,668
Austria	3.231	German	1,431	Kazakhstan	0.870	French	92
Australia	3.117	English	18,237	Lebanon	5.000	French	27
Aruba	2.407	French	108	Sri Lanka	3.362	English	94
Azerbaijan	2.000	French	4	Lithuania	4.577	French	26
Barbados	1.691	English	81	Luxembourg	3.031	French	2,657
Bangladesh	3.380	English	50	Latvia	3.941	German	17
Belgium	3.159	French	1,720	Morocco	3.272	French	305
Burkina Faso	3.111	French	27	Monaco	4.000	French	11
Bulgaria	3.000	Socialist	44	Macao	1.543	French	140
Bermuda	2.102	English	1,866	Malta	2.494	French	87
Brazil	2.757	French	5,233	Mauritius	2.400	French	35
Bahamas	2.088	English	147	Malawi	5.815	English	27
Botswana	4.467	English	107	Mexico	2.376	French	2,644
Belarus	2.000	French	24	Malaysia	2.039	English	3,615
Canada	2.906	English	17,851	Namibia	5.173	English	81
Switzerland	3.396	German	6,326	Nigeria	4.809	English	89
Côte d'Ivoire	3.115	French	139	Netherlands	3.520	French	6,758
Chile	2.769	French	1,317	Norway	3.685	Scandinavian	1,736
China	1.126	Socialist	5,165	New Zealand	3.669	English	1,515
Colombia	2.848	French	961	Oman	2.089	French	45
Costa Rica	3.861	French	101	Panama	3.225	French	111
Curaçao	1.971	French	314	Peru	3.285	French	855
Cyprus	2.205	English	44	Papua New Guinea	2.588	English	80
Czech Republic	3.142	Socialist	607	Philippines	2.001	French	867
Germany	3.559	German	7,557	Pakistan	3.311	English	209
Denmark	3.689	Scandinavian	2,013	Poland	2.752	Socialist	1,168
Dominican Republic	2.000	French	17	Puerto Rico	2.339	French	401
Egypt	2.433	French	356	Palestine, State of	3.056	English	18
Spain	3.673	French	4,528	Portugal	3.339	French	1,077
Finland	3.817	Scandinavian	2,166	Paraguay	4.519	French	54
Faroe Islands	2.000	French	5	Qatar	2.794	French	136
France	3.882	French	9,954	Romania	3.236	Socialist	187
Gabon	3.000	French	27	Serbia	0.000	Socialist	24
United Kingdom	3.450	English	35,437	Russian Federation	1.908	Socialist	2,296
Georgia	5.000	German	8	Saudi Arabia	3.690	English	29
Guernsey	2.209	English	521	Sweden	3.969	Scandinavian	4,500
Ghana	4.278	English	54	Singapore	2.894	English	3,665
Gibraltar	4.105	English	76	Slovakia	3.411	Socialist	248
Greece	2.438	French	995	El Salvador	3.118	French	17
Hong Kong	1.786	English	7,304	Togo	5.000	French	1
Croatia	2.974	German	78	Thailand	2.647	English	1,302
Hungary	3.130	Socialist	442	Tunisia	4.000	French	9
Indonesia	2.607	French	2,104	Turkey	2.205	French	1,473
Ireland	2.748	English	2,897	Trinidad and Tobago	4.368	English	19
Israel	2.459	English	1,008	Taiwan	1.792	German	4,233
Isle of Man	1.057	English	106	Ukraine	2.822	French	309
India	1.990	English	5,475	Uganda	5.725	English	51
Iceland	1.600	Scandinavian	40	U.S.A.	2.460	English	157,085
Italy	3.142	French	5,992	Uruguay	6.000	French	10
Jersey	2.264	English	1,452	Venezuela	3.119	French	84
Jamaica	3.982	English	56	Virgin Islands, British	1.534	English	1,831
Jordan	4.000	French	26	Virgin Islands, US	1.364	English	22
Japan	3.040	German	30,779	South Africa	3.131	English	4,776
Kenya	4.642	English	159	Zambia	4.380	English	158

Appendix 2b. Vigeo Corporate ESG Sample Country (Region) Distribution

Country	Human resources	Environmt.	Customer & supplier	Corporate governance	Community involve.	Human rights	Legal origin	Obs.
United Arab Emirates	9.00	0.00	27.00	27.25	31.50	24.75	English	4
Austria	39.85	22.11	40.04	40.87	38.81	33.63	German	103
Australia	18.48	27.81	36.18	68.10	38.30	29.54	English	259
Belgium	42.54	50.55	42.77	40.29	40.33	39.28	French	179
Bermuda	14.00		22.50	24.00	35.00	35.50	English	4
Brazil	39.64	46.00	28.25	37.25	40.76	31.53	French	72
Canada	19.66	41.05	34.15	60.17	42.38	29.83	English	272
Switzerland	28.78	47.41	39.09	53.38	35.47	36.02	German	427
Chile	9.33	49.83	23.11	26.86	30.16	27.64	French	22
China	20.87	15.59	25.81	37.39	35.08	25.94	Socialist	54
Colombia		19.33	49.40	35.15	37.92	34.92	French	13
Czech Republic	50.67	51.33		49.67	19.00	22.00	Socialist	3
Germany	50.99	47.24	43.79	34.70	41.89	43.13	German	898
Denmark	30.25	39.14	42.35	48.01	39.07	38.09	Scandinavian	119
Egypt				28.00	28.50	24.00	French	2
Spain	41.61	43.10	40.32	33.49	40.81	41.77	French	427
Finland	40.44	55.93	43.64	66.37	39.68	39.69	Scandinavian	168
France	52.58	62.27	50.95	40.25	46.65	46.75	French	1,423
United Kingdom	25.06	47.51	41.37	69.33	37.19	34.97	English	1,482
Greece	27.66	27.00	34.33	30.33	41.25	34.38	French	47
Hong Kong	10.12	12.29	30.97	37.75	35.99	25.45	English	208
Hungary	44.50	42.00		27.14	27.33	56.43	Socialist	7
Indonesia	18.00	15.00	33.33	33.96	41.24	28.76	French	25
Ireland	15.55	8.15	27.50	42.14	36.18	24.31	English	90
India	30.22	23.56	32.23	35.94	36.31	29.81	English	52
Iceland	7.50			47.50		25.00	Scandinavian	4
Italy	44.32	49.80	39.99	41.87	41.97	40.45	French	395
Japan	18.59	33.41	41.19	21.47	35.60	29.50	German	1,114
Korea, Republic of	20.41	38.79	29.84	26.46	36.62	26.44	German	96
Cayman Islands	4.00	30.00	44.50	19.00		26.00	English	3
Luxembourg	28.83	14.00	36.33	32.57	30.95	25.46	French	32
Morocco	25.14	24.47	38.67	6.56	46.00	31.72	French	98
Mexico	34.42	14.56	34.45	28.49	40.45	30.86	French	35
Malaysia	7.00	33.44	26.00	48.29	37.23	25.69	English	35
Namibia	25.42	27.16	41.06	48.40	42.20	30.87	English	262
Netherlands	38.70	40.87	46.74	61.98	40.75	40.26	French	403
Norway	39.93	43.33	35.19	61.38	47.77	44.52	Scandinavian	94
New Zealand	7.42		36.11	71.54	29.56	25.00	English	13
Peru	50.00	30.00		32.00	39.00	28.00	French	1
Philippines		38.67	28.00	32.67	39.27	23.92	French	12
Poland	23.00	33.00	27.75	39.08	32.67	24.67	Socialist	12
Portugal	39.08	45.80	48.20	36.83	42.91	39.88	French	84
Russian Federation	27.83	42.00	27.33	39.55	28.88	28.78	Socialist	20
Sweden	42.63	45.39	48.58	58.88	41.79	45.20	Scandinavian	237
Singapore	11.71	18.75	33.00	49.84	39.14	27.24	English	92
Thailand	18.00	19.50	32.57	36.64	31.37	25.50	English	22
Turkey			27.50	25.19	34.50	24.81	French	16
Taiwan	14.25	15.47	26.08	19.99	34.79	25.46	German	74
U.S.A.	12.40	26.49	32.22	48.85	37.78	27.91	English	2,201
South Africa	32.79	14.67	27.79	54.63	41.37	31.67	English	48

Appendix 2c. ASSET4 ESG Country (Region) Coverage

Country	Overall CSR rating	Environmental rating	Social rating	Legal origin	Firm-year obs.	Country	Overall CSR rating	Environmental rating	Social rating	Legal origin	Firm-year obs.
Abu Dhabi (UAE)	19.65	38.32	25.68	French	12	Kuwait	18.92	24.30	36.60	French	48
Austria	43.29	38.13	38.77	German	4,020	Luxembourg	55.00	58.48	52.83	French	60
Australia	44.46	51.84	50.40	English	252	Malaysia	42.32	41.12	50.21	English	540
Belgium	53.16	54.88	49.63	French	336	Mexico	38.96	46.03	49.47	French	324
Brazil	55.02	55.19	67.72	French	1,008	Morocco	21.57	20.13	53.42	French	36
Canada	47.59	37.64	38.65	English	3,864	Netherlands	75.30	68.86	75.36	French	540
Channel Islands	52.05	49,82	53.02	French	24	New Zealand	49.47	45.42	42.40	English	144
Chile	33.41	43.66	45.61	French	252	Nigeria	7.18	10.89	19.71	English	12
China	25.59	33.38	32.78	Socialist	984	Norway	56.90	55.26	58.87	Scandinavia	300
Colombia	34.40	34.52	40.94	French	108	Oman	27.00	27.42	33.00	French	12
Cyprus	39.18	30.20	36.71	English	12	Peru	41.33	31.05	34.41	French	12
Czech Republic	48.56	48.72	60.01	Socialist	48	Philippines	39.59	36.07	40.79	French	252
Denmark	48.45	56.43	52.69	Scandinavian	324	Poland	33.22	33.62	42.06	Socialist	312
Dubai (UAE)	37.39	44.24	33.76	French	12	Portugal	67.52	66.20	73.95	French	144
Egypt	14.55	19.29	27.22	French	132	Qatar	10.77	12.87	24.64	French	24
Finland	72.26	73.25	66.86	Scandinavian	324	Russian Federation	37.52	39.92	50.64	Socialist	408
France	71.45	75.70	76.36	French	1,212	Saudi Arabia	19.22	32.12	25.65	English	72
Germany	58.25	67.07	67.16	German	1,068	Singapore	34.66	33.58	35.60	English	648
Greece	35.42	47.10	49.62	French	300	South Africa	66.17	56.74	73.06	English	1,092
Hong Kong	30.27	33.72	35.51	English	1,800	South Korea	47.12	62.00	56.77	German	1,212
Hungary	73.29	76.18	80.80	Socialist	48	Spain	66.26	68.54	73.82	French	696
Iceland	29.02	20.45	36.06	Scandinavian	36	Sri Lanka	51.25	51.09	66.59	English	12
India	47.16	51.60	57.93	English	960	Sweden	62.79	66.58	63.91	Scandinavian	660
Indonesia	45.46	41.95	60.83	French	300	Switzerland	57.88	58.71	56.98	German	852
Ireland	43.04	42.65	39.33	English	216	Taiwan	29.02	44.74	36.30	German	1,536
Israel	38.44	42.65	39.33	English	168	Thailand	55.76	47.93	56.73	English	264
Italy	52.92	53.05	62.93	French	708	Turkey	44.33	48.36	52.90	French	288
Japan	38.18	61.62	45.47	German	5,196	United Kingdom	64.32	59.63	63.16	English	4,776
Jordan	52.16	60.71	62.99	French	12	United States	51.91	40.22	44.17	English	14,436
Kazakhstan	34.92	15.74	27.17	French	12	Zimbabwe	11.75	38.42	35.57	English	12

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