Corporate Social Irresponsibility and Portfolio Performance: A Cross-National Study

Maretno A. Harjoto
Pepperdine Graziadio Business School,
Pepperdine University, Malibu, USA
Tel: +1 310 506 8542
Email: maretno.harjoto@pepperdine.edu

Andreas G. F. Hoepner
Smurfit Graduate Business School,
University College Dublin, Belfield, Dublin 4, Ireland.
Tel: +353 1 7164000
Email: andreas.hoepner@ucd.ie

Technical Expert Group on Sustainable Finance,
DG FISMA, European Union

Mistra Financial Systems, Stockholm School of Economics,
Box 6501, Stockholm SE-113 83, Sweden

Qian Li*
Cardiff Business School
Cardiff University
Colum Drive, Cardiff, CF10 3EU, UK
Tel: +44(0)2920879247
Email: liq50@cardiff.ac.uk

This version: August 29, 2020

Journal of International Financial Markets, Institutions and Money, Forthcoming

Acknowledgments: *Corresponding author. We are very thankful for comments from Michael L. Barnett, Mark Chen, Charles H. Cho, Theodor Cojoianu, Alfonso Dufour, John A. Doukas (discussant), Chengbo Fu (discussant), Christopher D. Godfrey, Wenxuan Hou, Emirhan Ilhan, Christian Klein, Jochen Lawrenz, Jialong Li, Miriam Marra (discussant), Dimitrios Stafylas, Andrew Stark, Colin Tissen, Sotiris Tsolacos, Peter Walters, Liu Wang, Xiaozhou Zhou and participants at the CSEAR North-Asia Hong Kong Conference 2017, the 2018 BAFA annual conference, EFMA 2018 Annual Meeting, the 25th Global Finance Conference, The Financial Data Science Association sessions at the 94th WEA Annual conference, the 2019 Cross Country Perspectives in Finance (CCPF) Conference, the European Commission JRC Sustainable Finance conference and the International Conference on Fintech and Financial Data Science. We are very grateful to Philipp Aeby, Danilo Chiono, Alexandra Mihailescu Cichon, and Jenny Nordby of RepRisk and Robert Schwob and Peter Hopkins of Style Research for provision of data. Millie Yi Zhu provided excellent research assistance. Harjoto recognizes financial support and release time from the 2019-2021 Denney Endowment. All remaining errors are our sole responsibility. The authors are listed alphabetically and have no conflicts of interest with respect to the presented analysis.

Corporate Social Irresponsibility and Portfolio Performance: A Cross-National Study

Abstract

This study examines the impact of reputational risk, measured by corporate social irresponsibility (CSI) ratings, on shareholder abnormal returns. Based on 7,368 non-financial companies from 42 countries during 2007-2017, we find that long-short portfolios (buying no reputation risk and selling high reputation risk portfolios) earn significantly positive abnormal returns. The cross-national results indicate that the long-short portfolio returns are more pronounced (i) in the emerging market segment than in the developed market segment, (ii) in civil law jurisdictions than in their common law peers, (iii) within nations with higher confidence in corporations and, (iv) within nations with higher institutional trust.

JEL Classifications: G20; M14; G29

Keywords: Corporate Social Irresponsibility; Developed Markets; Emerging Markets; Reputation Risk; Portfolio Approach

1. Introduction

Reputation risk is a growing concern for many companies all over the world. Over the past decade, the power of social media has allowed news to spread across the world within minutes and a piece of negative news can have a direct adverse impact on the global perceptions of a company's reputation. High-profile incidents, such as BP's oil spill in 2010, Volkswagen's emissions scandal in 2015, and Facebook's data security breach in 2018, have alerted companies that reputation risk can quickly change public perceptions, incurring the loss of customers' confidence, damaged employee relationships and a reduction in profits and share prices. Corporate social irresponsibility (CSI) events represent a risk that destroys the accumulation of trust, support, and good perceptions about the company by all of its key stakeholders that the company has garnered over a long period of time (reputational capital). Therefore, we consider CSI as a "reputational risk" that undermines firms' reputational capital, and the focus of this study is to examine the impact of different levels of reputational risk on shareholder abnormal returns across 42 developed and emerging markets.

A firm is considered as socially responsible when its actions go above and beyond the economic, legal, institutional standards or informal norms established in the society where it operates (Carroll, 1979; 1991; McWilliams and Siegel, 2001; 2011; McWilliams et al., 2006). While there is a stratification for corporate socially responsible behaviour, there is no stratification or pyramid at which the stakeholder can make an obvious valuation of corporate irresponsible behaviour. CSI is usually considered as a negative externality (harmful) to the stakeholder and the damages from CSI episodes can be realised long after the episodes were discovered. Furthermore, the value assessments of socially irresponsible scandals across different countries are complex due to the variation in countries' institutional settings.

Much of the international finance literature, however, focuses on the topic of corporate social responsibility (CSR) instead on the topic of CSI. Some studies have examined the impacts of CSR in emerging countries with less developed regulatory infrastructures and enforcements (Arya and Zhang, 2009; Baskin, 2006; Cheung et al., 2010; Gao et al., 2017; Jacoby et al., 2019; Jain et al., 2017). Existing literature has also examined the value impact of CSR (e.g., Edmans, 2011; Galagedera, 2012; Gloßner, 2018; Li et al., 2019; Lins et al., 2017; Lioui et al., 2018; Humphrey et al., 2012) and the role of CSR across different countries and legal systems (Cai et al., 2016; Dhaliwal et al., 2012; El Ghoul et al., 2017; Ioannou and Serafeim, 2012; Liang and Renneboog, 2017). Turning our attention to CSI though, a more thorough understanding of the impact of corporate social irresponsibility (CSI) across emerging and developed markets and across different institutional settings is still lacking. Our study appears to fill this gap.

Based on the institutional economics theory (North, 1990; 1991), we argue that CSI is an organisational (a corporate) outcome that can violates both informal constraints (i.e., trust, customs, codes of conduct, etc.) and formal rules (i.e., laws, regulations, property rights, etc.). These violations of informal constraints and formal rules of the institutions bring significantly negative economic consequences to the firms. Therefore, we suggest that the shareholder responses and evaluations of the CSI under a heterogeneous institutional environment can be explained by both institutional informal constraints and formal rules.

First, drawing from corporate reputation theory (Barnett and Leih, 2018; Deephouse 2000; Deephouse and Carter, 2005; Fombrun, 1996), we argue that CSI represents a reputational risk due to the firm's violations against the institutional informal constraints (i.e., trust). Since corporate reputation is built upon trust, CSI undermines firms' accumulated reputational capital which has a significant value relevance to the shareholders (Barnett et al.,

2006; Dowling, 2006; Roberts and Dowling, 2002). We hypothesise that firms with higher reputational risk, measured by CSI, have significantly lower abnormal returns than firms with no reputational risk.

Second, using the institutional theory of corporate reputational capital (Barnett and Pollock, 2012; Brammer and Jackson, 2012; Deephouse and Carter, 2005; Deephouse et al., 2016), we hypothesise that the shareholders' reactions to the changes in reputational risk will vary across countries depending on different levels of formal rules and informal institutional constraints (North, 1990; 1991). Khanna and Palepu (1997; 2011) argue that emerging markets exhibit greater institutional voids than developed markets. The lack of formal rules or institutional voids in emerging markets forces the stakeholders to rely more heavily on the institutional informal constraints (i.e., trust, norms, and customs). Since CSI destroys the firm's reputational capital, we expect that the impact of CSI on shareholder abnormal returns is greater in emerging markets than developed markets because CSI violates the institutionally informal constraints. Third, CSI also violates formal rules (i.e., laws). Consistent with the institutional economics theory, we argue that the impact of CSI on shareholder abnormal returns varies across countries' legal origins. Finally, as CSI violates both formal rules and informal constraints, the value relevance of CSI also varies across different levels of public confidence toward major corporations and public trust toward institutions.

Using a unique dataset of CSI ratings from RepRisk, this study examines the impact of reputational risk on shareholder abnormal returns. By keeping track of 28 negative environmental, social and governance (ESG) issues in news media articles in twenty languages for over 13,000 publicly listed companies around the globe, RepRisk provides the rigorously constructed RepRisk Index (RRI) dataset covering the period between January 2007 and December 2017. We use the portfolio approach to examine shareholder abnormal returns by

accounting various commonly known risk factors (Fama and French, 1992; Carhart, 1997), and compare the differences for portfolio of companies with high, medium, low and no reputation risk across 42 countries.

Our empirical findings reveal that stocks with no reputation risk, measured by no CSI event, earn higher abnormal returns than stocks with high reputation risk after controlling for well-known risk factors. Thus, the shareholders react negatively to the change from no reputational risk portfolio to high reputational risk portfolio due to a CSI event. In addition, the gap between high and no reputation risk portfolios is larger for companies operating in emerging markets than in developed markets. The gap persists even after controlling for countries, sectors, firm characteristics, different weighting methods, different periods of subsamples, and exclusion of countries that represent the majority of our sample (U.S. and China). We also find that the gap between high and no reputational risk portfolios is larger for companies in the civil law countries relative to the common law countries. Using the World Values Survey to measure public confidence toward major companies (Aghion et al., 2010), we find that the adverse effect of reputational risk is larger for companies that operate in countries with high confidence toward major corporations than low confidence toward major corporations. Using the Edelman trust index as a measure of public trust toward institutions (Lins et al. 2017), we find that the adverse impact of reputational risk on shareholder abnormal returns is larger in countries with greater trust toward institutions than those with lower trust toward institutions.

Conceptually, our study contributes to the international finance literature and the institutional economics theory (North, 1990; 1991) by examining the value relevance of CSI to shareholders across countries with different institutional infrastructures, legal origins, public confidence toward major corporations and public trust toward institutions. First, we discover

that shareholders are concerned about reputation risk, indicating the value relevance of CSI events since they violate the institutional informal constraints. The findings also suggest that investors can earn significantly positive abnormal returns by buying no reputation risk portfolio and selling high reputation risk portfolio. Second, our study further supports the institutional void theory (Khanna and Palepu, 1997; 2011) that the impact of reputational risk is more pronounced under greater institutional voids, where stakeholder relies more strongly on the institutional informal constraints. Furthermore, our study supports that public trust toward major corporations and institutions play an important role in the value impact of reputational risk on the shareholder return. Our study also provides evidence that civil law countries tend to have a greater focus on stakeholders relative to the common law countries, and the value relevance of CSI is more pronounced in the civil law countries compared to the common law countries. This implies that the legal (formal) institutional rules also play a significant role on the value relevance of CSI.

The remainder of this paper is structured as follows: Section 2 provides the literature review. Section 3 introduces the data source that has been used to measure reputation risk and provides details of the sample selection process. Section 4 contains the details of the methodology employed in this study, including both portfolio formation and benchmark measuring. Section 5 presents the results of the descriptive statistics and various comparative analyses, while the last section contains the conclusion, and offers suggestions for future research.

2. Literature review

Cross-country studies have been primarily focusing on the relationship between institutional structure and corporate social responsibility (CSR) performance. Ioannou and Serafeim (2012) examine the correlations between institutional structure and CSR performance

and find that law and regulations, labour union and availability of skilled labour, cultural system and financial system are related with CSR performance. Liang and Renneboog (2017) examine the role of countries' legal origins to represent the country-level institutions and the firm-level contracting environment and firm CSR performance. Cai et al. (2016) find that CSR ratings are higher in countries with high income-per-capita, strong civil liberties and political rights, and cultures oriented toward harmony and autonomy. Dhaliwal et al. (2012) examine the relationship between issuance of CSR disclosure and information asymmetry across 31 countries with different levels of stakeholder orientation. They conclude that the issuance of CSR reports plays a complementary role to firms' financial disclosure to reduce information asymmetry. Based on the transaction cost and resource-based view, El Ghoul et al. (2017) investigate the value relevance of CSR across countries and find that CSR is more positively related to firm value with weaker financial market settings. They also find that CSR improves firms' access to financing especially in countries with weaker financial markets, limited business freedom, and weaker legal institutions. They argue that firms can utilise CSR as a non-market mechanism to compensate for institutional voids. Overall, these studies indicate that the relationship between firms' CSR and financial performance across countries varies with different institutional settings.

Extant literature that investigated the relationship between CSI and corporate financial performance mostly focus on the developed markets (e.g., Kruger, 2015; Oikonomou et al., 2014; Price & Sun, 2017). Using 478 environmental violations by U.S. publicly traded companies from 1980 through 2000, Karpoff et al. (2005) find that firms that violated environmental regulations suffered statistically significant losses in share values. The public disclosure of a company's environmentally irresponsible behaviour has a negative impact on financial performance (e.g., Gupta and Goldar, 2005; Karpoff et al., 2005; Khanna et al., 1998).

U.S. firms involved in bribery face significant losses that average 5.1% of market capitalisation, which includes 3.3% of direct costs and 1% of reputation losses (Karpoff et al. 2017).

Studies examining the shareholder returns from CSI in the emerging countries are still lacking (Kolk, 2016; Pisani, et al., 2017). Recently, Sampath et al. (2018) find that companies committing bribery in less corrupt countries experienced greater negative cumulative abnormal returns. Our study contributes to the nascent literature of CSI by examining the impact of reputational risk, measured by CSI events, on shareholder abnormal return across 42 different countries. First, our study presents the shareholder reactions to CSI instead of the reactions to CSR across 42 developed and emerging countries in a portfolio setting. Second, our study extends the institutional void theory (Khanna and Palepu, 1997; 2011) by examining the abnormal returns from CSI in the emerging markets compared to the developed markets. Our study also extends the literature that examine the role of legal origins (civil versus common law) on shareholders' returns based on the CSI setting instead of the CSR setting (La Porta et al., 2008; Liang and Renneboog, 2017). Furthermore, our study displays further evidence that public trust play an important role in the value impact of CSI on the shareholders' returns.

2.1 Value relevance of corporate social irresponsibility

The institutional economics theory indicates that the organisation's (corporate) success depends on the institutional framework. North (1990) argues that "both what organisations come into existence and how they evolve are fundamentally influenced by the institutional framework" (pg. 5). North (1991) defines institutions as "the humanly devised constraints that structure political, economic and social interactions" (pg. 97). Furthermore, he indicates that institutions include both informal constraints (trust, customs, codes of conduct, etc.) and formal rules (legal laws, regulations, constitutions, etc.). These informal constraints and formal rules

are necessary to facilitate economic activities because they provide enforcement mechanisms that lower information costs, increase capital mobility and diversify the risk for market participants, especially when the markets and exchanges become more complex, competitive, and impersonal (North, 1991; 2005). Recent studies have adopted the institutional economics theory to explain differences in cross-border mergers and acquisitions performance (Li et al., 2020) and entrepreneurship (Boudreaux et al., 2019; Urbano et al., 2019; Webb et al., 2020).

Based on the institutional economics theory, we argue that CSI represents corporate actions that defy institutional informal constraints and formal rules that exist and are widely accepted in society. Therefore, CSI actions are most likely to bring negative economic consequences to the firm because violations of institutional informal constraints and formal rules increase the firm's costs and risk and more importantly, they undermine the firm's reputational capital. Following the institutional economics framework, we examine the value relevance of CSI to the shareholders when it violates informal constraints and formal rules.

Extant literature defines corporate reputation as a perceptual representation of a company's past actions and future prospects that describe the firm's appeal and trust by all of its key constituents when compared to other leading rivals (Fombrun and Shanley, 1990; Fombrun, 1996; Fombrun and van Riel, 1997). The stakeholder perspective of the resource-based view (Barney, 2018) argues that corporate reputation is earned through the support of key stakeholders that brings sustained competitive advantage because it is rare, inimitable, non-substitutable, and more importantly it has a significant value relevance (Barney, 1991; Fombrun and van Riel, 2004; Roberts and Dowling, 2002). The literature also defines reputational capital as an "ebbs and flows" of corporate reputation which represents an economic asset that brings significant value to the firm (Barnett et al., 2006; Fombrun, 2001). More specifically, there are two important aspects of corporate reputation. First, it highlights

the connection between corporate reputation and corporate social performance (e.g., Brammer and Pavelin, 2006; Fombrun and Shanley, 1990; Friedman and Miles 2001; Godfrey, 2005; Godfrey et al., 2009; Melo and Garrido-Morgado, 2012; Porter and Kramer, 2006; 2019; Roberts and Dowling, 2002). Second, it highlights the value relevance of corporate reputation (e.g., Doh et al., 2010; Fryxel and Wang, 1994; Porter and Kramer, 2006).

While the literature that examines the relation between CSR, corporate reputation and the value relevance of corporate reputation has progressed, there are still limited studies that examine the impact of CSI on corporate reputation and the value relevance of CSI events as a measure of corporate reputational risk. Strike et al. (2006) examine internationally diversified firms and find that firms' irresponsible choices can arise due to the complexity of managing subsidiaries within the multinational enterprise. More importantly, CSI adversely affects firms' value by negatively impacting their resources.

Deephouse (2000) argues that media reputation is critical to firms' competitive advantage and it influences the firm's reputational capital. Kölbel et al. (2017) examine the role of media coverage of CSI to generate risk that increases the potential for stakeholder sanctions. Using a panel of 539 firms located in 38 different countries, they find that firms receiving higher CSI coverage face higher financial risk as measured by credit risk. We extend this literature by arguing that CSI media events bring a significant change in reputational risk that destroys stakeholders' trust toward the firm and therefore CSI destroys firm's reputational capital. Given the value relevance of reputational capital (Doh et al., 2010; Fryxel and Wang, 1994; Porter and Kramer, 2006), we argue that there is a significant difference in shareholders abnormal returns between the portfolio of firms with high reputational risk, measured by CSI media events, and the portfolio of firms with no reputational risk. In the portfolio setting, the firm in a particular country could be classified in a high reputational risk portfolio in a particular

month but the same firm could be classified as a no reputational risk in a different month based on its reputational scores. We hypothesize that the shareholders react negatively to a portfolio with high reputational risk versus a portfolio with no reputational risk for firms that operate within the same market segment (either developed or emerging market). Thus, our first (baseline) hypothesis can be stated as the following:

Hypothesis 1 (H1): Portfolio of firms with high reputational risk tend to have lower abnormal returns relative to portfolio of firms with no reputational risk within the same market segment.

2.2 Corporate social (ir)responsibility in developed and emerging markets

There is an extensive literature on corporate social responsibility (CSR) in emerging (developing) countries. Jamali and Karam (2018) conduct a meta-analysis study on the attributes of CSR in emerging markets based on a sample of 452 studies during 1990 to 2015. They find that CSR in emerging countries is influenced and shaped by multi-level factors and actors embedded within both formal and informal governance and institutional structures. Chapple and Moon (2005) examine the website reporting of CSR for 50 firms in seven Southeast Asian countries and find that CSR varies considerably among Asian countries and is explained by the national business systems. They conclude that multinational companies are more likely to adopt CSR than those operating solely in their home country and that the CSR profile tends to reflect the profile of the host country rather than the country of origin. Cheung et al. (2010) examine the relationship between CSR performance and market valuation of Asian Emerging Firms (AEF) and find that there is a significantly positive relation between CSR and market valuation among Asian firms. The change in the CSR score is positively and significantly associated with the market-adjusted return of the subsequent period, indicating that Asian firms are rewarded by the market for improving their CSR practice. Thus, CSR seems to bring a value relevance in the emerging countries.

The literature on corporate social irresponsibility (CSI) in emerging markets is still scant (Pisani et al., 2017). Keig et al. (2015) examine the CSI among multinational corporations and find that higher levels of formal and informal corruption environments in the host countries of the firm's operating portfolio are related to higher levels of CSI. Rhee and Valdez (2009) and Rhee and Kim (2012) present a theoretical model that explains how the firm copes with reputational damaging events and argue that the presence and the credibility of third-party regulatory agencies (institutional structure) play significant roles in firms' ability to repair their reputational loss. Based on Khanna and Palepu (1997) institutional voids framework for emerging markets, Gao et al. (2017) argue that the institutional voids in emerging markets hinder potential transaction between two partners because lack of access to credible signals and validated relevant information, which increase the transaction uncertainties that deter welfare-enhancing transactions between two parties. Therefore, corporate reputation plays more significant role to facilitate firms' long-term survival in the emerging markets. McKenna and Olegario (2012) also provide similar evidence that the British corporate regulations in the nineteenth-century tended to rely strongly on informal corporate reputation-based networks as a basic of trust and self-regulation of economic exchange. Brammer and Jackson (2012) argue that corporate reputation may acts as a *substitute* for regulation. When formal institutions are relatively weak due to lack of capacity for regulatory agencies to enforce the rules, corporate reputation acts as an *informal institution* that plays an important role in coordinating economic activities. Since people may not trust the state to uphold property rights or enforce contracts in emerging markets, economic exchange is dependent upon and shaped by the presence or absence of an established corporate reputation rooted in the society.

Based on the institutional economics theory (North 1990; 1991) and these existing studies discussed above, we argue that reputational capital has larger value in emerging

countries because their formal institutional constraints (i.e., legal laws, property rights, constitutions, etc.) are less developed than in the developed countries. Therefore, transactions and market exchanges in the emerging markets must rely more heavily on the informal institutional constraints (i.e., trust and reputation). Since CSI events violate the stakeholder trust and therefore bring greater reputation risk to the firm, we argue that CSI has a stronger adverse impact on shareholder abnormal returns under the emerging markets with greater formal institutional voids relative to the developed markets with more developed formal institutional infrastructures. Thus, we form our second hypothesis as the following:

Hypothesis 2 (H2): The adverse corporate reputational risk impact of CSI events on shareholder abnormal returns is larger in the emerging markets than in the developed markets.

2.3. The role of legal origins

The institutional economics theory also emphasises the importance of formal institutional constraints, i.e. legal laws, constitutions, property rights, etc. (North 1991). Extant research studies have also demonstrated that country's legal origin systematically influences country-level institutions and the firm-level contracting environment (Doidge et al. 2007; La Porta et al., 2008). La Porta et al. (2008) indicate that "common law stands for the strategy of social control that seeks to support private market outcomes, whereas civil law seeks to replace such outcomes with state-desired allocations" (p. 286). Liang and Renneboog (2017) examine the role of countries' legal origins and firm CSR performance and state that "common law origin is a more discretion-oriented system that supports private market outcomes, places fewer ex ante restrictions on managerial behavior… and favors shareholder protection. In contrast, the civil law origin is associated with state intervention in economic life through rules and regulations…. and a stakeholder view" (p. 855). In short, extant literature has concluded that

the common law countries tend to focus on the "shareholder primacy", while the civil law countries tend to focus on the "stakeholder primacy". Therefore, we examine and contrast the value relevance of CSI across two different legal origins, the civil law versus common law countries.

Since CSI events generally adversely affect non-shareholder stakeholders more than the shareholders and the fact that civil law countries tend to have a greater protection toward the stakeholders than the common law countries, we argue that the value damaging impact of the CSI events will depend on the formal institutional constraints, i.e. the type of country's legal origin. We expect that the adverse impact of CSI events is greater in civil law countries where the stakeholders are placed at a greater importance in the society than the shareholders. Thus, our third hypothesis can be stated as the following:

Hypothesis 3 (H3): The adverse corporate reputational risk impact of CSI events on shareholder abnormal returns is larger in civil law countries than in common law countries.

2.4. The role of public confidence toward major corporations

Trust has been known to play a significant role in market exchanges (Arrow, 1972). Trust can be defined as individual willingness to be vulnerable to the actions of others because we believe they have good intentions and will behave well [or at least not detrimental] toward us (Sucher and Gupta, 2019; Gambetta, 2000). Sapienza and Zingales (2011; 2012) state that an exchange in the marketplace can take place depending not only on the legal enforceability of the contracts but also based on the level of public trust. Aghion et al. (2010) state "trust as beliefs resulting from decisions about civicness" (p. 1050), and argue that the level of trust in the society influence the level and perception of uncivicness by business enterprises, such as pollutions, that creates negative externality to others. The institutional economics also

recognises the importance of trust as an informal institutional constraint that organisations must pay attention to. Since CSI destroys the stakeholders' trust toward the company, we expect CSI events to have a greater adverse value relevance to firms' stock returns in countries with greater trust toward major corporations because the public opinions consider firms' CSI as uncivic actions and they feel that their trust toward corporations has been greatly violated when corporations are associated with CSI events. Therefore, society that has greater trust toward corporation have lower tolerance or more rigid informal institutional constraints toward CSI events. Thus, we argue that the shareholders tend to put greater punishments on corporate irresponsible actions when public trust toward major corporations is high. Consequently, we form our fourth hypothesis as the following:

Hypothesis 4 (H4): The adverse corporate reputational risk impact of CSI events on shareholder abnormal returns is larger in countries with greater trust toward major corporations.

2.5 The role of public trust toward institutions

Erhard and Jensen (2017) and Erhard et al. (2016) state that trust is established by honoring your word which creates whole and complete social and working relationships. It provides an actionable pathway to earning the trust of others. The role of institutional settings in corporate reputation has been examined from the perspective that the legitimacy of an organisation to operate is based on public trust toward institutions. King and Whetten (2008) argue that well-established institutionalised forms of legitimacy act as building blocks for public trust toward corporate reputation. The standards of legitimacy (i.e., relationships, social network, support, civic engagement, trust and cooperative norms) not only define legitimate organisations but also provide a foundation at which corporations can rely on to build their reputations (Lins et al., 2017). Furthermore, King and Whetten (2008) argue that public trust

toward the institutions can contribute to corporate reputation because the institutions serve as standard setters, monitoring and enforcing mechanisms with which an organisation who attempts to build its reputation can then justify its elevated standards relative to the minimum standards as an attempt to differentiate itself from the rivals. Without public trust toward the institutions, corporations have no basis to build their reputation to earn trust from the public. Thus, the trust toward institutions serves as a complement of corporate reputation because the trust creates 'certification contests' that bring new standards needed as a common prototype that the public can rely on. Recent studies have also indicated that that public trust and cooperative norms are positively related to corporate reputation, especially during the time of crisis (Lins et al., 2017; Sapienza and Zingales, 2012). Institutional economics also indicate that trust toward the institution itself is critical in order to keep its credible commitments to secure and to enforce property rights over time (North, 1991). As public trust toward the institution increases, they have less tolerance toward any violations against the formal rules and the informal constraints.

Given public trust toward institutions may serve as a complement to corporate reputation and the fact that greater public trust toward the institution reduces public tolerance toward any violations of formal rules and informal institutional constraints, we expect that a CSI event, which represents the firm's violation toward formal rules and informal constraints, has a stronger impact on shareholder abnormal returns when firms operate under high public trust toward institutions relative to those that operate under low public trust. CSI Thus, we form our fifth hypothesis as the following:

Hypothesis 5 (H5): The adverse corporate reputational risk impact of CSI events on shareholder abnormal returns is larger in countries with greater trust toward institutions.

3. Data and sample selection

3.1. Reputational risk data

To measure companies' reputation risk, we obtained data from RepRisk which provides the most comprehensive and trustworthy source for measuring and analysing CSI. RepRisk continuously tracks 28 environmental, social and governance (ESG) issues associated with the 10 UN Global Compact Principles in relation to more than 13,000 listed companies worldwide in news sources written in twenty language.[1] Based on this information, RepRisk provides a unique RepRisk Index (RRI) dataset covering the period between January 2007 and December 2017. Several recent studies have utilised the RepRisk data and found the RepRisk dataset to be robust, objective, and rigorously constructed (Breitinger and Bonardi, 2017; Gloßner, 2018; Kölbel et al., 2017; Maung, Wilson and Yu, 2020).

The RepRisk Index (RRI) dataset is constructed based on daily negative news information provided by independent third parties, such as international and local media, government websites, NGOs, newsletters, social media, and blogs. When companies behave irresponsibly and are consequently exposed, RepRisk records in their database within 48 hours of the relevant issue the following information: the date that the information became public, any relevant information relating to the company itself, the name of the most prominent source of the information, the type of issue highlighted by the incident, a rating of the novelty, severity,

[1] The 28 issues tracked by RepRisk are in alphabetical order: Animal mistreatment; Anti-competitive practices; Child labour; Climate change, GHG emissions, and global pollution; Controversial products and services; Corruption, bribery, extortion, money laundering; Discrimination in employment; Executive compensation issues; Forced labour; Freedom of association and collective bargaining; Fraud; Human rights abuses, corporate complicity; Impacts on communities; Impacts on landscapes, ecosystems, and biodiversity; Local participation issues; Local pollution; Misleading communication, e.g. "greenwashing"; Occupational health and safety issues; Overuse and wasting of resources; Poor employment conditions; Products (health and environmental issues); Social discrimination; Supply chain issues; Tax evasion; Tax optimization; Violation of international standards; Violation of national legislation; and Waste issues. Further information can be found on RepRisk's website: https://www.reprisk.com/our-approach.

and source of the incident.[2] As an inaugural signatory of the Deep Data Delivery Standards, the objectivity and independence of RepRisk data is well respected by financial markets (www.DeepData.ai). It should be noted that there is always bound to be some kind of a delay between the time when issues arise or incidents occur and when they are reported in the news. As such, the incidents in question are entered into the database according to the date shown on the news source, rather than the date on which these incidents occurred.

Based on the news data, RepRisk constructs the rating index using quantitative measurement to gauge a company's overall exposure to reputation risk or "ESG risk" as it is termed by RepRisk. The RepRisk index is an indicator of reputation risk in relation to ESG issues. It identifies companies whose controversial actions have led them becoming subject to negative criticism from the media. This allows us to compare a company's reputational risk with its peers across sectors. The RepRisk Index is calculated monthly on the basis of the frequency and the timing of media coverage in the relevant preceding period and the influence of the novelty rating, severity rating and source rating of the ESG incident. The score ranges from 0 to 100, which means that the lower the score, the less the company's reputation is at risk. Where the index gives a score of zero, this signifies that the company has not exposed itself to reputational risks at any point in the relevant period.[3]

The index value indicates the level of reputation risks posed by ESG issues associated with a company, and is evaluated using a strict rule-based methodology. RepRisk ensures that

[2] Novelty rating describes how new and salient the news presented on a given topic is and whether the company, project, or government has been criticised earlier on this topic. Severity rating in RepRisk describes the graveness and harshness of an incident or an accusation regarding the violation of international standards. It reflects, firstly, the type of an incident or accusation; secondly, it reflects its extent, and thirdly its consequences for the environment or people. Source rating is a measure of the influence of the source. A large source rating indicates that the source is read by key stakeholders and decision-makers and/or by a large number of individuals.

[3] See a company report sample provided by RepRisk: https://platform.reprisk.com/downloads/Sample%20Company%20Report%20-%20RepRisk%20website.pdf.

its ratings remain objective by entering information relating to specific negative news issues into the database only once, except in the event that the nature of the incident changes. For example, information entered into the database may have needed to be extended if the incident begins to pose new risks through ESG-related issues, or if it receives a much higher degree of media exposure than it had originally. If no new issues are recorded, the index value of a company decreases over time.

3.2. Sample selection

As this study uses the RepRisk Index data to measure companies' overall reputation risk, the sample consists entirely of companies listed in the RepRisk Rating index database between January 2007 and December 2017. In selecting the companies for the sample, the company must have an ISIN code available in Datastream, which is necessary for downloading financial data. The company must have at least 36 months of return data available in order to address the survivorship bias issue on testing asset pricing models (Brown et al., 1992). The company must have market value data available and it must be possible to collect data pertaining to the country and sector to which the company belongs. The company's country must be listed in the MSCI All Country World Index. As large companies enjoy better media attention, it is important to ensure that the results are not biased by micro-cap stocks' illiquid status and high bid-ask spread, we require that each sample company must have market capitalisation of over 100 million dollars. Following Eccles et al. (2014), they exclude financial institutions from their study by suggesting that ESG-related policies are not likely to be applicable or relevant to the financial sectors, we removed all companies from the financial industry using Industry Classification Benchmark (ICB) industry codes. We removed Czech

Republic, Egypt, Hungary, Qatar and United Arab Emirates from the sample due to these five countries having a small number of companies after following the above data cleansing steps.

Our final sample consists of 7,368 non-financial companies, of which 4,819 companies are from 23 developed markets and 2,549 companies are from 19 emerging markets. In this study, we have considered effects of reputation risk on industry to avoid biases toward certain industries. We use the Industry Classification Benchmark (ICB) grouping to identify companies from different industries. Table 1 illustrates our sample companies are taken from 9 industries across 42 developed and emerging markets. There is a huge disparity between the numbers of companies in each country. The U.S. contains the largest portions of the developed markets sample, which has 1,948 companies. The largest portion of the sample companies from emerging markets comes from China, which has 873 companies. In both sets of samples, *consumer discretionary* and *industrials* contain the largest number of companies.

[Insert Table 1 about here]

Table 2 presents the sample statistics of the RepRisk index across countries and years. The second column shows the number of companies that have been taken from each country. The next four columns show the descriptive statistics of the RepRisk index yearly rating for each country during the sample period. The rest of the columns provide the year-by-year comparison for the RepRisk index rating. On average, developed markets have a higher RepRisk score during the sample period while emerging markets have a lower RepRisk score. We also find that the RepRisk score has an increasing trend over the sample period, indicating that overall firms' reputational risk in the world has increased over time.

[Insert Table 2 about here]

4. Method

4.1. Portfolio formation

Since the purpose of this study is to evaluate the impact of corporate reputation risk on shareholder value, we use the portfolio approach to examine abnormal returns by accounting for various common risk factors. In order to compare the differences between high reputation risk and low reputation risk companies, we have applied three types of portfolio construction strategy in this study. First, in line with the most common portfolio strategies, we have constructed buy and hold portfolios for the companies, and these have been adjusted monthly on the basis of their reputational score in the previous month. Second, similar to Lioui et al. (2018), Kempf and Osthoff (2007) and Fang and Peress (2009), we have constructed long-short portfolios that long companies with no reputation risk and short companies with high reputation risk. Third, the methodology is similar to Daniel et al. (1997) which use benchmarks that are based on the characteristics of stocks. We have adopted the characteristic-matched portfolio approach, which pairs companies in high and low reputation risk groups by their shared characteristics: belonging to the same country and sector, and having a similar size (Hoepner et al., 2011). The following explains the detailed process of each portfolio construction strategy.

In order to compare the differences between different levels of reputation risk companies, we select the portfolios based on the companies' reputational risk score. Each month, we group each company into one of the four buy and hold portfolios: high, medium, low and no reputation risk portfolios. First, we assign companies to the no risk portfolio if a company's reputation score is zero in a given month. Second, we construct equivalent size portfolios of high, medium and low reputational risk using the following procedure: we group companies into the same country and industry and we divide the industry and country matched group of companies into three equivalently sized categories based on market capitalisation (i.e.

large, medium and small). Based on the reputational score in the previous month, we finally assign each company in each category to three equivalently sized groups based on reputation risk: the high, medium and low reputation risk group.[4] We then compute both the equal-weighted and value-weighted returns of the three portfolios for the following month using companies' individual stock returns. This approach to ensure that the performance of the portfolios is not biased towards particular countries, industries, and company sizes. Only characteristic-paired companies from the high, medium and low reputation risk groups have been included in the portfolios that are matched by country, industry and company size.

In addition, in examining the effects of reputational risk and in controlling for common risk factors, we also construct long-short portfolios. Taking a similar approach to Kempf and Osthoff (2007) and Fang and Peress (2009), we apply a zero-investment strategy that computes the return in the following month that long the stocks with no reputation risk and short the stocks with high reputation risk. A positive alpha in a long-short portfolio indicates that buying no reputation risk companies and selling high reputation risk companies would earn abnormal returns. We repeat this process for each month and obtain a time series of returns for the zero-investment portfolios.

As is stated above, the full sample contains 7,368 companies, in which 4,819 companies are from developed markets and 2,549 companies are from emerging markets. The portfolios have been constructed on the basis of the reputation risk score from the previous month, and therefore the portfolios are lagged for one month. In compiling the sub-samples of developed

[4] Please note that due to the increasing levels of reputation risk given the growth in global (social) media coverage, we use relative thresholds (i.e. terciles) instead of absolute thresholds.

and emerging markets, we firstly split the sample into companies which belonged to developed and emerging markets and apply the same methodology in the portfolio construction.

4.2. Benchmarks and measures

In the analysis of each type of portfolio, we run time series regressions of portfolio excess returns for each month on contemporaneous risk exposure factors using the Carhart (1997) four-factor model, which are relatively common models for estimating risk-adjusted returns. The equation (1) is specified as follows:

$$R_{it} - R_{ft} = \alpha_i + \beta_i (R_{mt} - R_{ft}) + \gamma_i SMB_t + \delta_i HML_t + \lambda_i MOM_t + \varepsilon_{it} \quad (1)$$

Where $R_{it} - R_{ft}$ and $R_{mt} - R_{ft}$ represent the excess return of the portfolio and the market over the risk-free asset return. α_i denotes Jensen (1968) alpha, which can be interpreted as the portfolio's systematic return component above or below the return achieved by the equity benchmark for the same level of systematic risk. β_i is the portfolio's systematic exposure to the market portfolio, where γ_i, $\delta_i$and λ_i measure the exposure of a portfolio to the small cap, value, and momentum investment styles. The size factor SMB_t (small minus big) represents the difference in return of small stocks portfolios and big stocks portfolios. The book to market ratio factor HML_t (high minus low) represents difference in return of investing high book-to-market ratios portfolios (top 30%) and low book-to-market ratios portfolios (bottom 30%). The momentum factor MOM_t represents the difference in return of winner stocks portfolios (top 30%) and loser stocks portfolios (top 30%). ε_{it} represents the error term. The benchmark factors for these investment styles are obtained from the Style Research to ensure the exact match of countries included in our portfolio analysis (Bauer et al., 2005; Hoepner et al., 2011;

Hoepner and Schopohl, 2018; Renneboog et al., 2008). The risk-free rate is downloaded from Datastream. We use the US 3-month Treasury Bill Rate as the risk-free rate for all the portfolios.

In order to consistently match the performance of selected stocks in the portfolio and effectively evaluate risk-adjusted returns, we select a self-constructed market benchmark for all the portfolios. Specifically, we self-construct market benchmarks according to the characteristics of companies included in the portfolio. More specifically, sample portfolios that include companies from both developed and emerging markets use a value-weighted market benchmark by including all of the companies in the sample. This market benchmark has also been used for the portfolios based on characteristic-matched strategy. For the sample that includes only developed markets, we provide a matching market benchmark using companies from all matched developed markets in the sample. For the sample that includes only emerging markets, we calculate a matching market benchmark using companies from all matched emerging markets in the sample. All market benchmarks are value-weighted.

This benchmark is appropriate for the sample because it keeps close track of the country and sector weights in the sample and reflects the risk characteristics of matching stocks. The abnormal returns calculated based on standard market indexes are generally misspecified. However, the use of matching sample firms as a market index can correct this misspecification (Barber and Lyon, 1997). For instance, it would not be appropriate to evaluate the risk-adjusted returns of a sample that includes all the 42 countries when the weighting of the countries in the sample is very different from that of the MSCI All Country Index. More importantly, standard market benchmarks, such as the S&P 500 and MSCI USA indexes, tend to place more weight on financial sector stocks. Such weightings are unsuitable for this study, as there is a marked difference in the ways in which CSI manifests itself in financial and non-financial sectors.

5. Results

We first test the hypothesis (H1) by examining the abnormal returns of the long-short portfolios (long no reputational risk and short high reputational risk) constructed using the full sample. Then, we examine our second hypothesis (H2) by comparing the differences in long-short portfolios abnormal returns between the samples for developed and emerging markets. Next, we empirically test our third hypothesis (H3) by examining the difference in alphas of the long-short portfolios between common law and civil law countries, and we examine our fourth hypothesis (H4) by examining the differences in alphas between high versus low confidence toward major companies. We examine our fifth hypothesis (H5) by examining the differences of the long-short portfolios between high versus low confidence toward institutions. Finally, we conduct robustness checks including testing different methods, sample period, benchmarks and splitting the samples from developed and emerging markets into sub-samples of companies.

5.1. Value relevance of CSI in developed and emerging markets

Table 3 displays the baseline results for risk-adjusted performance of the sample of all 42 countries over the portfolio formation period of January 2007 to December 2017. Panel A presents the value-weighted results for developed markets and Panel B shows the value-weighted results for emerging markets. Both panels present the risk-adjusted performance of the high reputation risk, low reputation risk, no (zero) reputational risk, and long-short portfolios. The long-short portfolio is that buying stocks with no reputation risk and selling stocks with high reputation risk. The "Long (10) Short (5)" portfolios are portfolios that buying emerging market's long-short portfolio (10) and selling developed market's long-short portfolio (5). Portfolios are adjusted monthly and the number of monthly observations varies for different portfolios.

[Insert Table 3 about here]

In Table 3, the long-short results in both columns (5) for developed markets and (10) for emerging markets show that the Jensen alpha (abnormal return) for high reputation risk portfolios perform worse than no reputation risk portfolios even after controlling the risks for market, size, value, and momentum, for both developed and emerging markets. The results support our first hypothesis (H1) and suggest that firms with high reputational risk, which represents a greater violation toward informal institutional constraints, tend to have lower abnormal returns relative to firms with no reputational risk within the same market segment. In developed markets, firms with no reputational risk have 0.19% per month higher abnormal return relative to the firms with high reputational risk. In emerging markets, firms with no reputational risk have 0.94% per month higher abnormal return relative to the firms with high reputational risk. Our result that demonstrates the gap between abnormal return for firms with high reputational risk and no reputational risk is also consistent with findings from existing studies (Eccles et al., 2014; Fang and Peress, 2009).

The abnormal returns gap between no reputational and high reputational risk is even larger for firms in emerging markets than developed markets as the additional long emerging market and short developed market (Long (10) Short (5)) result shows 0.86 % per month abnormal return. Since the formal institutional structure for the emerging markets are generally considered as less developed compared to the developed markets (El Ghoul et al., 2017; Gao et al., 2017; Ioannou and Serafeim, 2011), this latter finding provides support to our second hypothesis (H2) indicating the adverse reputational risk impact of CSI events on shareholder abnormal returns is larger in the markets with larger institutional voids due to those emerging markets need to rely more heavily on the informal institutional constraints, which are based on the public trust and corporate reputation.

5.2. Legal origins

Thus far, the results have shown there to be significant differences between high and no reputation risk portfolios. Following Liang and Renneboog (2017), we analyse further the cross-country differences across two different legal origins: civil law and common law. Table 4 applies the same method as in baseline results. Panel A of Table 4 shows that companies with high reputation risk are more penalised by investors in countries with the civil law system than the common law. The long-short portfolio returns in civil law countries (0.74% per month) are higher than common law countries (0.25% per month). The long civil law countries and short common law (Long (10) Short (5)) result shows 0.69 % per month abnormal return. Our finding indicates that companies with high reputational risk, measured by CSI events, tend to be punished more in the civil law countries than those in common law countries. Thus, we find empirical evidence to support our third hypothesis (H3). Our finding supports the institutional economics theory which argues that the type of formal institutional constraints (i.e., legal origin) plays a significant role in the market exchanges. Our finding is also consistent with existing CSR literature (Dhaliwal et al., 2012; Liang and Renneboog, 2017) that find firms' corporate social responsibility (CSR) performance in civil law countries tend to outperform those in common law countries.

[Insert Table 4 about here]

5.3. Public trust toward major corporations

Inspired by Aghion et al. (2010), we use public confidence toward major companies from the World Value Survey and separate countries into high and low confidence towards major companies. Panel B of Table 4 presents the results of countries with confidence towards

major companies. We find that the long-short portfolios in countries with high confidence toward major corporations (0.68% per month) have a greater abnormal return gap compared to the low level of confidence toward major corporations (0.28% per month). The cross-country differences between long-short portfolios of high and low confidence toward major corporations (Long (10) Short (5)) is 0.51% per month. This finding implies that investors are more likely to penalise high reputation risks companies, measured by CSI events, if they operate in countries with higher confidence toward major corporations than investors in countries that have lower confidence toward major corporations. Thus, supporting our fourth hypothesis (H4), we find that the level of public confidence toward major corporations also matters in valuation of corporate reputational risk. This finding also indicates that as public trust and confidence toward major corporation increases, they have less tolerance toward CSI.

5.4. Public trust toward institutions

Consistent with Lins et al. (2017), we use the Edelman trust index as a measure of public trust toward institutions and examine the long-short portfolios abnormal returns for firms that operate in countries with high trust toward institutions and low trust toward institutions. Panel C of Table 4 shows that the long-short abnormal returns for firms that operate in high trust toward institutions (0.78% per month) are larger than the abnormal returns for firms that operate in low trust toward institutions (0.18% per month). The cross-country abnormal returns difference between long-short portfolios of high and low trust toward institutions (Long (10) and Short (5)) is 0.61% per month. This finding supports our fifth hypothesis (H5) that the adverse corporate reputational risk impact of CSI events on shareholder abnormal returns is larger in countries with higher trust toward institutions than those with lower trust toward institutions. This finding also supports the argument that public trust toward institutions can be considered as a complement to corporate reputation (King and

Whetten, 2008). Furthermore, as public trust toward the institution increases, they have lower tolerance toward any violations of institutional informal constraints and formal rules. Therefore, CSI brings more damaging value to the shareholder under this institutional setting.

To summarise, our overall empirical results indicate that investors are more likely to generate abnormal returns using the long-short of no reputational and high reputational risk strategy if they choose to invest in companies that are located in emerging markets, civil law countries, and countries with higher public trust toward major companies and institutions.

5.5. Robustness tests

We perform several sensitivity tests based on the baseline results shown previously. In particular, we try to alleviate the concern that the gap between high and low reputation risk portfolios could be driven by weighting method, asset pricing models, financial market conditions (financial crisis and post crisis), and samples of firms from specific countries (i.e., US and China), the reputational effect of CSR scores, the year differences of reputational risk scores, company size and different benchmark factors. Table 5 displays the Jensen alphas from the sensitivity checks based on the baseline results in Table 3. Panel A presents the equal-weighted results while Panel B presents the results from Fama-French three-factor model. Except Panel A, all portfolios use value-weighted method. Except Panel B, all results are based on Carhart (1997) four-factor model. Panel C, D, D1 and D2 test the results based on different financial market periods focused on or excluding the financial crisis. Panel G removes the dominant firms' sample effects of US and China in the developed and emerging markets sample, respectively.

[Insert Table 5 about here]

Table 5 shows that the results are similar to the baseline results. Consistent with our first hypothesis (H1), the abnormal returns for firms with high reputational risk are significantly lower than no reputational risk for both developed and emerging markets and even when we exclude the firms from the countries that represent the majority of our sample (US and China). This result also holds especially during the financial crisis period (January 2007 to March 2009), indicating that investors' perceptions of reputational risk are heightened during the financial market turmoil. We also find consistent evidence to support our H2 that the gap of abnormal returns between high and no reputational risk for emerging markets are higher than developed markets (except for equal-weighted and post 2013 on panels A and D2), indicating that adverse reputational risk impact of CSI events on shareholder abnormal returns is larger in the markets with larger institutional voids than those operating in a more well-developed institutional structure, especially during the financial crisis.

[Insert Table 6 about here]

We provide additional robustness tests to address concerns that the gap between high and low reputation risk portfolios could be driven by the reputational effect of CSR performance, the influence of time trend and company size on reputational risk scores and different benchmark factors. Table 6 displays the Jensen alphas from these additional robustness checks on our baseline results in Table 3. To control for CSR performance, we use Sustainalytics database that covers 11,000 firms' monthly CSR performance across the globe

starting from September 2009.[5] We matched Sustainalytics' CSR data and RepRisk's CSI data based on firms' ISIN, month and year. We separate the Sustainalytics' score into high (above median) and low (below median) CSR for each country and industry and apply the same methodology to construct the CSI portfolios. Panel A1 and A2 of Table 6 present the results by comparing the differences between high and low CSR reputational effect. We cannot find significant abnormal returns for the long-short portfolios between high and low CSR effects in developed markets portfolios (-0.1% and 0.4% respectively). However, we find significant differences between high and low CSR performance for emerging markets, where low CSR firms have lower long-short portfolios abnormal returns (0.19%) than long-short portfolio for higher reputational risks (1.21%). In Panel B, we adjust the reputational risk score by size and year to address the concerns that the number of news reporting is increasing over the years and large size firms are more likely reported in the news.[6] The robustness tests results presented in panel B of Table 6 are consistent with the baseline results in Table 3. Panel C1 and C2 test the results based on market benchmarks obtained from Fama French data library.[7] The "Long (10) Short (5)" results that contrast the difference in abnormal returns between emerging markets and developed markets portfolios across all these robustness tests are similar to the baseline results, thus they strongly support our second hypothesis (H2).

[5] Sustainalytics score is also constructed with a similar scaling as the RepRisk data (scaled from 0 to 100) and is available on a monthly basis similar to the RepRisk data.

[6] We made size and year adjustment on the RepRisk score with the following formula, which increases CSI scores for smaller firms/earlier years and decreases CSI scores for larger firms/later years: 'Size and Year adjusted RepRisk score = RepRisk score – [(market cap of company at period t - average market cap of the portfolio at period t) * slope coefficient of size] – [(year of company - midyear of the sample of the portfolio)*slope coefficient of year]'. Both slope coefficients are estimated from a panel regression of the original RepRisk score on market cap, country dummies and year dummies. Aligning both equations leads to size and year adjusted RepRisk scores being computed as. We then replace the RepRisk Score by the size and year adjusted RepRisk scores and rerun our main model.

[7] Fama French data library:
http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html#International

We conduct further robustness checks and the results of these robustness checks are not tabulated. First, since the literature on the topic of legal origins has progressed toward examining four different types of civil law: French, German, Scandinavian and Socialist civil law (e.g. Liang and Renneboog, 2017), we also empirically examined the four subcategories of civil law portfolios (French, German, Scandinavian and Socialist civil law). We find additional empirical support to our third hypothesis (H3) that the abnormal returns from the long-short portfolios are broadly supportive of our main results. Second, we also conduct the robustness check by using different market benchmarks. Given that we use a self-matched market benchmark in this study, the differences between the high and no reputation risk portfolios remain constant even after applying other market benchmarks, such as the MSCI All Country Index. Our untabulated results indicate that by using the MSCI All Country Index, the abnormal returns for both high and low reputation risk portfolios are higher, but the results for the long-short of no reputational risk and high reputational risk portfolios remain similar. In fact, we find that the differences between high and no reputation risk portfolios are similar no matter what market benchmarks are used. Therefore, we believe that our results are robust, even after accounting for countries, sectors, firm characteristics, different weighting methods, different models, different subsamples, and different benchmark factors and reputational effect from firms' CSR performance.

6. Conclusion

We investigate the value relevance of reputation risk, measured by CSI events, on stockholder abnormal return based on an extensive sample of companies worldwide. In compiling the different samples, we constructed portfolios using three portfolio construction strategies: long-hold portfolios, long-short portfolios, and characteristic-matched portfolios.

The main results suggest that reputational risk, measured by CSI events, reduces stock returns. Stocks with high reputation risk portfolios perform worse than no reputation risk portfolios after controlling for countries, sectors, firm CSR performance, different weighting methods and different sample periods. These findings imply that the stock market considers corporate social irresponsibility (CSI) or reputational risks that violates the informal institutional constraints (i.e., trust) as value relevant. The findings also provide practical implications for investors that it is profitable to apply a long-short strategy in buying no reputation risk companies and selling high reputation risk companies.

In addition, the results support the idea that there are more significant differences in terms of abnormal returns between high and no reputation risk portfolios in emerging markets than in developed markets. This suggests that investors are more likely to act on information pertaining to companies' levels of reputation risk in emerging markets. This study contributes towards understanding the variations of CSI across countries in the asset pricing setting. Our findings also bring empirical evidence that demonstrates the value relevance of corporate reputational risk varies across countries with both formal and informal institutional constraints and under various institutional settings (i.e., emerging versus developed markets, civil law versus common law and public confidence toward major companies and trust toward institutions).

Our study contributes to the existing literature in four ways. First, our study extends the CSR literature by providing evidence for the shareholders' negative reaction to CSI. Second, our finding extends the institutional economics literature by providing empirical evidence that the impact of CSI on shareholder abnormal returns are greater in emerging markets where corporate reputation plays more significant role due to lack of access to credible formal institutional constraints and greater information asymmetry in emerging markets (Gao et al.,

2017). Third, our study also provides further evidence about the critical roles of formal rules and informal institutional constraints, measured by legal origin and public trust toward corporations on shareholders' return by examining the varying impacts of CSI on shareholders abnormal return across two different legal origins (civil and common law). Fourth, our study presents evidence to support the institutional economics theory that public trust toward the institution itself plays an important role in the value impact of CSI on the shareholder returns.

We present a number of suggestions for further studies. First, many studies report that there are significant differences in the content of CSR reports between different countries (e.g., Chen and Bouvain, 2008; Maignan and Ralston, 2002), as well as marked differences between firms' policies on ethics, human rights, corporate governance and communications (Scholtens and Dam, 2007). However, the financial impact of irresponsible behaviour could be vastly different across different culture and other country-specific factors. This raises the question of whether or not there are differences in the economic consequences of CSI behaviour between individual countries. Therefore, it would be rewarding to consider culture and country-specific factors in future CSI studies.

Second, it should be noted that this study does not imply that firms' reputation risk profiles remain constant over various time periods. Indeed, although a firm's reputation risk levels can remain reasonably steady over many years, they are also liable to swing in either direction. Therefore, future studies should explore the literature on the consistency of firms' reputation risk profiles, and investigate the factors that motivate firms to change their attitude and behaviour over a long period of time.

Finally, although it is primarily the relationship between firms' levels of reputation risk and their financial performance that has been investigated in this paper in relation to portfolios, it is worth examining this relationship from the perspective of the firms themselves. Companies

differ vastly in their individual perception, understanding of, tolerance toward, and reactions to reputation risk. Some companies tend to keep their levels of reputation risk to a minimum, while other companies may expose themselves to reputation risks at an extreme level. If it is assumed that activities that pose a comparatively small risk to reputation – such as bribery or mild instances of corruption – can bring short-term economic benefits to business operations, it can also be expected that severe exposure to reputation risk will result in a reduction to shareholder value. Therefore, a thorough consideration of the benefits and drawbacks of reputation risk at the firm-level setting would make an interesting contribution to the existing literature.

References

Aghion, P., Algan, Y., Cahuc, P, & Shleifer, A. (2010). Regulation and distrust. *Quarterly Journal of Economics*, 125(3), 1015-1049.

Arrow, K. (1972), Gifts and exchanges. *Philosophy and Public Affairs*, 1, 343–62.

Arya, B., & Zhang, G. (2009). Institutional reforms and investor reactions to CSR announcements: Evidence from an emerging economy. *Journal of Management Studies*, 46(7), 1089-1112.

Barber, B. M., & Lyon, J. D. (1997). Detecting long-run abnormal stock returns: The empirical power and specification of test statistics. *Journal of Financial Economics, 43*(3), 341-372.

Barnett, M. L., Jermier, J. M., Lafferty, B. A. (2006). Corporate reputation: The definitional landscape. *Corporate Reputation Review*, 9(1), 26-38.

Barnett, M. L., & Leih, S. (2018). Sorry to (not) burst your bubble: The influence of reputation rankings on perceptions of firms. *Business & Society*, 57(5), 962-978.

Barnett, M. L., & Pollock, T. G. (2012). *The Oxford Handbook of Corporate Reputation*. Oxford University Press: Oxford, UK.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.

Barney, J. (2018). Why resource-based theory's model of profit appropriation must incorporate a stakeholder perspective. *Strategic Management Journal*, 39(13), 3305-3325

Baskin, J. (2006). Corporate responsibility in emerging markets. *Journal of Corporate Citizenship*, 24, 29-47.

Bauer, R., Koedijk, K. & Otten, R. 2005. International evidence on ethical mutual fund performance and investment style. *Journal of Banking & Finance*, 29, 1751-1767.

Boudreaux, C. J., Nikolev, B. N., & Klein, P. (2019). Socio-cognitive traits and entrepreneurship: The moderating role of economic institutions. *Journal of Business Venturing*, 34(1), 178-196.

Brammer, S. J., & Pavelin, S. (2006). Corporate reputation and social performance: The importance of fit. *Journal of Management Studies, 43*(3), 435-455.

Brammer, S. J., & Jackson, G. (2012). Chapter 15: How regulatory institutions influence corporate reputations. In *The Oxford Handbook of Corporate Reputation*. Edited by M. L. Barnett & T. G. Pollock.

Breitinger, D., & Bonardi, J. P. (2017). Firms, breach of norms and reputation damage. *Business & Society*, 5(1), 1-34.

Brown, S. J., W. N. Goetzmann, R. G. Ibbotson, and Ross, S. A. (1992), "Survivorship Bias in Performance Studies," Review of Financial Studies, 5, 553–580.

Cai, Y., Pan, C. H., & Statman, M. (2016). Why do countries matter so much in corporate social performance? *Journal of Corporate Finance*, 41, 519-609.

Carhart, M. (1997). On persistence in mutual fund performance. *The Journal of Finance, 52*(1), 57-82.

Carroll, A. (1979). A three-dimensional conceptual model of corporate performance. *Academy of Management Review*, 4(4), 497-505.

Carroll, A. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizons*, 34(4), 39-48.

Chen, S., & Bouvain, P. (2008). Is corporate responsibility converging? A comparison of corporate responsibility reporting in the USA, UK, Australia, and Germany. *Journal of Business Ethics*, *87*(S1), 299-317.

Cheung, Y. L., Tan, W., Ahn, H., & Zhang, Z. (2010). Does corporate social responsibility matter in asian emerging markets? *Journal of Business Ethics*, 92(3), 401-413.

Daniel, K., Grinblatt, M., Titman, S., & Wermers, R. (1997). Measuring mutual fund performance with characteristic-based benchmarks. *The Journal of Finance*, *52*(3), 1035-1058.

Deephouse, D. L. (2000). Media reputation as a strategic resource: An integration of mass communication and resource-based theories. *Journal of Management*, 26(6), 1091-1112.

Deephouse, D. L., & Carter, S. M. (2005). An examination of differences between organizational legitimacy and organizational reputation. *Journal of Management Studies*, 42(2), 329-360.

Deephouse, D. L., Newburry, W., & Soleimani, A. (2016). The effects of institutional development and national culture on cross-national differences in corporate reputation. *Journal of World Business*, 51(3), 463-475.

Dhaliwal, D. S., Radhakrishnan, S., Tsang, A., & Yang, Y. G. (2012). Nonfinancial disclosure and analyst forecast accuracy: International evidence on corporate social responsibility disclosure. *Accounting Review*, 87(3), 723-759.

Doh, J. P., Howton, S. D., Howton, S. W., & Siegel, D. S. (2010). Does the market respond to an endorsement of social responsibility? The role of institutions, information, and legitimacy. *Journal of Management*, 36(6), 1461-1485.

Doidge, C. G., Karolyi, A., & Stulz, R. M. (2007). Why do countries matter so much for corporate governance? *Journal of Financial Economics*, 86, 1–39.

Dowling, G. (2006). How good corporate reputations create corporate value. *Corporate Reputation Review*, 9(2),134-143

Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science, 60*(11), 2835-2857.

Edmans, A. (2011). Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics*, 101, 621-640.

El Ghoul, S., Guedhami, O., & Kim, Y. (2017). Country-level institutions, firm value, and the role of corporate social responsibility initiatives. *Journal of International Business Studies*, 48, 360-385.

Erhard, W., & Jensen, M.C. (2017), Putting integrity into finance: A purely positive approach, Working paper, Harvard Business School. Avaliable at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2963231

Erhard, W., Jensen, M. C., & Zaffron, S. (2016), Integrity: A positive model that incorporates the normative phenomena of morality, ethics, and legality, Working paper, Harvard Business School. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1542759

Fama, E., & French, K. (1992). The cross-section of expected stock returns. *Journal of Finance*, 47(2), 427-465.

Fang, L., & Peress, J. (2009). Media coverage and the cross-section of stock returns. *Journal of Finance, 64*(5), 2023–2052.

Fombrun, C. J. (1996). *Reputation: Realizing Value from the Corporate Image*. Harvard Business School Press. Cambridge, MA.

Fombrun, C. J. (2001). Corporate reputation as economic asset, in *The Blackwell Handbook of Strategic Management,* Hitt, Freeman and Harrison, eds., Malden: Blackwell Publishers.

Fombrun, C. J., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of Management Journal*, 33(2), 233-258.

Fombrun, C. J., & van Riel, C. (1997). The reputational landscape. *Corporate Reputation Review*, 1(1), 1-16.

Friedman, A., & Miles, S. (2001). Socially responsible investment and corporate social and environmental reporting in the UK: An exploratory study. *The British Accounting Review, 33*(4), 523-548.

Fryxell, G. E., & Wang, J. (1994). The fortune corporate 'reputation' index: Reputation for what? *Journal of Management*, 20(1), 1-14.

Galagedera, D. U. A. (2012). Recent trends in relative performance of global equity markets. *Journal of International Financial Markets, Institutions & Money*, 22, 834-854.

Gambetta, D. (2000). Can we trust trust?, in Gambetta, Diego (ed.). *Trust: Making and Breaking Cooperative Relations*. Department of Sociology, University of Oxford, Chapter 13, 213-237.

Gao, C., Zuzul, T., Jones, G., & Khanna, T.(2017). Overcoming institutional voids: A reputation-based view of long-term survival. *Strategic Management Journal*, 38(11), 2147-2167.

Gloßner, S. (2018). The price of ignoring ESG risks. Working Paper. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3004689

Godfrey, P. C. (2005). The relationship between corporate philanthropy and shareholder wealth: A risk management perspective. *Academy of Management Review*, 30, 777-798.

Godfrey, P. C., Merrill, C. B., & Hansen, J. M. (2009). The relationship between corporate social responsibility and shareholder value: An empirical test of risk management hypothesis. *Strategic Management Journal*, 30, 425-445.

Gupta, S., & Goldar, B. (2005). Do stock markets penalize environment-unfriendly behaviour? Evidence from India. *Ecological Economics*, *52*(1), 81-95.

Hoepner, A. G. F., Rammal, H. G., & Rezec, M. (2011). Islamic mutual funds' financial performance and international investment style: evidence from 20 countries. *The European Journal of Finance, 17*(9-10), 829-850.

Hoepner, A. G. F. and Schopohl, L. (2018) 'On the Price of Morals in Markets: An Empirical Study of the Swedish AP funds and the Norwegian Government Pension Fund' Journal of Business Ethics, 151 (3): 665-692.

Humphrey, J. E., Lee, D. D., & Shen, Y. (2012). Does it cost to be sustainable? *Journal of Corporate Finance*, 18, 626-639.

Ioannou, I., & Serafeim, G. (2012). What drives corporate social performance? The role of nation-level institutions. *Journal of International Business Studies*, *43*(9), 834-864, doi:10.1057/jibs.2012.26.

Jacoby, G., Liu, M., Wang, Y., Wu, Z., & Zhang, Y. (2019). Corporate governance, external control, and environmental information transparency: Evidence from emerging markets. *Journal of International Financial Markets, Institutions & Money*, 58, 269-283.

Jain, T., Aguilera, R. V., & Jamali, D. (2017). Corporate stakeholder orientation in an emerging country context: A longitudinal cross industry analysis. *Journal of Business Ethics*, 143(4), 701-719.

Jensen, M. C. (1968). The performance of mutual funds in the period 1945-1964. *The Journal of Finance, 23*(2), 389-416.

Karpoff, J. M., Lee, D. S., & Martin, G. S. (2017). The economics of foreign bribery: Evidence from FCPA enforcement actions. *Working Paper*. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1573222

Karpoff, J. M., Lott, J. R., & Wehrly, E. W. (2005). The reputational penalties for environmental violations: Empirical evidence. *Journal of Law and Economics*, *48*(2), 635-675.

Keig, D. L., Brouthers, L. E., & Marshall, V. B. (2015). Formal and informal corruption environments and multinational enterprise social irresponsibility. J*ournal of Management Studies*, 52(1), 89-116.

Kempf, A., & Osthoff, P. (2007). The effect of socially responsible investing on portfolio performance. *European Financial Management, 13*(5), 908-922.

Khanna, T., & Palepu, K. G. (1997). Why focused strategies may be wrong for emerging markets. *Harvard Business Review*, 75(4), 41–51.

Khanna, T., & Palepu, K. G. (2011). Winning in emerging markets: Spotting and responding to institutional voids. *World Financial Review*, May-June, 18-20.

Khanna, M., Quimio, W. R. H., & Bojilova, D. (1998). Toxics release information: A policy tool for environmental protection. *Journal of Environmental Economics and Management, 36*(3), 243-266.

Kölbel, J. F., Busch, T., & Jancso, L. M. (2017). How media coverage of corporate social irresponsibility increases financial risk. *Strategic Management Journal*, 38(11), 2266-2284.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2008). The economic consequence of legal origins. *Journal of Economic Literature*, 46, 285–332.

Li, J., Haider, Z. A., Jin, Z., & Yuan, W. (2019). Corporate controversy, social responsibility and market performance: International evidence. *Journal of International Financial Markets, Institutions & Money*, 60, 1-18.

Li, W., Wang, C., Ren, Q., & Zhao, D. (2020). Institutional distance and cross-border M&A performance: A dynamic perspective. *Journal of International Financial Markets, Institutions & Money*, 66, 101207.

Liang, H., & Rennebook, L. (2017). On the Foundations of Corporate Social Responsibility. *Journal of Finance*, 72(2), 853-909.

Lins, K. V., Servaes, H., & Tamayo, A. (2017). Social capital, trust, and firm performance: The value of corporate social responsibility during the financial crisis. *Journal of Finance*, 72(4), 1785-1824.

Lioui, A., Poncet, P., & Sisto, M. (2018). Corporate social responsibility and the cross section of stock returns. Working Paper. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2730722

Maignan, I., & Ralston, D. A. (2002). Corporate social responsibility in Europe and the U.S.: Insights from businesses' self-presentations. *Journal of International Business Studies, 33*(3), 497-514.

McKenna, C., & Olegario, R. (2012). Chapter 13: Corporate reputation and regulation in historical perspective. In The Oxford Handbook of Corporate Reputation. Edited by M. L. Barnett & T. G. Pollock.

McWilliams, A., & Siegel D. S. (2001). Corporate social responsibility: A theory of the firm perspective. *Academy of Management Review*, 26(1), 117-127.

McWilliams, A., & Siegel D. S. (2011). Creating and capturing value: Strategic corporate social responsibility, resource-based theory, and sustainable competitive advantage. *Journal of Management*, 37(5), 1480-1495.

McWilliams, A., Siegel D. S., & Wright, P. M. (2006). Corporate social responsibility: Strategic implications. *Journal of Management Studies*, 43(1), 1-18.

Melo, T., & Garrido-Morgado, A. (2012). Corporate reputation: A combination of social responsibility and industry. *Corporate Social Responsibility and Environmental Management, 19*(1), 11-31.

Maung, M., Wilson, C. & Yu, W. (2020). Does reputation risk matter? Evidence from cross-border mergers and acquisitions. *Journal of International Financial markets, Institutions and Money*, 66, 1-15.

Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of Management Review*, 22(4): 853-886.

Newey, W. K., & West, K. D. (1987). A simple, positive semi-definite, heteroskedasticity and autocorrelation consistent covariance matrix. *Econometrica, 55*(3), 703-708.

North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press: Cambridge, MA.

North, D. C. (1991). Institutions. *Journal of Economic Perspectives*, 5(1), 97-112.

North, D. C. (2005). *Understanding the Process of Economic Change*. Princeton University Press: Princeton, NJ.

Oikonomou, I., Brooks, C., & Pavelin, S. (2014). The effects of corporate social performance on the cost of corporate debt and credit ratings, *Financial Review*, 49(1), 49-75.

Pisani, N., Kourula, A., Kolk, A., & Meijer, R. (2017). How global is international CSR research? Insights and recommendations from a systematic review. *Journal of World Business*, 52: 591-614.

Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78-92.

Porter M.E., Kramer M.R. (2019) Creating Shared Value. In: Lenssen G., Smith N. (eds) *Managing Sustainable Business.* Springer, Dordrecht.

Rhee, M., & Kim, T. (2012). Chapter 22: After the collapse: A behavioral theory of reputation repair. In The Oxford Handbook of Corporate Reputation. Edited by M. L. Barnett & T. G. Pollock.

Rhee, M., & Valdez, M. E. (2009). Contextual factors surrounding reputation damage with potential implications for reputation repair. *Academy of Management Review*, 34(1), 146-168.

Roberts, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior financial performance. *Strategic Management Journal*, 23(12), 1077-1093.

Sampath, V. S., Gardberg, N. A., & Rahman, N. (2018). Corporate reputation's invisible hand: Bribery, rational choice, and market penalties. *Journal of Business Ethics*, 151, 743-760.

Sapienza, P., & Zingales, L. (2011). Trust and finance. *NBER Reporter Online*, 2011(2), 16-19. Available at https://www.econstor.eu/handle/10419/61977

Sapienza, P., & Zingales, L. (2012). A trust crisis. *International Review of Finance*, 12, 123–13.

Scholtens, B., & Dam, L. (2007). Cultural values and international differences in business ethics. *Journal of Business Ethics, 75*(3), 273-284.

Sucher, S., & Gupta, S. (2019). The trust in crisis. *Harvard Business Review*, July 23, 2019. Available at https://hbr.org/cover-story/2019/07/the-trust-crisis.

Urbano, D., Aparicio, S., & Audretch, D. (2019). Twenty-five years of research on institutions, entrepreneurship, and economic growth: what has been learned? *Small Business Economics*, 53, 21-49.

Webb, J. W., Khoury, T. A., & Hitt, M. A. (2020). The influence of formal and informal institutional voids on entrepreneurship. *Entrepreneurship Theory and Practice*, 44(3), 504-526.

Table 1 Sample distribution across countries and industries

Country	Basic Materials	Consumer Discretionary	Consumer Staples	Energy	Health Care	Industrials	Technology	Telecom-munications	Utilities	Total
Panel A: Developed Markets										
Australia	91	47	14	24	10	49	7	4	10	256
Austria	4	7	2	2		10	1	1	2	29
Belgium	5	3	6	1	4	8	3	3	4	37
Canada	183	42	10	96	6	40	8	4	21	410
Denmark	1	7	3	2	8	14		1		36
Finland	9	12	4	1	4	20	2	1	1	54
France	6	58	11	8	11	56	10	4	7	171
Germany	18	46	7	11	12	42	11	5	9	161
Hong Kong	19	35	8	7	8	38	6	4	6	131
Ireland	1	4	4	5	7	10		1		32
Israel	8	11	5	9	2	11	6	4	1	57
Italy		29	5	5	3	22	2	6	12	84
Japan	59	171	37	12	19	171	37	5	14	525
Netherlands	11	13	10	6	3	28	7	7	6	91
New Zealand	3	9	4	3	1	9		1	4	34
Norway	4	8	7	18		14	3	1	2	57
Portugal	1	3		1		10		3	2	20
Singapore	5	9	16	2	3	23	1	1	1	61
Spain	9	17	6	3	3	26	2	3	9	78
Sweden	8	24	3	4	5	27	7	4		82
Switzerland	12	14	9	4	7	27	6	1	10	90
United Kingdom	40	104	23	43	20	96	17	10	22	375
United States	154	475	106	244	230	377	169	36	157	1948
Subtotal	651	1148	300	511	366	1128	305	110	300	4819

Table 1 Continued

Country	Basic Materials	Consumer Discretionary	Consumer Staples	Energy	Health Care	Industrials	Technology	Telecom-munications	Utilities	Total
Panel B: Emerging Markets										
Brazil	21	24	17	5	3	26		10	33	139
Chile	7	10	12	2		8		2	9	50
China	203	149	78	32	98	218	55	4	36	873
Colombia	2	3	2	4		3			6	20
Greece		7	1	2	1	15		3	1	30
India	59	51	23	23	35	77	15	5	21	309
Indonesia	10	4	10	2	1	4		2	2	35
Korea	51	65	27	5	34	104	12	6	12	316
Malaysia	8	15	29	16	2	27	2	3	6	108
Mexico	12	14	11			15	1	3	2	58
Pakistan	5	3	4	5		5		1	5	28
Peru	11	1	2	1		1		2	1	19
Philippines	7	12	5	3		7		3	10	47
Poland	8	4		2		9	1	2	6	32
Russia	36	12	5	18	2	18		7	27	125
South Africa	28	18	9		3	22	2	3		85
Taiwan	19	35	11	6	8	61	43	4	3	190
Thailand	12	10	6	4	1	15	1	5	3	57
Turkey	2	7	2	3	1	5	2	2	4	28
Subtotal	501	444	254	133	189	640	134	67	187	2549
Total (All Countries)	1152	1592	554	644	555	1768	439	177	487	7368

Note: Table 1 presents the sample distribution on countries and industries. Panel A shows the statistics for developed markets and Panel B show the statistics for emerging markets. We follow MSCI All Country World Index to select countries and follow the Industry Classification Benchmark (ICB) codes to categories industries. As discussed in the "Data and Sample Selection" section, financial industry and micro firms with market capitalisation less than 100 million US dollars are excluded from the sample.

Table 2 Descriptive sample statistics of RepRisk index across countries and years

Country	NO. of Companies	Statistics of RepRisk Index rating				Year Comparison of Average RepRisk Index Rating										
		Mean	StdDev	Min	Max	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Panel A: Developed Markets																
Australia	256	16.35	7.12	3.53	32.18	25.29	21.15	18.26	17.65	17.76	17.18	15.86	17.63	15.20	14.03	19.11
Austria	29	17.29	6.66	4.70	31.00	22.83	21.51	17.84	16.57	20.46	21.33	18.69	18.55	15.71	15.66	19.35
Belgium	37	16.92	7.07	3.92	33.57	25.00	21.41	11.54	16.30	15.72	16.07	21.25	18.28	13.81	18.71	22.13
Canada	410	16.59	6.99	3.57	32.35	21.47	21.65	16.34	15.40	17.20	18.09	16.82	18.74	17.45	14.79	19.65
Denmark	36	16.77	7.36	3.57	34.32	27.06	23.34	15.82	11.14	23.11	18.83	21.61	19.96	15.19	14.43	18.85
Finland	54	16.94	7.00	3.72	32.23	21.42	18.26	18.50	20.42	20.48	19.92	20.04	17.46	12.43	15.22	20.88
France	171	17.94	7.35	3.78	35.57	22.17	23.19	18.59	16.19	21.65	20.97	21.02	21.49	19.49	17.73	22.26
Germany	161	18.85	7.51	4.85	36.98	23.50	22.92	19.61	20.76	21.84	20.83	22.78	20.76	19.41	19.98	25.32
Hong Kong	131	17.35	7.09	5.05	34.16	22.10	18.97	13.31	14.19	19.46	18.05	18.65	18.99	17.47	14.95	19.59
Ireland	32	16.70	7.47	2.06	34.65	29.49	20.57	17.66	19.99	14.94	16.74	16.64	19.10	16.59	16.51	20.46
Israel	57	15.69	7.07	2.58	31.04	24.13	16.77	16.27	11.22	12.11	17.87	14.47	19.84	17.66	15.81	19.53
Italy	84	18.83	7.49	4.96	36.01	21.63	22.97	16.52	19.70	18.41	17.37	20.92	22.29	21.34	17.97	23.44
Japan	525	17.06	7.47	3.85	34.25	24.03	21.31	13.62	17.32	19.62	18.23	16.98	19.32	17.41	16.84	20.37
Netherlands	91	17.73	6.96	4.98	33.43	21.49	26.51	21.35	18.19	18.26	20.36	21.26	19.16	16.62	17.19	21.69
New Zealand	34	16.44	6.99	4.39	31.48		32.98	21.85	19.30	16.72	17.30	17.99	15.70	13.00	16.51	18.76
Norway	57	17.05	7.18	3.70	33.17	13.53	25.80	17.64	17.14	19.34	18.10	17.08	19.12	18.75	16.53	20.26
Portugal	20	16.45	7.36	2.53	33.27	2.67	17.97	14.34	19.06	18.20	19.49	19.23	17.15	14.36	14.99	20.46
Singapore	61	18.29	6.57	6.64	32.83	27.22	21.50	14.10	18.79	23.27	21.01	17.46	18.93	18.94	18.83	20.52
Spain	78	18.19	7.63	3.38	36.73	19.31	22.69	18.40	15.76	18.68	17.18	19.51	21.41	19.47	15.83	23.48
Sweden	82	17.33	7.58	3.52	36.09	19.93	21.69	16.67	19.46	20.20	22.29	22.94	17.62	15.59	18.33	22.58
Switzerland	90	19.38	7.40	4.96	37.23	25.60	24.27	18.43	21.97	21.85	22.25	23.98	20.89	18.25	18.50	22.04
United Kingdom	375	17.81	7.30	4.32	35.16	21.79	22.35	18.90	17.08	18.37	18.82	19.05	20.78	17.93	16.48	22.22
United States	1948	17.74	7.04	4.56	34.45	20.95	22.36	17.69	18.65	20.20	19.85	18.38	20.12	19.34	16.79	20.21
Subtotal	4819															

Table 2 Continued

Country	NO. of Companies	Statistics of RepRisk Index rating				Year Comparison of Average RepRisk Index Rating										
		Mean	StdDev	Min	Max	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Panel B: Emerging Markets																
Brazil	139	18.59	7.51	5.03	35.86	19.51	21.64	16.85	20.48	17.40	18.88	22.16	19.29	20.52	20.91	24.57
Chile	50	16.29	7.20	3.33	32.54	25.29	21.46	21.18	14.72	16.69	16.58	15.34	19.51	15.89	16.90	19.89
China	873	17.56	6.72	5.87	32.08	25.04	21.29	16.42	15.25	18.95	17.22	18.36	18.15	17.25	15.03	20.07
Colombia	20	17.83	6.85	5.01	34.08	21.35	16.07	23.31	15.09	16.60	18.64	18.27	16.05	21.58	17.86	18.40
Greece	30	16.91	5.60	6.94	29.22	13.17	22.08	16.36	7.29	24.12	20.05	15.54	15.09	18.22	16.63	18.53
India	309	16.61	7.32	3.52	34.44	22.66	21.60	16.73	15.56	18.35	20.52	16.76	16.41	17.05	14.77	19.09
Indonesia	35	16.88	6.95	3.46	34.14	17.94	19.78	17.24	17.73	12.90	19.63	19.78	18.83	14.55	15.27	20.06
Korea	316	18.60	7.39	4.73	36.53	27.52	23.34	15.99	22.28	21.37	19.05	20.45	21.10	19.61	17.91	20.68
Malaysia	108	16.18	6.72	4.51	31.73	30.70	22.12	13.98	8.56	18.71	19.34	16.25	17.38	14.81	14.35	18.75
Mexico	58	17.98	7.06	4.95	35.37	22.17	23.89	16.42	15.12	16.81	16.77	21.31	21.79	17.53	19.30	20.32
Pakistan	28	17.68	6.22	6.05	29.61		22.00	18.67	16.16	18.15	16.65	15.03	12.38	16.31	18.58	18.71
Peru	19	15.64	6.99	2.68	32.07	18.01	21.59	15.66	16.71	13.54	15.74	15.70	16.74	15.33	13.93	17.78
Philippines	47	17.34	6.82	4.58	34.38	17.14	20.24	19.40	15.91	15.63	19.06	15.61	17.56	17.35	16.82	18.89
Poland	32	16.23	6.53	4.40	29.90	16.69	17.25	12.67	13.83	23.48	20.44	17.82	16.00	12.76	13.93	17.25
Russia	125	17.56	7.07	4.42	33.67	24.64	24.27	19.22	16.57	19.29	19.47	18.02	17.72	17.60	17.59	21.51
South Africa	85	16.81	7.03	3.60	33.80	26.25	23.77	15.98	12.40	16.35	19.88	18.13	18.68	16.76	13.77	19.59
Taiwan	190	17.54	7.08	5.75	33.32	24.83	18.27	15.60	21.64	21.81	17.19	17.38	19.26	15.62	15.55	19.57
Thailand	57	16.82	7.46	3.73	34.61	30.45	21.75	13.83	16.45	15.96	15.47	18.51	21.97	18.41	16.00	20.65
Turkey	28	15.52	6.76	4.37	29.16	12.50	16.51	12.37	14.97	9.99	19.90	19.10	17.51	16.73	11.76	13.67
Subtotal	2549															

Note: In Table 2, Panel A and B report the sample summary statistics of RepRisk Index for developed markets and emerging markets, respectively. The second column shows the number of companies that have been taken from each country. The next four columns show the descriptive statistics of RepRisk index yearly rating for each country during the sample period. Mean, standard deviation, minimum and maximum are the average of (mean, standard deviation, minimum and maximum) per company across the sample period. The rest of the columns provide the year-by-year comparison for the RepRisk index rating. The calculations are based on monthly RepRisk scores. This table removed all the monthly ("0" score=no reputational risk) for each company in the RepRisk data.

Table 3 Baseline results: Risk-adjusted returns of developed and emerging markets

	Developed Markets					Emerging Markets					
	(1) High Risk	(2) Medium Risk	(3) Low Risk	(4) No Risk	(5) Long Short	(6) High Risk	(7) Medium Risk	(8) Low Risk	(9) No Risk	(10) Long Short	Long (10) Short (5)
Alpha	-0.02	-0.06	-0.13	0.17	0.19	-0.61	-0.43	-0.16	0.33	0.94	0.86
	(-0.36)	(-0.99)	(-2.63)***	(4.03)***	(2.03)**	(-3.38)***	(-3.03)***	(-1.64)	(5.61)***	(4.54)***	(3.83)***
MKT	0.97	0.99	1.01	0.99	0.03	1.12	1.09	1.03	0.93	-0.19	-0.30
	(59.29)***	(76.14)***	(83.74)***	(97.88)***	(1.09)	(33.86)***	(33.20)***	(56.32)***	(95.69)***	(-4.95)***	(-5.79)***
SMB	-0.22	-0.12	0.05	0.34	0.56	-0.09	-0.06	-0.16	0.15	0.24	0.22
	(-3.08)***	(-1.78)*	(1.02)	(6.56)***	(5.13)***	(-1.01)	(-1.56)	(-4.55)***	(7.63)***	(2.36)**	(2.33)**
HML	0.11	0.04	0.03	-0.14	-0.25	0.17	0.07	0.07	-0.13	-0.30	-0.28
	(1.11)	(0.57)	(0.44)	(-2.40)**	(-1.71)*	(2.79)***	(1.90)*	(1.82)*	(-9.76)***	(-4.67)***	(-3.90)***
MOM	-0.02	-0.01	0.01	0.02	0.04	-0.05	0.05	0.00	-0.00	0.05	0.05
	(-0.85)	(-0.83)	(0.65)	(1.60)	(1.19)	(-0.82)	(1.01)	(0.04)	(-0.38)	(0.74)	(0.77)
Adj. R^2	0.97	0.97	0.98	0.99	0.54	0.91	0.94	0.97	0.99	0.40	0.42

Note: Table 3 presents the risk-adjusted performance of the high reputation risk, medium reputation risk, low reputation risk, no reputation risk and long-short portfolios for both developed markets and emerging markets. The reputation score is sorted by tercile into high, medium and low reputation risk categories, and the portfolios are updated on a monthly basis based on the same country, industry and previous month's firm size category and reputational risk score. The no risk portfolio consists of stocks with no recorded risk exposure in RepRisk Index. The "Long Short" portfolios are portfolios that buying stocks with no reputation risk and selling stocks with high reputation risk. The "Long (10) Short (5)" portfolios are portfolios that buying emerging market's long-short portfolio (10) and selling developed market's long-short portfolio (5) using the long portfolio's benchmarks. The benchmark factors for portfolio (1) to (5) are constructed based on developed markets portfolios while the benchmark factors for portfolio (6) to (10) are constructed based on emerging markets portfolio. The results are based on Carhart (1997) model and use value-weighted returns. Portfolios are monthly adjusted based on sample period from January 2007 to December 2017. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

Table 4 Cross country comparisons on legal origins, confidence toward major corporations

(1) High Risk	(2) Medium Risk	(3) Low Risk	(4) No Risk	(5) Long Short	(6) High Risk	(7) Medium Risk	(8) Low Risk	(9) No Risk	(10) Long Short	Long (10) Short (5)
Panel A: Legal Origins										
Panel A1: English Common Law					*Panel A2: Civil Law*					
-0.09	-0.08	-0.07	0.17	0.25	-0.43	-0.09	-0.12	0.31	0.74	0.69
(-1.57)	(-1.10)	(-1.28)	(2.93)***	(2.59)**	(-2.43)**	(-0.70)	(-2.03)**	(3.88)***	(4.02)***	(2.50)**
Panel B: Confidence toward Major Corporations										
Panel B1: Low Confidence					*Panel B2: High Confidence*					
-0.06	-0.04	-0.16	0.22	0.28	-0.34	-0.37	-0.18	0.33	0.68	0.51
(-0.94)	(-0.41)	(-2.00)**	(4.00)***	(2.87)***	(-2.19)**	(-4.47)***	(-2.33)**	(5.90)***	(3.64)***	(2.05)**
Panel C: Trust toward Institutions										
Panel C1: Low Trust					*Panel C2: High Trust*					
-0.02	-0.04	-0.16	0.16	0.18	-0.57	-0.81	0.01	0.20	0.78	0.61
(-0.25)	(-0.66)	(-2.90)***	(3.82)***	(1.82)*	(-2.05)**	(-3.98)***	(0.07)	(2.23)**	(2.32)**	(1.69)*

Note: This table applies the same method as in baseline results. Only alphas are reported. The full sample period is from January 2007 to December 2017. We follow Liang and Renneboog (2017) to separate countries into five legal origins. We follow Aghion et al. (2010) to use the full company confidence rating from World Value Survey to separate countries into high and low confidence towards major companies, whereby the respective groups represent the upper and lower terciles of our relevant sample countries. We use the full institutional trust rating from Edelman Trust Barometer to separate countries into high and low trust. The "Long (10) Short (5)" portfolios in Panel A are portfolios that buying civil law countries' long-short portfolio (10) and selling common law countries' long-short portfolio (5). The "Long (10) Short (5)" portfolios in Panel B are portfolios that buying high company confidence countries' long-short portfolio (10) and selling low company confidence countries' long-short portfolio (5). The "Long (10) Short (5)" portfolios in Panel C are portfolios that buying high institutions trust countries' long-short portfolio (10) and selling low institutions trust countries' long-short portfolio (5). The "Long (10) Short (5)" portfolio uses the benchmark factors from the long portfolio. Portfolios are monthly adjusted based on sample period from January 2007 to December 2017. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

Table 5 Robustness tests (1/2)

	Developed Markets					Emerging Markets					
	(1) High Risk	(2) Medium Risk	(3) Low Risk	(4) No Risk	(5) Long Short	(6) High Risk	(7) Medium Risk	(8) Low Risk	(9) No Risk	(10) Long Short	Long (10) Short (5)
Panel A: Equal weighted returns											
Alpha	-0.28	-0.36	-0.34	-0.11	0.17	-0.71	-0.57	-0.36	-0.19	0.51	0.35
	(-3.20)***	(-4.81)***	(-4.08)***	(-1.04)	(2.14)**	(-2.81)***	(-3.03)***	(-2.69)***	(-1.56)	(2.16)**	(1.31)
Panel B: Fama French three-factor model											
Alpha	-0.03	-0.06	-0.13	0.17	0.20	-0.62	-0.41	-0.16	0.33	0.96	0.87
	(-0.43)	(-1.02)	(-2.55)**	(4.18)***	(2.13)**	(-3.73)***	(-3.01)***	(-1.61)	(5.61)***	(4.90)***	(4.04)***
Panel C: Financial crisis period (January 2007 – March 2009)											
Alpha	-0.32	-0.44	0.04	0.29	0.60	-1.72	-0.34	0.26	0.23	1.95	1.76
	(-1.32)	(-2.16)**	(0.29)	(2.00)*	(1.82)*	(-2.62)**	(-0.60)	(0.72)	(1.18)	(2.52)**	(1.85)*
Panel D: Post financial crisis period (April 2009 - December 2017)											
Alpha	0.05	-0.04	-0.16	0.12	0.07	-0.47	-0.35	-0.18	0.35	0.83	0.76
	(0.81)	(-0.75)	(-2.75)***	(2.80)***	(0.78)	(-3.27)***	(-2.89)***	(-1.82)*	(5.25)***	(4.43)***	(3.80)***
Panel D1: Post financial crisis period (1) (April 2009 – December 2013)											
Alpha	0.09	-0.01	-0.23	0.06	-0.03	-0.64	-0.66	0.11	0.35	0.99	0.84
	(0.92)	(-0.08)	(-2.63)**	(1.51)	(-0.22)	(-3.69)***	(-4.32)***	(0.79)	(5.53)***	(4.90)***	(2.88)***
Panel D2: Post financial crisis period (2) (January 2014 – December 2017)											
Alpha	-0.01	-0.08	-0.06	0.20	0.21	-0.22	0.04	-0.42	0.33	0.55	0.44
	(-0.14)	(-1.15)	(-0.84)	(2.50)**	(1.67)	(-1.16)	(0.27)	(-3.43)***	(2.47)**	(1.83)*	(1.38)
Panel E: Excluding US and China											
Alpha	-0.19	0.07	-0.05	0.11	0.30	-0.44	-0.31	-0.14	0.27	0.71	0.36
	(-1.90)*	(0.75)	(-0.82)	(2.45)**	(2.90)***	(-2.30)**	(-2.46)**	(-1.57)	(3.77)***	(3.09)***	(1.80)*

Note: Table 5 reports alphas of robustness tests based on the baseline analysis in Table 3. This table shows the results of the high reputation risk, low reputation risk, no risk and long-short portfolios in developed and emerging markets. The reputation score is sorted by tercile into high, medium and low reputation risk categories, and the portfolios are updated on a monthly basis based on the same country, industry and previous month's firm size category and reputational risk score. The no risk portfolio consists of stocks with no recorded risk exposure in RepRisk Index. The "Long Short" portfolios are portfolios that buying stocks with no reputation risk and selling stocks with high reputation risk. The "Long (10) Short (5)" portfolios are portfolios that buying emerging market's long-short portfolio (10) and selling developed market's long-short portfolio (5) using the long portfolio's benchmark factors. Except Panel A, all portfolios use value-weighted method. Except Panel B, all results are based on Carhart (1997) model. Portfolios are monthly adjusted based on sample period from January 2007 to December 2017. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.

Table 6 Robustness tests (2/2)

	Developed Markets					Emerging Markets					
	(1) High Risk	(2) Medium Risk	(3) Low Risk	(4) No Risk	(5) Long Short	(6) High Risk	(7) Medium Risk	(8) Low Risk	(9) No Risk	(10) Long Short	Long (10) Short (5)
Panel A1: High CSR performance											
Alpha	0.03	-0.17	-0.12	-0.07	-0.10	0.09	0.15	-0.17	0.29	0.19	0.30
	(0.40)	(-2.03)**	(-1.43)	(-0.74)	(-0.67)	(1.05)	(1.73)*	(-1.38)	(5.04)***	(1.89)*	(1.72)*
Panel A2: Low CSR performance											
	-0.18	0.01	0.03	0.22	0.40	-0.78	-0.43	-0.34	0.42	1.21	0.81
	(-1.72)*	(0.02)	(0.25)	(1.29)	(1.10)	(-4.28)***	(-1.96)*	(-1.99)**	(2.97)***	(4.42)***	(2.07)**
Panel B: Size and year adjusted RepRisk score											
Alpha	0.04	-0.11	-0.14	0.18	0.14	-0.59	-0.51	-0.20	0.35	0.93	0.92
	(0.68)	(-1.95)*	(-3.13)***	(4.22)***	(1.51)	(-3.09)***	(-3.06)***	(-2.10)**	(6.01)***	(4.39)***	(3.94)***
Panel C1: Benchmark factors test (1) – Fama/French 3 factors											
Alpha	0.01	-0.04	-0.15	0.13	0.12	-0.51	-0.54	-0.11	0.34	0.84	0.73
	(0.12)	(-0.67)	(-2.97)***	(2.45)**	(1.12)	(-2.31)**	(-3.78)***	(-0.93)	(3.08)***	(2.81)***	(2.52)**
Panel C2: Benchmark factors test (2) – Fama/French 5 factors											
Alpha	-0.05	-0.04	-0.14	0.23	0.28	-0.42	-0.44	-0.04	0.23	0.65	0.51
	(-0.81)	(-0.52)	(-2.47)**	(4.88)***	(2.91)***	(-1.97)*	(-2.00)**	(-0.25)	(2.09)**	(2.27)**	(1.75)*

Note: Table 6 reports alphas of additional robustness tests based on the baseline analysis in Table 3. This table shows the results of the high reputation risk, low reputation risk, no risk and long-short portfolios in developed and emerging markets. The reputation score is sorted by tercile into high, medium and low reputation risk categories, and the portfolios are updated on a monthly basis based on the same country, industry and previous month's firm size category and reputational risk score. The no risk portfolio consists of stocks with no recorded risk exposure in RepRisk Index. The "Long Short" portfolios are portfolios that buying stocks with no reputation risk and selling stocks with high reputation risk. The "Long (10) Short (5)" portfolios are portfolios that buying emerging market's long-short portfolio (10) and selling developed market's long-short portfolio (5) using benchmarks factors from the long portfolio. Except Panel A1 and A2, the portfolios are built based on the main sample using RepRisk data only. Except Panel C1 and C2, all portfolios use benchmark factors collected from Style Research. Portfolios are monthly adjusted based on sample period from January 2007 to December 2017. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. T-statistics are in parentheses. Coefficient covariance and standard errors are made heteroskedasticity and autocorrelation consistent based on the Newey and West (1987) method.