



University of
Pittsburgh

Center for Sustainable Business
Joseph M. Katz Graduate School of Business
and College of Business Administration

CSB WORKING PAPER SERIES

Firms and Social Responsibility: A Review of ESG and CSR Research in Corporate Finance

Stuart L. Gillan
Andrew Koch
Laura T. Starks

Working Paper No. 2020-02

March 2020

Firms and Social Responsibility: A Review of ESG and CSR Research in Corporate Finance

Stuart L. Gillan*

Terry College of Business
University of Georgia

Andrew Koch†

Katz Graduate School of Business
University of Pittsburgh

Laura T. Starks‡

McCombs School of Business
University of Texas

March 23, 2020

Abstract

We review the financial economics-based research on ESG and CSR with emphasis on corporate finance. In doing so we focus on the most debated and researched questions: The relationships between firms with the highest ESG/CSR profiles and their market environments, their leadership, and their owners as well as how these firms' ESG/CSR profiles are linked to their risk, performance, and value.

Keywords: environmental, social, governance, ESG, corporate social responsibility, CSR

*sgillan@uga.edu

†awkoch@pitt.edu

‡lstarks@mail.utexas.edu

1 Introduction

Environmental, Social, and Governance (ESG) issues or Corporate Social Responsibility (CSR) have evolved to become more prominent in both the practitioner and academic worlds. Increasingly, investors integrate ESG/CSR considerations into their investment processes. For example, the U.S. Forum for Sustainable and Responsible Investment (US SIF Foundation) reports that more than \$11.6 trillion is invested according to ESG criteria, which represents an increase of 44% from 2016. Moreover, corporations are responding to this investor demand by providing increased disclosure of their actions with regard to these issues. Indeed, according to the Governance & Accountability Institute, in 2018, 86 percent of S&P 500 firms released sustainability or corporate responsibility reports compared with just under 20% in 2011.¹

Just as there has been increased interest by investors and corporate managers, the academic research in ESG/CSR has been burgeoning. In this paper we review the research in corporate finance on Environmental and Social (or CSR) issues that focuses on the most important and the most debated questions regarding ESG/CSR. Although closely related and important, we do not review the extensive investments literature on ESG or Socially Responsible Investing (SRI) nor the extensive culture, trust and social capital literature.^{2,3}

We begin by describing the variables that have been shown to be associated with ESG/CSR in terms of the markets in which the firms operate, the leadership of the firm, and the firm's owners. We then consider how firm risk may be related to its ESG/CSR profile and follow

¹See <https://www.ga-institute.com/press-releases/article/flash-report-86-of-sp-500-indexR-companies-publish-sustainability-responsibility-reports-in-20.html>

²See, for example, [Benson and Humphrey \(2008\)](#), [Renneboog, ter Horst, and Zhang \(2008\)](#), [Humphrey, Lee, and Shen \(2012\)](#), and [Guiso, Sapienza, and Zingales \(2006\)](#).

³In order to keep this review to a manageable length, we restrict our attention primarily to the corporate finance literature that deals with the questions we are addressing and that has been published in finance journals. In doing so we acknowledge that we are omitting a wide and influential literature on ESG and CSR that exists in journals for other disciplines. See, for example, [Christensen et al. \(2018\)](#) for a review of CSR and sustainability reporting standards, and [Servaes and Tamayo \(2017\)](#) for a review of the importance of social capital. We also do not review the extensive fraud, corruption and tax evasion literature.

with an analysis of the literature on the relation of firm performance and value to the firm's ESG/CSR characteristics. In corporate finance-related studies authors have concluded that a large number of variables are related to firms' ESG/CSR choices. Some of the studies pose the question as one in which the variable causes firms to be socially responsible. Other studies pose the question as one in which the variable is an outcome of the firm's ESG/CSR choices. We examine both of these perspectives.⁴ Finally, we conclude with a discussion of questions that remain unanswered and potential areas in which additional research is needed.

2 ESG/CSR and market characteristics

The market environment in which a firm exists would be expected to influence firm management's choice of what ESG/CSR activities to pursue. In Table 1 we list the market characteristics that have been proposed in the literature. We also report whether the market characteristic is proposed as an independent or dependent variable, the direction of the relationship identified, and we cite the article that uses the characteristic. As the table shows, the market characteristics for which evidence suggests a relationship with ESG/CSR activities are primarily geographic, that is, based on where the firm is located. In fact, [Cai, Pan, and Statman \(2016\)](#) and [Liang and Renneboog \(2017b\)](#) provide evidence that country characteristics are quite important in explaining ESG/CSR, which Cai, et al. term as corporate social performance (CSP) and Liang and Renneboog term as CSR. Both studies employ cross-country samples in which CSP and CSR are based on ratings from the MSCI ESG Intangible Value Assessment (IVA) database. Cai, et al. show that the variations across countries are explained much more by country factors than firm characteristics. The authors also provide evidence that economic development, law, and culture play a role in these differences. Specifically they show that firms' IVA ratings are significantly associated with a

⁴Throughout this paper we view ESG and CSR as referring to the same general concepts. However, in discussing specific articles we use the nomenclature employed by the authors of the original article.

country's economic development (as proxied by per capita income), a country's legal system (as proxied by whether there exist laws that encourage competition and whether there exist strong civil liberties and political rights), and a country's culture (using proxies for harmony and autonomy).⁵ [Liang and Renneboog \(2017b\)](#) conclude that legal origin is the strongest predictor of firms' CSR adoption and performance, more-so than political institutions, regulations, social preferences and a firm's own financial and operational performance.

However, evidence also shows that country attributes are not totally defining as country characteristics appear to be less important for companies whose operations span borders. For example, [Boubakri, El Ghouli, Wang, Guedhami, and Kwok \(2016\)](#) argue that cross-listing causes firms to seek higher CSR reputations. They test their argument through an identification strategy in which they compare changes in CSR scores around cross-listing or de-listing events relative to a matched sample of firms that do not experience the cross-listing or de-listing events. The authors' empirical evidence supports their argument that cross-listed firms have higher CSR scores. Similarly, [Cai, et al.](#) show that country factors are much less important for cross-listed firms and for multinational firms.

Beyond country factors, within country geographical considerations are also found to be important. For example, at the state level in the United States, [Di Giuli and Kostovetsky \(2014\)](#) argue and present evidence that the political leanings of the state in which the firm has its headquarters affect the firm's CSR (using KLD scores to measure CSR). At the county level in the United States, [Jha and Cox \(2015\)](#) provide evidence that a firm's CSR is related to the social capital in the region of its headquarters, where CSR is measured through KLD ratings and social capital is measured through an index that depends on four components: the census mail response rate, the votes cast in presidential elections, and the number of associations and nonprofit organizations each per 10,000 people. In total these

⁵For the latter three the authors show the results hold after the variables are orthogonalized against per capita income.

studies provide strong evidence suggesting that firms' locations are important in determining their ESG/CSR activities.

Firms' ESG/CSR practices also tend to have a strong industry component. Using six of the KLD categories (omitting the corporate governance category), [Borghesi, Houston, and Naranjo \(2014\)](#) find some industries, such as consumer goods and computer hardware, have above-average scores and other industries, such as aircraft and petroleum and natural gas, have below-average scores. The industry effect is so significant that it is common for researchers to use ESG/CSR scores that are demeaned by industry, rather than the raw scores themselves. While some rating systems score firms relative to the universe they cover, the industry effect likely accounts for many ESG raters using industry benchmarking as one mechanism to assess a firm's ESG/CSR practices.

With regard to general market characteristics, there are more that could be considered. While [Liang and Renneboog \(2017b\)](#) are very thorough in their consideration of alternative explanations, there are doubtless other aspects of a company's environment including across countries and within countries that could explain firm-level ESG/CSR choices. For example, the importance of corporate stakeholders in a firm's ESG/CSR decisions could be examined more closely. Two studies have shown that the supply chain is an important source of pressure for adoption of better ESG/CSR policies. For example, [Schiller \(2018\)](#) and [Dai, Liang, and Ng \(2019\)](#) present evidence that socially responsible customers help instill better subsequent CSR in their suppliers. Given that a number of years ago, surveyed CEOs ranked employees as the stakeholder group with the greatest impact on the way they manage societal expectations, research that considers demographics of employees could provide additional insights.⁶ Further, in addition to the state in which the headquarters is based, the political leanings of corporate stakeholders could also explain firms' choices, as could changes in a

⁶See [Bielak et al. \(2007\)](#). The survey also reports that customers were ranked second by CEOs as the stakeholder group with the greatest impact on the way they manage societal expectations, followed by governments, local communities, regulators, the media, and NGOs.

country (or state's) political leaders, or more general changes in the political environment.

3 ESG/CSR and leadership characteristics

Several studies provide evidence that firm choices regarding ESG/CSR activities are associated with the demographics of the corporate leaders. Table 2 reports the variables considered, whether the variable is tested as an independent or dependent variable in its association with ESG/CSR, the direction of the relationship and the article citations. One of the most important demographic variables appears to be gender. Firms with women as corporate leaders or board members have significantly higher CSR scores, and evidence on this gender difference holds for firms in both the United States and China (Borghesi, Houston, and Naranjo, 2014; McGuinness, Vieito, and Wang, 2017). Further, research shows that not only the gender of the corporate leaders matter, but the gender of their children appears important as well. Using 416 CEOs of S&P 500 firms for which they were able to establish the gender of the children, Cronqvist and Yu (2017) find that executives with a daughter are employed by firms with CSR scores about 9.1% higher than the median firm's rating. The authors propose that CEOs' daughters may exhibit stronger other-regarding preferences than their sons and the CEOs with daughters may then internalize the preferences of their children. The authors also establish that the size of the effect is about one-fourth of the effect of a CEO herself being a woman. Still another study has maintained that whether a CEO is married affects the likelihood that the firm will have better CSR practices (Hegde and Mishra, 2019). Another demographic variable that has been found to be important is age, with younger CEOs being significantly more likely to lead firms with higher CSR scores (Borghesi, Houston, and Naranjo, 2014).

Two studies consider the political stance of the corporate leaders, but they arrive at different conclusions. First, Di Giuli and Kostovetsky (2014) provide evidence that firms with

CEOs, directors, and founders that make larger donations to Democratic candidates rather than Republican candidates tend to have higher CSR scores. They also hypothesize that the political views of the firm’s stakeholders (employees, suppliers, shareholders, customers, and regulators), i.e., whether they lean toward Democrats as candidates, can cause firms’ CSR choices. Using geographic clustering of political views as sources of exogenous variation in the firm’s internal and external political environments, the authors conclude that their evidence supports their hypotheses that corporate leaders’ political leanings are related to their CSR choices. However, offering an opposing view, [Borghesi, Houston, and Naranjo \(2014\)](#) conclude that, after controlling for the CEOs who donate to both Democrats and Republicans, an insignificant relation exists between CEOs who donate to Democrats and their firms’ CSR scores.⁷ One question that is not resolved is whether the differences could be driven by the non-CEOs in the [Di Giuli and Kostovetsky \(2014\)](#) sample (the directors and founders) since the [Borghesi, Houston, and Naranjo \(2014\)](#) sample is limited to CEOs.

One study has shown that CEO confidence can matter to a firm’s ESG/CSR choices. [McCarthy, Oliver, and Song \(2017\)](#) find a negative relationship between CEO confidence and a firm’s level of CSR. They attribute this relationship to the condition that overconfident CEOs are less likely to hedge and CSR has a hedging component. Measuring a different type of leadership demographic, and a more restrictive measure of ESG/CSR (employee friendliness), [Landier, Nair, and Wulf \(2007\)](#) find that managers are more employee-friendly when the employees are in close geographic proximity in part due to the “higher private cost to managers of firing neighbor employees.”⁸

⁷The authors use the same source of variation as in [Di Giuli and Kostovetsky \(2014\)](#).

⁸[Landier, Nair, and Wulf \(2007\)](#) do not use either of the terms ESG or CSR in discussing employee-friendly managers, but they do use the KLD employee strength scores to derive their measure of employee-friendly managers.

4 ESG/CSR and ownership characteristics

A number of studies have examined different types of ownership structure and their link to firms' ESG/CSR choices. The most studied ownership variable is that of institutional investors, which should not be surprising given that institutional investors are by far the largest owners of equity securities in the United States, the country from which many of the studies draw their data. Two other ownership variables that have been the focus of several studies are family ownership and state ownership. These variables are reported in Table 3 along with whether they are considered as independent or dependent variables, the direction of the relationship and the article citations.

4.1 Institutional ownership

A major question in the relationship between institutional ownership and firms' ESG/CSR choices is whether institutional investors cause firms to change their policies, or institutional investors are attracted to firms with particular ESG/CSR profiles or to other variables potentially correlated with ESG/CSR, such as firm value or performance. Authors have approached this question from each of these perspectives and have employed different definitions of ESG/CSR as well as different categories of institutional ownership.⁹ Thus, the relationship between institutional ownership and a firm's ESG/CSR activities has generated a large number of studies, not all of which agree on the form or even the sign of the relationship.

For example, [Borghesi, Houston, and Naranjo \(2014\)](#) find that firms with larger institutional ownership are significantly less likely to have higher CSR scores. [Nofsinger, Sulaeman, and Varma \(2019\)](#) find a more nuanced relationship: although institutional ownership is not positively related to the high environmental and social scores employed by the authors, it

⁹Others argue that institutional investor interest in ESG/CSR have caused inefficiencies to arise in equity markets ([Cao, Titman, Zhan, and Zhang, 2019](#)).

is negatively related to low environmental and social scores. Examining only environmental scores (rather than environmental and social scores), [Chava \(2014\)](#) finds that institutional ownership is lower for firms with worse environmental profiles. [Fernando, Sharfman, and Uysal \(2017\)](#) also focus on environmental strengths and concerns (as reflected in the firms' KLD scores in that category) and conclude that a relationship exists between institutional ownership and the firms' environmental performance, but that it differs across the range of scores. Firms with very high or very low environmental scores, i.e., those with the highest strengths or the greatest concerns, have lower institutional ownership than firms in the middle range of environmental performance. Examining this relationship from a different perspective, [Gillan, Hartzell, Koch, and Starks \(2010\)](#) find that institutional ownership is negatively related to firms with improved ESG scores.

Several studies propose that causality runs in the opposite direction, i.e., that the presence of institutional shareholders affects managers' ESG/CSR choices. [Gollier and Pouget \(2014\)](#) construct a theoretical model in which an activist can invest in a socially irresponsible and turn it into a socially responsible firm, reaping a gain in doing so. The empirical evidence suggests that this occurs. For example, [Dyck, Lins, Roth, and Wagner \(2019\)](#) and [Dimson, Karakaş, and Li \(2015\)](#), propose that through their equity ownership and engagement, institutional investors cause firms to increase their environmental and social performance. [Dyck, Lins, Roth, and Wagner \(2019\)](#) employ the BP Deepwater Horizon oil spill as a source of exogenous variation in the importance that institutional investors assign to firms' environmental commitments and find results consistent with their hypothesis. [Dimson, Karakaş, and Li \(2015\)](#) use a proprietary database of corporate social responsibility engagements by one institutional investor and conclude that this institutional owner increases firms' ESG activities through their engagements with management. [Barko, Cremers, and Renneboog \(2018\)](#) also examine the engagements of a large investor and find that the engagement itself is associated with higher ESG scores for firms that were in the lower ESG quartiles, but

lower ESG scores for those firms in the highest ESG quartile. [Hoepner, Oikonomou, Sautner, Starks, and Zhou \(2019\)](#) find that when a large investor engages firms to improve their ESG profile, the successful engagements on environmental issues are accompanied by subsequent reductions in downside risk. [Dimson, Karakaş, and Li \(2018\)](#) examine coordination among a set of institutional investors and find that the coordinated activism affects firms' ESG choices. The evidence of [Cao, Liang, and Zhan \(2019\)](#) also suggests that activism can affect the CSR scores of institutional investor holdings in that they find that shareholder engagements through shareholder proposals can not only affect the firm receiving the proposal, but also other firms. The authors find that when a firm has a narrow passage of a CSR proposal and then implements the recommendations of that proposal, its peer firms subsequently adopt similar CSR practices.

Other studies use alternative identification strategies to examine whether institutional investors influence firms' ESG/CSR choices. For example, [Chen, Dong, and Lin \(2019\)](#) use two quasi-natural experiments to identify causal effects of institutional investors on firms' CSR scores. The authors conclude that increases in institutional ownership resulting from Russell Index reconstitutions increase firm CSR activities, but that CSR considerations drop when shareholders are distracted by exogenous events (defined as an increase in shareholder proposals). [Kim, Kim, Kim, and Park \(2019\)](#) employ difference-in-differences estimations to examine whether CSR scores increase when an institution changes its investment horizon to long-term and they conclude that the scores increase after the change. [Gloßner \(2019\)](#) uses lead-lag regressions of long-term investors, primarily blockholders, and concludes that they have a positive relationship with firms' CSR scores. [Hwang, Titman, and Wang \(2017\)](#) conclude that after controlling for firms' CSR scores, those firms that experience an increase in ownership by non-socially responsible investors in a quarter experience positive excess returns the following quarter. Further, they report that this positive relation is stronger for those stocks with higher CSR scores, which they interpret to imply that CSR scores are

influenced by institutional owners.

On the other hand, [Starks, Venkat, and Zhu \(2019\)](#) also find that institutional investor horizons matter, but argue and provide evidence that long-term institutional investors are attracted to firms with higher ESG profiles rather than the long-term institutions influencing the firms' choices directly. Supporting this result, they also find that the institutional investors are more patient with short-term poor performance of high ESG firms than other firms in their portfolio.

Overall, the results and conclusions on institutional investor ownership are mixed, which calls for further examination of the preferences and influences of these investors with regard to the ESG/CSR activities of their holdings. For example, [Starks et al. \(2019\)](#) show that the relationship between institutional ownership and firms' ESG scores changes over time, which is controlled for in their empirical tests, but can be challenging for some of the conclusions of the previous work.

4.2 Family ownership

In consideration of the agency issues involved in CSR choices and whether these choices benefit shareholders, [Abeysekera and Fernando \(2018\)](#) hypothesize that family firms and non-family firms differ in their agency issues regarding CSR. The authors expect that management of family firms would align their CSR choices with shareholder wealth maximization due to the lack of diversification by controlling families. However, the authors also point out that an alternative hypothesis exists because there can exist conflicting interests between family owners and minority shareholders, in which case the family firms could make CSR decisions that do not result in wealth maximization for shareholders. The authors examine their contrasting hypotheses through empirical tests in which they measure CSR using the KLD environmental rankings. Based on their results, the authors conclude that in decisions about environmental investments, the U.S. family firms are more responsible to shareholders than

are the non-family firms.

This result is somewhat counter to that found by [El Ghoul, Guedhami, Wang, and Kwok \(2016\)](#) who examine a sample of publicly traded firms from nine East Asian economies. In their sample, the family-controlled firms have lower CSR performance, which the authors argue is consistent with the expropriation hypothesis of family control (in other words, the conflicting interests between family owners and minority shareholders). The authors also provide evidence that these family-controlled firms with lower CSR performance also have greater agency problems and reside in countries with weaker institutions. One issue that remains unanswered is whether these differences in results between [Abeysekera and Fernando \(2018\)](#) and [El Ghoul, Guedhami, Wang, and Kwok \(2016\)](#) are due to differences in geography or differences in data and methodology.

4.3 State ownership

Some argue that environmental or social issues should be managed by governments rather than corporations because of governments' superior abilities to handle the issues. That is, state-owned firms may be better positioned to deal with the market failures and externalities caused by such issues as has been hypothesized by [Hsu, Liang, and Matos \(2018\)](#) and [Hart and Zingales \(2017\)](#). On the other hand, governments and their state-owned firms could have other incentives that discourage better corporate CSR. The empirical evidence tends to be more consistent with the first hypothesis, although it is not uniformly so. [Hsu, Liang, and Matos \(2018\)](#) consider a sample of firms across 45 countries that includes publicly-owned companies with majority government ownership. The authors show that the state (or government) owned firms are more engaged in environmental and social issues than other firms. Consistent with this evidence, the authors also use a difference-in-difference analysis to show that following the 2009 Copenhagen Accord the state-owned firms improved their environmental performance more than other firms. Consistent with this view, using Asset4

Environmental and Social scores as measures of CSR and a sample of publicly traded firms from 41 countries that privatized from state ownership, [Boubakri, Guedhami, Kwok, and Wang \(2019\)](#) find that before their privatization, the privatized firms have higher CSR scores in aggregate, and on both the Environmental and Social dimensions, than other publicly listed firms.¹⁰ They further find that state ownership and the political environment of the country are influencing factors in this relationship. On the other hand, examining one country's state ownership (China) [McGuinness, Vieito, and Wang \(2017\)](#) provide evidence of a nonlinear relationship between state ownership and corporate CSR profiles in that they find a negative association at lower state ownership levels and a positive relation when state ownership is greater. Given the limited evidence on state ownership and firms' ESG/CSR activities, and the somewhat conflicting results, more research in this area is warranted.

5 ESG/CSR and firm risk

Table 4 reports the risk and cost of capital measures considered, whether the measure is tested as an independent or dependent variable in its association with ESG/CSR, the direction of the relationship and the article citations.

5.1 Risk measures

There has long been speculation that ESG/CSR factors could contribute to lowering a firm's risk, which could include regulatory risk, supply chain risk, product and technology risk, litigation risk, reputational risk, and physical risk, e.g., [Starks \(2009\)](#). These factors would in turn affect a company's cost of capital. A number of studies have examined the empirical evidence on the relation between ESG/CSR and firm risk and have concluded that

¹⁰Because significant differences exist between the soon-to-be privatized firms and other publicly traded firms, the authors also use a propensity score matching technique, an instrumental variables approach, and the Heckman selection model and find consistent results.

a relationship exists between firms' risk measures and their ESG/CSR activities.

Authors have hypothesized that firms with stronger ESG/CSR profiles should have lower systematic risk. For example, [Bénabou and Tirole \(2010\)](#) observe that firms with stronger CSR profiles could have different systematic risk exposures because of their resilience during crisis periods or because there exists a specific CSR risk factor. [Albuquerque, Koskinen, and Zhang \(2018\)](#) provide a theory in which due to a product differentiation strategy, the strong CSR firms face a relatively less price elastic demand, resulting in lower systematic risk. Consistent with these hypotheses, the empirical work finds evidence suggesting that firms with stronger ESG/CSR profiles have lower systematic risk: [El Ghouli, Guedhami, Kwok, and Mishra \(2011\)](#); [Oikonomou, Brooks, and Pavelin \(2012\)](#); [Albuquerque, Koskinen, and Zhang \(2018\)](#). Further, based on their empirical evidence, Albuquerque, et al. conclude that the effect of CSR on systematic risk is stronger for firms with high product differentiation.

Several other studies examine bond credit ratings as measures of firms' risk. To examine the relation firms' CSR policies and their bond credit ratings, [Jiraporn, Jiraporn, Boeprasert, and Chang \(2014\)](#) use a firm's three-digit zip code as an instrument for the companies' CSR scores and find significant results. Their argument for the instrument is that a firm's credit ratings are related to the firms' neighbors' CSR policies, which the authors surmise could be the result of investor clienteles, local competition and/or social interactions. In related work, [Stellner, Klein, and Zwergel \(2015\)](#) argue that whether CSR affects a firm's credit rating should depend on the country in which the company is located and the appreciation for CSR in that country. Examining a sample of corporate bonds from 12 EU countries, the authors conclude that there is no statistically significant systematic relationship between firms' CSR and their credit ratings, but that firms with higher CSR scores benefit from better ratings if they are in a country with above average CSR in general. Alternatively, the results of these two studies could also be related to the political leanings or social capital literature discussed earlier ([Di Giuli and Kostovetsky, 2014](#); [Jha and Cox, 2015](#)).

[Seltzer, Starks, and Zhu \(2018\)](#) provide evidence that a firm’s bond credit ratings and yield spreads are related to environmental scores and to climate regulatory risk. Firms with poor environmental performance tend to have lower credit ratings and higher yield spreads, particularly if they are located in states with more stringent environmental regulations. The authors use the Paris Agreement as a shock to show support for a causal relationship between climate regulatory risk and bond risk and pricing.

Consistent with a relationship between ESG/CSR and bond credit ratings, which suggest effects associated with firms’ default risk, [Jagannathan, Ravikumar, and Sammon \(2017\)](#) point out that ESG-related risks can be rare, large, and non-diversifiable and that investors should consider ESG for this reason. That is, ESG could be related to firms’ downside risk. A particular case in point would be firms’ environmental policies. [Ilhan, Sautner, and Vilkov \(2019\)](#) show that a firm’s equity downside risk (carbon tail risk) is affected by its degree of being a polluting firm, and that this risk changes after the Paris Agreement in 2015. Supportive of a relationship between ESG/CSR and downside risk, [Hoepner, Oikonomou, Sautner, Starks, and Zhou \(2019\)](#) show that activism on ESG issues, particularly environmental issues, can lower a firm’s downside risk.

ESG/CSR can also act as insurance against firm-specific legal risk. In line with that argument, [Hong and Liskovich \(2015\)](#) provide evidence that firms with higher CSR ratings (as reflected by KLD scores) receive more lenient settlements from prosecutors and have higher resulting market valuations (using enforcements of the Foreign Corrupt Practices Act in their tests). In addition, [Schiller \(2018\)](#) finds that suppliers’ legal risk is reduced when customers have better environmental policies

In contrast to the several papers that document a negative relation between CSR and various types risks, results in [Becchetti et al. \(2015\)](#) support the view that CSR increases firms’ idiosyncratic risk. The authors argue that this is because “CSR reduces flexibility in responding to negative productivity shocks with a reduction of stakeholders’ well-being,

thereby making returns of CSR stocks less predictable and less likely to follow stock market dynamics.” Additionally, [Humphrey et al. \(2012\)](#) find no differences in idiosyncratic risk when comparing UK firms with high and low CSP (corporate social performance) ratings,

5.2 Cost of capital

Studies on cost of equity capital generally find some relationship between ESG and the cost of equity capital. For example, [El Ghoul, Guedhami, Kwok, and Mishra \(2011\)](#) conclude that higher CSR leads to lower cost of equity capital. However [Breuer, Müller, Rosenbach, and Salzmann \(2018\)](#) estimate that the relation between CSR and firms’ cost of capital is conditional. Their results indicate that CSR reduces (increases) the cost of capital in countries with strong (weak) investor protection. Breaking down the ESG into its components, [Chava \(2014\)](#) finds that the cost of capital is higher for firms with poor environmental profiles. In addition, [Ng and Rezaee \(2015\)](#) conclude that a negative relationship exists between environmental and governance performance and the cost of equity capital but that no relation exists between social performance and the cost of equity capital. [Goss and Roberts \(2011\)](#) examine CSR concerns and find that firms with greater concerns pay higher interest rates on their bank loans. [Zerbib \(2019\)](#) provides evidence that green bonds are issued at a negative premium, suggesting that issuing bonds to fund projects with environmental benefits lower the cost of capital for those projects.

[Heinkel, Kraus, and Zechner \(2001\)](#) provide a model that shows in equilibrium what the share of ethical (or green) investors in the economy implies for firms’ cost of capital. They show that negative screening means polluting firms will be held by fewer investors, leading to lower stock prices and higher cost of capital. The higher cost of capital may lead the polluting firms to become more socially responsible, but it will depend on the extent to which the green investors control funds. At the time the authors wrote this paper, they conjectured that it would take more than 20% of green investors to induce firms to reform

but that only 10% of funds were invested by green investors. Given the rapid change in recent years in the percentage of investors interested in green investment, it would be interesting to determine the extent to which the authors' equilibrium model is reflected in the data.

6 ESG/CSR and firm performance and value

Probably the most debated question in the ESG/CSR/SRI literature of all types is whether management choices with regard to corporate responsibility increase or decrease firm performance and firm value or whether firms with greater performance and value have a larger capability to make better ESG/CSR choices. Some theoretical studies, e.g., [Bénabou and Tirole \(2010\)](#); [Baron \(2007, 2008\)](#); [Fatemi, Fooladi, and Tehranian \(2015\)](#); [Albuquerque, Koskinen, and Zhang \(2018\)](#), imply that ESG/CSR can increase firm value because customers want to buy from firms that have good reputations in corporate responsibility, employees are more productive when they work for such firms, or other such effects. In contrast, it has also been argued that ESG/CSR activities represent agency problems and that corporate managers engage in these activities in order to enhance their own utility rather than the welfare of the shareholders, e.g., [Bénabou and Tirole \(2010\)](#). Although empirical evidence could conceptually differentiate between these arguments, the difficulty lies in issues such as selection effects and reverse causality among others.

[Hong, Kubik, and Scheinkman \(2012\)](#) argue that selection effects are likely to be larger than direct effects from CSR. They attribute this to the probability that the manager's marginal return from conducting activities in order to improve their CSR ratings and lower their cost of capital is likely to be smaller under conditions in which the firm has access to finance and macroeconomic conditions are such that investors' appetite for risk is higher.

The reverse causality question arises because it is not clear whether firms that do well, do good or firms that do good, do well. Some hypothesize that firms with greater value

or performance have the capability and resources to provide better ESG/CSR performance. For example, [Hong, Kubik, and Scheinkman \(2012\)](#) argue that good financial performance causes corporate goodness. Their evidence primarily comes from examining outcomes of performance shocks in which they focus on the differential effects between firms that are ex ante constrained versus unconstrained. In their analysis they first use the Internet bubble as a positive shock to valuations and find a temporary increase in CSR among firms that become unconstrained relative to firms that were already unconstrained prior to the bubble. They then find that CSR increases along with idiosyncratic stock returns for constrained firms compared to less-constrained firms.

Since larger firms with more resources are the firms that tend to have stronger ESG/CSR profiles, this reverse causality question is important. But it may also be the case that in today's environment the larger, more successful firms have more internal and external pressures to contribute to society, consequently increasing their ESG/CSR activities and profiles.

Thus, we are left with an empirical question regarding whether ESG/CSR is related to firm performance and value. A large number of studies in many disciplines have attempted to answer this question. According to a study by [Friede, Busch, and Bassen \(2015\)](#) there have been more than 2,000 published empirical academic studies (in fields such as management, accounting, finance, and economics). The authors conduct a meta-analysis of this literature and conclude: "Roughly 90% of studies find a nonnegative ESG/CFP [Corporate financial performance] relation. More importantly, the large majority of studies reports positive findings."

The studies in finance use a variety of techniques and measurements to examine the relationship between firm performance or value and firms' ESG/CSR choices. Among them are short term market reactions to events, valuation levels, and long-run stock returns. [Table 5](#) reports the performance and value variables considered, whether the variable is tested

as an independent or dependent variable in its association with ESG/CSR, the direction of the relationship and the article citations. As can be seen from the table, the results from corporate finance studies are more mixed than the overall conclusions of the [Friede, Busch, and Bassen \(2015\)](#) study.¹¹ In the following discussion we group the corporate finance studies according to their outcomes.

6.1 Negative effects

Some studies challenge whether having a stronger ESG/CSR profile actually results in benefits for the firm. For example, [Di Giuli and Kostovetsky \(2014\)](#) examine the relations between changes in firms' CSR scores (measured using KLD scores) across three years and their revenue growth over that period. They find no significant relationship. They also find a significantly negative relationship between changes in firms' CSR scores and changes in ROA or stock returns, measured across 3 years. They interpret these results (with caution) to suggest that "any benefits to stakeholders from social responsibility come at the direct expense of firm value." They also conclude that when firms expand their CSR policies, the subsequent result is future stock underperformance and a long-run deterioration in ROA. They argue that the stock underperformance is "a direct market reaction to CSR with a lag resulting from delays in investors' learning about CSR policy changes."

[Buchanan, Cao, and Chen \(2018\)](#) use the Bloomberg ESG rating as their measure of CSR (which is actually a measure of ESG disclosure quality rather than ESG quality). Defining a binary classification of high versus low CSR based on whether the firms disclose or not, they find a negative and significant coefficient estimate on an interaction term between their CSR measure, crisis indicators and Tobin's Q. They conclude that during the financial crisis,

¹¹It should also be noted that when the authors divide the studies into nonportfolio and portfolio studies, the results using portfolio studies are less strong in that they find only 15.5 percent of these studies find a significantly positive association between ESG and CFP, 11 percent are negative, and the remainder have either neutral or mixed findings.

agency conflicts became more severe and consequent CSR over-investment costs caused CSR firms to experience greater declines in firm values.

Two other studies provide results that bring up questions about the benefits of ESG/CSR for all firms and all types of ESG/CSR. Examining the market reaction to ESG/CSR-related events, [Masulis and Reza \(2014\)](#) conclude that the stock market reacts negatively to the announcement of corporate philanthropic contributions.¹² [Servaes and Tamayo \(2013\)](#) find an interaction between CSR and firm value for firms contingent on the level of advertising. They conclude that CSR investments either hurt firm value (or are unrelated to value) for firms that do not advertise. As shown below, they provide evidence that CSR activities benefit firms that advertise.

6.2 Ambiguous or no effect

In their examination of state-owned firms, [Hsu, Liang, and Matos \(2018\)](#) conclude that the environmental choices of such firms do not have negative effects on shareholder value when measured using either Tobin's Q or long-term profitability. Another study that concludes there is no negative effect from ESG/CSR activities is that of [Humphrey, Lee, and Shen \(2012\)](#) which uses a proprietary CSP ratings database for firms in the United Kingdom and concludes that there are no significant differences in the risk-adjusted performances of UK firms with high or low CSP ratings. They conclude that “investors and managers are able to implement a CSP investment or business strategy without incurring any significant financial cost (or benefit) in terms of risk or return.”

¹²However, [Liang and Renneboog \(2017a\)](#) use a global sample of firms and find that charitable donations cause good firm financial performance and firm value. They argue that their IV approach (using peers' donations as instruments for the focal firm's donations) shows that the causation goes from donations to value and not vice versa.

6.3 Positive effects

A number of studies examine the relation between firms' ESG/CSR ratings and measures of firm performance or firm value. Examples of papers that find positive associations include [Gillan, Hartzell, Koch, and Starks \(2010\)](#) who examine the relation between firms' ESG ratings and firm performance using the KLD seven categories. They find that companies with higher ESG ratings have higher operating performance and firm value, measuring firm value with Tobin's Q. [Borghesi, Houston, and Naranjo \(2014\)](#) find higher KLD scores for firms with stronger operating performance and firms with greater free cash flow. Using six of the seven KLD categories as proxies for CSR scores (corporate governance, community, diversity, employee relations, environment and product, omitting human rights), [Gao and Zhang \(2015\)](#) also find a positive correlation between firm-level CSR scores and Tobin's Q, which they interpret as implying that higher CSR firms are associated with better financial performance. Also focusing on Tobin's Q, [Ferrell, Liang, and Renneboog \(2016\)](#) find a positive relationship between CSR and firm value and extend the analysis to show that CSR attenuates the negative relation between managerial entrenchment and value.

Several studies provide evidence consistent with the view that higher-scoring ESG/CSR firms have high values and low stock returns. [Hong and Kacperczyk \(2009\)](#) examine differences in ownership, valuations, and returns of "sin" stocks (stocks associated with alcohol, tobacco, or gaming). They find that sin stocks (low-CSR stocks) have low valuation ratios and earn high returns. This is consistent with some investors avoiding sin stocks due to social norms, and resultant pricing effects in segmented markets. [Amiraslani, Lins, Servaes, and Tamayo \(2017\)](#) find high values and low returns to the bonds of high CSR firms. [Bolton and Kacperczyk \(2019\)](#) find that firms with low CO2 emission intensity have low stock returns. They attribute the result to "local thinking", and conclude that CSR firms have a low cost of capital. According to [Servaes and Tamayo \(2013\)](#), CSR creates value, but only for firms with substantial advertising. Using a different methodology and controlling for

endogeneity, [Albuquerque, Koskinen, and Zhang \(2018\)](#) also find a relation between firm value and CSR for firms that advertise. Still another approach to the value question is that taken by [Chang, Chen, Chen, and Peng \(2019\)](#) who analyze the relation between firm value and CSR practices by examining whether the value of an additional dollar in cash holdings is greater for high-CSR firms than for low-CSR firms. They find that an additional dollar of cash results in larger changes in firm value for firms with high CSR scores than those with low CSR scores and conclude that CSR results in higher firm value.

An alternative approach to assessing whether ESG/CSR contributes to firm value is to examine stock returns, either in the long- or short-term. For example, [Dimson, Karakas, and Li \(2015\)](#) observe positive returns following successful investor engagements that address ESG concerns. Also examining stock returns, [Edmans \(2011\)](#) supports the view that CSR creates value, finding that the sign of the relation between returns and CSR (as measured by employee satisfaction) is positive. He concludes that CSR firms have high stock returns that slowly diminish over time as intangibles (CSR, specifically good treatment of employees) are initially mispriced but become correctly priced as the intangibles transfer into tangible benefits (earnings surprises). [Lins, Servaes, and Tamayo \(2017\)](#) examine the performance of CSR firms particularly during periods of crises in which trust in corporations is low. They find that CSR firms have higher operating performance and earn higher returns relative to other firms during periods of low trust. [Cornett, Erhemjamts, and Tehranian \(2016\)](#) examine a sample of U.S. banks and estimate a positive relation between CSR and banks' return on equity.

[Statman and Glushkov \(2009\)](#) examine whether portfolios of firms with higher ratings outperform firms with lower ratings, thus, implying a test of ESG/CSR ratings and firm value. Using KLD ratings for a U.S. firm sample, the authors find a positive relationship between ESG/CSR ratings and firm performance. (These results should be contrasted with those of [Humphrey, Lee, and Shen \(2012\)](#) cited earlier who find no difference between firms

with high or low ESG/CSR ratings and firm performance for U.K. firms).

A further approach to testing whether ESG/CSR profiles are associated with greater firm value consists of analyzing stock market reactions to ESG/CSR events. For example, examining how the market reacts to positive or negative ESG/CSR news, [Krüger \(2015\)](#) uses stock market reactions to over 2000 positive and negative sustainability events for U.S. firms and finds that the stock market processes positive and negative events differently in the short run. In particular, his analysis shows that negative sustainability events result in a strong negative market reaction, with the strongest reactions to events that concern the environment or communities. He does not find any significant market reaction for positive events. However, he also finds that the information content of positive and negative sustainability events is very different. A systematic textual analysis showed that in comparison to positive events, negative events contain more legal and quantitative information. The negative events seem to contain more “hard” information. He concludes that his results on the negative events are consistent with the view that unsustainable corporate behavior is costly for shareholders.

[Flammer \(2015\)](#) examines the stock reaction to CSR proposals that pass by a small margin and finds a positive market reaction to “close call” proposals. Her evidence indicates that these proposals create value through their effects on labor productivity and sales. Related, [Barko, Cremers, and Renneboog \(2018\)](#) examine the returns of firms that are targeted by activist shareholders promoting ESG improvements. Their results indicate that firms experiencing these ESG engagements earn higher returns than nonengaged peer firms.

[Deng, Kang, and Low \(2013\)](#) approach the question of whether CSR adds value by examining firm value around merger announcements for high versus low CSR firms. The authors argue that the merger announcement is an unexpected event that then allows the researcher to use the returns around the announcement and potentially mitigate the common reverse causality problem present in many studies that analyze the relation between CSR

and firm value. They also argue that the reputation of the firm in following through on its implicit contracts should be related to the firm's CSR reputation and expressed during the merger process itself. Based on the positive market reactions to the firms with higher CSR scores, the authors conclude that CSR improves firm value.¹³

Two studies examine stock market reactions to a firm's equity upon the issuance of green bonds, which are fixed income securities issued to fund environmentally friendly projects. Although contributing to the environment and possibly to a firm's ESG rating, these bonds are not necessarily issued by firms with high CSR ratings. [Tang and Zhang \(2018\)](#) examine whether the issuance of green bonds is beneficial to a firm's existing shareholders. The authors find positive stock market reactions for firms that announce they are issuing green bonds, and subsequently, these firms exhibit increased stock liquidity and increased institutional ownership. Consistent with these results, [Flammer \(2018\)](#) also concludes that the issuance of green bonds is beneficial for shareholders, being associated with positive stock market reactions and changes in firm strategies.

7 Conclusion

ESG/CSR empirical research in corporate finance has both a long and short history. In theoretical and empirical work researchers have hypothesized and documented numerous links between ESG/CSR and different aspects of the firm: for example, the market in which the firm operates, firm structure (including leadership and ownership), and firm risk and performance. At the same time, researchers continue to face the challenge of establishing causality when focusing on aspects of corporate finance and ESG/CSR.

Despite the continued need for stronger causal evidence some findings appear quite robust. Regarding market and firm characteristics, there seems to be wide empirical support for

¹³Because of endogeneity concerns, [Deng, Kang, and Low \(2013\)](#) employ a number of alternative tests and find consistent results.

gender and political components. For example, through a variety of different channels, Democrats and women tend to associate with or cause CSR more than Republicans and men. And with a few exceptions, the empirical evidence also supports the view that ESG/CSR lowers risk and the cost of capital.

However, there is debate in the literature as to the nature of many empirical relations. In particular, work examining the relation between ESG/CSR and firm value (either in changes or in levels) has produced mixed findings. While there is generally more evidence of positive, as opposed to negative, links between ESG/CSR and firm value, even among the studies that “agree” that CSR *causes* high values, there is disagreement about how this value is reflected in stock prices. Some papers find high value today and low returns going forward (because CSR is priced correctly). Others find low values and high returns going forward (because CSR is initially mispriced). Thus, reconciling the disparate findings on ESG/CSR and measures of value remains an important issue for future work to address.

The evidence on how the firms’ geographic setting leads to more or less ESG/CSR is also contradictory. For example, how important is a country’s legal setting, cultural framework and social capital? One possible approach would be to examine what happens to firms’ ESG/CSR activities and profiles when they relocate, either within a country or across countries, or even a focus on cross-country mergers would lead to more insights on this issue.

There are also several promising areas of inquiry that appear to be under-examined in the literature. For example, while much has been written about ESG/CSR and managers and owners, we need to better understand how leadership qualities affect management choices with regard to ESG/CSR. And while work on customers and suppliers is starting to appear, research on stakeholders more generally, such as employees or lenders, and their influence on ESG/CSR is sparse.

Finally, although the growing evidence suggesting that ESG/CSR can reduce risk and perhaps increase firm value, the question still remains: do firms do well by doing good, or

do firms that do well do good?

References

- Abeyssekera, A. P. and C. S. Fernando (2018). Corporate social responsibility versus corporate shareholder responsibility: A family firm perspective. *Journal of Corporate Finance*.
- Albuquerque, R., Y. Koskinen, and C. Zhang (2018). Corporate social responsibility and firm risk: Theory and empirical evidence. *Management Science*.
- Amiraslani, H., K. V. Lins, H. Servaes, and A. Tamayo (2017). A matter of trust? The bond market benefits of corporate social capital during the financial crisis. *CEPR Discussion Paper No. DP12321*.
- Barko, T., M. Cremers, and L. Renneboog (2018). Shareholder engagement on environmental, social, and governance performance. *CenteR Discussion Paper Series*.
- Baron, D. P. (2007). Corporate social responsibility and social entrepreneurship. *Journal of Economics & Management Strategy* 16(3), 683–717.
- Baron, D. P. (2008). Managerial contracting and corporate social responsibility. *Journal of Public Economics* 92(1-2), 268–288.
- Becchetti, L., R. Ciciretti, and I. Hasan (2015). Corporate social responsibility, stakeholder risk, and idiosyncratic volatility. *Journal of Corporate Finance* 35, 297–309.
- Bénabou, R. and J. Tirole (2010). Individual and corporate social responsibility. *Economica* 77(305), 1–19.
- Benson, K. L. and J. E. Humphrey (2008). Socially responsible investment funds: Investor reaction to current and past returns. *Journal of Banking and Finance* 32(9), 1850–1859.
- Bielak, D., S. M. Bonini, and J. M. Oppenheim (2007). CEOs on strategy and social issues. *The McKinsey Quarterly*.

- Bolton, P. and M. T. Kacperczyk (2019). Do investors care about carbon risk? *Unpublished working paper*.
- Borghesi, R., J. F. Houston, and A. Naranjo (2014). Corporate socially responsible investments: CEO altruism, reputation, and shareholder interests. *Journal of Corporate Finance* 26, 164–181.
- Boubakri, N., S. El Ghouli, H. Wang, O. Guedhami, and C. C. Kwok (2016). Cross-listing and corporate social responsibility. *Journal of Corporate Finance* 41, 123–138.
- Boubakri, N., O. Guedhami, C. C. Kwok, and H. H. Wang (2019). Is privatization a socially responsible reform? *Journal of Corporate Finance* 56, 129 – 151.
- Breuer, W., T. Müller, D. Rosenbach, and A. Salzmann (2018). Corporate social responsibility, investor protection, and cost of equity: A cross-country comparison. *Journal of Banking and Finance* 96, 34–55.
- Buchanan, B., C. X. Cao, and C. Chen (2018). Corporate social responsibility, firm value, and influential institutional ownership. *Journal of Corporate Finance* 52, 73 – 95.
- Cai, Y., C. H. Pan, and M. Statman (2016). Why do countries matter so much in corporate social performance? *Journal of Corporate Finance* 41, 591–609.
- Cao, J., H. Liang, and X. Zhan (2019). Peer effects of corporate social responsibility. *Management Science* 65(12), 5487–5503.
- Cao, J., S. Titman, X. E. Zhan, and W. E. Zhang (2019). ESG preference and market efficiency: Evidence from mispricing and institutional trading. *Unpublished working paper*.
- Chang, C.-H., S.-S. Chen, Y.-S. Chen, and S.-C. Peng (2019). Commitment to build trust by socially responsible firms: Evidence from cash holdings. *Journal of Corporate Finance* 56, 364 – 387.

- Chava, S. (2014). Environmental externalities and cost of capital. *Management Science* 60(9), 2223–2247.
- Chen, T., H. Dong, and C. Lin (2019). Institutional shareholders and corporate social responsibility. *Journal of Financial Economics*.
- Christensen, H. B., L. Hail, and C. Leuz (2018). Economic analysis of widespread adoption of CSR and sustainability reporting standards. *Available at SSRN 3315673*.
- Cornett, M. M., O. Erhemjamts, and H. Tehranian (2016). Greed or good deeds: An examination of the relation between corporate social responsibility and the financial performance of U.S. commercial banks around the financial crisis. *Journal of Banking and Finance* 70, 137 – 159.
- Cronqvist, H. and F. Yu (2017). Shaped by their daughters: Executives, female socialization, and corporate social responsibility. *Journal of Financial Economics* 126(3), 543 – 562.
- Dai, R., H. Liang, and L. Ng (2019). Socially responsible corporate customers. *Journal of Financial Economics, forthcoming*.
- Deng, X., J.-K. Kang, and B. S. Low (2013). Corporate social responsibility and stakeholder value maximization: Evidence from mergers. *Journal of Financial Economics* 110(1), 87–109.
- Di Giuli, A. and L. Kostovetsky (2014). Are red or blue companies more likely to go green? Politics and corporate social responsibility. *Journal of Financial Economics* 111(1), 158–180.
- Dimson, E., O. Karakaş, and X. Li (2015). Active ownership. *The Review of Financial Studies* 28(12), 3225–3268.

- Dimson, E., O. Karakaş, and X. Li (2018). Coordinated engagements. *Unpublished working paper*.
- Dyck, A., K. V. Lins, L. Roth, and H. F. Wagner (2019). Do institutional investors drive corporate social responsibility? International evidence. *Journal of Financial Economics* 131(3), 693–714.
- Edmans, A. (2011). Does the stock market fully value intangibles? employee satisfaction and equity prices. *Journal of Financial Economics* 101(3), 621–640.
- El Ghouli, S., O. Guedhami, C. C. Kwok, and D. R. Mishra (2011). Does corporate social responsibility affect the cost of capital? *Journal of Banking and Finance* 35(9), 2388–2406.
- El Ghouli, S., O. Guedhami, H. Wang, and C. C. Kwok (2016). Family control and corporate social responsibility. *Journal of Banking and Finance* 73, 131 – 146.
- Fatemi, A., I. Fooladi, and H. Tehranian (2015). Valuation effects of corporate social responsibility. *Journal of Banking and Finance* 59, 182 – 192.
- Fernando, C. S., M. P. Sharfman, and V. B. Uysal (2017). Corporate environmental policy and shareholder value: Following the smart money. *Journal of Financial and Quantitative Analysis* 52(5), 2023–2051.
- Ferrell, A., H. Liang, and L. Renneboog (2016). Socially responsible firms. *Journal of Financial Economics* 122(3), 585–606.
- Flammer, C. (2015). Does corporate social responsibility lead to superior financial performance? A regression discontinuity approach. *Management Science* 61(11), 2549–2568.
- Flammer, C. (2018). Corporate green bonds. *Unpublished working paper*.

- Friede, G., T. Busch, and A. Bassen (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance and Investment* 5(4), 210–233.
- Gao, L. and J. H. Zhang (2015). Firms’ earnings smoothing, corporate social responsibility, and valuation. *Journal of Corporate Finance* 32, 108 – 127.
- Gillan, S., J. C. Hartzell, A. Koch, and L. Starks (2010). Firms’ environmental, social and governance ESG choices, performance and managerial motivation. *Unpublished working paper*.
- Gloßner, S. (2019). Investor horizons, long-term blockholders, and corporate social responsibility. *Journal of Banking and Finance* 103, 78–97.
- Gollier, C. and S. Pouget (2014). The “washing machine”: Investment strategies and corporate behavior with socially responsible investors. *TSE Working Paper*.
- Goss, A. and G. S. Roberts (2011). The impact of corporate social responsibility on the cost of bank loans. *Journal of Banking and Finance* 35(7), 1794–1810.
- Guiso, L., P. Sapienza, and L. Zingales (2006). Does culture affect economic outcomes? *Journal of Economic Perspectives* 20(2), 23–48.
- Hart, O. and L. Zingales (2017). Companies should maximize shareholder welfare not market value. *Journal of Law, Finance, and Accounting* 2, 247–274.
- Hegde, S. P. and D. R. Mishra (2019). Married CEOs and corporate social responsibility. *Journal of Corporate Finance* 58, 226–246.
- Heinkel, R., A. Kraus, and J. Zechner (2001). The effect of green investment on corporate behavior. *Journal of Financial and Quantitative Analysis* 36(4), 431–449.

- Hoepner, A. G. F., I. Oikonomou, Z. Sautner, L. T. Starks, and X. Y. Zhou (2019). ESG shareholder engagement and downside risk. *Unpublished working paper*.
- Hong, H. and M. Kacperczyk (2009). The price of sin: The effects of social norms on markets. *Journal of Financial Economics* 93(1), 15–36.
- Hong, H., J. D. Kubik, and J. A. Scheinkman (2012). Financial constraints on corporate goodness. *National Bureau of Economic Research working paper*.
- Hong, H. and I. Liskovich (2015). Crime, punishment and the halo effect of corporate social responsibility. *National Bureau of Economic Research working paper*.
- Hsu, P.-H., H. Liang, and P. P. Matos (2018). Leviathan inc. and corporate environmental engagement. *Unpublished working paper*.
- Humphrey, J. E., D. D. Lee, and Y. Shen (2012). Does it cost to be sustainable? *Journal of Corporate Finance* 18(3), 626–639.
- Hwang, C.-Y., S. Titman, and Y. Wang (2017). Investor tastes, corporate behavior and stock returns: An analysis of corporate social responsibility. *Unpublished working paper*.
- Ilhan, E., Z. Sautner, and G. Vilkov (2019). Carbon tail risk. *Unpublished working paper*.
- Jagannathan, R., A. Ravikumar, and M. Sammon (2017). Environmental, social, and governance criteria: Why investors are paying attention. Technical report.
- Jha, A. and J. Cox (2015). Corporate social responsibility and social capital. *Journal of Banking and Finance* 60, 252–270.
- Jiraporn, P., N. Jiraporn, A. Boeprasert, and K. Chang (2014). Does corporate social responsibility (CSR) improve credit ratings? Evidence from geographic identification. *Financial Management* 43(3), 505–531.

- Kim, H.-D., T. Kim, Y. Kim, and K. Park (2019). Do long-term institutional investors promote corporate social responsibility activities? *Journal of Banking and Finance* 101, 256–269.
- Krüger, P. (2015). Corporate goodness and shareholder wealth. *Journal of Financial Economics* 115(2), 304–329.
- Landier, A., V. B. Nair, and J. Wulf (2007). Trade-offs in staying close: Corporate decision making and geographic dispersion. *The Review of Financial Studies* 22(3), 1119–1148.
- Liang, H. and L. Renneboog (2017a). Corporate donations and shareholder value. *Oxford Review of Economic Policy* 33(2), 278–316.
- Liang, H. and L. Renneboog (2017b). On the foundations of corporate social responsibility. *The Journal of Finance* 72(2), 853–910.
- Lins, K. V., H. Servaes, and A. Tamayo (2017). Social capital, trust, and firm performance: The value of corporate social responsibility during the financial crisis. *The Journal of Finance* 72(4), 1785–1824.
- Masulis, R. W. and S. W. Reza (2014). Agency problems of corporate philanthropy. *The Review of Financial Studies* 28(2), 592–636.
- McCarthy, S., B. Oliver, and S. Song (2017). Corporate social responsibility and CEO confidence. *Journal of Banking and Finance* 75, 280–291.
- McGuinness, P. B., J. P. Vieito, and M. Wang (2017). The role of board gender and foreign ownership in the CSR performance of chinese listed firms. *Journal of Corporate Finance* 42, 75–99.
- Ng, A. C. and Z. Rezaee (2015). Business sustainability performance and cost of equity capital. *Journal of Corporate Finance* 34, 128–149.

- Nofsinger, J. R., J. Sulaeman, and A. Varma (2019). Institutional investors and corporate social responsibility. *Journal of Corporate Finance* 58, 700–725.
- Oikonomou, I., C. Brooks, and S. Pavelin (2012). The impact of corporate social performance on financial risk and utility: A longitudinal analysis. *Financial Management* 41(2), 483–515.
- Renneboog, L., J. ter Horst, and C. Zhang (2008). The price of ethics and stakeholder governance: The performance of socially responsible mutual funds. *Journal of Corporate Finance* 14(3), 302–322.
- Schiller, C. (2018). Global supply-chain networks and corporate social responsibility. *Unpublished working paper*.
- Seltzer, L., L. T. Starks, and Q. Zhu (2018). Climate regulatory risk and corporate bonds. *Unpublished working paper*.
- Servaes, H. and A. Tamayo (2013). The impact of corporate social responsibility on firm value: The role of customer awareness. *Management Science* 59(5), 1045–1061.
- Servaes, H. and A. Tamayo (2017). The role of social capital in corporations: a review. *Oxford Review of Economic Policy* 33(2), 201–220.
- Starks, L. T. (2009). EFA keynote speech: corporate governance and corporate social responsibility: What do investors care about? What should investors care about?. *Financial Review* 44(4), 461–468.
- Starks, L. T., P. Venkat, and Q. Zhu (2019). Corporate ESG profiles and investor horizons. *Unpublished working paper*.
- Statman, M. and D. Glushkov (2009). The wages of social responsibility. *Financial Analysts Journal* 65(4), 33–46.

Stellner, C., C. Klein, and B. Zwergel (2015). Corporate social responsibility and eurozone corporate bonds: The moderating role of country sustainability. *Journal of Banking and Finance* 59, 538 – 549.

Tang, D. Y. and Y. Zhang (2018). Do shareholders benefit from green bonds? *Journal of Corporate Finance*.

Zerbib, O. D. (2019). The effect of pro-environmental preferences on bond prices: Evidence from green bonds. *Journal of Banking and Finance* 98, 39 – 60.

Table 1: Market characteristics and ESG/CSR

This table summarizes market characteristics proposed to relate to ESG/CSR in the academic literature on ESG/CSR in corporate finance. For each paper cited, we report the variable of interest and whether it is an independent or dependent variable, as well as the sign of the relation with ESG/CSR, where 0 indicates that no significant relation was found.

Primary Variable	Independent/ Dependent Variable	Direction of significance	Citation
Country economic development	Independent	+	Cai et al. (2016)
Lack of civil liberties and political rights	Independent	+	Cai et al. (2016)
Harmony	Independent	+	Cai et al. (2016)
Autonomy	Independent	+	Cai et al. (2016)
Country legal origin: Civil	Independent	+	Liang and Renneboog (2017b)
Cross-listing	Independent	+	Boubakri et al. (2016)
Multinational indicator	Independent	+	Cai et al. (2016)
Political leanings of state's citizens	Independent		
Democrat		+	Di Giuli and Kostovetsky (2014)
Republican		-	Di Giuli and Kostovetsky (2014)
Social capital of county	Independent	+	Jha and Cox (2015)
Industry	Independent	+/-	Borghesi et al. (2014)

Table 2: Firm leadership characteristics and ESG/CSR

This table summarizes firm leadership characteristics proposed to relate to ESG/CSR in the academic literature on ESG/CSR in corporate finance. For each paper cited, we report the variable of interest and whether it is an independent or dependent variable, as well as the sign of the relation with ESG/CSR, where 0 indicates that no significant relation was found.

Primary Variable	Independent/ Dependent Variable	Direction of significance	Citation
Women leaders	Independent	+	Borghesi et al. (2014)
	Independent	+	McGuinness et al. (2017)
	Independent	+	Cronqvist and Yu (2017)
CEOs with daughters	Independent	+	Cronqvist and Yu (2017)
Married CEOs	Independent	+	Hegde and Mishra (2019)
CEO age	Independent	-	Borghesi et al. (2014)
Political leanings of CEO and board			
Democrat	Independent	+	Di Giuli and Kostovetsky (2014)
Republican	Independent	-	Di Giuli and Kostovetsky (2014)
Political leanings of CEO	Independent	0	Borghesi et al. (2014)
CEO confidence	Independent	-	McCarthy et al. (2017)
Employee geography	Independent	+	Landier et al. (2007)

Table 3: Ownership characteristics and ESG/CSR

This table summarizes ownership characteristics proposed to relate to ESG/CSR in the academic literature on ESG/CSR in corporate finance. For each paper cited, we report the variable of interest and whether it is an independent or dependent variable, as well as the sign of the relation with ESG/CSR, where 0 indicates that no significant relation was found.

Primary Variable	Independent/ Dependent Variable	Direction of significance	Citation
Size of instl ownership	Independent	-	Borghesi et al. (2014)
	Independent	+/-	Nofsinger et al. (2019)
	Independent	+	Chava (2014)
	Independent	+/-	Fernando et al. (2017)
	Independent	-	Gillan et al. (2010)
	Independent	+	Chen et al. (2019)
Size of long-term instl ownership	Independent	+	Gloßner (2019)
	Dependent	+	Starks et al. (2019)
Instl investor engagement	Independent	+	Dyck et al. (2019)
	Independent	+	Dimson et al. (2015)
	Independent	+	Barko et al. (2018)
	Independent	+	Hoepner et al. (2019)
	Independent	+	Dimson et al. (2018)
	Independent	+	Cao et al. (2019)
Change in instl ownership horizon	Independent	+	Kim et al. (2019)
Change in instl ownership	Independent	-	Hwang et al. (2017)
Family ownership	Independent	+	Abeysekera and Fernando (2018)
	Independent	-	El Ghouli et al. (2016)
State ownership	Independent	+	Hsu et al. (2018)
	Independent	+	Boubakri et al. (2019)
	Independent	-	McGuinness et al. (2017)

Table 4: Risk, cost of capital and ESG/CSR

This table summarizes types of risks proposed to relate to ESG/CSR in the academic literature on ESG/CSR in corporate finance. For each paper cited, we report the variable of interest and whether it is an independent or dependent variable, as well as the sign of the relation with ESG/CSR, where 0 indicates that no significant relation was found.

Primary Variable	Independent/ Dependent Variable	Direction of significance	Citation
Systematic risk	Dependent	-	El Ghoual et al. (2016)
	Dependent	-	Oikonomou et al. (2012)
	Dependent	-	Albuquerque et al. (2018)
Credit risk	Dependent	-	Jiraporn et al. (2014)
	Dependent	-	Seltzer et al. (2018)
	Dependent	0/-	Stellner et al. (2015)
Legal risk	Dependent	-	Schiller (2018)
	Dependent	-	Hong and Liskovich (2015)
Downside risk	Dependent	-	Hoepner et al. (2019)
Idiosyncratic risk	Dependent	+	Becchetti et al. (2015)
	Dependent	0	Humphrey et al. (2012)
Equity cost of capital	Dependent	-	El Ghoual et al. (2011)
	Dependent	+/-	Breuer et al. (2018)
	Dependent	-	Chava (2014)
	Dependent	0/-	Ng and Rezaee (2015)
Debt cost of capital	Dependent	-	Goss and Roberts (2011)
	Dependent	-	Ng and Rezaee (2015)
	Dependent	-	Zerbib (2019)

Table 5: Performance, value and ESG/CSR

This table summarizes firm performance and valuations proposed to relate to ESG/CSR in the academic literature on ESG/CSR in corporate finance. For each paper cited, we report the variable of interest and whether it is an independent or dependent variable, as well as the sign of the relation with ESG/CSR, where 0 indicates that no significant relation was found.

Primary Variable	Independent/ Dependent Variable	Direction of significance	Citation
Financial constraints	Independent	-	Hong et al. (2012)
Revenue growth	Dependent	0	Di Giuli and Kostovetsky (2014)
ROA	Dependent	-	Di Giuli and Kostovetsky (2014)
	Dependent	+	Gillan et al. (2010)
	Dependent	0	Hsu et al. (2018)
	Dependent	+	Lins et al. (2017)
	Independent	+	Borghesi et al. (2014)
Free cash flow	Independent	+	Borghesi et al. (2014)
Short-run returns	Dependent	-	Masulis and Reza (2014)
	Dependent	+/-	Krüger (2015)
	Dependent	+	Deng et al. (2013)
	Dependent	+	Tang and Zhang (2018)
	Dependent	+	Flammer (2015)
	Dependent	+	Flammer (2018)
Long-run returns	Independent	+	Hong et al. (2012)
	Dependent	-	Di Giuli and Kostovetsky (2014)
	Dependent	0	Humphrey et al. (2012)
	Dependent	-	Hong and Kacperczyk (2009)
	Dependent	-	Bolton and Kacperczyk (2019)
	Dependent	+	Dimson et al. (2015)
	Dependent	+	Edmans (2011)
	Dependent	+	Lins et al. (2017)
	Dependent	+	Barko et al. (2018)
	Dependent	+	Statman and Glushkov (2009)
Tobins q	Dependent	+	Gillan et al. (2010)
	Dependent	-	Buchanan et al. (2018)
	Dependent	0	Hsu et al. (2018)
	Dependent	+	Albuquerque et al. (2018)
	Dependent	+/-	Servaes and Tamayo (2013)
	Dependent	+	Gao and Zhang (2015)
	Dependent	+	Ferrell et al. (2016)
Cash value	Dependent	+	Chang et al. (2019)
ROE	Dependent	+	Cornett et al. (2016)
Bond values	Dependent	+	Amiraslani et al. (2017)
Bond returns	Dependent	-	Amiraslani et al. (2017)