# The Implications of Social Trust on Corporate Social Responsibility: International Evidence

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## Abstract

This study examines how social trust influences corporate social responsibility (CSR) around the world. Finance theory predicts that an important determinant of firm performance stems from corporate culture or social trust originating from shared norms and beliefs within the organization. Within this line of research, we expect that a higher level of social trust will lessen the likelihood of harmful misunderstandings while facilitating a reduction in the agency problem, thereby increasing the probability of cooperation and meaningful CSR activities. Using a sample of firms from 26 countries over the period of 2002-2018, we find a positive relationship between a firm's CSR engagement and societal trust. This finding is robust to accounting for various CSR measures, cross-sectional analyses, and difference-in-difference tests. We also demonstrate economic mechanisms that can explain how trust affects CSR activities. Our findings imply that trust enables greater stakeholder cooperation therefore enhancing CSR performance.

*JEL Classification*: G18; G31; G32

*Keywords*: Corporate social responsibility; trust; agency problems; stakeholder cooperation view

*"Social trust, the faith that strangers will abide by established norms, is one of society's most fundamental building blocks. It underlies economic growth, political consensus and effective law enforcement."*

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## 1. Introduction

Over the past few decades, the literature on corporate social responsibility (CSR) has been greatly expanded. This line of research finds that stakeholder cooperation and CSR engagement can help to build intangible assets which can create a competitive advantage through a variety of channels. As pointed out by The Economist, "The Nordics dominate indices of competitiveness as well as of well-being"[1]. Prior studies imply that CSR performance is also driven by country characteristics, like political institutions, legal origin, or cultural value, which have been shown to be strongly related to economic outcomes (Liang and Renneboog, 2017; Griffin et al., 2021). An important country characteristic that has often been overlooked in prior research is the level of societal trust in a country, which can help to foster cooperation within corporations. Trust and CSR should also be theoretically closely connected, since they are both strongly related to economic outcomes.

In this study, we take a closer look into the relationship between trust and CSR in an international context. As little is known how trust in a region affects managerial decisions, we specifically link trust to an important area of strategic investment decisions, namely the decisions to invest into CSR activities. Finance theory predicts that an important determinant of firm performance stems from corporate culture or social trust originating from shared norms and beliefs within the organization. Prior work (e.g., Chami and Fullenkamp, 2008; Hilary and Huang, 2015)

[1] Economist, 31 January 2013.

documents that trust mitigates agency problems within organizations, resulting in increasing a firm's value and ultimately country's welfare.

Using various measures of CSR performance, we find that firms domiciled in countries with a higher degree of trust tends to exhibit greater CSR performance. Not only is this result statistically significant, but it is also economically meaningful. A one standard deviation change in trust is associated with an increase in CSR scores of 1.91. These results are robust after controlling for firm-specific variables and country-related characteristics. These findings imply that higher levels of trust can reduce agency problems between managers and stakeholders while also allowing the firm to more effectively implement important long-term strategic decisions, namely decisions related to CSR activities. This is consistent with the notion that a higher level of social trust can lessen the likelihood of harmful misunderstandings while facilitating a reduction of the agency problems between managers and stakeholders, thereby increasing the probability of cooperation and enhancing CSR performance.

We also provide evidence on the channels through which trust affects CSR engagements. First, social trust is associated with a higher share of institutional ownership. In line with the literature, we argue that trust increases investors' willingness to invest in companies due to lower information asymmetries and lower agency problems. Institutional investors in turn enhance firms' CSR outcomes for several financial and non-financial reasons (Dyck et al. 2019; Nofsinger et al., 2019; Chen et al., 2020). Our study confirms that institutional shareholders are a driving force behind firms' CSR performance around the world (Dyck et al., 2019). Second, we investigate the extent to which trust affects another important informal institution, corruption perception, and whether the latter is related to firms' CSR commitment. We thus show that trust is strongly associated with ethical behavior and social responsibility via the corruption perception channel.

Third, we examine the innovation channel through which trust affects CSR performance. Trust should be correlated with a country's capacity for innovation, as higher levels of social trust should generally reduce transaction and monitoring costs, making it easier for actors in a society to cooperate with each other, and share resources such as information, skills, and knowledge, which is central to innovation (Doh and Acs, 2010). Furthermore, trust can act as an informal contracting mechanism and play an important role in mitigating the incomplete contracting problem (Xie et al, 2021). A significant part of product innovation and production process relates to CSR practices, for example by using environmentally friendly technologies or by engaging in research and development (R&D) that enhances product safety and responsibility (Dai et al., 2021). Our results suggest that an impact mechanism of trust runs through innovativeness, which in turn shapes firms' CSR profiles.

To further check the robustness of the main findings, we test the relationship between social trust and CSR performance by investigating various measures of CSR performance and individual subsamples. The nature of CSR scores allows us to further test the relationship between trust and the two subcomponents of CSR: (i) the environmental subcomponent (including resource, emission, and environment) and (ii) the social subcomponent (workforce, human rights, community, and products). Aside from these subcomponents, Refinitiv also provides an alternative measure of the CSR index such as ESG scores which is a reflection of the company´s ESG performance, commitment and effectiveness across each theme (Refinitiv, 2021). The results of these robustness tests remain quantitatively consistent with our main findings, suggesting that a firm domiciled in a country with higher trust level tends to exhibit better CSR performance.

Our sample includes firms with and without CSR scores. To eliminate the concerns that our main findings could be driven by firms without CSR scores, we also examine the trust-CSR

relation for the subsample of firms with CSR scores only. The results remain quantitatively consistent with our main findings. Furthermore, firms domiciled in the U.S. account for approximately 48% of our sample. To alleviate the concern that our main results are driven by one specific country, we also examine the trust-CSR relation for the subsample of firms who are not domiciled in the U.S. The results still remain quantitatively consistent with our main findings. In addition, our sample is mixed by firm-specific variables and country-level characteristics. To alleviate potential endogeneity concern arising from an omitted variable bias, we conduct country-level regressions. The results remain quantitatively consistent with our main findings. Together, these robustness checks suggest that a firm domiciled in a country with higher trust level tends to experience greater CSR performance.

In addition, we exploit several cross-sectional settings that reveal variation of stakeholder cooperation in the trust-CSR relation. If firms assure their ongoing commitment to stakeholder cooperation during the crisis, then the positive trust-CSR relation should be more pronounced for firms located in high-trust countries. Our sample spans from 2002 to 2018 and includes the 2008 financial market crisis. Starks et al. (2019), Renneboog et al. (2011), and Benson and Humphrey (2008) show that socially responsible investing (SRI) investors tend to be more loyal and focused on the long-term investing, meaning that they tend to be more patient with short-term CSR performance. For instance, investors are more likely to help firms in high trust countries when there is a negative shock, given that such firms displayed greater attention to and cooperation with stakeholders in the past (Lins et al., 2017). To verify the robustness of our results to economic downturns, we split the sample between crisis period versus non-crisis period and retest our model specifications with both firm- and country-specific controls excluding 2008 and 2009 versus only including the years of 2008 and 2009. The results show that trust pays off in times of crisis and

that countries with higher levels of trust maintain a higher level of CSR engagement in times of crisis.

We also show that the trust-CSR relation varies by the country's legal origin and political institutions on the basis of stakeholder cooperation view (Liang and Renneboog, 2017; Lins et al. 2017). Motivated by the key finding from Liang and Renneboog (2017) that legal tradition is one of the strongest predictors of firm-level CSR, we examine how the trust-CSR relation plays out in common versus civil law countries. Our analysis shows that in countries with a common law legal tradition, trust could drive more CSR engagement than in civil law countries. Furthermore, Nielsen and Frederiksen (2015) suggest that firms engaging in social and environmental perspectives of CSR activities could be in accordance with the demands of the state and the law, rather than socially responsible reasons. Thus, we test how the trust-CSR relation changes depending on the quality of a country's political institutions. Our results imply that trust motivates companies to increase CSR investments under strong political institutions, which is consistent with firm's ongoing commitment to stakeholder cooperation.

Finally, we employ a difference in difference approach to examine how firms from different cultural backgrounds react to major environmental disasters or other exogenous shocks. We use the 2011 Tōhoku earthquake and tsunami as an exogenous shock to investigate how social trust affects the environmental perspective of firms' CSR performance in the years following the shock and how it affects Asia-Pacific (APAC) countries. Our results suggest that the entire environmental improvement is more profound for firms in APAC countries after the 2011 Japan earthquake and tsunami, and firms in APAC countries with higher level trust exhibit better environment performance than those firms in non-APAC countries after the 2011 Japan earthquake and tsunami. We also use the 2015 European Refugee crisis as another exogenous

shock to exploit how social trust influences the social perspective of firms' CSR performance in the years following the refugee crisis and how it affects countries in European Union (EU). Our results imply that firms in EU countries with higher level trust are more responsible to social issues than those firms in non-EU countries after the 2015 Europe refugee crisis. Taken together, these difference in difference analyses show that firms undertaking environmental and social responsibility are profound in high trust countries following the exogenous shocks.

We make several contributions to the literature. First, our paper, contributes to improving our understanding of what drives CSR internationally and introduces trust as a new potential explanation for cross-country differences in CSR engagements. Second, our work contributes to the growing literature on the interaction between culture and economic outcomes (see Guiso et al., 2006), and suggests that trust helps to explain the well-being, economic success and competitiveness of certain countries. Third, our study also extends the literature that examines firm- and country-level determinants of CSR by proposing key channels through which trust affects CSR performance. While prior work documents that trust promotes investment propensity (e.g., Guiso et al., 2008; Ang et al., 2015; Bottazzi et al., 2016) and trust is linked to economic growth and prosperity (La Porta et al., 1996; Knack and Keefer, 1997), our findings show that social trust fosters CSR activities through the monitoring mechanism like institutional ownership and the cooperation mechanism such as a country's capacity for innovation or corruption perception. Taken together, these results suggest the stakeholder cooperation view that a higher level of social trust will lessen the likelihood of harmful misunderstandings while facilitating a reduction in the agency problems between managers and stakeholders, thereby increasing the probability of cooperation and CSR investments.

The remainder of this paper proceeds as follows. In Section 2, we lay out the theoretical foundations on the relation between trust and CSR. In Section 3, we describe the data and empirical strategies. We present empirical results from our baseline models and evidence on the economic mechanisms behind our main results in Section 4. In Section 5, we discuss additional evidence from robustness tests. In Section 6, we address the results of cross-sectional tests and difference in difference analyses. The conclusion is given in Section 7.

## 2. Literature and Hypothesis Development

### 2.1 Corporate Social Responsibility

CSR has increased in importance over the last years among corporations and their stakeholders and has to an extent become standard practice. Based on the European Commission's (2001) definition, CSR is "a concept whereby companies integrate social and environmental concerns in their firm operations and in their interaction with their stakeholders on a voluntary basis." The range of CSR engagements is broad: Examples include activities that are directed toward employee safety, social security, community or regional charitable activities, supplier ethics, environmental protection, and consumer protection (European Commission, 2001).

Over the past few decades, a substantial theoretical and empirical literature on CSR has emerged. A significant strand of research provides evidence for various benefits of CSR engagement at the firm level, in particular, a positive link with financial performance and shareholder value (Margolis et al., 2009; Jiao, 2010; Deng et al., 2013; Ferrell et al., 2016). Research has explored several channels through which CSR and stakeholder orientation can have a positive impact on shareholder value, such as employee satisfaction (Edmans, 2011), customer loyalty (Luo und Bhattacharya, 2006; Albuquerque, Koskinen und Zhang, 2019), eco efficiency (Konar and Cohen, 2001; Guenster et al., 2011), and innovation (Mishra, 2017). Furthermore, CSR

is a mechanism to reduce firm risk and the cost of capital (El Ghoul et al., 2011; Goss and Roberts, 2011). CSR has shown to build reputational capital with stakeholders, protect firms during crisis periods and works like an insurance mechanism against event risk (Lins et al., 2017). While the vast majority of the studies find that CSR is value enhancing (see Margolis et al., 2009), some authors show evidence suggesting that CSR investments might be a manifestation of agency problems, and thus, not in the interest of shareholders, but a waste of scarce resources (Masulis and Reza, 2014; Di Giuli and Kostovetsky, 2014).

The majority of the existing literature focuses on analyzing CSR outcomes on the firm level, as opposed to cross country differences and the specific determinants of CSR. This line of research has identified that CSR is driven by political institutions, legal determinants, regulations or ownership concentration (e.g., Campbell, 2007; Matten and Moon, 2008; Ferrell et al., 2016; Dyck et al., 2019). For instance, Dyck et al. (2019) finds that institutional investors are a driving force behind CSR engagement worldwide. Liang and Renneboog (2017) show that a firm's CSR engagement and the country's legal origin are strongly correlated, where firms from common law countries have lower CSR scores than those from civil law countries, with Scandinavian civil law firms having the highest CSR performance. The authors hypothesize legal origin could also act as a proxy for national culture and values concluding that "CSR at the country level […] has received little attention to date." Informal institutions, on the other hand, particularly cultural beliefs and norms, can affect both the form (explicit or implicit) and the extent of CSR practices (Matten and Moon, 2008; Jain and Jamali, 2016). An important country level characteristic that has been overlooked in prior research is the level of societal trust in a country (Pevzner et al, 2015).

## 2.2 Social Trust

There are several definitions of trust in the literature. “Virtually every commercial transaction has within itself an element of trust” (Arrow, 1972). Following the social capital literature, trust is “a subjective belief about the likelihood that a potential trading partner will act honestly” (Bottazzi et al., 2016). Economists define social trust as “a propensity of people in a society to cooperate to produce socially efficient outcomes and to avoid inefficient non-cooperative traps” (La Porta et al., 1996, p. 3).

The literature shows that trust affects economic outcomes and growth in advantageous several ways. Trust encourages people to invest into stock markets and is positively linked with stock market participation (Guiso et al., 2008), as well as plays a role in venture capital (Bottazzi, et al., 2016), M&A transactions (Ahern et al., 2015), and foreign investment decisions (Ang et al., 2015). Trust seems to pay off when the overall level of trust in corporations and markets suffers a negative shock (Lins, et al., 2017) and is associated with smaller stock price crash risks (Li, et al., 2017). Trust also enhances economic performance across countries (La Porta et al., 1996). While there is a large number of macro evidence indicating that trust underlies economic growth and prosperity, only a small number of studies has analyzed the role of trust in economic decisions on the firm-level.

Most of research deals – directly or indirectly – with agency problems and how trust can mitigate those problems. Trust plays a role “[…] when that action must be chosen before one can monitor the actions of those others” (Dasgupta, 2000, 2). This line of research implies that trust is an efficient way to minimize agency problems. For instance, Chami and Fullenkamp (2002) show in their model that trust between coworkers is an efficient alternative strategy to address agency problems and is associated with higher job satisfaction and better firm performance. Hilary and Huang (2015) find that trust is an effective mechanism to mitigate different forms of moral hazard

within firms. According to their findings, trust lessens the need for strong direct monitoring in firms and is associated with lower overinvestment. As a results, the financial reporting is more trustworthy.

The results of several studies indicate that trust is associated with less opportunistic (managerial) behavior (e.g., Li et al., 2017*)*. Firms from regions with a higher level of social trust show less corporate misconduct (Dong et al., 2018), less tax avoidance (Xia et al., 2017), and are less likely to manipulate financial results (Pevzner et al., 2015). Therefore, corporate earnings announcements are perceived as more credible by investors in more trusting societies (Pevzner et al., 2015). Dong et al. (2018) link trust to corporate misconduct and find that trust is negatively associated with corporate misconduct behavior. The authors highlight that high social trust fosters a dense social network, which can facilitate information sharing and make corporate monitoring more effective. In the same vein, Huang and Shang (2019) propose that in high-trust areas managers are less likely to misbehave or take actions that may harm investors. This can be due to their society reflecting who they are, shaping who they become, or forcing them to be more concerned about reputation losses before taking value destroying actions. In turn, the managers in high-trust environments are more likely to be perceived by investors as trustworthy. In their paper, Huang and Shang (2019) provide evidence that social trust lowers agency problems in the context of leverage decisions.

Trust can be seen as an indicator of the subjective probability that individuals will be cheated (Guiso et al., 2008), therefore trust also reflects borrowers' tendency to engage in opportunistic behaviors and moral hazard actions that may increase the risk for bondholders. Chen, Liu and Wang (2016) investigate social trust and bank loan financing in China and find evidence for better access to bank loans in high trust regions. According to their findings, companies in high trust

regions are less likely to misstate earnings. There is also some evidence for trust as an important variable in strategic alliances (Das and Teng, 1998), where a high vulnerability of exchange parties acting opportunistically exists and therefore confidence in partner cooperation plays a vital role. Das and Teng (1998) argue that this confidence comes from trust and control, and furthermore, that trust and control are parallel concepts. In summary, there is extensive literature showing that trust can resolve agency problems (Dasgupta, 2000; Chami and Fullenkamp, 2002) and increases the propensity of individuals and managers to invest and collaborate (Guiso et al., 2008; Xie et al., 2021, which should play an important role in CSR investment decisions.

### 2.3 CSR and Trust

Economists stress that trust is a key element for cooperation and in cooperative relationships (e.g., La Porta et al., 1996; Das and Teng, 2001; Lins et al., 2017; Xie et al., 2021). Cooperation lies also in the center of CSR where effective company-stakeholder cooperation should be implemented (Freeman, 1984; Barnett, 2007). Trust is seen as enabler of collective action and cooperation (Lins et al., 2017). CSR generally involves aspects of civic engagement, shared beliefs, and disposition towards cooperation between the firm and its stakeholders (Lins et al., 2017). Trust as an external institutional source affects corporations (through managerial decisions) and enables CSR activities and stakeholder cooperation (see also Hoi et al., 2018). This is in line with Jha and Cox (2015) who hypothesize that nonfinancial factors such as historic traditions and norms of the firm's location might influence CSR. They emphasize that corporations do not make decisions, managers do, and managers are likely to be influenced by the norms – and as we argue by trust – in the region where they live.

Trust is especially important to managers as they tackle various coordination problems with key stakeholders. As the firm is embedded into the institutional and trust environment, this

environment should shape strategic firm behavior and policies, like stakeholder cooperation and CSR activities. More precisely, trust in a country may affect managerial approaches to firm-stakeholder relationships (Wicks and Berman, 2004) and therefore the level of CSR engagement. Wicks and Berman (2004) expect that firms in low trust areas seek to remain largely independent of core stakeholders and rely on markets to economize on costs. On the contrary, the authors hypothesize that firms in high trust regions rely heavily on a close and tight knit network of stakeholders to create competitive advantage. To make these highly interdependent relationships work, firms require substantial levels of trust to enable complex coordination. High levels of trust reduce agency and transaction costs and allow firms to achieve core strategic goals associated with high interdependence (Wicks et al., 1999). Jones (1995) highlights that companies can gain a competitive advantage if they are able to develop relationships with its stakeholders based on mutual trust and cooperation. A number of studies show that stakeholder cooperation can increase corporate value by building better relations with primary stakeholders like employees, customers, and suppliers (e.g., Hillman and Keim, 2001; Jiao, 2010; Edmans, 2011) or with other stakeholder groups and the society as shown by King (2007) for environmental stakeholder groups or by Henisz et al. (2014) for stakeholder cooperation in the gold mining industry. Kanagaretnam et al. (2019) show that bank managers in high-trust countries are more likely to exhibit higher pro-social behavior and are less likely to take excessive risk for personal benefit. Chen and Wan (2020) provide empirical evidence for China that social trust is positively associated with an aggregated measure of CSR.

Taken together, firms seek to maximize their shareholder wealth through competitive advantages, resulting from CSR engagement and stakeholder cooperation (Hillman and Keim, 2001). Prior work documents that trust mitigates agency problems within organizations, resulting

in increasing firm's value (Chami and Fullenkamp, 2008) and ultimately country's welfare (Hilary and Huang, 2015). To the extent that higher trust between people in a country is associated with greater cooperation (La Porta et al., 1996) and enhanced stakeholder orientation (Wicks and Berman, 2004; Lins et al., 2017), we expect that a higher level of social trust will lessen the likelihood of harmful misunderstandings and facilitate reducing the agency problems between managers and stakeholders, thereby increasing the probability of cooperation and CSR investments. We label this view the *stakeholder cooperation* view. We hypothesize that managers in trusting societies have a higher propensity to cooperate with stakeholders in general, leading to higher CSR levels in various dimensions. For example, we expect that firms from high-trust countries show a higher engagement in R&D investments in environmentally friendly projects (the "E" dimension) or employee training programs designed to increase employee welfare or productivity (the "S" dimension) (Liang and Renneboog, 2017). Consequently, we postulate the following hypothesis:

Hypothesis 1: Firms in high trust countries exhibit a higher degree of corporate social responsibility.

## 3. Data and Variables

### 3.1 Sample Selection

We retrieve Refinitiv's ESG scores and detailed firms' financial information such as size, tangibility, profitability, cash holding, R&D expenses, and country of domicile from DataStream for the periods of 2002-2018. We merge these firms with their corresponding trust value retrieved from World Value Survey (WVS). We combine waves 4 (2000-2004), 5 (2005-2008), 6 (2010-

2014), and 7 (2017-2020) from WVS survey data[2]. Our final sample has 5,045 firms domiciled in 26 countries.

3.1.a. Measures of CSR

We use Refinitiv's ESG scores to measure environmental and social engagement. Several previous studies have used Refinitiv (previously Thomson Reuters, Eikon) as their source for the ESG scores. Thomson Reuters ASSET4 ratings (now Refinitiv's ESG scores) have a reputation as one of the most diligent and trustworthy sources for ESG data covering more than 9,000 companies. Over 150 content research analysts collect ESG data. Refinitiv now offers one of the most comprehensive ESG databases in the industry, covering over 70% of global market cap across more than 450 different ESG metrics with history going back to 2002 (see Refinitiv, 2021). Refinitiv's ESG scores are among the most popular and well established in capturing corporate social responsibility (Chatterji et al., 2016) and are used frequently in research (Cheng et al., 2014; Ferrell et al., 2016; Liang and Renneboog, 2017).

ESG data are the combination of three pillars of companies' performance in environmental, social, and governance. The environmental pillar includes three categories: resource use, emissions, and innovation. The social pillar covers workforce, human rights, community, and product responsibility. The governance pillar contains management, shareholders, and CSR strategy. By definition, each individual category ranges from 1 to 100. The previous studies (e.g., Liang and Renneboog, 2017; Dyck et al., 2019) document that the government pillar including management,

[2] Inglehart, R., Haerpfer, C., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano J., M. Lagos, P. Norris, E. Ponarin & B. Puranen et al. (eds.). 2020. World Values Survey: All Rounds – Country-Pooled Datafile. Madrid, Spain & Vienna, Austria: JD Systems Institute & WVSA Secretariat [Version:http://www.worldvaluessurvey.org/WVSDocumentationWVL.jsp]. WVS survey data contains seven surveys in waves 1 (1981-1983), 2 (1990-1992), 3 (1995-1998), 4 (2000-2004), 5 (2005-2008), 6 (2010-2014), and 7 (2017-2020).

shareholders, and CRS strategy is primarily related to shareholders. Our main interest is the nonfinancial stakeholders. Hence, in this study we mainly focus on environmental and social pillars.

We choose two measures as a proxy for CSR performance. First, to be consistent with the literature (e.g., Dyck et al., 2019), we employ the weighted average of each category of two pillars of environment and social to obtain the first CSR measure (*ESWA*). Second, we create principal component index based on each category of two pillars of environment and social as our second CSR measure (*EnvSoc*). Employing the principal component analysis, we also calculate two additional indices to capture each pillar of environmental and social. That is, the environmental variable (*ENV*) is a principal component index of the three categories (resource use (*CSR1*), emissions (*CSR2*), and innovation (*CSR3*)) whereas the variable *SOCIAL* is a principal component index of the four categories (workforce (*CSR4*), human rights (*CSR5*), community (*CSR6*), and product responsibility (*CSR7*)).

3.1.b. Measures of social trust

We calculate trust value on the basis of one of questionnaires: "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" and its corresponding answers with one representing "Most people can be trusted" or with zero denoting "Need to be very careful". A high trust value suggests a higher trust within the society.[3] It is also noteworthy that the trust index obtained from WVS datasets demonstrates how the value of the given country has been changing over time.

3.1.c. Firm- and country-specific characteristics

[3] WVS survey data are based on seven waves with certain years unavailable. To keep the consistency, we use linear interpolation technique to fill the trust value when it is not available.

To better understand the impact of trust on CSR performance, it is important to control for other relevant firm-specific and country-level variables. Studies (e.g., Liang and Renneboog, 2017; Dyck et al., 2019) suggest that whether a firm performs well in its CSR activities can be determined by firm-specific variables, thus we include variables that are commonly used in the literature. *SIZE* denotes the natural logarithm of a firm's value of total assets. *MB* is the market-to-book ratio defined as closing price at the fiscal year end times the common shares of outstanding divided by the book value of equity. *TANG* is a firm's property, plant, and equipment expenses scaled by total assets. *LEV* measures a firm's leverage ratio, defined as the total debt scaled by total assets. *PROFIT* is defined as a firm's return on assets scaled by total assets. *CASH* denotes a firm's cash holding scaled by total assets. *R&D* is a firm's research and development expenses scaled by total assets. In addition, we include number of analysts following the firm (*ANALYST*) as measure for information asymmetry (Kanagaretnam et al., 2018) and board size (*BOARD*) as proxy for board efficiency (El Ghoul et al., 2016). El Ghoul et al. (2016) suggest that the optimal board size is between 8 and 10 members. By definition, a higher value of *BOARD* indicates optimal board members and more board efficiency.

We also control for the quality of a country's legal system and investor protection. Specifically, we include country-level market and governance quality control variables, as well as cultural zones. *LNGDP* is the natural logarithm of a country's GDP. *NANT_DIR* is the revised anti-director right index (Djankov et al., 2008), measured as an aggregate index of shareholder rights. *PTY_RIGHTS* is the international patent protection index measuring a country's adoption of national patent laws and composition of patent rights. The protection scores range from 0 to 5 with higher value indicating the adoption of strong patent laws. Prior studies (e.g., Liang and Renneboog, 2017) find that a country's legal origin and national culture influences the CSR performance. To eliminate

the concerns that a country's legal origin and national culture might be a driving factor of the CSR performance, furthermore, we control for a country's cultural zones (Ronen and Shenkar, 2013; Beugelsdijk et al., 2017; Boubakri et al., 2021) and a country's legal origin (La Porta et al., 1998). *FAREAST* is an indicator variable equals to 1 if a country is in the Far East cultural zone and 0 otherwise. *GERMANIC* is an indicator variable equals to 1 if a country is in the Germanic cultural zone and 0 otherwise. *LATINAMERICA* is an indicator variable equals to 1 if a country is in the Latin America cultural zone and 0 otherwise. *LATINEUROPE* is an indicator variable equals to 1 if a country is in the Latin Europe cultural zone and 0 otherwise. *FRENCHORG* is an indicator variable equals to 1 if a country's legal origin is French civil law and 0 otherwise. *GERMANORG* is an indicator variable equals to 1 if a country's legal origin is German civil law and 0 otherwise. *SCANORG* is an indicator variable equals to 1 if a country's legal origin is Scandinavian civil law and 0 otherwise. Table A1 in the Appendix provides detailed definitions and the data sources for all of the variables used in our empirical analyses.

### 3.2 Descriptive Statistics

Table 1 reports the sample distribution by year for subsample of firms with CSR scores. Within 37,440 firm-year observations, the weighted average of environmental and social pillars is 50.64, indicating that on average there exists relatively stable CSR performance over time. The largest number of firms with CSR scores occurred in 2017 (4,266) whereas the smallest number of firms with CSR scores occurred in 2003 (589). People were the most trustworthy in 2018 (0.393) and the least trustworthy in 2005, 2008, and 2011 (0.372), respectively. Figure 1 plots CSR variation by year for the full sample. It shows that CSR performance gradually increases over time for the periods of 2002-2018, approaching to the peak in 2017.

[Insert Table 1 and Figure 1 about here]

Table 2 reports the sample distribution by country. For the full sample, the highest value of the *ESWA* value occurs in Spain (55), followed by Switzerland (45) and France/Norway (42). Norway has the highest trust value (0.74), followed by Sweden (0.67) and Finland (0.57), which is consistent with the notion that the Nordics dominate indices of competitiveness as well as of well-being (The Economist, 31 January 2013). Figure 2 also depicts CSR variation by country and shows that a country with higher trust value is associated with higher of the weighted average of environmental and social index and the corresponding individual category.

For the CSR only sample, the largest numbers of CSR observations occur in United States (14,951), Japan (5,549), and Australia (2,980), respectively. These three countries account for 63% of the sample. Norway has the highest trust value (0.74) whereas Philippine has the lowest trust value (0.04). For instance, in our sample, on average, the Heineken company (H:HB) headquartered in Netherland with an average of social trust level of 0.56 has CSR scores (*ESWA*) of 61 whereas Molson Coors Beverage Company (U:TAP) headquartered in United States with an average of social trust level of 0.39 has CSR scores (*ESWA*) of 56. For example, two steel corporations in our sample have significantly different ESG scores in 2018: Brazilian corporation COMPANHIA SIDERURGICA NACIONAL has an ESG score of 40.56, while Swedish steel corporation SAAB has a score of 71.15. At the time, the social trust levels of Brazil and Sweden are 0.07 and 0.65, respectively. It is obvious that certain countries, such as the Scandinavian countries, are in the lead in trust values and simultaneously in CSR performance. The latter is in line with the findings in Liang and Renneboog (2017) that Continental European and Scandinavian firms have the highest CSR ratings. While the authors argue that legal origins account for differences in CSR internationally, we add trust as another explanation, i.e., why firms in some countries engage in CSR to a greater extent than firms in other countries.

[Insert Table 2 and Figure 2 about here]

Table 3 presents the summary statistics of our key variables. Panel A reports the descriptive statistics of CSR scores and its corresponding subcomponents and trust variables. In our sample, on average, the weighted averages of CSR scores including both environmental and social pillars are 27.10 for the full sample and 50.29 for the CSR-only sample, respectively.[4] The average social trust is 0.38 for both the full sample and the CSR-only sample.

Panels B and C of Table 3 report the descriptive statistics of the firm- and country-specific variables. The average firm size is about $2.13B, the average total debt to asset ratio is 0.27, and the average market-to-book ratio is 0.33. The average profitability, R&D expenses, and cash are 1.69%, 0.03%, and 0.09%, respectively. Each firm on average has about 10 analyst followers whereas 21% of our sample reaches the optimal board size of 8 to 10 board members.[5] On average, a country's GDP is about $4.52 Trillion. The index of anti-director and property rights are 4.32 and 4.55, respectively. In our sample, 6%, 4%, and 3%, and 4% of firms are in Far East, Germanic, Latin America, and Latin Europe cultural zones, respectively. Civil law takes account 25% of a country's legal origin, where French civil law, German civil law, and Scandinavian civil law are 10%, 14%, and 1%, respectively.

[Insert Table 3 about here]

## 4. Empirical Results

### 4.1 Impact of Trust on CSR Performance

[4] About 32,850 observations in our sample do not have CSR value, which significantly dilute the measures of CSR. Hence, we also use the CSR-only sample as a robustness test.
[5] For the optimal board size, see e.g. Coles et al., 2008 or El Ghoul et al., 2016.

We begin our analysis by examine whether social trust affects CSR performance in an international context. Table 4 reports the regression results of the impact of social trust on CSR performance after controlling for a country's cultural zones (Ronen and Shenkar, 2013; Beugelsdijk et al., 2017; Boubakri et al., 2021) and legal origin (La Porta et al., 1998). In all the models, we control for industry and time fixed effects. The t-statistics are based on robust standard errors. In columns (1) and (2) of Table 4, the coefficient estimates on *TRUST* are positively significant at the 1% level with a magnitude of 19.092 and 1.558, respectively. Economically, a one standard deviation increase in trust (0.10) would imply 1.91 (0.10 × 19.092) increases in the level of the combined environmental and social scores. As alternative measures, we also decompose the combined environment and social index. In column (3), we test the impact of trust on the environment index. The coefficient estimate on *TRUST* is positive and statistically significant at the 1% level with a magnitude of 0.823. In column (4), we test the impact of trust on the social index. The coefficient estimate on *TRUST* is positive and statistically significant at the 1% level with a magnitude of 1.359. It is noteworthy that the absolute value of the coefficients in columns (3) and (4) are smaller than that in column (2). Together, the findings suggest that firms domiciled in a country with higher trust level tend to exhibit better CSR performance, which is consistent with our hypothesis.

[Insert Table 4 about here]

In all models of Table 4, the resulting signs of other key control variables are consistent with the literature. For example, the coefficient estimates of *SIZE*, *CASH*, and *R&D* are economically and statistically significant, suggesting that a firm with larger size, more cash, or R&D expenses exhibits better CSR performance (McWilliams and Siegel, 2000; Margolis et al., 2009; Borghesi et al., 2014). A negative relationship between tangibility and CSR scores provides evidence that higher tangibility facilitates reducing CSR performance. The coefficient estimates on optimal

board size are positive and statistically significant, suggesting that optimal board size facilitates increasing CSR scores. This confirms the notion that optimal board size is an important channel that can explain the adoption of CSR policies (Iliev and Roth, 2021). Consistent with previous studies (Yu, 2008; Jo and Harjoto, 2014) that analyst coverage plays a crucial role in corporate monitoring and is positively linked to shareholder value, we also find that CSR performance is positively related to analyst coverage. These findings imply that optimal board size and analyst coverage promote both shareholders' and other stakeholders' interests (Jizi et al., 2014). A firm domiciled in a country with higher GDP tends to have lower CSR scores whereas a firm domiciled in a country with higher property rights index tends to have higher CSR scores. Overall, our findings are consistent with the stakeholder cooperation view, suggesting that firms in trusting societies have a higher propensity to cooperate with stakeholders in general, leading to higher CSR levels environmentally and socially.

### 4.2 Channels through Which Social Trust Affects CSR Performance

Prior studies (e.g., Jo and Harjoto, 2011) document that the monitoring mechanism influences CSR activities. To the extent that CSR investments are beneficial to shareholders if monitoring helps to eliminate agency problems, thus is a driving force behind firms' CSR decisions, we expect that firms with strong monitoring mechanism should ensure that CSR engagements are only made when it is in the best interest of shareholders (Dyck et al., 2019). Additionally, societal trust originated from shared cooperative norms facilitates reducing monitoring costs and perceiving opportunistic behavior, which is a key for capacity for innovation and perception of corruption. As a result, we expect that the cooperation mechanism, such as a country's capacity for innovation or corruption perception, should also be a driving force behind firms' CSR investments. To provide further evidence on whether monitoring and cooperation mechanisms are a driving force behind

firms' CSR decisions, we next examine three channels: i) one firm-level channel (institutional ownership) and ii) two country-level channels (a country's R&D expenses percentage of total GDP and a country's corruption perception index), through which societal trust promote CSR performance.

4.2.a. Firm-level channel: Institutional ownership

A stream of literature relates CSR performance to agency problems and examines firm governance characteristics (like ownership and CEO characteristics) and CSR investments (e.g., Barnea and Rubin, 2010; Jo and Harjoto, 2011; Di Giuli and Kostovetsky, 2014; Masulis and Reza, 2014; Dyck et al., 2019). The findings implicate that ownership and CEO characteristics shape CSR activities. A central internal governance mechanism is the ownership structure, whereby institutional investors are taking on an increasingly important role. Ferreira and Matos (2008) show that institutional stock ownership accounts for 49.9% of the world stock market float. Institutional investors have the incentive and expertise to monitor the management (Shleifer and Vishny, 1986; Elyasiani and Jia, 2010), and are able to exert enough influence to change corporate policy and thus CSR.

We argue that an important dissemination channel operates through institutional investors. Investing requires an act of faith (Wei and Zang, 2019) and trust facilitates the collection and dissemination of information (Guiso et al., 2008), lowering the costs of investing and attracting investments (Wei and Zang, 2019). Guiso et al. (2008) argue, when the average level of trust is low, investors are more reluctant to invest. Consistent with this view, recent studies find that trust is an important determinant of stock market participation (Guiso et al., 2008; Giannetti and Wang, 2016; and Gurun et al., 2018) and for investment decisions (Ang et al., 2015; Bottazzi, et al., 2016). We expect the share of institutional investors to be positively associated with trust in a region.

First, social trust functions as an information-generating mechanism for institutional investors, helping to break down information barriers and improving their asset allocation in global capital markets (Jin et al, 2016). Second, institutional shareholders in more trusting countries are less concerned about expropriation by corporate insiders; they are more likely to hold the view that managers are trustworthy (Guiso et al., 2008; Pevzner et al., 2015).

Recent studies indicate that institutional investors promote CSR commitment of companies. According to the Eurosif (2018) study, institutional investors are the drivers of socially responsible investment (SRI) and account for around 70% of investors in SRI assets, which currently represent around USD 35,300 billion globally (Eurosif, 2018; GSIA, 2021). Dyck et al. (2019) show in an international study across 41 countries that institutional investors in aggregate are a driving force behind firms' CSR performance around the world. Chen et al. (2020) provide evidence for the U.S. that institutional shareholders generate improvements in social impact outcomes and influence CSR through CSR-related proposals. Their findings also indicate that the effect of institutional ownership is stronger in CSR categories that are financially material.

To examine the firm-level channel through which social trust promotes CSR engagement, we employ a two-stage approach suggested by Liang and Renneboog (2017). Specifically, we define the firm-level channel *INST_OWNER* as an indicator variable which equals 1 if a firm's institutional investors' holding is larger and equal to the threshold of 5% and 0 otherwise. In the first stage, we regress the firm-level channel variable (*INST_OWNER*) on social trust (*TRUST*). In the second stage, we regress CSR scores (*ESWA*) on the estimated firm-level channel variable obtained from the first stage. We also control for the same control variables for each stage in consistent with the main test in Table 4.

Columns (1) and (2) of Table 5 presents the result. In the first stage, we find a positive relation between social trust and institutional ownership, indicating that a firm domiciled in a country with higher social trust tend to exhibit a larger institutional investor base. In the second stage, we find that institutional ownership is positively associated with CSR scores. The findings suggest that the positive trust-CSR relation could be driven by institutional ownership, and we assert, that institutional investors enhance firms' CSR outcomes not only because of social norms, but also for financial reasons due to their monitoring capability (Dyck et al. 2019; Nofsinger et al., 2019; Chen et al., 2020).

[Insert Table 5 about here]

4.2.b. Country-level channels: Innovation and corruption perception

It is well documented in the literature that trust is linked to economic growth and prosperity (La Porta et al., 1996; Knack and Keefer, 1997). We examine innovation and corruption perception in more detail, two key country-level channels that are both strongly related to economic growth or country competitiveness, as well as the level of trust (La Porta et al, 1996; Delgado et al., 2012). First, trust should be correlated with a country's capacity for innovation, as higher levels of social trust generally reduce transaction and monitoring costs, make it easier for actors in a society to cooperate with each other, and share resources such as information, skills, and knowledge, which is central to innovation (Doh and Acs, 2010; Xie et al., 2021). In countries with low trust, innovation can be hampered because companies have to devote more time to monitoring possible opportunistic behavior of partners and thus have less time to develop innovations (Knack and Keefer, 1997). Thus, trust makes it possible for a society and for firms to promote innovation.

In fact, a number of cross-regional/cross-country studies indicate that social trust stimulates innovation and R&D activity (Doh and Acs, 2010; Meng et al., 2021; Xie et al., 2021). In addition,

a close connection between innovation at the macro level and CSR is to be expected, for example, technological innovation is believed essential for boosting resource efficiency and eco-innovation is regularly cited as a core driver for the change towards sustainability (De Jesus et al., 2018). In this context the institutional framework of a country plays a role, e.g., public agencies that provide support for R&D and enable information exchange for the actors, e.g., amongst enterprises, universities and wider society (De Jesus et al., 2018). Existing evidence suggests that innovation is correlated with CSR at the country level (Boulouta and Pitelis, 2014; Halkos and Skouloudis, 2018), and a change in government R&D support appears to affect firms' CSR profiles (Fu et al., 2020). Therefore, we hypothesize that social trust affects CSR through the innovation channel.

Another country-level channel through which trust can have its impact on CSR activities is a country's corruption perception. A strand of the literature identifies corruption as a consequence of (dis)trust (Morris et al., 2010; Graeff and Svendson, 2013). People who have faith in strangers are more likely to endorse strong moral standards (Uslaner, 2002), and societies with high levels of social trust and cooperative norms will perceive opportunistic behavior as contradictory to the prevailing social value in the society (Uslaner, 2002; Fu et al., 2021). If you trust that other people, in general, will not engage in corruption, you are less likely to act corruptly than when you perceive everyone else is engaging in corruption (You, 2018). Distrust, on the other hand, fosters a tolerant or accepting attitude toward corruption and feeds individual participation in corruption by creating the expectation of corrupt behavior among others. In fact, social trust, as a proxy for the strength of honesty norms in a society has been identified as a statistically strong and quantitatively important determinant of corruption in recent empirical studies (Uslaner 2002; Bjørnskov 2011). It is reasonable to assume that corruption is related to ethical behavior and social responsibility.

Prior work also suggests that corruption in a region affects ethical corporate behavior directly. For instance, Liu (2016) shows that firms with high corruption culture are more likely to engage in earnings management, accounting fraud, option backdating, and opportunistic insider trading. Similarly, Parsons et al. (2018) find that political corruption strongly explains the geographic cross-section of financial misconduct. Corruption should be directly related to CSR levels, as CSR is costly and cannot develop its value in a corrupt environment, as being "good among bad" carries fewer benefits (Ucar and Staer, 2020). Ucar and Staer (2020) provide evidence for the U.S. that firms located in areas with a more corrupt environment have lower levels of corporate social responsibility. Based on this literature, we expect that trust and corruption are associated with each other and that a country's corruption and the culture of corruption has a direct impact in the CSR commitment of companies.

To examine our conjectures that social trust promotes CSR performance through country-level channels (e.g., innovation and corruption perception), we also conduct a two-stage test following the recommendation suggested by Liang and Renneboog (2017). In the first stage, we regress the country-level channel variables on social trust, respectively. In the second stage, we regress CSR scores on the estimated country-level channel variables obtained from the first stage. In each stage, we also control for the same control variables in consistent with the main test in Table 4. We define a country's innovativeness (*INNOVATION*) as a country's R&D expenses percentage of its total GDP. We use corruption perception index (CPI)[6] as a proxy for the corruption measure (*CPI*). The higher value of corruption perception index (*CPI*) indicates a country's institutional system with less corruption and more transparency.

[6] https://www.transparency.org/en/cpi/2020/index/nzl

Columns (3) through (6) of Table 5 present the result. In the first stage, we find that social trust is positively correlated to a country's innovativeness and its corruption perception in columns (3) and (5), respectively. The findings indicate that a country with higher social trust tends to spend more on innovative activities (R&D expenditure) and has greater perception of corruption. In the second stage, we find that the estimated *INNOVATION* and *CPI* variables from the first stage are positively associated with CSR scores in columns (4) and (6), respectively. Together, the findings suggest that the positive trust-CSR relation could also be driven by a country's capacity for innovation and its perception of corruption, which are stimulated by trust and also result in higher levels of CSR, such as "green investments" that benefit the environment and transparent public affairs that add value to the society.

Overall, the results in Table 5 are consistent with the notion that a firm domiciled in a country with higher social trust is more likely to have a higher proportion of institutional investors, which in turn promote better CSR performance. Furthermore, countries with higher social trust tend to have a higher capacity for innovation and higher perception of corruption, which in turn facilitate improving CSR performance.

## 5. Robustness Checks

To check the robustness of the main findings, in this section, we use alternative measures of CSR, various subsamples, and country-level regressions to reexamine the relationship between social trust and CSR performance.

### 5.1 ESG Subcomponents and Alternative ESG Measures

The nature of Refinitiv's CSR scores allows us to further test the relationship between trust and each of the two subcomponents of CSR measures: (i) the environmental subcomponent (including

resource (*CSR1*), emission (*CSR2*), environment (*CSR3*)) and (ii) the social subcomponent (workforce (*CSR4*), human rights (*CSR5*), community (*CSR6*), and products (*CSR7*)). Columns (1) – (7) in Table 6 show a positive relation between trust and CSR across all seven individual measures of the subcomponents after controlling for firm- and country-specific characteristics. Specifically, the coefficient estimate on trust in column (3) is statistically significant at the 1% level with the magnitude of 16.759, which implies that a firm domiciled in a country with higher trust level tends to increase environmental related CSR scores.

[Insert Table 6 about here]

Beside seven subcomponents, Refinitiv also provides alternative measures of CSR scores such as ESG scores, which is a reflection of the company´s ESG performance, commitment and effectiveness across each theme (Refinitiv, 2021)[7]. In comparison to the findings in the literature, we use the alternative CSR measure to replace the dependent variables following the same model specifications as in Table 4. Columns (8) shows a positive relation between trust and ESG scores after controlling for firm- and country-specific characteristics. The results remain quantitatively consistent with our main findings, suggesting that a firm domiciled in a country with higher trust level tends to exhibit better CSR performance.

5.2 CSR Only Sample

Our sample includes firms with and without CSR scores. To eliminate the concerns that our main findings could be driven by firms without CSR scores, we examine the trust-CSR relation for the subsample of firms with CSR scores only. Columns (1) through (4) of Table 7 show a positive trust-CSR relation across all four main CSR measures after controlling for firm- and country-

[7] For details on the data process and how the scores are calculated see Refinitiv (2021).

specific characteristics. The results remain quantitatively consistent with our main findings that a firm domiciled in a country with higher trust level tends to experience better CSR performance, implying that our main findings are not driven by firms without CSR scores.

[Insert Table 7 about here]

5.3 Subsample Without the U.S.

Firms domiciled in the U.S. account for approximately 48% of our sample. To mitigate the concern that our main results are driven by the U.S., we examine the trust-CSR relation for the subsample of firms who are not domiciled in the U.S. Columns (5) through (8) of Table 7 show a positive trust-CSR relation across all four main CSR measures after controlling for firm- and country-specific characteristics. The results remain quantitatively consistent with our main findings that a firm domiciled in a country with higher trust level tends to experience better CSR performance, suggesting that our main findings are not driven by the United States.

5.4 Country-level Regressions

To alleviate the concern of omitted firm-specific variables, we conduct country-level regressions. We average each firm- and country-specific variable by country-year, which lead to 390 country-year observations (26 countries × 15 years). We then regress the averaged CSR score on social trust and the averaged firm- and country-specific characteristics. Table 8 reports the results. Columns (1) through (4) show a positive trust-CSR relation across all four main CSR measures after controlling for the averages firm- and country-specific characteristics. The results remain quantitatively consistent with our main findings, eliminating the concern of omitted firm-specific variables. The results further suggest that our main findings are not driven by specific countries.

[Insert Table 8 about here]

## 6. Additional Analyses

To further examine our hypothesis that firms in high trust countries exhibit a higher degree of corporate social responsibility, we conduct cross-sectional tests and difference in difference analyses. Specifically, we test whether the impact of social trust on CSR performance varies: (1) during the financial crisis period, (2) if a country's legal origin is common law vs. civil law, (3) if a country's political institutions is strong vs. weak. In addition to exploit cross-sectional settings that reveal variation in stakeholder cooperation in the trust-CSR relation, we also provide insights on the economic mechanism behind our main findings. Specifically, we employ a difference-in-difference approach and examine whether the positive trust-CSR relation varies in response to environmental disaster such as the 2011 Tōhoku earthquake and tsunami and the exogenous shock like the 2015 European Refugee crisis.

### 6.1 Cross-sectional Tests of the Trust-CSR Relation

One of the primary concerns with stakeholder cooperation is in the event that firms are dealing with the financial crisis. Prior studies document that firms' CSR performance changes during the financial crisis. Our sample covers the U.S. subprime financial crisis. To alleviate potential concerns that our main results could be driven by certain financial crises, we split our sample as crisis versus non-crisis periods, where we define years 2008 and 2009 as the crisis period. Table 9 shows the results, where column (1) shows the estimation result using the subsample for the crisis period and column (2) for the non-crisis period. Specifically, the coefficient estimate in column (1) on the trust variable is significantly larger than that in column (2). These findings imply that firms domiciled in a country with higher trust level exhibits better CSR performance in the crisis period than that in the non-crisis period. These results are consistent with firm's ongoing commitment to stakeholder cooperation during the crisis when firms are located in high-trust environments. The

findings also imply that stakeholders, e.g., investors, are more likely to help firms in high trust countries when there is a negative shock, given that such firms displayed greater attention to and cooperation with stakeholders in the past (Lins et al., 2017). The findings in Starks et al. (2019), Renneboog et al. (2011) and Benson and Humphrey (2008) point in this direction, as all three studies show that socially responsible investment (SRI) investors are more loyal, patient and long-term oriented investors.

[Insert Table 9 about here]

The variation of stakeholder cooperation could stem from different legal traditions. Liang and Renneboog (2017) show that the common law system supports CSR to a lesser extent than civil law regimes, which reconfirms the prevailing opinion in the literature that a civil law origin is associated with the "stakeholder view" (La Porta et al., 2008; Liang and Renneboog, 2017). As a results, common law countries tend to rely more on markets and contracts whereas civil law countries tend to rely more on regulation and state intervention. Beside the law tradition, CSR could also be driven by higher trust in those countries, as trust is directly associated with stakeholder-cooperation and therefore CSR-oriented behaviors (Liang and Renneboog, 2017; Lins et al. 2017). Thus, trust could have dissimilar effects in countries with different legal traditions.

To test this conjecture, we use La Porta et al. (2008)'s legal origin measure to capture civil law regimes if a country's the legal origin is French, German, or Scandinavian civil law, and to capture common law regimes if a country's legal origin is English common law. Columns (3) and (4) of Table 9 show the results using common law and civil law countries, respectively. The results imply that (all else equal) trust in countries with a common law legal tradition has a higher impact on CSR engagement than in countries where civil law prevails. We argue that in common law

countries higher levels of trust could foster CSR-practices more than in systems where stakeholder collaboration is already more embedded in the system (as in civil law countries).

Another variation of stakeholder cooperation could arise from different level of political institutions. Boubakri et al. (2013) show that sound political institutions increase corporate risk-taking behavior. CSR engagements are firms' long-term investments, some of which could be risky. Consistent with this assertion, Nielsen and Frederiksen (2015) suggest that firms engage in CSR social and environmental activities could be in accordance with the demands of the state and the law, rather than deemed to be socially responsible. Thus, the positive trust-CSR relation should be more pronounced for countries with strong political institutions.

Following Henisz' (2010), we use political constrain index to measure a country's political institution (PI), which ranges from 0 to 1 with greater value representing stronger political institutions. Consistent with our conjecture, columns (5) and (6) of Table 9 show that the positive relationship between societal trust and CSR performance is more pronounced for firms in a country with stronger political institutions.

6.2 Difference-in-difference Analyses

How firms from different cultural backgrounds react to major environmental disasters or other exogenous shocks could act as an interesting setting for a difference in difference test. For example, the 2011 Tōhoku earthquake and tsunami was one of the most destructive natural disasters in modern history[8]. This environmental catastrophe was only made worse by the ensuing Fukushima nuclear disaster which led to significant concerns of possible radiation exposure in food and water, both within Japan and across the world. Of specific interest was the findings from subsequent

[8] https://www.britannica.com/event/Japan-earthquake-and-tsunami-of-2011/Aftermath-of-the-disaster

investigations which have specifically pointed out several cultural factors such as Japan's rigid bureaucratic structure and reluctance to send bad news upwards contributed to worsening the crisis (Lovins, 2011).

We therefore use the environmental pillar of Refinitive's CSR scores to examine how the relation between trust and CSR reacts to the unexpected natural disaster shock such as that triggered by the 2011 Japan earthquake and tsunami. Employing a difference-in-difference approach, we investigate how social trust affects the environmental perspective of firms' CSR performance in the years following the shock and how it affects Asia-Pacific (APAC) countries (e.g., Australia, Hong Kong, Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, Taiwan, Thailand). Specifically, we define *POST2012* as an indicator variable which equals one if the year is larger than 2012, which represents years aftermath of the 2011 Japan earthquake and tsunami, and zero otherwise. We also measure *TSUNAMI* as an indicator variable which equals one if the country is one of APAC countries and zero otherwise. The Tsunami shock is therefore measured as an interaction term between *POST2012* and *TSUNAMI* (*POST2012* × *TSUNAMI*). The interaction term among *TRUST*, *POST2012* and *TSUNAMI* (*TRUST* × *POST2012* × *TSUNAMI*) captures the impact of the earthquake and tsunami shock across societal trust on the environmental perspective of CSR performance.

Columns (1) and (2) of Table 10 report the results. The coefficient on the tsunami shock (*POST2012* × *TSUNAMI*) is positive and statistically significant at the 1% level with the magnitude of 0.428, suggesting that the entire environmental improvement is more profound for firms in APAC countries after the 2011 Japan earthquake and tsunami. The coefficient on the interaction term (*TRUST* × *POST2012* × *TSUNAMI*) is also positive and statistically significant at the 1% level with the magnitude of 0.973. The larger magnitude of the coefficient on the interaction term

(*TRUST* × *POST2012* × *TSUNAMI*) indicates that on average firms in APAC countries with higher level trust exhibit better environment performance than those firms in non-APAC countries after the 2011 Japan earthquake and tsunami. Overall, the findings imply that firms undertaking environmental responsibility is more profound in high trust countries following the 2011 Japan earthquake and tsunami aftermath.

[Insert Table 10 about here]

Another similar exogenous test could also be conducted using the 2015 European Refugee crisis.[9] During this time, refugees and migrants mainly originating from Africa and the Middle East led to the largest influx of asylum seekers in Europe since World War 2. Such a large volume of asylum seekers and migrants raised awareness about social issues in Europe in a relation to workforce, human rights, community, and product responsibility.

We therefore use the social pillar of Refinitive's CSR scores to examine how the trust-CSR relation reacts to the unprecedented number of arrivals of refugees and migrants. Specifically, employing difference-in-difference approach, we investigate how social trust affects the social perspective of firms' CSR performance following the 2015 Europe refugee crisis and how it affects countries in the European Union (EU) (e.g., Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom). We define *POST2016* as an indicator variable which equals one if the year is larger than 2016, which represents years aftermath of the 2015 Europe refugee crisis, and zero otherwise. We define *REFUGEE* as an indicator variable which equals one if the country is one of the EU countries and zero otherwise. The migrant shock is

[9] https://www.unhcr.org/news/stories/2015/12/56ec1ebde/2015-year-europes-refugee-crisis.html

therefore measured as an interaction term between *POST2016* and *REFUGEE* (*POST2016* × *REFUGEE*). The interaction term among *TRUST*, *POST2016* and *REFUGEE* (*TRUST* × *POST2016* × *REFUGEE*) captures the impact of the migrant crisis across societal trust on the social perspective of CSR performance.

Columns (3) and (4) of Table 10 report the results. The coefficient on the migrant crisis (*POST2016* × *REFUGEE*) is positive and statistically significant at the 1% level with the magnitude of 0.315, suggesting that better social performance is more profound for firms in EU countries after the 2015 Europe refugee crisis. The coefficient on the interaction term (*TRUST* × *POST2016* × *REFUGEE*) is also positive and statistically significant at the 1% level with the magnitude of 0.672. The larger magnitude of the coefficient on the interaction term (*TRUST* × *POST2016* × *REFUGEE*) indicates that on average firms in EU countries with higher level trust are more responsible to social issues than those firms in non-EU countries after the 2015 Europe refugee crisis. Together, the findings suggest that firms undertaking social responsibility are profound in high trust countries following the 2015 Europe refugee crisis.

## 7. Conclusions

This study investigates the impact of social trust on firm-specific CSR performance around the world. Given the positive relationship between CSR and corporate value through various channels, CSR has recently attracted much interest in finance and many factors that affect CSR on the firm as well as on the country level have been explored. However, no existing studies have systematically explored the impact of social trust, which has been identified as a driver of economic growth and welfare, on CSR performance in an international context.

This paper helps fill this gap and investigates the role of social trust in firm-specific CSR activities. Specifically, we study the impact of social trust on various CSR measures including environmental and social policies during different time spans. Economists have long provided evidence that social trust is positively associated with civic cooperation, investment decisions and economic growth (Knack and Keefer, 1997; La Porta et al., 1996; Guiso et al., 2008). In fact, we argue that social trust "as a propensity of people in a society to cooperate" (La Porta et al., 1996) fosters cooperation with key stakeholders, which is a necessary condition for the firm's long term value creation and helps to mitigate agency problems between managers and stakeholders. Using a large sample of firms from 26 countries over the 2002-2018 period, we find that a positive relationship between a firm's CSR performance and societal trust. This finding is robust to accounting for alternative measures of CSR performance, subsample analyses, country-level regressions, and difference in difference tests. Our evidence shows strong support for trust as an explanation for CSR performance, much more so than for alternative explanations, such as CSR's relation with shareholders and law protection measures, economic activity proxies at the country level, as well as corporate governance and financial performance at the firm level.

Furthermore, we explore the potential economic mechanisms through which social trust can affect CSR performance. Our analyses on the channels through which social trust affects CSR suggest that firms from trust-intensive countries show a higher concentration of ownership by institutional investors. This evidence suggests that firms with better governance mechanism, as measured by monitoring by institutional investors, exhibit better CSR performance. These results complement recent studies by Jo and Harjoto (2011), Deng et al. (2013), or Ferrell et al. (2016), which find that good governance stimulates CSR and that a firm's CSR engagement is consistent with shareholder wealth maximization. In further analysis, we provide evidence on the innovation

and corruption perception channels through which trust promotes CSR performance. First, we find that the positive relation between trust and CSR is more pronounced in countries with higher innovation. These results imply that trust increases cooperation and collaboration, which is essential for innovation. As a significant part of product innovation and production process relates to CSR practices (Dai et al., 2021), our results suggest that an impact mechanism of trust runs through innovativeness, which in turn fosters firms' CSR performance.

Second and consistent with the literature (Uslaner 2002; Bjørnskov 2011), our analysis confirms that social trust is a significant determinant of corruption perception. The results of our study complement the findings of Ucar and Staer (2020) for the United States and suggest, in an international context, that companies headquartered in a more corrupt environment have lower levels of social trust.

Further subsample tests on firms with CSR scores only and firms domiciled in countries excluding the U.S. show that a firm domiciled in a country with higher trust level tends to experience better CSR performance. Country-level regressions also confirm that on average firms in high trust countries exhibit a higher degree of corporate social responsibility. We also find cross-sectional settings that exploit variation in stakeholder cooperation in the trust-CSR relation. Specifically, this paper provides evidence that CSR activities during the 2008-2009 financial crisis are higher for firms headquartered in countries where individuals are more trustworthy, implying that social trust helps to continue with long-term stakeholder engagement, and being trustworthy remains important during crisis periods. Our results also suggest that trust plays a more important role in enhancing CSR in countries with common law-regimes as well as with stronger political institutions. In these countries, social trust has a higher potential to encourage CSR investments. We also provide evidence that the positive trust-CSR relation is more profound in response to

environmental disaster such as the 2011 Tōhoku earthquake and tsunami and the exogenous shock like the 2015 European Refugee crisis.

Together, high levels of trust reduce agency problems between managers and stakeholders and fosters their cooperation and help to implement important long-term strategic decisions, namely the decisions to invest into CSR activities. This is in line with the stakeholder-cooperation view of trust. Our findings suggest that firms domiciled in a country with higher trust level tend to exhibit better CSR performance. Hence, differences in trust appear to be a new additional explanation for cross-country differences in CSR policies.

Prior studies (e.g., Guiso et al., 2008; Ang et al., 2015; Bottazzi et al., 2016) document that trust promotes investment propensity. In this paper, we show that, on average, firms from low-trust countries invest less in CSR. Although the results suggest that companies with better corporate governance, as measured by various monitoring variables, have higher levels of CSR, our analyses deliberately do not aim to determine whether these CSR investments "pay off" and are in the best interests of shareholders. Rather, depending on the formal and informal institutional circumstances of the country, companies may pursue different value-maximizing long-term CSR-strategies. However, our results show that the informal institution of trust plays an important role in determining the extent of stakeholder-orientation and therefore CSR engagement, thus broadening our understanding of CSR variation in an international context. Since trust is fundamentally linked to CSR, but varies widely across countries and is difficult to change, the research also implies that an international novelization of CSR levels is not to be expected. In terms of the specific circumstances and the trust that people in a country have in each other, strong stakeholder cooperation might also not be value-enhancing or welfare-maximizing for all companies/countries.

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## Appendix

Table A1. Variable definitions.

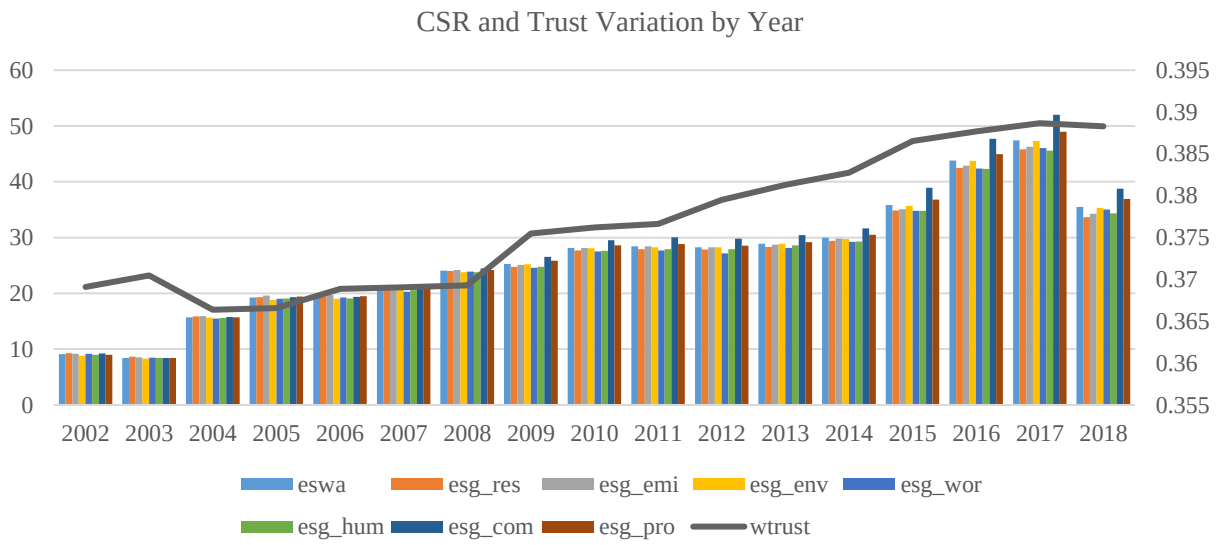
| Variables | Descriptions | Sources |
|---|---|---|
| *Panel A: Measures of CSR, trust, optimal board size, and analyst followers* | | |
| *ESWA* | Weighted average of CSR1 through CSR7 | Calculated from Thomson Reuters ESG Scores ASSET4 |
| *EnvSoc* | Principle component index of CSR1 through CSR7 | Calculated from ASSET4 |
| *ENV* | Principle component index of CSR1 through CSR3 | Calculated from ASSET4 |
| *SOCIAL* | Principle component index of CSR4 through CSR7 | Calculated from ASSET4 |
| $CSR_1$ | Resource Use Score reflects a company's performance and capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management. | ASSET4 |
| $CSR_2$ | Emissions Score measures a company's commitment to and effectiveness in reducing environmental emission in the production and operational processes. | ASSET4 |
| $CSR_3$ | Environmental Innovation Score reflects a company's capacity to reduce the environmental costs and burdens for its customers, thereby creating new market opportunities through new environmental technologies and processes or eco-designed products. | ASSET4 |
| $CSR_4$ | Workforce Score measures a company's effectiveness towards job satisfaction, healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce. | ASSET4 |
| $CSR_5$ | Human Rights Score measures a company's effectiveness in respecting the fundamental human rights conventions. | ASSET4 |
| $CSR_6$ | Community Score measures the company's commitment to being a good citizen, protecting public health and respecting business ethics. | ASSET4 |
| $CSR_7$ | Product Responsibility Score reflects a company's capacity to produce quality goods and services, incorporating the customer's health and safety, integrity and data privacy. | ASSET4 |
| *ESG_SCORES* | ESG Score is an overall company score based on the self-reported information in the environmental, social and corporate governance pillars. | ASSET4 |
| *TRUST* | Trust value is computed on the basis of one of questionnaire "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" and its corresponding answers with 1 representing "Most people can be trusted" or with 0 denoting "Need to be very careful". | Calculated from World Value Survey |
| *Panel B: Firm-level Control Variables* | | |

| | | |
|---|---|---|
| *SIZE* | Natural logarithm of a firm's value of total assets. | Calculated from DataStream |
| *MB* | Market-to-book ratio is defined as closing price at the fiscal year end times the common shares outstanding divided by the book value of equity | Calculated from DataStream |
| *TANG* | Property, plant, and equipment expenses scaled by total assets. | Calculated from DataStream |
| *LEV* | Leverage ratio, defined as the total debt scaled by total assets. | Calculated from DataStream |
| *PROFIT* | Return on assets defined as ratio of operating income before depreciation to book assets. | Calculated from DataStream |
| *CASH* | Cash holding scaled by total assets. | Calculated from DataStream |
| *R&D* | Research and development expenses scaled by total assets. | Calculated from DataStream |
| *BOARD* | Optimal board size is an indicator variable which equals one if the total number of board members between 8 and 10, and zero otherwise. | Calculated from DataStream |
| *ANALYST* | The number of analysts who follow a firm | Calculated from DataStream |
| *Panel C: Country-level Control Variables* | | |
| *LNGDP* | Natural logarithm of a country's GDP. | World Development Indicators (WDI) |
| *NANT_DIR* | Revised anti-director rights index. An aggregate index of shareholder rights and is formed by summing the following (1) votes by mail; (2) shares not deposited; (3) cumulative voting; (4) oppressed minorities; (5) pre-emptive rights; and (6) capital required to call a meeting. | Djankov et al. (2008) |
| *PTY_RIGHTS* | International patent protection index measures a country's adoption of national patent laws and composition of patent rights. The protection scores range from 0 to 5 with higher value indicating the adoption of strong patent laws. | Ginarte and Park (1997) and Park (2008) |
| *FAREAST* | An indicator variable equals to 1 if a country is in the Far East cultural zone and 0 otherwise. | Ronen and Shenkar (2013) |
| *GERMANIC* | An indicator variable equals to 1 if a country is in the Germanic cultural zone and 0 otherwise. | Ronen and Shenkar (2013) |
| *LATINAMERICA* | An indicator variable equals to 1 if a country is in the Latin America cultural zone and 0 otherwise. | Ronen and Shenkar (2013) |
| *LATINEUROPE* | An indicator variable equals to 1 if a country is in the Latin Europe cultural zone and 0 otherwise. | Ronen and Shenkar (2013) |
| *FRENCHORG* | An indicator variable equals to 1 if a country's legal origin is French civil law and 0 otherwise. | La Porta et al. (1998) |
| *GERMANORG* | An indicator variable equals to 1 if a country's legal origin is German civil law and 0 otherwise. | La Porta et al. (1998) |
| *SCANORG* | An indicator variable equals to 1 if a country's legal origin is Scandinavian civil law and 0 otherwise. | La Porta et al. (1998) |

Table A2. Fama-French 12 industry classification.

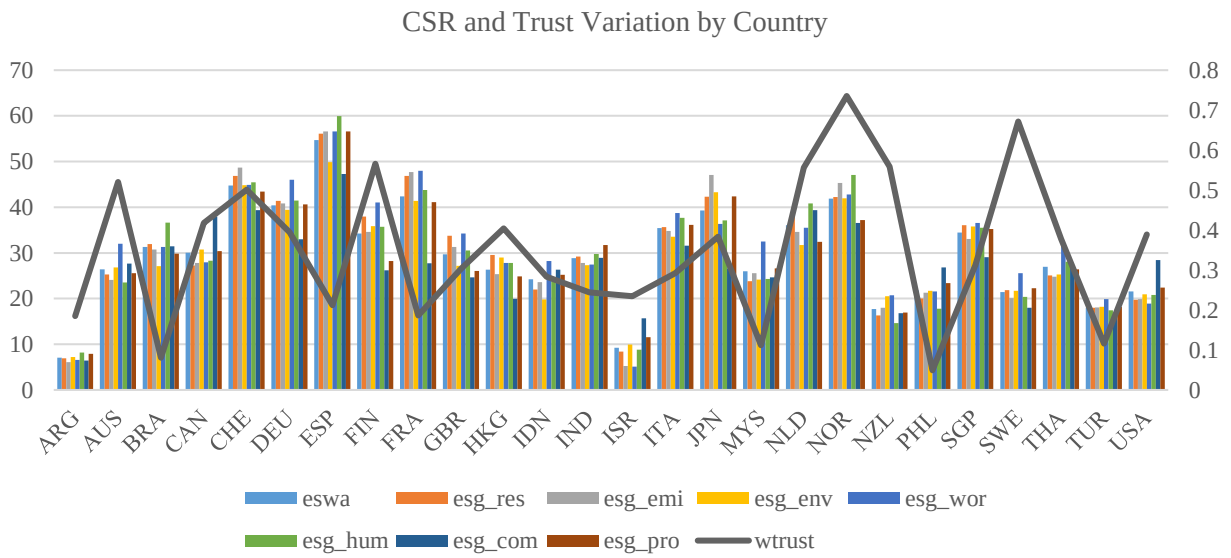
| | Industry | Industry descriptions | Industry details |
|---|---|---|---|
| 1 | NoDur | Consumer NonDurables | Food, Tobacco, Textiles, Apparel, Leather, Toys |
| 2 | Durbl | Consumer Durables | Cars, TV's, Furniture, Household Appliances |
| 3 | Manuf | Manufacturing | Machinery, Trucks, Planes, Off Furn, Paper, Com Printing |
| 4 | Enrgy | Oil, Gas, and Coal Extraction and Products | |
| 5 | Chems | Chemicals and Allied Products | |
| 6 | BusEq | Business Equipment | Computers, Software, and Electronic Equipment |
| 7 | Telcm | Telephone and Television Transmission | |
| 8 | Utils | Utilities | |
| 9 | Shops | Wholesale, Retail, and Some Services (Laundries, Repair Shops) | |
| 10 | Hlth | Healthcare, Medical Equipment, and Drugs | |
| 11 | Money | Finance | |
| 12 | Other | Other | Mines, Constr, BldMt, Trans, Hotels, Bus Serv, Entertainment |

Figure 1. CSR and trust variation by year.




Note: This figure show CSR and trsut by year. The x-axis is the year. The y-axis is the corresponding CSR scores and trust value.

Figure 2. CSR and trust variation by country.




Note: This figure show CSR and trsut by country. The x-axis is the nation with ARG being Argentina and USA being United States, where the order of national code is corresponding to column (1) in Table 2. The y-axis is the corresponding CSR scores and trust value.

Table 1. Sample statistics by year.

| Year | N | *ESWA* | *EnvSoc* | *ENV* | *SOCIAL* | *CSR1* | *CSR2* | *CSR3* | *CSR4* | *CSR5* | *CSR6* | *CSR7* | *TRUST* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2002 | 591 | 51.92 | 2.07 | 1.37 | 1.55 | 52.90 | 52.23 | 50.37 | 52.45 | 51.49 | 52.62 | 51.40 | 0.38 |
| 2003 | 589 | 51.73 | 2.05 | 1.38 | 1.52 | 52.85 | 52.23 | 50.92 | 51.83 | 51.41 | 51.43 | 51.47 | 0.38 |
| 2004 | 1,144 | 50.68 | 1.96 | 1.32 | 1.45 | 51.17 | 51.43 | 50.54 | 49.84 | 50.32 | 50.89 | 50.55 | 0.37 |
| 2005 | 1,423 | 50.83 | 1.98 | 1.32 | 1.47 | 51.08 | 51.86 | 49.74 | 50.31 | 50.45 | 51.05 | 51.31 | 0.37 |
| 2006 | 1,453 | 51.35 | 2.02 | 1.35 | 1.50 | 51.72 | 52.33 | 50.55 | 51.05 | 50.62 | 51.43 | 51.74 | 0.37 |
| 2007 | 1,622 | 50.60 | 1.96 | 1.30 | 1.46 | 50.58 | 50.95 | 50.36 | 49.58 | 50.22 | 51.18 | 51.33 | 0.38 |
| 2008 | 1,920 | 50.92 | 1.98 | 1.31 | 1.49 | 50.89 | 51.21 | 50.31 | 50.57 | 50.39 | 51.86 | 51.22 | 0.37 |
| 2009 | 1,947 | 50.73 | 1.96 | 1.28 | 1.49 | 49.71 | 50.41 | 50.65 | 49.39 | 49.76 | 53.29 | 51.93 | 0.38 |
| 2010 | 2,234 | 51.13 | 2.00 | 1.31 | 1.51 | 50.24 | 51.06 | 51.05 | 49.93 | 50.15 | 53.59 | 51.91 | 0.37 |
| 2011 | 2,345 | 51.29 | 2.01 | 1.31 | 1.52 | 50.37 | 51.24 | 50.98 | 49.95 | 50.35 | 54.11 | 52.03 | 0.37 |
| 2012 | 2,398 | 51.23 | 2.01 | 1.32 | 1.51 | 50.49 | 51.18 | 51.28 | 49.28 | 50.62 | 53.99 | 51.77 | 0.38 |
| 2013 | 2,526 | 50.99 | 1.99 | 1.30 | 1.51 | 49.99 | 50.68 | 50.93 | 49.66 | 50.50 | 53.70 | 51.46 | 0.38 |
| 2014 | 2,650 | 51.19 | 2.00 | 1.30 | 1.52 | 50.27 | 50.94 | 50.86 | 49.99 | 50.09 | 54.02 | 52.15 | 0.38 |
| 2015 | 3,168 | 49.59 | 1.87 | 1.20 | 1.44 | 48.23 | 48.52 | 49.31 | 48.14 | 48.12 | 53.88 | 50.92 | 0.39 |
| 2016 | 3,953 | 48.92 | 1.81 | 1.16 | 1.39 | 47.46 | 47.90 | 48.85 | 47.35 | 47.31 | 53.33 | 50.20 | 0.39 |
| 2017 | 4,266 | 49.12 | 1.83 | 1.16 | 1.41 | 47.45 | 47.94 | 48.98 | 47.69 | 47.19 | 53.90 | 50.72 | 0.39 |
| 2018 | 3,211 | 48.73 | 1.79 | 1.12 | 1.41 | 46.25 | 47.11 | 48.50 | 48.10 | 47.18 | 53.23 | 50.72 | 0.39 |
| Total/Avg | 37,440 | 50.64 | 1.96 | 1.28 | 1.48 | 50.10 | 50.54 | 50.25 | 49.71 | 49.77 | 52.79 | 51.34 | 0.38 |

Note: This table presents the sample distribution by year for the main dependent variables of corporate social responsibility and its components. It only covers subsample of firms with CSR scores Table A1 in the Appendix provides the definitions and data sources for the variables.

Table 2. Sample statistics by country.

| Nation Code | Full sample | | | | | | With CSR | | | | | | Full sample | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | ESWA | EnvSoc | ENV | SOCIAL | TRUST | N | ESWA | EnvSoc | ENV | SOCIAL | TRUST | LNGDP | NANT_DIR | PTY_RIGHTS | FAR EAST | GER MANIC | LATIN AMERICA | LATIN EUROPE | FRENCHORG | GER MANORG | SCA NORG |
| ARG | 487 | 7.04 | -1.66 | -1.09 | -1.25 | 0.19 | 92 | 37.29 | 0.86 | 0.49 | 0.72 | 0.21 | 26.71 | 4 | 3.98 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| AUS | 5,119 | 26.41 | -0.05 | -0.08 | -0.01 | 0.52 | 2,980 | 45.37 | 1.52 | 0.92 | 1.21 | 0.53 | 27.79 | 4 | 4.17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| BRA | 1,408 | 31.27 | 0.36 | 0.17 | 0.32 | 0.08 | 761 | 57.86 | 2.57 | 1.56 | 2.05 | 0.08 | 28.38 | 3 | 3.59 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| CAN | 4,556 | 30.04 | 0.24 | 0.10 | 0.24 | 0.42 | 2,893 | 47.31 | 1.67 | 1.00 | 1.35 | 0.42 | 28.12 | 5 | 4.67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CHE | 1,129 | 44.78 | 1.48 | 1.09 | 1.01 | 0.50 | 899 | 56.24 | 2.44 | 1.74 | 1.71 | 0.50 | 27.09 | 2 | 4.33 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| DEU | 1,805 | 40.38 | 1.12 | 0.75 | 0.82 | 0.39 | 1,159 | 62.89 | 2.99 | 1.98 | 2.23 | 0.40 | 28.88 | 1 | 4.50 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| ESP | 768 | 54.71 | 2.31 | 1.49 | 1.76 | 0.21 | 612 | 68.65 | 3.47 | 2.25 | 2.64 | 0.21 | 27.97 | 4 | 4.33 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| FIN | 68 | 34.23 | 0.61 | 0.51 | 0.36 | 0.57 | 41 | 56.77 | 2.49 | 1.81 | 1.72 | 0.57 | 26.14 | 3 | 4.67 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| FRA | 1,332 | 42.36 | 1.29 | 1.01 | 0.83 | 0.19 | 860 | 65.61 | 3.23 | 2.37 | 2.21 | 0.19 | 28.59 | 3 | 4.67 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| GBR | 2,002 | 29.67 | 0.23 | 0.22 | 0.11 | 0.30 | 1,086 | 54.70 | 2.31 | 1.63 | 1.64 | 0.30 | 28.51 | 5 | 4.54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HKG | 2,041 | 26.35 | -0.05 | 0.07 | -0.12 | 0.40 | 1,260 | 42.68 | 1.32 | 1.01 | 0.86 | 0.40 | 26.14 | 5 | 3.81 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| IDN | 642 | 24.21 | -0.24 | -0.27 | -0.08 | 0.28 | 301 | 51.64 | 2.04 | 1.07 | 1.76 | 0.18 | 27.37 | 2 | 2.77 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| IND | 1,567 | 28.87 | 0.15 | 0.07 | 0.14 | 0.24 | 825 | 54.84 | 2.31 | 1.45 | 1.80 | 0.23 | 28.18 | 5 | 3.76 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| ISR | 71 | 9.23 | -1.48 | -1.03 | -1.07 | 0.23 | 19 | 34.51 | 0.59 | 0.14 | 0.68 | 0.23 | 26.21 | 3 | 4.13 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| ITA | 709 | 35.45 | 0.71 | 0.43 | 0.56 | 0.29 | 443 | 56.74 | 2.48 | 1.57 | 1.91 | 0.29 | 28.39 | 1 | 4.67 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| JPN | 7,053 | 39.29 | 1.03 | 0.95 | 0.54 | 0.38 | 5,549 | 49.94 | 1.92 | 1.60 | 1.14 | 0.38 | 29.39 | 4 | 4.67 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| MYS | 854 | 25.95 | -0.09 | -0.12 | -0.01 | 0.11 | 454 | 48.81 | 1.81 | 1.05 | 1.47 | 0.13 | 26.31 | 4 | 3.48 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| NLD | 579 | 36.06 | 0.75 | 0.44 | 0.62 | 0.56 | 338 | 61.77 | 2.89 | 1.79 | 2.27 | 0.57 | 27.44 | 2 | 4.67 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| NOR | 375 | 41.87 | 1.24 | 0.89 | 0.87 | 0.74 | 247 | 63.57 | 3.05 | 2.11 | 2.20 | 0.74 | 26.80 | 4 | 4.17 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| NZL | 747 | 17.70 | -0.78 | -0.46 | -0.63 | 0.56 | 317 | 41.70 | 1.21 | 0.89 | 0.83 | 0.57 | 25.76 | 4 | 4.01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PHL | 412 | 21.80 | -0.44 | -0.31 | -0.31 | 0.05 | 196 | 45.83 | 1.54 | 0.95 | 1.22 | 0.04 | 26.09 | 3 | 4.18 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| SGP | 708 | 34.47 | 0.63 | 0.45 | 0.44 | 0.31 | 544 | 44.86 | 1.49 | 1.02 | 1.08 | 0.34 | 26.17 | 4 | 4.21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SWE | 114 | 21.41 | -0.46 | -0.30 | -0.35 | 0.67 | 46 | 53.07 | 2.17 | 1.41 | 1.64 | 0.67 | 26.76 | 3 | 4.54 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| THA | 628 | 26.97 | 0.00 | -0.09 | 0.07 | 0.38 | 286 | 59.22 | 2.67 | 1.54 | 2.20 | 0.35 | 26.55 | 2 | 2.66 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| TUR | 861 | 17.98 | -0.75 | -0.47 | -0.58 | 0.12 | 281 | 55.09 | 2.33 | 1.56 | 1.73 | 0.13 | 27.46 | 2 | 4.01 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| USA | 33,439 | 21.60 | -0.46 | -0.36 | -0.29 | 0.39 | 14,951 | 48.30 | 1.75 | 1.00 | 1.45 | 0.39 | 30.37 | 5 | 4.88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total/Avg | 69,474 | 29.62 | 0.22 | 0.16 | 0.15 | 0.35 | 37,440 | 52.51 | 2.12 | 1.38 | 1.61 | 0.35 | 27.45 | 3 | 4.16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note: This table presents the sample distribution across country in the full sample and subsample of firms with CSR scores. Table A1 in the Appendix provides the definitions and data sources for the variables.

Table 3. Sample statistics.

| | Full sample | | | | | | CSR only | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variables | N | P25 | Mean | Median | P75 | SD | N | P25 | Mean | Median | P75 | SD |
| *Panel A: CSR and trust* | | | | | | | | | | | | |
| *ESWA* | 69,474 | 0.00 | 27.10 | 24.70 | 49.93 | 28.77 | 37,440 | 35.06 | 50.29 | 47.67 | 65.21 | 19.23 |
| *EnvSoc* | 69,474 | -2.24 | 0.00 | -0.19 | 1.89 | 2.39 | 37,440 | 0.66 | 1.93 | 1.70 | 3.17 | 1.60 |
| *ENV* | 69,474 | -1.46 | 0.00 | -0.37 | 1.25 | 1.62 | 37,440 | 0.24 | 1.25 | 1.09 | 2.24 | 1.22 |
| *SOCIAL* | 69,474 | -1.70 | 0.00 | -0.25 | 1.47 | 1.82 | 37,440 | 0.53 | 1.47 | 1.34 | 2.36 | 1.24 |
| *CSR1* | 69,474 | 0.00 | 26.59 | 12.79 | 50.00 | 32.06 | 37,440 | 24.38 | 49.35 | 45.60 | 74.48 | 28.00 |
| *CSR2* | 69,474 | 0.00 | 26.89 | 8.44 | 51.19 | 32.57 | 37,440 | 26.25 | 49.90 | 47.03 | 75.53 | 28.65 |
| *CSR3* | 69,474 | 0.00 | 26.96 | 19.65 | 47.40 | 30.66 | 37,440 | 32.61 | 50.02 | 44.77 | 68.95 | 24.31 |
| *CSR4* | 69,474 | 0.00 | 26.49 | 7.32 | 51.96 | 32.40 | 37,440 | 24.04 | 49.15 | 48.31 | 74.12 | 28.89 |
| *CSR5* | 69,474 | 0.00 | 26.52 | 22.73 | 42.86 | 30.15 | 37,440 | 31.25 | 49.22 | 40.91 | 69.58 | 23.86 |
| *CSR6* | 69,474 | 0.00 | 28.65 | 10.18 | 57.31 | 33.47 | 37,440 | 30.51 | 53.17 | 53.74 | 76.79 | 27.85 |
| *CSR7* | 69,474 | 0.00 | 27.62 | 11.72 | 50.98 | 32.13 | 37,440 | 30.77 | 51.25 | 47.66 | 74.55 | 26.54 |
| *TRUST* | 69,474 | 0.38 | 0.38 | 0.39 | 0.40 | 0.10 | 37,440 | 0.38 | 0.38 | 0.39 | 0.40 | 0.10 |
| *Panel B: Firm-specific variables* | | | | | | | | | | | | |
| *SIZE* | 69,474 | 13.28 | 14.57 | 14.63 | 15.89 | 2.15 | 37,440 | 14.45 | 15.54 | 15.47 | 16.62 | 1.81 |
| *MB* | 69,474 | 0.05 | 0.33 | 0.11 | 0.24 | 7.74 | 37,440 | 0.07 | 0.40 | 0.13 | 0.26 | 10.51 |
| *TANG* | 69,474 | 0.05 | 0.28 | 0.20 | 0.46 | 0.27 | 37,440 | 0.06 | 0.30 | 0.22 | 0.47 | 0.27 |
| *LEV* | 69,474 | 0.06 | 0.27 | 0.21 | 0.37 | 2.78 | 37,440 | 0.10 | 0.26 | 0.23 | 0.37 | 0.22 |
| *PROFIT* | 69,474 | 0.04 | 1.69 | 2.57 | 7.21 | 34.36 | 37,440 | 0.06 | 3.48 | 2.75 | 7.40 | 13.59 |
| *CASH* | 69,474 | 0.00 | 0.09 | 0.04 | 0.11 | 0.14 | 37,440 | 0.01 | 0.08 | 0.05 | 0.11 | 0.11 |
| *R&D* | 69,474 | 0.00 | 0.03 | 0.00 | 0.01 | 0.32 | 37,440 | 0.00 | 0.02 | 0.00 | 0.01 | 0.07 |
| *BOARD* | 69,474 | 0.00 | 0.21 | 0.00 | 0.00 | 0.40 | 37,440 | 0.00 | 0.37 | 0.00 | 1.00 | 0.48 |
| *ANALYST* | 69,474 | 3.00 | 9.90 | 8.00 | 15.00 | 8.69 | 37,440 | 7.00 | 13.63 | 12.00 | 19.00 | 8.94 |
| *Panel C: Country-specific variables* | | | | | | | | | | | | |
| *LNGDP* | 69,474 | 28.08 | 29.14 | 29.43 | 30.35 | 1.40 | 37,440 | 28.08 | 29.06 | 29.38 | 30.38 | 1.35 |
| *NANT_DIR* | 69,474 | 4.00 | 4.36 | 5.00 | 5.00 | 1.05 | 37,440 | 4.00 | 4.27 | 5.00 | 5.00 | 1.07 |
| *PTY_RIGHTS* | 69,474 | 4.33 | 4.57 | 4.67 | 4.88 | 0.45 | 37,440 | 4.33 | 4.55 | 4.67 | 4.88 | 0.43 |
| *FAREAST* | 69,474 | 0.00 | 0.06 | 0.00 | 0.00 | 0.24 | 37,440 | 0.00 | 0.06 | 0.00 | 0.00 | 0.23 |
| *GERMANIC* | 69,474 | 0.00 | 0.04 | 0.00 | 0.00 | 0.20 | 37,440 | 0.00 | 0.05 | 0.00 | 0.00 | 0.23 |
| *LATINAMERICA* | 69,474 | 0.00 | 0.03 | 0.00 | 0.00 | 0.16 | 37,440 | 0.00 | 0.02 | 0.00 | 0.00 | 0.15 |
| *LATINEUROPE* | 69,474 | 0.00 | 0.04 | 0.00 | 0.00 | 0.20 | 37,440 | 0.00 | 0.05 | 0.00 | 0.00 | 0.22 |
| *FRENCHORG* | 69,474 | 0.00 | 0.10 | 0.00 | 0.00 | 0.30 | 37,440 | 0.00 | 0.10 | 0.00 | 0.00 | 0.30 |
| *GERMANORG* | 69,474 | 0.00 | 0.14 | 0.00 | 0.00 | 0.35 | 37,440 | 0.00 | 0.20 | 0.00 | 0.00 | 0.40 |
| *SCANORG* | 69,474 | 0.00 | 0.01 | 0.00 | 0.00 | 0.09 | 37,440 | 0.00 | 0.01 | 0.00 | 0.00 | 0.09 |

Note: This table presents the summary statistics for variables used in the main regression analysis of the impact of trust on the various CSR measures. The sample spans from year 2002 to 2018 and is split into the full sample and the subsample of firms with CSR scores. Table A1 in the Appendix provides the definitions and data sources for the variables. Panels A-C report the summary statistics of the dependent and independent variables, firm-specific variables, and country-specific variables, respectively.

Table 4. The impact of trust on CSR performance.

| VARIABLES | (1) *ESWA* | (2) *EnvSoc* | (3) *ENV* | (4) *SOCIAL* |
|---|---|---|---|---|
| *TRUST* | 19.092*** | 1.558*** | 0.823*** | 1.359*** |
| | (14.16) | (13.91) | (10.61) | (15.74) |
| *SIZE* | 4.937*** | 0.409*** | 0.275*** | 0.303*** |
| | (79.47) | (79.40) | (77.53) | (76.60) |
| *MB* | -0.095 | -0.008 | -0.017 | 0.005 |
| | (-0.25) | (-0.25) | (-0.93) | (0.18) |
| *TANG* | -2.087*** | -0.175*** | -0.102*** | -0.143*** |
| | (-5.65) | (-5.73) | (-4.87) | (-5.94) |
| *LEV* | 0.038 | 0.003 | 0.002 | 0.003* |
| | (1.30) | (1.29) | (0.94) | (1.67) |
| *PROFIT* | -0.009** | -0.001** | -0.001** | -0.000* |
| | (-2.04) | (-2.05) | (-2.15) | (-1.93) |
| *CASH* | 4.814*** | 0.400*** | 0.275*** | 0.292*** |
| | (8.72) | (8.74) | (8.80) | (8.18) |
| *R&D* | 1.734*** | 0.144*** | 0.102*** | 0.102*** |
| | (2.91) | (2.91) | (2.86) | (2.95) |
| *BOARD* | 12.372*** | 1.023*** | 0.629*** | 0.811*** |
| | (65.32) | (65.08) | (55.20) | (64.92) |
| *ANALYST* | 1.059*** | 0.088*** | 0.057*** | 0.067*** |
| | (81.00) | (80.97) | (76.09) | (79.17) |
| *LNGDP* | -1.634*** | -0.136*** | -0.111*** | -0.084*** |
| | (-14.16) | (-14.27) | (-17.32) | (-11.05) |
| *NANT_DIR* | -0.583*** | -0.046** | 0.001 | -0.062*** |
| | (-2.61) | (-2.48) | (0.06) | (-4.27) |
| *PTY_RIGHTS* | -0.797 | -0.077* | -0.090*** | -0.020 |
| | (-1.46) | (-1.71) | (-2.99) | (-0.55) |
| *FAREAST* | -8.967*** | -0.758*** | -0.619*** | -0.460*** |
| | (-14.11) | (-14.37) | (-17.07) | (-11.27) |
| *GERMANIC* | -5.265*** | -0.438*** | -0.445*** | -0.192*** |
| | (-7.40) | (-7.42) | (-10.94) | (-4.12) |
| *LATINAMERICA* | 4.469*** | 0.362*** | 0.120** | 0.380*** |
| | (5.10) | (4.98) | (2.44) | (6.68) |
| *LATINEUROPE* | 10.565*** | 0.892*** | 0.653*** | 0.609*** |
| | (16.22) | (16.46) | (17.38) | (14.67) |
| *FRENCHORG* | -2.051*** | -0.168*** | -0.089** | -0.145*** |
| | (-2.81) | (-2.76) | (-2.19) | (-3.04) |
| *GERMANORG* | 5.796*** | 0.503*** | 0.656*** | 0.088*** |
| | (16.75) | (17.51) | (31.93) | (4.01) |
| *SCANORG* | -3.157*** | -0.241*** | -0.028 | -0.301*** |
| | (-2.83) | (-2.60) | (-0.44) | (-4.24) |
| Constant | -16.400*** | -3.526*** | -1.709*** | -3.224*** |
| | (-6.80) | (-17.61) | (-12.49) | (-20.73) |
| *Year effect* | Yes | Yes | Yes | Yes |

| | | | | |
|---|---|---|---|---|
| *Industry effect* | Yes | Yes | Yes | Yes |
| *N* | 69,474 | 69,474 | 69,474 | 69,474 |
| $R^2$ | 0.562 | 0.563 | 0.546 | 0.539 |

Note: This table presents the estimation results obtained by regressing alternative CSR measures (*ESWA*, *EnvSoc*, *ENV*, and *SOCIAL*) on trust and on controls of firm- and country-specific variables. Table A1 in the Appendix provides the definitions and data sources for the regression variables. All regressions include year and industry fixed effects. The industry controls are based on the 12 Fama-French industry classification codes. t-statistics based on robust standard errors are reported in parentheses. ***, **, and * denote two-tailed statistical significance at the1, 5, and 10% levels, respectively.

Table 5. Channels through which social trust affects CSR performance.

| VARIABLES | (1) *INST_OWNER* | (2) *ESWA* | (3) *INNOVATION* | (4) *ESWA* | (5) *CPI* | (6) *ESWA* |
|---|---|---|---|---|---|---|
| *TRUST* | 0.539*** | | 0.322*** | | 23.928*** | |
| | (21.48) | | (8.13) | | (33.45) | |
| *INST_OWNER* | | 35.428*** | | | | |
| | | (11.60) | | | | |
| *INNOVATION* | | | | 43.927*** | | |
| | | | | (8.56) | | |
| *CPI* | | | | | | 0.798*** |
| | | | | | | (15.29) |
| *SIZE* | -0.017*** | 5.545*** | -0.003*** | 5.236*** | -0.101*** | 5.017*** |
| | (-12.59) | (61.63) | (-3.95) | (79.80) | (-6.97) | (93.63) |
| *MB* | -0.034*** | 1.115 | -0.043** | 1.902* | -0.242 | 0.099 |
| | (-3.36) | (0.91) | (-2.17) | (1.75) | (-1.47) | (0.11) |
| *TANG* | -0.044*** | -0.525 | -0.026*** | -0.826* | 0.143 | -2.201*** |
| | (-5.22) | (-1.07) | (-5.52) | (-1.83) | (1.41) | (-6.09) |
| *LEV* | -0.000 | 0.050 | -0.002*** | -0.046 | 0.004 | 0.036 |
| | (-0.93) | (1.42) | (-4.38) | (-0.52) | (0.87) | (1.33) |
| *PROFIT* | 0.001** | -0.029*** | 0.000 | -0.010*** | 0.002** | -0.011*** |
| | (2.53) | (-8.55) | (1.25) | (-3.80) | (2.56) | (-4.86) |
| *CASH* | -0.133*** | 9.520*** | -0.010 | 5.440*** | 0.200 | 4.654*** |
| | (-8.78) | (10.49) | (-1.15) | (7.49) | (1.48) | (7.67) |
| *R&D* | -0.033** | 2.890*** | 0.005** | 1.988*** | 0.011 | 1.726*** |
| | (-2.39) | (8.57) | (2.55) | (6.00) | (0.35) | (7.08) |
| *BOARD* | 0.053*** | 10.509*** | 0.014*** | 11.843*** | 0.687*** | 11.824*** |
| | (11.97) | (35.61) | (5.28) | (50.85) | (15.58) | (61.57) |
| *ANALYST* | 0.008*** | 0.762*** | -0.001*** | 1.090*** | 0.034*** | 1.032*** |
| | (30.59) | (25.80) | (-4.25) | (77.21) | (9.89) | (88.99) |
| *LNGDP* | 0.086*** | -4.688*** | 0.236*** | -12.180*** | -4.630*** | 2.061*** |
| | (39.62) | (-15.99) | (76.65) | (-10.16) | (-89.36) | (7.68) |
| *NANT_DIR* | 0.013*** | -1.050*** | -0.230*** | 10.033*** | 1.416*** | -1.712*** |
| | (3.35) | (-4.31) | (-27.94) | (7.89) | (14.34) | (-9.18) |
| *PTY_RIGHTS* | 0.064*** | -3.062*** | 0.666*** | -28.370*** | 7.736*** | -6.970*** |
| | (7.10) | (-4.80) | (50.59) | (-8.02) | (28.81) | (-11.68) |
| *FAREAST* | -0.024** | -8.101*** | -0.396*** | 9.128*** | -31.680*** | 16.310*** |
| | (-2.30) | (-10.19) | (-38.43) | (3.81) | (-95.55) | (8.19) |
| *GERMANIC* | 0.117*** | -9.392*** | -0.770*** | 30.058*** | 7.027*** | -10.871*** |
| | (8.20) | (-10.83) | (-29.83) | (7.17) | (27.77) | (-15.67) |
| *LATINAMERICA* | 0.081*** | 1.586* | 0.454*** | -13.572*** | -17.275*** | 18.253*** |
| | (6.50) | (1.67) | (22.82) | (-5.87) | (-31.39) | (13.38) |
| *LATINEUROPE* | -0.033*** | 11.742*** | 0.362*** | -4.406** | 0.786** | 9.938*** |
| | (-3.15) | (15.86) | (17.23) | (-2.35) | (2.05) | (18.53) |
| *FRENCHORG* | -0.080*** | 0.786 | -1.088*** | 44.939*** | -12.432*** | 7.868*** |
| | (-6.49) | (0.85) | (-33.24) | (7.50) | (-34.68) | (7.53) |
| *GERMANORG* | -0.278*** | 15.661*** | 0.698*** | -24.448*** | -0.758*** | 6.401*** |
| | (-39.11) | (15.52) | (85.14) | (-6.94) | (-7.48) | (20.02) |
| *SCANORG* | -0.171*** | 2.913*** | 0.390*** | -18.300*** | -3.132*** | -0.658 |
| | (-8.19) | (2.58) | (13.42) | (-7.00) | (-10.72) | (-0.76) |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Constant* | -2.483*** | 71.561*** | -6.778*** | 275.645*** | 163.276*** | -146.674*** |
| | (-49.60) | (10.64) | (-84.11) | (8.21) | (172.89) | (-14.98) |
| *Year effect* | Yes | Yes | Yes | Yes | Yes | Yes |
| *Industry effect* | Yes | Yes | Yes | Yes | Yes | Yes |
| *N* | 69,474 | 69,474 | 64,665 | 64,665 | 69,474 | 69,474 |
| $R^2$ | 0.211 | 0.245 | 0.897 | 0.433 | 0.858 | 0.566 |

Note: This table reports the two-stage estimation results testing the firm- and country-level channels through which social trust promotes CSR engagement. Columns (1), (3), and (5) present regression results from the first stage obtained by regressing one firm- and two country-level channel variables (*INST_OWNER*, *INNOVATION*, and *CPI*) on social trust (*TRUST*), respectively. Columns (2), (4), and (6) show regression results from the second stage obtained by regressing CSR scores (*ESWA*) on the estimated one firm- and two country-level channel variables obtained from the first stage, respectively. Table A1 in the Appendix outlines the definitions and data sources for the regression variables. All regressions include year and industry fixed effects. The industry controls are based on the 12 Fama-French industry classification codes. t-statistics based on robust standard errors are reported in parentheses. ***, **, and * denote two-tailed statistical significance at the1, 5, and 10% levels, respectively.

Table 6. Robustness checks: E&S&G Subcomponents and alternative measures of CSR performance.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| | Environment subcomponents | | | Social subcomponents | | | | Alternative CSR scores |
| VARIABLES | *CSR1* | *CSR2* | *CSR3* | *CSR4* | *CSR5* | *CSR6* | *CSR7* | *ESG_SCORES* |
| *TRUST* | 14.879*** | 13.619*** | 16.759*** | 15.938*** | 15.605*** | 40.164*** | 16.676*** | 19.887*** |
| | (9.34) | (8.74) | (10.86) | (9.27) | (10.17) | (25.28) | (10.66) | (15.31) |
| *SIZE* | 5.274*** | 5.317*** | 4.532*** | 4.856*** | 4.778*** | 5.439*** | 4.361*** | 4.748*** |
| | (73.00) | (73.21) | (65.79) | (66.66) | (70.00) | (72.42) | (61.25) | (80.27) |
| *MB* | -0.501 | -1.488*** | 1.048 | -0.667* | 0.229 | 0.003 | 0.712 | -0.524 |
| | (-1.58) | (-3.80) | (1.45) | (-1.70) | (0.59) | (0.00) | (1.32) | (-1.45) |
| *TANG* | -1.779*** | -2.231*** | -1.623*** | -2.672*** | -2.840*** | -0.480 | -2.985*** | -1.623*** |
| | (-4.07) | (-4.96) | (-3.76) | (-5.71) | (-6.97) | (-1.00) | (-6.46) | (-4.59) |
| *LEV* | 0.033 | 0.040 | 0.027 | 0.024 | 0.049** | 0.060*** | 0.036 | 0.034 |
| | (0.85) | (1.10) | (0.86) | (0.64) | (2.36) | (2.95) | (1.44) | (1.18) |
| *PROFIT* | -0.013** | -0.008* | -0.012** | -0.007* | -0.008** | -0.008* | -0.007** | -0.008** |
| | (-2.18) | (-1.85) | (-2.32) | (-1.69) | (-2.03) | (-1.91) | (-2.00) | (-1.99) |
| *CASH* | 5.436*** | 5.446*** | 4.241*** | 3.184*** | 6.016*** | 5.684*** | 3.687*** | 4.038*** |
| | (8.68) | (8.28) | (6.74) | (4.68) | (10.00) | (8.32) | (5.56) | (7.63) |
| *R&D* | 2.036*** | 2.010*** | 1.558*** | 1.966*** | 1.605*** | 1.533*** | 1.430*** | 1.628*** |
| | (2.83) | (2.91) | (2.83) | (2.97) | (2.88) | (2.93) | (2.99) | (2.97) |
| *BOARD* | 10.574*** | 10.817*** | 13.199*** | 9.977*** | 12.476*** | 16.202*** | 13.360*** | 14.358*** |
| | (42.16) | (42.12) | (52.78) | (37.47) | (54.17) | (60.10) | (50.19) | (79.70) |
| *ANALYST* | 1.156*** | 1.105*** | 0.868*** | 1.123*** | 1.029*** | 1.081*** | 1.055*** | 1.021*** |
| | (74.46) | (70.57) | (57.00) | (69.44) | (68.39) | (65.58) | (65.19) | (81.94) |
| *LNGDP* | -2.000*** | -1.826*** | -2.263*** | -2.202*** | -1.176*** | -0.669*** | -1.300*** | -1.912*** |
| | (-15.51) | (-13.49) | (-17.23) | (-15.17) | (-9.25) | (-4.48) | (-9.01) | (-17.20) |
| *NANT_DIR* | 0.178 | 0.212 | -0.344 | -2.492*** | 0.325 | -1.544*** | -0.413 | -1.002*** |
| | (0.69) | (0.81) | (-1.35) | (-8.79) | (1.26) | (-5.87) | (-1.52) | (-4.81) |
| *PTY_RIGHTS* | -2.995*** | -1.741*** | -0.229 | -4.399*** | -3.305*** | 6.940*** | 0.146 | -0.533 |
| | (-4.87) | (-2.75) | (-0.37) | (-6.51) | (-5.45) | (10.07) | (0.22) | (-1.03) |
| *FAREAST* | -13.531*** | -11.078*** | -9.447*** | -13.557*** | -10.279*** | 0.872 | -5.747*** | -9.310*** |
| | (-18.49) | (-14.87) | (-13.13) | (-17.50) | (-14.48) | (1.13) | (-7.52) | (-15.29) |
| *GERMANIC* | -6.225*** | -9.680*** | -8.596*** | -5.937*** | 0.521 | 0.802 | -7.736*** | -8.204*** |
| | (-7.38) | (-11.41) | (-9.97) | (-6.46) | (0.63) | (0.92) | (-8.55) | (-12.35) |
| *LATINAMERICA* | 2.447** | 2.035** | 2.103** | 2.232** | 5.567*** | 12.615*** | 4.285*** | 4.235*** |
| | (2.46) | (2.01) | (2.24) | (2.12) | (5.43) | (12.42) | (4.19) | (5.13) |
| *LATINEUROPE* | 11.954*** | 12.437*** | 11.546*** | 14.108*** | 13.115*** | -1.138 | 11.933*** | 9.086*** |
| | (15.91) | (16.32) | (15.63) | (17.20) | (17.55) | (-1.56) | (15.57) | (14.85) |
| *FRENCHORG* | -0.993 | -0.411 | -3.484*** | -6.996*** | 0.753 | -1.266 | -1.959** | -3.630*** |
| | (-1.21) | (-0.49) | (-4.27) | (-7.48) | (0.91) | (-1.49) | (-2.27) | (-5.26) |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *GERMANORG* | 9.972*** | 15.129*** | 11.026*** | 2.337*** | 5.466*** | -13.243*** | 9.887*** | 5.930*** |
| | (23.55) | (34.79) | (25.60) | (5.24) | (14.29) | (-32.52) | (21.76) | (18.06) |
| *SCANORG* | -1.422 | 1.679 | -1.768 | -4.008*** | 3.685*** | -15.695*** | -4.567*** | -6.225*** |
| | (-1.08) | (1.28) | (-1.39) | (-2.96) | (2.91) | (-12.59) | (-3.23) | (-5.98) |
| *Constant* | -3.825 | -14.637*** | 4.644* | 27.887*** | -18.738*** | -87.705*** | -22.426*** | -5.202** |
| | (-1.36) | (-5.13) | (1.71) | (9.04) | (-7.13) | (-29.80) | (-7.79) | (-2.24) |
| *Year effect* | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| *Industry effect* | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| *N* | 69,474 | 69,474 | 69,474 | 69,474 | 69,474 | 69,474 | 69,474 | 69,474 |
| $R^2$ | 0.498 | 0.495 | 0.449 | 0.453 | 0.491 | 0.456 | 0.442 | 0.578 |

Note: This table presents the test results obtained by regressing each CSR component (through *CSR1* to *CSR7*) and alternative measures of CSR scores (*ESG_SCORES*) on trust and on controls of firm-specific characteristics and country variables. Table A1 in the Appendix provides the definitions and data sources for the regression variables. All regressions include year and industry fixed effects. The industry controls are based on the 12 Fama-French industry classification codes. t-statistics based on robust standard errors are reported in parentheses. ***, **, and * denote two-tailed statistical significance at the1, 5, and 10% levels, respectively.

Table 7. Robustness: CSR sample only and Exclude USA.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| | Panel A: CSR sample only | | | | Panel B: Exclude USA | | | |
| VARIABLES | *ESWA* | *EnvSoc* | *ENV* | *SOCIAL* | *ESWA* | *EnvSoc* | *ENV* | *SOCIAL* |
| *TRUST* | 16.505*** | 1.326*** | 0.569*** | 1.278*** | 15.138*** | 1.234*** | 0.649*** | 1.079*** |
| | (10.15) | (9.81) | (5.33) | (11.97) | (11.33) | (11.11) | (8.43) | (12.57) |
| *SIZE* | 5.527*** | 0.459*** | 0.337*** | 0.315*** | 4.836*** | 0.402*** | 0.275*** | 0.292*** |
| | (76.67) | (76.64) | (73.49) | (66.21) | (57.79) | (57.77) | (57.03) | (54.89) |
| *MB* | -0.226 | -0.019 | -0.022 | -0.005 | -0.246 | -0.021 | -0.035** | 0.004 |
| | (-0.71) | (-0.72) | (-1.30) | (-0.26) | (-0.94) | (-0.96) | (-2.51) | (0.19) |
| *TANG* | -0.243 | -0.022 | 0.041 | -0.065** | -1.735*** | -0.144*** | -0.094*** | -0.108*** |
| | (-0.57) | (-0.62) | (1.50) | (-2.31) | (-3.50) | (-3.50) | (-3.30) | (-3.37) |
| *LEV* | -1.111** | -0.091** | -0.120*** | -0.015 | 0.080*** | 0.007*** | 0.004*** | 0.005*** |
| | (-2.20) | (-2.16) | (-3.80) | (-0.49) | (7.78) | (7.81) | (9.24) | (6.76) |
| *PROFIT* | 0.098*** | 0.008*** | 0.005*** | 0.006*** | -0.001 | -0.000 | -0.000 | 0.000 |
| | (10.12) | (10.11) | (8.54) | (10.40) | (-0.22) | (-0.23) | (-0.44) | (0.07) |
| *CASH* | 4.953*** | 0.420*** | 0.357*** | 0.243*** | 3.106*** | 0.262*** | 0.155*** | 0.211*** |
| | (6.11) | (6.23) | (7.00) | (4.43) | (3.31) | (3.36) | (2.91) | (3.45) |
| *R&D* | 28.343*** | 2.362*** | 1.755*** | 1.597*** | 32.028*** | 2.658*** | 1.789*** | 1.965*** |
| | (11.47) | (11.46) | (10.58) | (11.40) | (11.26) | (11.29) | (11.47) | (10.55) |
| *BOARD* | -0.927*** | -0.077*** | -0.043*** | -0.065*** | 11.149*** | 0.925*** | 0.612*** | 0.694*** |
| | (-5.52) | (-5.54) | (-3.92) | (-5.79) | (42.71) | (42.71) | (38.93) | (40.05) |
| *ANALYST* | 0.454*** | 0.038*** | 0.025*** | 0.028*** | 0.999*** | 0.083*** | 0.054*** | 0.063*** |
| | (33.76) | (33.83) | (29.99) | (31.32) | (56.07) | (56.15) | (52.64) | (54.96) |
| *LNGDP* | 0.086 | 0.004 | -0.050*** | 0.050*** | 3.267*** | 0.271*** | 0.153*** | 0.226*** |
| | (0.65) | (0.33) | (-6.07) | (5.65) | (18.53) | (18.50) | (15.26) | (19.71) |
| *NANT_DIR* | -0.552** | -0.045** | 0.001 | -0.060*** | 0.130 | 0.013 | 0.036*** | -0.015 |
| | (-2.47) | (-2.42) | (0.05) | (-3.95) | (0.59) | (0.69) | (2.89) | (-1.02) |
| *PTY_RIGHTS* | -1.903*** | -0.174*** | -0.163*** | -0.082** | -1.225** | -0.112** | -0.108*** | -0.051 |
| | (-3.19) | (-3.51) | (-4.44) | (-2.06) | (-2.27) | (-2.51) | (-3.57) | (-1.44) |
| *FAREAST* | 0.367 | 0.006 | -0.229*** | 0.219*** | -9.446*** | -0.799*** | -0.641*** | -0.495*** |
| | (0.46) | (0.09) | (-4.52) | (4.22) | (-14.76) | (-15.04) | (-17.55) | (-12.04) |
| *GERMANIC* | 2.050*** | 0.161*** | -0.153*** | 0.353*** | 2.407*** | 0.196*** | -0.040 | 0.297*** |
| | (2.99) | (2.82) | (-3.66) | (7.44) | (3.19) | (3.14) | (-0.92) | (6.07) |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *LATINAMERICA* | 7.224*** | 0.592*** | 0.226*** | 0.593*** | -0.648 | -0.061 | -0.141*** | 0.045 |
| | (6.45) | (6.35) | (3.21) | (7.98) | (-0.75) | (-0.85) | (-2.90) | (0.80) |
| *LATINEUROPE* | 6.763*** | 0.583*** | 0.499*** | 0.331*** | 5.488*** | 0.469*** | 0.381*** | 0.285*** |
| | (9.66) | (10.01) | (10.95) | (7.23) | (8.26) | (8.48) | (9.98) | (6.70) |
| *FRENCHORG* | 3.107*** | 0.256*** | 0.148*** | 0.214*** | -1.453** | -0.119** | -0.062 | -0.103** |
| | (3.88) | (3.85) | (2.94) | (4.02) | (-2.07) | (-2.04) | (-1.58) | (-2.25) |
| *GERMANORG* | -1.365*** | -0.083*** | 0.380*** | -0.452*** | -4.731*** | -0.373*** | 0.078*** | -0.570*** |
| | (-4.08) | (-3.00) | (18.13) | (-20.06) | (-10.07) | (-9.57) | (2.83) | (-18.90) |
| *SCANORG* | 5.598*** | 0.492*** | 0.471*** | 0.235*** | 2.642** | 0.238** | 0.269*** | 0.076 |
| | (5.83) | (6.19) | (7.75) | (3.53) | (2.30) | (2.49) | (4.08) | (1.04) |
| *Constant* | -39.469*** | -5.351*** | -2.407*** | -5.074*** | -153.899*** | -14.969*** | -9.263*** | -11.800*** |
| | (-13.21) | (-21.55) | (-12.58) | (-25.82) | (-33.35) | (-39.05) | (-34.83) | (-39.76) |
| *Year effect* | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| *Industry effect* | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| *N* | 37,440 | 37,440 | 37,440 | 37,440 | 36,035 | 36,035 | 36,035 | 36,035 |
| $R^2$ | 0.368 | 0.370 | 0.348 | 0.315 | 0.547 | 0.548 | 0.535 | 0.519 |

Note: This table presents the regressions relating alternative CSR measures (*ESWA*, *EnvSoc*, *ENV*, and *SOCIAL*) to trust, and firm- and country-specific control variables. Panel A focuses on firms with CSR scores whereas Panel B addresses firms domiciled in countries except USA. Table A1 in the Appendix provides the definitions and data sources for the regression variables. All regressions include year and industry fixed effects. The industry controls are based on the 12 Fama-French industry classification codes. t-statistics based on robust standard errors are reported in parentheses. ***, **, and * denote two-tailed statistical significance at the1, 5, and 10% levels, respectively.

Table 8. Robustness: Country-level estimations.

| VARIABLES | (1) *ESWA* | (2) *EnvSoc* | (3) *ENV* | (4) *SOCIAL* |
|---|---|---|---|---|
| *TRUST* | 13.424*** | 1.123*** | 0.802*** | 0.789*** |
| | (3.67) | (3.69) | (4.23) | (3.25) |
| *SIZE* | 4.363*** | 0.366*** | 0.265*** | 0.253*** |
| | (4.49) | (4.52) | (5.16) | (3.96) |
| *MB* | -234.986** | -19.612** | -11.673** | -15.784** |
| | (-2.48) | (-2.50) | (-2.50) | (-2.44) |
| *TANG* | 23.361*** | 1.914*** | 0.917** | 1.749*** |
| | (3.36) | (3.31) | (2.45) | (3.87) |
| *LEV* | 3.920*** | 0.328*** | 0.226*** | 0.237*** |
| | (3.35) | (3.37) | (3.37) | (3.24) |
| *PROFIT* | -0.293** | -0.024** | -0.016** | -0.018** |
| | (-2.53) | (-2.53) | (-2.52) | (-2.51) |
| *CASH* | -25.569* | -2.168* | -1.925** | -1.178 |
| | (-1.70) | (-1.74) | (-2.33) | (-1.24) |
| *R&D* | -158.381*** | -13.262*** | -9.189*** | -9.532*** |
| | (-3.53) | (-3.55) | (-3.62) | (-3.43) |
| *BOARD* | 39.248*** | 3.249*** | 2.063*** | 2.516*** |
| | (8.72) | (8.69) | (8.82) | (8.48) |
| *ANALYST* | 0.782*** | 0.065*** | 0.039*** | 0.052*** |
| | (6.20) | (6.22) | (5.81) | (6.38) |
| *LNGDP* | 2.636*** | 0.218*** | 0.118*** | 0.187*** |
| | (5.92) | (5.89) | (4.82) | (6.59) |
| *NANT_DIR* | 0.136 | 0.014 | 0.045 | -0.022 |
| | (0.21) | (0.26) | (1.32) | (-0.52) |
| *PTY_RIGHTS* | -0.779 | -0.070 | -0.060 | -0.038 |
| | (-0.55) | (-0.59) | (-0.84) | (-0.40) |
| *FAREAST* | -5.747*** | -0.490*** | -0.405*** | -0.292** |
| | (-3.12) | (-3.20) | (-4.23) | (-2.42) |
| *GERMANIC* | 8.670*** | 0.715*** | 0.313** | 0.677*** |
| | (3.42) | (3.38) | (2.13) | (4.28) |
| *LATINAMERICA* | -5.203** | -0.432** | -0.356*** | -0.261 |
| | (-2.04) | (-2.03) | (-2.70) | (-1.55) |
| *LATINEUROPE* | 10.894*** | 0.908*** | 0.598*** | 0.682*** |
| | (6.27) | (6.27) | (6.20) | (6.12) |
| *FRENCHORG* | 4.020** | 0.336** | 0.248** | 0.229* |
| | (2.04) | (2.06) | (2.51) | (1.73) |
| *GERMANORG* | 3.550 | 0.309 | 0.505*** | -0.035 |
| | (1.36) | (1.43) | (3.37) | (-0.21) |
| *SCANORG* | 5.140** | 0.430** | 0.309** | 0.300* |
| | (2.18) | (2.20) | (2.52) | (1.93) |
| *Constant* | -141.718*** | -14.006*** | -8.756*** | -10.949*** |
| | (-8.71) | (-10.33) | (-9.58) | (-10.72) |
| *Year effect* | Yes | Yes | Yes | Yes |

| | | | | |
|---|---|---|---|---|
| *N* | 390 | 390 | 390 | 390 |
| $R^2$ | 0.864 | 0.864 | 0.874 | 0.852 |

Note: This table reports the regressions relating the country-average of alternative CSR measures (*ESWA*, *EnvSoc*, *ENV*, and *SOCIAL*) to trust, country-average of firm-specific, and country-specific control variables. Table A1 in the Appendix provides the definitions and data sources for the regression variables. All regressions include year and industry fixed effects. The industry controls are based on the 12 Fama-French industry classification codes. t-statistics based on robust standard errors are reported in parentheses. ***, **, and * denote two-tailed statistical significance at the1, 5, and 10% levels, respectively.

Table 9. Additional Analyses.

| | (1) | (2) | (3) | (4) | (7) | (8) |
|---|---|---|---|---|---|---|
| | Crisis | NonCrisis | Common Law | Civil Law | Strong PI | Weak PI |
| VARIABLES | *ESWA* | *ESWA* | *ESWA* | *ESWA* | *ESWA* | *ESWA* |
| *TRUST* | 25.589*** | 18.249*** | 24.575*** | 6.049*** | 72.191** | 19.202*** |
| | (7.65) | (12.50) | (11.05) | (3.08) | (2.57) | (3.00) |
| *Constant* | -49.802*** | -10.667*** | 5.292* | -53.162*** | -103.599* | 10.536 |
| | (-8.02) | (-4.11) | (1.77) | (-3.61) | (-1.81) | (0.51) |
| *Controls* | Yes | Yes | Yes | Yes | Yes | Yes |
| *Year effect* | Yes | Yes | Yes | Yes | Yes | Yes |
| *Industry effect* | Yes | Yes | Yes | Yes | Yes | Yes |
| *N* | 7,974 | 61,500 | 51,732 | 17,742 | 11,461 | 11,263 |
| $R^2$ | 0.633 | 0.557 | 0.561 | 0.567 | 0.631 | 0.600 |

Note: This table presents the additional analyses from regressions relating the main CSR measure (*ESWA*) to trust, and firm- and country-specific control variables. The sample is split by the crisis vs. non-crisis period, common vs. civil law regimes, and strong vs. weak political institutions. The crisis period includes the U.S. subprime financial crisis in years 2008 and 2009 whereas the non-crisis period covers subsample excluding year 2008 and 2009. The measures of common vs. civil law regimes is followed by La. Porta (2008), where a country is common law regimes if its legal origin is English common law and is under civil law regimes if a country's the legal origin is French, German, or Scandinavian civil law. A country's political institution (*PI*) is measured by the political constrain index Henisz' (2010) with greater value representing stronger political institutions. Table A1 in the Appendix provides the definitions and data sources for the regression variables. All regressions include year and industry fixed effects. The industry controls are based on the 12 Fama-French industry classification codes. t-statistics based on robust standard errors are reported in parentheses. ***, **, and * denote two-tailed statistical significance at the1, 5, and 10% levels, respectively.

Table 10. Difference-in-difference approach: The natural disaster and exogenous shock.

| VARIABLES | (1)<br>*ENV* | (2)<br>*ENV* | (3)<br>*SOCIAL* | (4)<br>*SOCIAL* |
|---|---|---|---|---|
| *POST2012 × TSUNAMI* | 0.428*** | | | |
| | (21.55) | | | |
| *TRUST × POST2012 × TSUNAMI* | | 0.973*** | | |
| | | (22.61) | | |
| *POST2016 × REFUGEE* | | | 0.315*** | |
| | | | (4.72) | |
| *TRUST × POST2016 × REFUGEE* | | | | 0.672*** |
| | | | | (4.54) |
| *SIZE* | 0.272*** | 0.274*** | 0.300*** | 0.300*** |
| | (77.31) | (77.70) | (76.10) | (76.07) |
| *MB* | -0.005 | -0.006 | 0.006 | 0.006 |
| | (-0.27) | (-0.30) | (0.23) | (0.24) |
| *TANG* | -0.079*** | -0.085*** | -0.130*** | -0.130*** |
| | (-3.77) | (-4.07) | (-5.39) | (-5.38) |
| *LEV* | 0.002 | 0.002 | 0.003* | 0.003* |
| | (1.12) | (1.13) | (1.68) | (1.68) |
| *PROFIT* | -0.001** | -0.001** | -0.000* | -0.000* |
| | (-2.17) | (-2.16) | (-1.96) | (-1.96) |
| *CASH* | 0.299*** | 0.307*** | 0.274*** | 0.274*** |
| | (9.61) | (9.89) | (7.66) | (7.66) |
| *R&D* | 0.099*** | 0.100*** | 0.099*** | 0.099*** |
| | (2.80) | (2.80) | (2.93) | (2.93) |
| *BOARD* | 0.634*** | 0.637*** | 0.811*** | 0.811*** |
| | (55.53) | (55.81) | (64.94) | (64.88) |
| *ANALYST* | 0.057*** | 0.057*** | 0.067*** | 0.067*** |
| | (76.99) | (76.55) | (78.95) | (78.97) |
| *LNGDP* | -0.097*** | -0.098*** | -0.090*** | -0.090*** |
| | (-15.40) | (-15.39) | (-11.92) | (-11.82) |
| *NANT_DIR* | -0.001 | 0.008 | -0.116*** | -0.114*** |
| | (-0.04) | (0.68) | (-8.08) | (-7.98) |
| *PTY_RIGHTS* | -0.029 | -0.016 | -0.048 | -0.054 |
| | (-0.98) | (-0.54) | (-1.35) | (-1.53) |
| *FAREAST* | -0.722*** | -0.643*** | -0.745*** | -0.753*** |
| | (-23.33) | (-20.24) | (-20.67) | (-20.92) |
| *GERMANIC* | -0.218*** | -0.216*** | -0.316*** | -0.313*** |
| | (-5.13) | (-5.10) | (-6.67) | (-6.63) |
| *LATINAMERICA* | 0.039 | 0.014 | 0.129** | 0.112** |
| | (0.85) | (0.29) | (2.34) | (2.03) |
| *LATINEUROPE* | 0.586*** | 0.556*** | 0.503*** | 0.499*** |
| | (15.81) | (14.99) | (11.94) | (11.84) |
| *FRENCHORG* | -0.138*** | -0.082** | -0.417*** | -0.403*** |

| | | | | |
|---|---|---|---|---|
| | (-3.63) | (-2.14) | (-9.23) | (-8.93) |
| *GERMANORG* | 0.514*** | 0.550*** | 0.022 | 0.023 |
| | (25.01) | (27.15) | (1.01) | (1.07) |
| *SCANORG* | 0.290*** | 0.309*** | -0.008 | -0.022 |
| | (4.73) | (5.04) | (-0.12) | (-0.32) |
| *Constant* | -2.022*** | -2.135*** | -2.062*** | -2.065*** |
| | (-16.25) | (-16.94) | (-15.10) | (-15.13) |
| *Year effect* | Yes | Yes | Yes | Yes |
| *Industry effect* | Yes | Yes | Yes | Yes |
| *N* | 69,474 | 69,474 | 69,474 | 69,474 |
| $R^2$ | 0.548 | 0.548 | 0.538 | 0.538 |

Note: This table presents the difference in difference test results obtained by regressing both the environmental and social pillar of CSR measures (*ENV* and *SOCIAL*) on trust and on controls of firm- and country-specific variables, respectively. *POST2012* is an indicator variable which equals one if the year is larger than 2012, which represents years aftermath of the 2011 Japan earthquake and tsunami, and zero otherwise. *TSUNAMI* is an indicator variable which equals one if the country is one of Asia-Pacific (APAC) countries (e.g., Australia, Hong Kong, Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, Taiwan, Thailand), and zero otherwise. *POST2016* is an indicator variable which equals one if the year is larger than 2016, which represents years aftermath of the 2015 Europe refugee crisis, and zero otherwise. *REFUGEE* is an indicator variable which equals one if the country is one of countries in the European Union (EU) (e.g., Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom), and zero otherwise. Table A1 in the Appendix provides the definitions and data sources for the regression variables. All regressions include year and industry fixed effects. The industry controls are based on the 12 Fama-French industry classification codes. t-statistics based on robust standard errors are reported in parentheses. ***, **, and * denote two-tailed statistical significance at the1, 5, and 10% levels, respectively.