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The Impact of Social Norms of Responsibility on Corporate Social Responsibility Short Title: The Impact of Social Norms of Responsibility on Corporate Social Responsibility

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Abstract

Social norms of responsibility are shared beliefs on what constitutes responsible behavior, and they play a significant role in determining CSR. This study analyzes how social norms of responsibility permeate corporate boundaries and influence CSR through political leaders, corporate executives, employees, and the public. Socially irresponsible behaviors of the above populations are used as proxies for local social responsibility norms and related to CSR ratings for firms headquartered in the twenty largest U.S. metro areas. The empirical results show that firms headquartered in cities with more responsible social norms exhibit higher ESG scores even after controlling for various demographic, regional, and economic factors. Social responsibility norms encourage firms to be more responsible but are ineffective in deterring irresponsible corporate behaviors. Corporate and political leaders are the essential channels through which social norms of responsibility influence CSR, highlighting the importance of instituting regulations and setting high ethical standards for political and business leaders. This study also demonstrates that social norms have a significant impact on firms with leaders who are more susceptible to local social norms (i.e., local leaders) than non-local leaders. In addition, this study documents a negative bias for responsible social norms in that they condemn irresponsible behaviors more than reward responsible ones. Collectively, the above findings underline the importance of social norms of responsibility in shaping CSR and provide additional insights into societal motivations for CSR.

Keywords CSR · Social norms · Socially responsible · Irresponsible · Misbehaviors · ESG

JEL Classification G15 · G12

Introduction

Corporate social responsibility (CSR) projects serve the purpose of giving back to society, which may or may not lead to financial payback to the firm (Fernando et al., 2017; Krüger, 2015)[1]_ftn1. Hence, investments in CSR projects are likely guided by beliefs and values related to being responsible. Such beliefs and values fall into the realm of social norms, particularly social norms of responsibility. Social norms are defined as a set of shared beliefs examined by both individuals and the sociocultural system in which they are embedded (Campbell, 1975; Pepitone, 1976). Social norms of responsibility are a subset of social norms that govern socially responsible behaviors. They are shared beliefs about what constitutes responsible behaviors and dictate the group's practices to help others and contribute to society without anticipating a return benefit in the foreseeable future (Berkowitz & Daniels, 1964).

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[1] Research on the economic motivation of CSR reports conflicting results regarding the financial benefits of CSR. For example, some studies have demonstrated that better CSR ratings are associated with higher returns and productivity, lower risk, cost of equity, and debt, and increased product differentiation (Albuquerque et al., 2018; Flammer 2015; Kim et al., 2014). Other studies argue that managers engage in CSR projects for personal benefits at shareholders' expense as they report a negative market reaction toward positive CSR news, and lower market value and institutional holdings for responsible firms (Fernando et al., 2017; Krüger, 2015).

Numerous studies have suggested that social norms have a significant impact on shaping human behavior (Chung & Rimal, 2016; Elster, 1989). For example, Marquis and Battilana (2009) and Marquis et al. (2007) point out that local social norms influence corporate practices by molding executives' perceptions of what constitutes legitimate behavior. Similarly, responsible social norms shape the local community's perception of being socially responsible, foster responsible behaviors to maximize societal good, and restrain irresponsible behaviors that gain personal benefits at the expense of others. Social responsibility norms in local communities are pertinent to CSR performance as CSR projects are socially responsible actions.

Social responsibility norms permeate corporations' boundaries to influence CSR through internalization and external pressure from various populations. First, social norms can be internalized (Axelrod, 1986) by business and political leaders, corporate executives, and employees in local communities to form a cognitive framework for being ethical and responsible. Political leaders oversee equitable resource distribution and sustainable development; they exert a great influence on the local economy and CSR activities. Corporate leaders are the primary decision makers in CSR initiatives. Employees and professionals also have a considerable influence on CSR actions, as they constitute most of the corporate workforce. When political leaders draft business policies, corporate managers make CSR decisions, and employees carry out CSR actions, they operate within the socially responsible framework and are driven by internalized socially responsible values.

Additionally, social norms serve as evaluative standards against which individuals' actions are judged (Abrams et al., 1990). Social norms studies have shown that people modify their behaviors to follow prevailing norms to enjoy the benefits of social membership and avoid social sanctions associated with norm-deviant behaviors (Kohlberg, 1984; Tajfel, 1978). In a community with responsible social norms, social rewards for behaving responsibly and sanctions for behaving irresponsibly incentivize stakeholders in firms to invest in socially responsible projects. Consumers and the public also push firms to conform to their social responsibility beliefs by increasing their purchases or boycotting products from businesses (Smith, 2009).

While the association between social norms of responsibility and CSR seems intuitive, previous studies have only provided anecdotal evidence. The mechanisms through which social norms of responsibility affect CSR are yet to be identified, and some crucial questions remain unanswered. For example, considering that it is relatively easy for many businesses to increase positive CSR efforts than to reduce negative CSR behaviors, are social norms of responsibility effective in encouraging responsible behaviors or discouraging irresponsible ones? Since various populations have different roles in CSR, then do social norms permeate the boundary of corporations through one population more than others? Given the recent development in cancel culture wherein a person is thrust out of his/her social circle for unacceptable behaviors, do responsible norms condemn irresponsible behaviors more than reward-responsible behaviors? Answering these questions helps us understand how social norms influence corporate behavior. It provides additional insights for policymakers, social organizations, and governmental think tanks seeking to influence corporate actions to achieve social benefits.

Social norms are difficult to gauge, leading to minimal empirical research on this topic. Recently, building upon several studies (for example, Bernile & Jarrell, 2009; Bernile et al., 2015; Dimmock et al., 2018), Parsons et al. (2018) employ five proxies for irresponsible behaviors: political corruption, option backdating, financial advisory fraud, medical sensitivity, and marital infidelity. These five measures reflect how individuals in a group behave unethically to gain personal benefits at the expense of others; therefore, fewer incidents of these misbehaviors indicate more responsible social norms in a community. They capture several intermediaries through which social norms in a community permeate CSR, including political officials, corporate leaders, professionals, and employees, as well as public sanctions.

Political corruption reflects the irresponsible behavior of political leaders. Political corruption is perhaps the ultimate indicator of the community's social norms of responsibility, as elected officials are chosen by the local population. Political leaders of a community tend to be deeply rooted in the community; hence, they have strongly internalized and also embody social norms of responsibility in the community. The literature also shows that social norms are one of the dominant factors in explaining political corruption (Gorsira et al., 2018).

Option backdating is the practice of changing the date a stock option is granted, usually to an earlier date, thus making it more valuable to its holders. This practice provides a way for corporate executives to extract higher compensation without having to disclose higher-pay packages (Fried, 2008). Such opportunistic behaviors benefit corporate executives at the expense of shareholders. This irresponsible behavior reflects the ethical norms of executives, who are subject to the influence of local social norms. Hence, option backdating also reflects the influence of the local responsible social norms on corporate executives' behaviors.

Financial advisor fraud and medical sensitivity[2] reflect the irresponsible behaviors of financial and medical

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[2] Medical sensitivity measures how likely it is for doctors to prescribe drugs from a pharmaceutical firm after they receive monetary payments from the pharmaceutical firm.

professionals in a community. Through the influence of these social norms, professionals in communities with low social responsibility norms act less responsibly and engage in more fraudulent acts to take advantage of their clients. Studies have shown that even when convicted of fraud, some of these professionals continue to believe in their innocence, and such beliefs are connected to social norms, especially when legal requirements deviate from social norms (Jesilow et al., 1991). These misbehaviors reflect the social responsibility norms of local professionals, as they are influenced by the same societal norms as financial and medical professionals.

Marital infidelity reflects the general public's ethical norms of responsibility towards their families and marriages. It is often associated with social and moral sanctions, given the delicate nature of the issue, and the permissive attitudes of the local community towards infidelity are heavily dictated by social norms of responsibility (Rodrigues et al., 2017).

Although most of the above irresponsible behaviors are cross-sectional snapshots, they nevertheless offer direct insights into the social norms of responsibility across regions, especially considering that social norms change very slowly. Employing these irresponsible behaviors as proxies for social norms of responsibility, I analyze how these norms permeate the corporate boundary to influence the CSR performance of firms headquartered in 20 of the largest metropolitan areas in the U.S. Firms' environmental, social, and governance (ESG) scores.

The empirical results show that firms headquartered in cities with higher social responsibility scores are likely to display higher levels of ESG ratings, even after controlling for economic, religious, and demographic differences in cities, as well as firm-level heterogeneity. These findings underline the importance of social norms in shaping CSR, and the significance of cultivating a socially responsible environment to align business goals with societal objectives. This study further reveals that social norms of responsibility significantly explain the variations in CSR across cities for responsible firms and corporate behaviors but not for irresponsible firms and corporate behaviors. This implies that social norms effectively encourage firms to behave responsibly, but are ineffective in deterring irresponsible behaviors, providing empirical evidence that regulations are better tools to discourage firms from misbehaving.

Furthermore, political and corporate leadership are more important intermediaries than others through which social norms infiltrate CSR. This finding highlights the importance of placing higher ethical standards, emphasizing business ethics, and instituting regulations toward corporate and political leaders. Additionally, this study demonstrates that social norms of responsibility have a more significant impact on firms with leaders who are more susceptible to local social norms (i.e., local leaders) than on firms with non-local leaders, further confirming corporate leaders as a channel through which social norms influence CSR.

Moreover, responsible social norms condemn irresponsible behaviors more than reward responsible actions. This asymmetric reaction to responsible versus irresponsible behaviors is also consistent with the neuroscience and psychology literature on overreaction to negative outcomes (Sokol-Hessner et al., 2013). The relationship between CSR and social norms of responsibility is robust to the endogeneity and robustness tests.

This study contributes to literature in several ways. First, while prior studies have shown that CSR is related to social factors such as political affiliation, demographics, and social capital (Di Giuli & Kostovetsky, 2014; Ding et al., 2019; Hoi et al., 2018; Jha & Cox, 2015), this study is the first to identify social responsibility norms as an important social element that influences CSR. It provides concrete evidence that business actions and ethics are driven by social norms. Second, it discusses how social responsibility norms permeate CSR through the internalization and external pressure of various intermediaries and provides empirical support that political and corporate leaders are essential channels through which social norms of responsibility influence CSR. Third, it shows the asymmetric effect of social norms of responsibility in fostering responsible behaviors versus deterring irresponsible ones, as well as the asymmetric reactions of responsible social norms towards rewarding responsible versus punishing irresponsible reactions. Finally, this study adds to the literature on community-based social patterns. Studies have shown that geographic proximity and local networks influence a firm's philanthropic giving, financial crime rate, and organizational behavior (Hilary & Hui, 2009; Kono et al., 1998; Lounsbury, 2007; Parsons et al., 2018). This study provides empirical evidence that a firm's CSR actions are shaped by social norms of responsibility in local communities.

Literature Review and Hypothesis Development

Social Norms, Capital Markets, and Local Characteristics

Social norms have garnered much attention in disciplines ranging from social psychology (Asch, 1955; Sherif, 1936) to economics (Romer, 1984). However, the empirical research on its impact on business, investors, and capital markets is minimal. A few empirical studies have examined

the effect of social norms on capital markets through the perspective of institutional holdings (Hong & Kacperczyk, 2009; Liu et al. 2016; Cahan et al., 2017). Several others have examined how the norms of religion and social capital, through individual risk-taking and ethical standards, influence corporate outcomes, such as anti-takeover provisions or M&A returns (Chintrakarn et al., 2017; Leon et al., 2021).

Recent research on regional CSR reports that several local social characteristics affect CSR performance. For example, Di Giuli and Kostovetsky (2014) find that local political values affect local firms' CSR performance. Jha and Cox (2015) and Hoi et al. (2018) draw on the Census Bureau's mail response rate and votes cast in presidential elections to proxy for local social capital and find a positive relationship between local social capital and a firm's CSR.

Social Norms and CSR

Social norms of responsibility are shared beliefs that govern people's behaviors to act responsibly. Such norms are distinct from religious and social capital norms.[3] Social norms of responsibility promote responsible behaviors or investments that may not bring financial payback and inhibit irresponsible behaviors that reap personal benefits at others' expense. These norms are particularly pertinent to CSR performance because CSR projects aim to improve the community or environment, which may not lead to corporate profits. People in a community with high social norms of responsibility behave more responsibly and are willing to contribute to societal goals without expecting monetary gains. As political leaders, corporate managers, employees, and other corporate stakeholders are often embedded in local communities, they share the same set of values and social norms (Adler & Kwon, 2002; De Carolis & Saparito, 2006) and carry these beliefs when formulating or executing political and corporate decisions.

Social norms also reflect how others in an individual's social circle evaluate their behavior (Cialdini and Trost, 1991). Such evaluations exert external social pressure on people to conform to the local social norms. A community with high expectations of social norms of responsibility elects responsible political and corporate leaders fosters high standards for business ethics and restrains managers and

corporations from opportunistic behaviors through external evaluation, which increases their inclination to improve CSR performance.

Social studies also find that when formulating decisions, individuals often look to the social network in their areas for ideas and strategies (Coleman, 1988; Russo & Fouts, 1997; Wang & Qian, 2011). This mimicking effect further strengthens the influence of local social norms on corporate CSR strategies as social networks push managers and businesses to behave responsibly. Consequently, we expect that CSR performance is closely related to local social norms of responsibility. For example, Intel, one of the best-rated firms in terms of environmental performance, is located in Santa Clara, California, an environmentally friendly city. However, NeoGenomics, Inc., one of the worst-rated firms in terms of CSR, is headquartered in Fort Myers, FL, a city with chronic water pollution issues. Hence, the main hypotheses are as follows:

Hypothesis 1 When a city has fewer incidents of irresponsible behaviors or more responsible social norms, corporations in this city behave more responsibly or have better CSR ratings.

Political and Corporate Leadership

Social norms work through different populations to influence CSR. Some may be more critical channels than others. Political leaders, being at the top of society's governing apparatus, oversee the redistribution of wealth and can heavily influence the local economy and cultural environment in which businesses operate. Cross-national or state research on political corruption often finds a negative correlation between political corruption and investment/economic growth (Glaeser & Saks, 2006; LaPorta et al., 1999; Mauro, 1995). Similarly, corporate managers profoundly influence corporate policies, firm culture, and employee behaviors. They play an essential role in creating and sustaining an ethical work environment and taking on socially responsible projects. Some corporate CEOs wield enormous influence not only on their behemoth corporations but also on society. Notable examples such as Bill Gates and Elon Musk have millions of followers on social media and significant influence on the capital market. Given the crucial roles political and corporate leaders play in the economy and corporations, they would heavily influence CSR. Hence,

Hypothesis 2A Political leaders have a stronger influence on CSR than other intermediaries.

Hypothesis 2B Corporate leaders have a stronger influence on CSR than other intermediaries.

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[3] Religious norms are rules that define the behaviors and habits of practitioners of a theological doctrine, such as dealing with God and faith (Chintrakarn et al., 2017; Leon et al., 2021). Social capital captures people's social "connectedness" in a community and its norms foster connections and cooperation among people (Coleman 1988; Guiso et al., 2011; Hoi et al., 2018). These norms could also impact an individual's perception of responsible behaviors through religious beliefs and social cooperation. However, people's responsible behaviors are governed more directly and holistically by social responsibility norms.

Do Social Norms Encourage Firms to Be More Responsible or Less Irresponsible?

In theory, firms can increase their responsible efforts or decrease irresponsible behaviors to increase their ESG ratings. However, in practice, firms have better leverage to increase positive activities than to reduce negative actions, especially when the negative actions are determined by the nature of their business. Hoi et al., (2018, p. 651) points out that "there are significant costs associated with decreasing negative CSR activities, and these costs could vary widely from firm to firm depending on ''structural'' elements such as the firm's lines of business and its business model or mode of operation." What's more, firms are less apt to increase their negative CSR actions because local firms behave less responsibly. This is because many negative CSR activities are consequences of ingrained and outdated corporate cultures. Collectively, the above arguments and findings lead to the following hypothesis:

Hypothesis 3 Social responsibility norms are more effective in encouraging firms to be responsible than in deterring firms from acting irresponsibly.

Local Executive Effect

As social responsibility norms work through internalization and external pressure of various populations, we expect that people who grow up in the local community have internalized these social norms more deeply than non-locals. Locals also usually have many of their relatives and friends in the same or nearby communities, resulting in dense social networks and more social pressure when behaving irresponsibly in a responsible community. We would expect that social responsibility norms have a more pronounced impact on CSR for firms with local leaders, as they are more susceptible to local social norms, than firms with non-local leaders. Prior literature reports that about 30% of corporate executives are local (Yonker 2017a); therefore, I formulate the following testable hypothesis:

Hypothesis 4 Socially responsible norms have a greater influence on CSR for firms with local corporate leaders than for those with non-local corporate leaders.

Socially Responsible Norms' Reward and Punishment

In general, we expect a positive relationship between firm value and ESG performance as society appreciates responsible investments. However, investors' social norms can moderate this relationship. Investors from areas with more responsible social norms may value CSR performance more

than those from other cities.[4] Similarly, firms with poor CSR performance are punished more if they are in a more responsible city, as investors in such a city have a low tolerance toward irresponsible behaviors. Hence, we propose the following hypotheses:

Hypothesis 5.1 Responsible firms are rewarded more when they are located in a more responsible city.

Hypothesis 5.2 Irresponsible firms are punished more when they are located in a more responsible city.

Neuroscientific research (for example, Sokol-Hessner et al., 2013) reveals that people's emotional reactions are stronger in the face of losses than gains. Fixation on the negative outcome is also known as the "negativity bias" in psychology. This overreaction to adverse outcomes is further corroborated by the recent development in cancel culture, in which someone is thrust out of social or professional circles due to unacceptable behaviors. Similarly, business literature (see Veronesi, 1999) has documented an asymmetric reaction to good versus bad news and that investors overreact to bad news in good times. Following this line of research, we expect responsible social norms to overreact to bad outcomes or CSR ratings. Thus, irresponsible corporate actions are punished more than responsible firm behaviors are rewarded when they are in a responsible community.

Hypothesis 5.3 Responsible social norms condemn irresponsible corporate actions more than they reward responsible corporate behavior.

Research Design

Model

To explore the relationship between local social norms of responsibility and CSR, I regress local ESG on socially irresponsible behaviors at metro and firm levels as shown in Eq. 1:

$$ESG_{i,t} = \alpha + \beta_1 Norm_i + 2\bar{\gamma}\bar{C} + \varepsilon_{i,t} \tag{1}$$

where $ESG_{i,t}$ is the average CSR measures for all firms headquartered in city i in year t at metro level regression, and it is the CSR measure for firm i in year t at the firm level regression. $Norm_i$ are the proxies for social norms of responsibility for city i, $\bar{C}$ is the set of control variables, and $\bar{\gamma}$ is a vector of coefficient estimates.

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[4] Conversely, one could argue that socially responsible corporate behavior might be more valuable in low social norm regions where most firms did not behave responsibly; hence, good behavior is likely to be highlighted more when most firms misbehave.

CSR Measures

In this study, I employ both the Bloomberg ESG scores and MSCI KLD (KLD) ratings. Bloomberg ESGs are disclosure scores and KLD ratings are performance-based. These two datasets complement each other and reduce non-disclosure, greenwashing, and rating bias issues (Fabrizio & Kim, 2019). The metrics used for the environmental score in Bloomberg are specific to each industry, whereas social and governance metrics are more consistent across all firms. Table 1A in the Appendix, the variable definition table, provides detailed information on each metric.

The KLD evaluates approximately 80 data points for over 3000 U.S. firms. It presents a binary summary of the strengths and concerns at the end of each calendar year for each company. The net score (overall strengths minus overall concerns) represents the overall CSR performance of a firm. KLD was criticized by several studies for its flaws and limitations (Chatterji et al., 2009; Hatten et al., 2020). Hence, I employ Bloomberg ESG in the main analysis and KLD in complementary tests.

Bloomberg ESG scores were obtained for the period 2007–2017, in which data on ESG were available in Bloomberg. KLD ratings were obtained from the MSCI for the period 2000–2013 when their ratings were more consistent. Firm ZIP codes were obtained from COMPUSTAT and matched to MSA ZIP codes to identify firms that were headquartered in the 20 largest MSAs.[5] The final Bloomberg ESG sample consisted of 1690 firms with 11,202 firm-year observations. The KLD sample covers 13,218 firm-year observations from 1,945 firms.

Panel A of Table 1 presents the average ESG for each metro area. Firms in Orlando have the highest ESG, followed by Minneapolis and Phoenix. Washington, D.C. has the lowest ESG, followed by Los Angeles and Indianapolis. Panel B of Table 1 presents the summary data at the firm level. The Bloomberg ESG score has a range of 0.83 to 75.62, with a mean of 17.44. KLD net score has a mean value of − 0.31 and a range of − 11 to 19.

Social Norm Measures

Information on political corruption/fraud is reported by the Department of Justice (DOJ). The data employ the number of DOJ-prosecuted convictions for each DOJ district headquartered in the MSA.[6] This number is then scaled by the area population, yielding the corruption rate per one million area residents. In addition to the average political corruption rate from 1970 to 2010 from Parsons et al. (2018), which is reported in Table 2A in the online Appendix and employed in the main analysis, I also obtain the time-series data for each year over the sample period 2007–2017 for robustness tests.

The sample option backdating data covers firms involved in option backdating scandals from 1996 to 2006 (Bernile & Jarrell, 2009; Bernile et al., 2015). Table 2A reports the percentage of scandal firms scaled by the total number of firms in each of the twenty cities.

The data on financial advisor fraud is based on Dimmock et al. (2018)'s work. They obtain the data from historical Form U4 filings, which provide information on advisors' misconduct. The sample data covers registered financial advisors in 32 states from 1999 through 2014. The average financial advisor fraud incident rate for each city is aggregated over the sample period.[7]

Medical sensitivity measures the sensitivity of the average response of a doctor in a city to monetary payments from the largest 12 pharmaceutical firms. Parsons et al. (2018) obtain the medical sensitivity data by regressing the independent variable (the number of Medicare prescriptions for 129,594 doctors in the 20 metro cities) on monetary transfers from 12 major pharmaceutical firms to these prescribing doctors in 2010 (Propbulica.org). They report that the average payment is $137, which induces five more prescriptions from physicians in Minneapolis, but 39 in Miami.

Ashley-Madison/Marital infidelity data is based on the Ashley-Madison website, which originally provided online dating services to married individuals seeking extramarital affairs. A hacker group leaked the data of nearly 40 million Ashley-Madison users in 2015. The number of users in each MSA area is divided by the number of adults in the area with access to the internet.

I also create an irresponsibility index for each city and report it in Table 1. This index is the first principal component of the five misbehaviors mentioned above and is normalized to have a mean of zero and a standard deviation of one.[8] Lower index values indicate fewer incidents of irresponsible behavior; therefore, this index is expected to be negatively related to CSR.

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[5] In this study, MSA is used interchangeably with city, metro, or area.

[6] One exception is Orlando; the DOJ for central Florida is not headquartered in Orlando. Therefore, Orlando has no political corruption data.

[7] I also replace financial advisor fraud with the financial crime rate from Parson et al. (2018). The results using the financial crime rate are very similar to those using financial advisor fraud.

[8] The index explains roughly 50% of the total variations in the five misbehaviors.

Table 1 Summary statistics

Panel A Metro Level variables

Metro	Obs	ESG	Governance	Social	Environment	Irresponsibility index
Atlanta	486	16.46	51.49	16.31	16.40	− 0.07
Boston	930	17.06	50.79	14.16	19.83	0.56
Chicago	956	18.84	52.22	17.58	19.51	− 0.45
Cleveland	205	18.48	52.15	15.71	19.23	0.09
Dallas	821	18.28	51.40	17.64	20.36	− 0.11
Denver	442	16.87	50.79	14.57	13.70	− 0.63
Detroit	227	16.65	51.79	14.27	17.76	− 1.31
Houston	944	17.22	51.06	17.12	12.80	1.47
Indianapolis	114	15.46	49.83	12.09	10.52	− 0.77
Los Angeles	962	15.29	49.40	12.86	11.95	1.07
Miami	382	15.96	49.14	15.81	20.08	2.04
Minneapolis	364	20.07	52.82	17.59	26.34	− 1.27
New York	1661	17.94	50.82	16.91	24.45	0.14
Orlando	79	20.32	52.19	22.47	17.86	− 1.06
Philadelphia	493	15.54	50.36	13.97	12.61	− 0.94
Phoenix	251	19.45	51.72	21.60	20.43	− 0.80
San Francisco	1370	17.53	49.74	12.72	15.71	1.61
Seattle	246	19.30	49.94	17.08	19.08	− 0.64
St. Louis	183	17.94	52.21	17.97	12.69	0.07
Washington DC	86	14.02	46.57	10.95	6.53	0.99

Panel B summary of firm level variables

Variable	N	Mean	Std Dev	Minimum	Maximum
Bloomberg ratings					
ESG	11,202	17.44	10.15	0.83	75.62
Environmental	4199	19.10	18.07	0.78	81.40
Social	6057	17.60	14.28	3.13	85.96
Governance	9019	52.25	6.25	3.57	85.71
Firm level controls					
Ln(TA)	11,202	7.84	1.80	2.89	12.95
Cash ratio	11,202	0.16	0.17	0.00	0.91
Debt ratio	11,202	0.20	0.19	0.00	0.90
ROA	11,202	0.03	0.11	− 0.84	0.30
Local executive dummy	11,202	0.33	0.47	0.00	1.00
KLD ratings					
Overall net score	13,218	− 0.31	2.51	− 11.00	19.00
Overall strengths	13,218	1.51	2.49	0.00	22.00
Overall concerns	13,218	1.82	1.87	0.00	18.00

Panel A of this table reports the number of firm-year observations, the mean Bloomberg ESG score, and its three separate issue areas (environmental, social, and governance scores) for each city. The irresponsibility index is the first principal component of the five irresponsible behaviors reported in Table 2A in the Appendix. Panel B reports the summary of firm level variables. Overall net score is the overall strengths minus the overall concerns. Overall strengths (concerns) is the sum of the number of strengths (concerns) across seven sub-areas from MSCI KLD

City and Firm Level Controls

Informed by previous literature (Addoum et al., 2017; Bertaut & Starr, 2000; Campbell, 2007; Ding et al., 2019; McGuire et al., 2012), I include the following city level economic, demographic, and religious factors as control variables: the log of median household income, income

Table 2 Regression at Metro-Year Level

Parameter	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Intercept	4.30 (0.55)	8.07*** (0.01)	11.09** (0.04)	3.02 (0.62)	4.74 (0.35)	11.42** (0.02)	7.99 (0.13)
Irresponsibility index		− 0.61*** (0.00)					
Financial advisor fraud			− 0.01* (0.06)				
Political fraud				− 0.43*** (0.00)			
Option backdating					− 0.24*** (0.00)		
Medical sensitivity						− 0.14*** (0.00)	
Ashley madison							− 5.57** (0.05)
Log(N)	0.35 (0.38)	0.43*** (0.00)	0.19 (0.17)	0.27** (0.05)	0.33** (0.03)	0.35*** (0.01)	0.19 (0.23)
Population Growth	0.88*** (0.01)	1.03*** (0.00)	0.85*** (0.00)	0.88** (0.02)	1.27*** (0.00)	0.97*** (0.00)	1.10*** (0.00)
Log (income)	7.32 (0.19)	4.63 (0.19)	6.43 (0.12)	7.75* (0.09)	8.65 (0.55)	4.56* (0.10)	7.81* (0.10)
Income growth	0.05 (0.93)	0.44 (0.12)	0.40 (0.38)	− 0.54 (0.36)	0.48 (0.28)	0.22 (0.61)	0.09 (0.84)
Median age	0.36** (0.02)	0.33*** (0.00)	0.28** (0.03)	0.40*** (0.01)	0.35*** (0.01)	0.37*** (0.00)	0.31** (0.02)
Education	− 0.24** (0.04)	− 0.15*** (0.01)	− 0.27*** (0.01)	− 0.19* (0.06)	− 0.30*** (0.00)	0.00 (1.00)	− 0.19* (0.07)
Religious Adherence	0.00 (0.52)	0.00 (0.16)	0.00 (0.23)	0.00 (0.14)	0.00 (0.25)	0.00 (0.70)	0.00 (0.19)
Year ffect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	220	220	220	209	220	220	220
R-squared	0.066	0.375	0.130	0.108	0.169	0.183	0.100

This table presents estimates from regressions of ESG scores on the irresponsibility index and different irresponsible behaviors at the metro-year level. The dependent variable is the average ESG for all firms in metro area i in year t. The irresponsibility index is the first principal component of the five irresponsible behaviors reported in Table 2A. Log (N) is the log of the number of firm-year observations in the metro area. Log (income) is the log of median household income. Population growth and income growth are income and population growth rates. Education is the percentage of the population with post-secondary degrees. Religious adherence is the religious participation rate from ARDA. P values are given in parentheses

*, ** and *** denote significance at 10%, 5% and 1% level, respectively

growth, population growth, age, education, and religious participation.[9] Table 2A in the online Appendix provides a summary of the city-level variables.

Previous studies have shown that firms with more resources are more likely to undertake CSR projects (Fernando et al., 2017; Krüger, 2015). Following the literature, I control for firm size, the leverage ratio, and the liquidity ratio as firm-level proxies for firms' resources. I also controlled profitability, measured by ROA, as the literature shows that it is significantly related to CSR (Chen et al., 2020; Dyck et al., 2019).
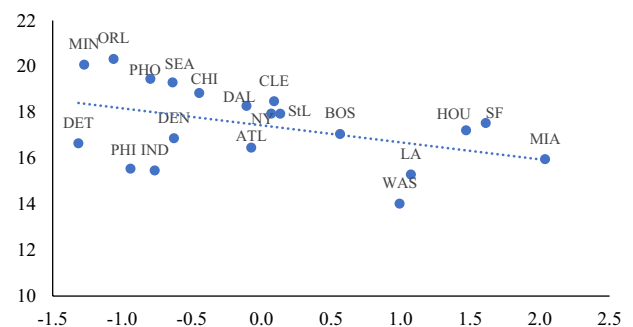
Fig. 1 ESG and Social Norms. This figure provides a scatterplot of the average ESG against the irresponsibility index for each metro. A lower value on the X-axis (irresponsibility index) indicates fewer irresponsible behaviors in a city. Higher values on the Y-Axis correspond to better ESG scores. The numbers used to generate this scatterplot are reported in Table 1. The straight line represents the best-fit line

[9] Political affiliation is also considered, and results remain unchanged, largely due to the fact that almost all metro cities are predominately democratic.

Empirical Results

City Level Regression

Figure 1 plots the average ESG score for each city against each city's irresponsibility index. The negative relationship between the ESG score and the irresponsibility index is visually apparent. The slope (− 0 .74) for the best fit line is significant at the 5% level, and the R-squared is 19%. Figure 1 has only twenty observations and does not consider other regional factors that could potentially affect local ESG scores. Next, employing a panel model, I examine the relationship at the metro-year level to increase the number of observations and control for city-level variables. Table 2 reports the results for Eq. 1.

Table 2 shows that each measure of social norms is significantly and negatively related to local ESG. Financial advisor has a coefficient of − 0.01 (or − 0.01359 to be more exact) implying that, holding all else equal, compared to Miami (with a financial advisor fraud incident rate of 199.91), firms in Detroit (with a financial advisor fraud rate of 43.48) have an ESG that is -0.01359 × (199.91–43.38) = 2.13 units higher. Given that the mean ESG score is 17.44 units for all observations, an increase of 2.13 units represents 2.13/17.44 = 12% change in ESG on average. Political fraud has a semi-elasticity of -0.43, indicating firms in San Francisco (with a political fraud rate of 1 per million residents) likely have an average ESG score that is -0.43 × (1–8) = 3.01 units or 17% higher than firms in Washington DC (with a corruption rate of 8 per million residents), all else equal. Option backdating has a coefficient of − 0.24, indicating the likely increase in ESG from the worst-ranked city to the best-ranked city is around 3.24 units or 19%, all else held constant. The increase in ESG from the worst-ranked city to the best-ranked city by medical sensitivity is 6 units. The coefficient for Ashley-Madison is − 5.57, implying firms in Indianapolis have ESG that is two units higher than firms in Washington DC, all else held constant. Results in Table 2 provide strong support for hypothesis 1 and show that local social norms explain the variation in ESG across cities, beyond that reflecting economic and demographic differences.

Firm Level Regression

Table 3 reports the pooled regression results at the firm-year level after controlling for the city and firm characteristics, and industry and year fixed effects. Errors are clustered at

the firm level to adjust for correlation between observations from different years for the same firms.[10] The coefficient for irresponsibility index remains negative and significant at the 1% level. Column 1 of Panel A indicates that one standard deviation change in the irresponsibility index is associated with a change of 1.35 units or 8% of mean ESG. Each of the irresponsible behaviors is still negatively and significantly related to ESG except the Ashley–Madison data, the coefficient of which turns insignificant. This indicates that social norms influence CSR more through other channels rather than the public. Other results in Table 3 are consistent with the literature, as firm size and liquidity ratio are positively and debt ratio and ROA are negatively related to the firm's ESG scores. In Panel B of Table 3, I regress environmental, social, and governance scores separately on the irresponsibility index, and each is significantly and negatively related to the index. I repeat the analysis with KLD net scores and report the results in Panel A and B of Table 3A in the online Appendix, the results of which are consistent with those of Table 2. These findings support hypothesis 1 and show that social norms of responsibility in the local community work through various populations to influence CSR.

Which Intermediaries Are More Important?

To test hypotheses 2A and 2B, I standardize each irresponsible measure to make coefficients more comparable and rerun the baseline regression. The results are reported in Panel C of Table 3. They show the coefficient is, in descending order of importance, − 1 for political corruption, − 0.8 for option backdating, − 0.72 for medical sensitivity, − 0.62 for financial advisor fraud, and insignificant for Ashley-Madison. In the last column, I regress ESG on all five irresponsible behaviors altogether. The statistical significance for coefficients is reduced, and some of the coefficient estimates lost their significance due to multicollinearity; still, political fraud and option backdating have a significant impact on CSR. The above results support hypotheses 2A and 2B and indicate that socially responsible norms of political and corporate leaders have more influence on CSR than other populations. Social responsibility norms primarily work through political and corporate leaders to impact CSR. This finding implies that effective ethics and compliance efforts should tilt more toward upper political and corporate leaders.

Do Social Norms Encourage Firms to Be More Responsible or Less Irresponsible?

I split the sample firms into high ESG firms (responsible firms) and low ESG firms (irresponsible firms) based on the median ESG score. Regression results on the subsamples are presented in the first two columns of Table 4. For the responsible firms, ESG scores remained significantly and

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[10] I also run a pooled regression without clustering errors at the firm level and the results are stronger than those of the regressions with clustered errors. Additional regressions clustering errors at the metro/industry level show very similar results to those reported in Table 3.

Table 3 Regression of ESG on Local Social Norm at Firm-Year Level

Panel A Overall ESG Score

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	− 15.28** (0.05)	− 18.28** (0.02)	− 27.02*** (0.00)	− 21.61*** (0.00)	− 15.92** (0.05)	− 18.18** (0.02)
Irresponsibility index	− 1.35*** (0.00)					
Financial advisor fraud		− 0.01* (0.07)				
Political fraud			− 0.56*** (0.01)			
Option backdating				− 0.19*** (0.01)		
Medical sensitivity					− 0.09** (0.04)	
Ashley madison						1.43 (0.72)
Log (N)	2.02*** (0.00)	1.34*** (0.01)	1.61*** (0.00)	1.31** (0.01)	1.45*** (0.01)	0.85 (0.11)
Population Growth	1.92 (0.54)	0.64 (0.12)	0.54 (0.21)	0.94** (0.03)	0.61 (0.14)	0.53 (0.22)
Log (Income)	− 0.19 (0.36)	− 5.34 (0.61)	− 0.60 (0.58)	1.90 (0.71)	− 7.32 (0.17)	0.00 (0.78)
Income Growth	− 0.17 (0.87)	− 0.57 (0.50)	− 1.99** (0.04)	− 0.47 (0.58)	− 0.75 (0.37)	− 0.93 (0.26)
Median Age	0.49 (0.47)	0.20 (0.24)	0.35* (0.07)	0.19 (0.26)	0.17 (0.30)	0.16 (0.37)
Education	0.18 (0.42)	0.06 (0.68)	0.14 (0.29)	0.03 (0.81)	0.22 (0.13)	0.10 (0.47)
Religious Adherence	0.00 (0.93)	0.00 (0.96)	0.00 (0.94)	0.00 (0.73)	− 0.01 (0.28)	0.00 (0.83)
Log(TA)	3.91*** (0.00)	2.91*** (0.00)	2.91*** (0.00)	2.91*** (0.00)	2.91*** (0.00)	2.91*** (0.00)
Cash Ratio	8.43*** (0.00)	4.48*** (0.00)	4.50*** (0.00)	4.69*** (0.00)	4.70*** (0.00)	4.52*** (0.00)
Debt Ratio	− 1.75 (0.14)	− 0.74 (0.13)	− 0.75 (0.13)	− 0.75 (0.14)	− 0.75 (0.14)	− 0.75 (0.14)
ROA	− 0.18** (0.03)	− 0.08** (0.05)	− 0.08** (0.05)	− 0.08** (0.05)	− 0.08** (0.05)	− 0.08** (0.05)
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	11,085	11,085	11,006	11,085	11,085	11,085
R-squared	0.388	0.383	0.386	0.385	0.384	0.382

Panel B regress environmental, social, and governance scores separately on irresponsibility index

	Environment	Social	Governance
Irresponsibility index	− 2.55** (0.01)	− 1.47** (0.02)	− 0.10*** (0.00)
Metro controls	Yes	Yes	Yes
Firm controls	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes
Observations	2256	4847	7780
R-squared	0.384	0.336	0.286

Panel C regression ESG on standardized irresponsible behaviors

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Financial Advisor Fraud	− 0.62* (0.06)					− 0.28 (0.25)
Political Fraud		− 1.00*** (0.01)				− 0.95* (0.07)
Option Backdating			− 0.80*** (0.01)			− 0.62* (0.10)
Medical Sensitivity				− 0.72** (0.04)		− 0.05 (0.92)
Ashley Madison					0.14 (0.29)	0.34 (0.48)
Metro Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes

Table 3 (continued)

Panel C regression ESG on standardized irresponsible behaviors

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Observations	11,006	11,085	11,085	11,085	11,085	11,006
R-squared	0.383	0.386	0.385	0.384	0.382	0.389

Table 3 reports the pooled regressions of ESG scores on the irresponsibility index and misbehaviors at the firm-year level. Errors are clustered at the firm level to adjust correlations between observations from different years for the same firm. The dependent variable is the ESG score for firm i in year t. The number of clusters is 1690 for Panel A and C. The dependent variable in Panel B is environmental, social, and governance scores, respectively, for firm i in year t. In Panel C, each irresponsible behavior is standardized to have a mean zero and variance of one. Metro control includes the log of the number of firm-year observations in the metro area, the median age, education, religious adherence/participation rate, the log of median household income of the area's population, and the income and population growth rates. Firm controls include the log of total assets, cash ratio, debt ratio, and ROA. P values are given in parentheses

*, ** and *** denote significance at 10%, 5% and 1% level, respectively

Table 4 Regression on Subsamples: Responsible Firms/Behaviors vs. Irresponsible Firms/Behaviors

	High ESG firms	Low ESG firms	Overall strengths	Overall concerns
Irresponsibility Index	− 2.46*** (0.00)	− 0.10 (0.89)	− 0.11* (0.07)	− 0.02 (0.62)
Metro Controls	Yes	Yes	Yes	Yes
Firm Controls	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes	Yes
Observations	4895	6111	13,218	13,218
No. of Clusters	964	1341	1945	1945
R-squared	0.404	0.097	0.296	0.165

Table 4 reports the pooled regressions of ESG scores on the irresponsibility index and misbehaviors at the firm-year level. The sample is split into responsible firms with above-median ESG scores and irresponsible firms with below-median ESG scores. In addition, responsible corporate actions (proxied by the overall strengths by KLD) and irresponsible corporate actions (operated by the overall concerns by KLD) are regressed on the irresponsibility index in the last two columns

negatively related to the irresponsibility index with a coefficient of − 2.46, indicating that one standard deviation of change in the irresponsibility index leads to 2.46 units or 14.5% change in ESG scores for responsible firms. However, for the irresponsible group, the coefficient of interest is − 0.10 and insignificant. The social norm variables have substantially stronger explanatory power for responsible firms than irresponsible firms, as the R-squared is 0.404 for high ESG firms and merely 0.097 for low ESG firms. The results in Table 4 support hypothesis 3 and provide strong evidence that socially responsible firms drive the relationship between social norms and ESG.

One caveat of the above analysis is that it does not distinguish responsible behaviors from irresponsible ones by individual firms. Therefore, I repeated the analysis employing overall strengths (concerns) as a proxy for responsible (irresponsible) corporate actions. The results are presented in the last two columns of Table 4. Again, the irresponsibility index is negatively and significantly related to overall strengths but not significantly related to overall concerns. The above findings indicate that, while social norms of responsibility are effective in encouraging firms to be more responsible and foster corporate responsible behaviors, they are ineffective in discouraging firms from behaving irresponsibly.

Local Executive Effect

Locally raised executives internalize local social norms more profoundly than do non-local executives. Local executives also have denser local social networks and face greater social pressure than non-local executives. Hence, local social norms should have a more pronounced influence on CSR in firms with local corporate executives. To test this hypothesis, I employ home state data from Yonker (2017a) for firms' top five paid executives. A local executive dummy variable is created, which is one if the executive's home state is also the firm's headquarters state and zero otherwise. I allow the local executive dummy to interact with the irresponsibility index to test the local executive effect. Results are reported in Table 5 and illustrated in Fig. 2.[11]

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[11] Figure 2 only visualizes the relation between ESG/environmental ratings and irresponsibility index as plots for the relationship between social/governance and irresponsibility index for local executives vs. non-local executives are not visually apparent, thus not presented.

Table 5 Local Executive Effect

	ESG	Environment	Social	Governance
Irresponsibility index	− 1.41**	− 1.12	− 1.13	− 1.11
	(0.03)	(0.45)	(0.44)	(0.12)
Local executive	0.91	0.47*	2.28	0.88
	(0.36)	(0.06)	(0.19)	(0.18)
Irresponsibility index	− 0.05	− 0.38**	− 0.22*	− 0.08*
*Local executive	(0.30)	(0.05)	(0.08)	(0.10)
Metro controls	Yes	Yes	Yes	Yes
Firm controls	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Observations	4870	980	2107	3382
No. of clusters	584	240	343	428
R-squared	0.462	0.425	0.402	0.411

Table 5 reports the local executive effect. The dependent variable is the ESG score for firm i in year t. Local Executive is set to one if the executive's home state is also the firm's headquarter state. Executive data covers the top five paid executives in the firm. Errors are clustered at the firm level to adjust correlations between observations from different years for the same firm. Metro control includes the log of the number of firm-year observations in the metro area, the median age, education, religious adherence/participation rate, the log of median household income of the area's population, and the income and population growth rates. Firm controls include the log of total assets, cash ratio, debt ratio, and ROA. P values are given in parentheses

*, ** and *** denote significance at 10%, 5% and 1% level, respectively

In Table 5, the interactive term *Irresponsibility Index*Local Executive* is negatively related to the overall ESG score and significantly and negatively associated with each of the environmental, social, and governance scores. This shows that when corporate executives grow up in the firm's headquarters state, they are susceptible to local social norms, and the irresponsibility index has a more significant impact on CSR for these firms. Figure 2 illustrates that the slope between environmental ratings and irresponsibility index is steeper for firms with local executives relative to firms with non-local executives. Thus, the above results confirm hypothesis 4 and identify corporate leaders as one of the important channels through which social norms influence CSR.

Social Norms of Responsibility's Reward and Condemnation

In this section, I examine whether high-ESG firms are more highly valued if they are headquartered in highly responsible metros. I construct a regional dummy variable, $D_{ResponsibleMetro}$, which equals one if the firm is located in a metro that is ranked in the top half based on the average ranking of all five misbehaviors, or a more socially responsible region, and zero otherwise. I run the following pooled regression:

$$Tobin's\, Q_{i,t} = \alpha_i + \beta_1 ESG_{i,t} + \beta_2 D_{ResponsibleMetro} + \beta_3 ESG_{i,t} * D_{ResponsibleMetro} + 2\bar{\gamma}\bar{C} + \varepsilon_{i,t} \quad (2)$$

where $Tobin's Q_{i,t}$ measures firm valuation, calculated as the market value of assets over the book value of assets for firm i in year t. The results are presented in the first three columns of Table 6. Model 1 indicates a positive relationship between firm valuation and ESG, and Model 2 shows that firms in more socially responsible cities receive better valuation. However, the main variable of interest, $ESG * D_{ResponsibleMetro}$, is not significant in Model 3,
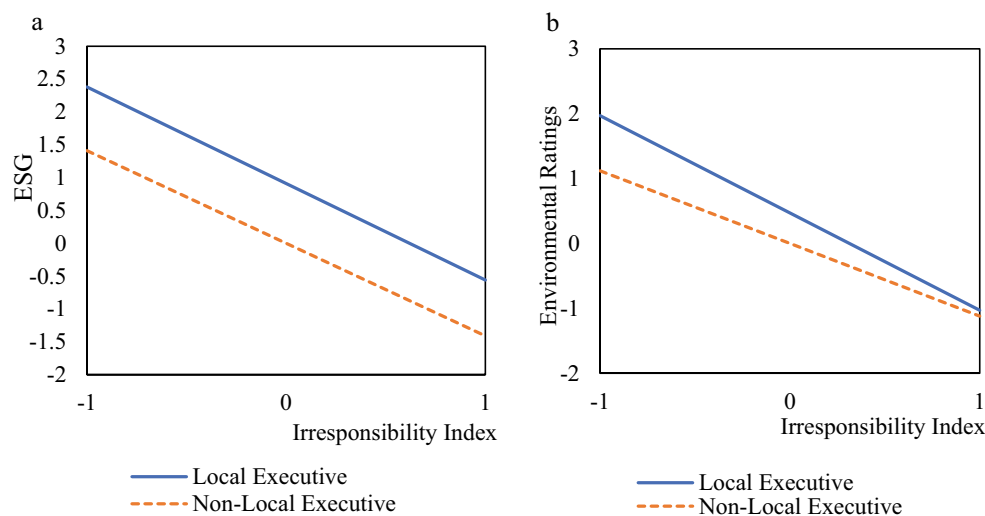
Fig. 2 Local executives' moderation effect on the relationship between Irresponsibility index and CSR (**a**) and environment ratings (**b**)

Table 6 Responsible Social Norms' Reward and Condemnation

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
ESG	0.56*** (0.00)	0.46*** (0.00)	0.55*** (0.00)				
$D_{ResponsibleMetro}$		0.84** (0.05)	0.59 (0.34)			0.52 (0.15)	− 0.22 (0.30)
ESG*$D_{ResponsibleMetro}$			0.01 (0.43)				
Overall Strengths				0.44** (0.05)		0.42** (0.05)	
Overall Concerns					0.22 (0.25)		0.43 (0.19)
Overall Strengths*$D_{ResponsibleMetro}$						0.02 (0.58)	
Overall Concerns*$D_{ResponsibleMetro}$							− 0.15* (0.08)
Metro controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,989	10,989	10,989	12,302	12,302	12,302	12,302
R-squared	0.141	0.142	0.142	0.244	0.242	0.244	0.244

The dependent variable is Tobin's Q. $D_{ResponsibleMetro}$ is valued at one if the firm is headquartered in a metro area with an above-median level based on the average rankings of all five irresponsible behaviors, and zero otherwise. Overall strengths(concerns) is the number of strengths(concerns) by KLD. Metro controls include the log of number of firm-year observations in the metro area, the median age, education, religious adherence rate and the log of median household income of the area's population, and the income and population growth rates. Firm controls include the log of total assets, cash ratio, debt ratio, and ROA. Errors are clustered at the firm level to adjust correlations between observations from different years for the same firm. The number of clusters is 1690 in models 1–3 and 1891 in models 4–7. P values are given in parentheses

*, ** and *** denote significance at 10%, 5% and 1% level, respectively

implying that the valuation for high-ESG firms when located in more socially responsible cities is not significantly better. Responsible firms are not rewarded more when they are located in a more responsible city. Thus, Hypothesis 5.1 is not supported. I repeated the analysis using KLD net scores, and the results are very similar to Models 1 to 3 in Table 6 but are not reported due to space limitations.

To test whether responsible social norms overreact to negative news or irresponsible behaviors, I employ overall strengths and concerns to proxy for responsible and irresponsible behaviors, respectively, and let them interact with $D_{ResponsibleMetro}$. The results are reported in Models 4 to 7 in Table 6. Models 4 to 5 display a significant and positive relationship between responsible behavior and firm value. The interactive term $OverallStrength * D_{ResponsibleMetro}$, is insignificant in Model 6, whereas $OverallConcern * D_{ResponsibleMetro}$, becomes significant and negative in Model 7. They indicate that when a firm demonstrates irresponsible behavior, those located in more responsible cities are punished significantly more than those in irresponsible cities. However, socially responsible actions (or firms) are not rewarded more when located in responsible cities. I also plot the results for Models 6 and 7 in Fig. 3. Figure 3 shows the positive relationship between overall strength and firm value is parallel for responsible cities vs irresponsible cities, but firms exhibiting more overall concerns have lower firm values when located in responsible cities.[12] Again,

these results reject hypothesis 5.1, but support hypothesis 5.2. The asymmetric reaction to responsible versus irresponsible behaviors supports hypothesis 5.3 and confirms that responsible social norms overreact to bad CSR outcomes. Responsible social norms indeed condemn irresponsible behaviors more than reward responsible behaviors.

Endogeneity Issues

To mitigate endogeneity concerns, I adopt a quasi-natural experiment with the largest environmental disaster in U.S. history, namely, the BP Deepwater Horizon oil spill in April 2010. This event represents an exogenous shock to the potential damage to the environment and society caused by poor ESG practices. Responsible social norms would drive firms, especially those in the excavation and mining industries, to increase their ESG efforts more than do firms in less responsible cities. I run a difference-in-differences (DID) test and present the results in Table 4A, which support the causal relationship, as firms in the excavation and mining industries significantly increase their ESG efforts post-event in responsible cities relative to firms in less responsible cities.

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[12] The positive relation between firm value and overall concerns is due to the positive relation between the overall strengths and overall concern. Some firms have more concerns and strengths while others have fewer concerns and strengths.
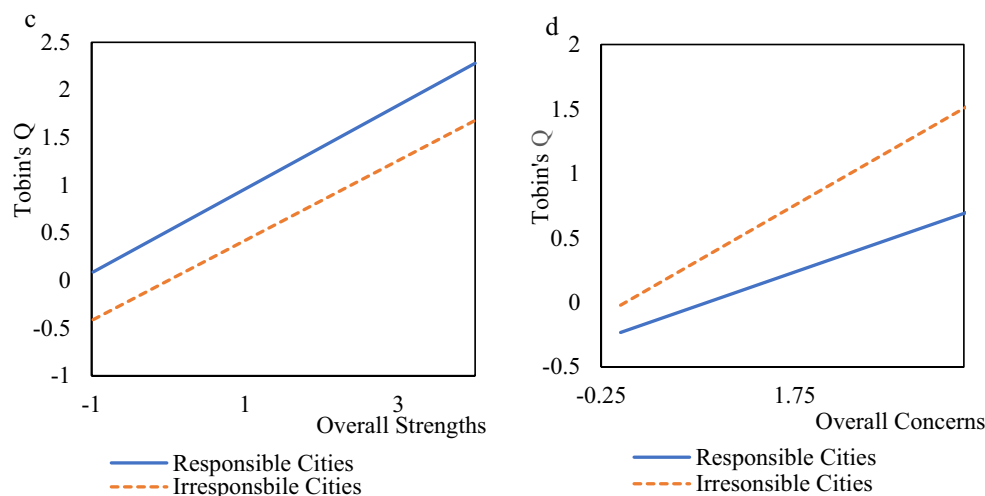
Fig. 3 Firm value and responsible corporate actions (**c**) vs. irresponsible corporate behaviors (**d**)

In addition to the DID approach, I consider potentially omitted variables, the propensity matching algorithm, the entropy balancing test to further reduce endogeneity concerns. The results are presented in Tables 5A to 7A in the online Appendix and are consistent with the baseline results.

Another potential concern is the nonsynchronous measurement. The social norm data are cross-sectional snapshots with all irresponsible behaviors measured in or before 2015. Previous findings largely rely on the assumption that social norms are at least partly persistent. Parsons et al., (2018, p. 2111) points out that social norms are persistent, as "many factors that create or sustain a city's norms, in particular, those related to ethnicity or country of origin, move slowly." Nevertheless, to empirically address the mismatch issue, I employ time-series political corruption data for the sample period (2007–2017) for all cities except Orlando. The results are reported in Table 8A and show a significantly negative relationship between ESG and political corruption and one-year lagged political corruption.

Although the above tests confirm the causality of social norms on CSR, one cannot refute the fact that corporations can influence local culture and social norms. Multinational corporations (MNC) operate in various parts of the country or world; they can transfer social norms and cultures from their home states or countries to other states or countries. For example, Cincinnati-based P&G expanded its operations to Africa and set up programs to provide job opportunities to African women and improve local gender equality. This also largely explains why some eastern cities such as Shanghai and Mumbai are westernized; as many MNC set up offices and operations in those cities, they influence local cultures and norms through employment and corporate actions.

Furthermore, when I split the sample into geographically concentrated versus spread out firms based on the median

geographic segments.[13] For both groups of firms, the irresponsibility index is significantly and negatively related to ESG scores. The coefficient is − 1.10 with a *p*-value of 0.04 for geographically concentrated firms; it is − 1.76 with a p-value of 0.02 for geographically spread-out firms. The higher coefficient for geographically spread-out firms relative to geographically concentrated firms provides some indirect evidence for the reverse causality effect: if the causal relation is unidirectional running from social norms to CSR, we can expect the geographically concentrated firms to have a larger coefficient or stronger tie to local social norms.

Alternative Models with Negative Binomial and Logistic Regressions

As an additional robustness check and to reduce measurement error, I employ highly responsible and irresponsible firms in alternative models. Firms with the top (bottom) 5% ESG scores for each year are defined as highly responsible(irresponsible) firms. This results in 555 highly responsible firm-year observations and 387 highly irresponsible observations. At the city-year level, a negative binomial model is applied to regress the number of highly responsible/irresponsible firms in city i in year t on the irresponsibility index and city level control variables. The justification for the negative binomial model is that the number of highly responsible firms is Poisson distributed with a mean $e^{X_i\beta}\mu_i$, where X_i are covariates that influence the distribution of the number of highly responsible(irresponsible)

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[13] This is based on COMPUSTAT historical segments data. Geographically concentrated firms have fewer than four segments, whereas geographically spread-out firms have more than four segments.

Table 7 Robustness Tests with Highly Responsible and Irresponsible Firms

		Highly responsible firms		Highly irresponsible firms	
		Metro level	Firm level	Metro level	Firm level
		Negative binomial	Logistic	Negative binomial	Logistic
Irresponsibility Index		− 0.71*** (0.00)	− 1.10*** (0.00)	0.91*** (0.00)	1.17 (0.91)
Metro Controls		Yes	Yes	Yes	Yes
Firm Controls			Yes		Yes
Industry Fixed Effect			Yes		Yes
Year Fixed Effect		Yes	Yes	Yes	Yes
Observations		198	5822	198	6368
Alpha		0.00		0.47	
Pseudo R-squared		0.764	0.207	0.429	0.030

This table reports the negative binomial regression results at the metro-year level and logistic regression at the firm-year level. The dependent variable at the metro-year level is the number of highly responsible (irresponsible) firms for each city i at time t. The dependent variable at the firm-year level is a dummy valued at one if firm i is a highly responsible (irresponsible) firm in year t. High responsible(irresponsible) firms are defined as the top (bottom) 5% firm based on ESG scores. Metro controls include the log of number of firm-year observations in the metro area, the median age, education, religious adherence rate and the log of median household income of the area's population, and the income and population growth rates. Firm controls include the log of total assets, cash ratio, debt ratio, and ROA. Alpha is the estimated variance of random effects at the metro level. P values are given in parentheses

*, ** and *** denote significance at 10%, 5% and 1% level, respectively

firms in the city, and μ_i is a multiplicative gamma-distributed unobserved shock to a city production rate with a mean value of one and variance of α. α is zero for a standard Poisson distribution and positive for excessive clustering of highly responsible(irresponsible) firms across cities. At the firm-year level, I employ logistic regression to regress the highly responsible/irresponsible dummy (set to one if the firm is highly responsible/irresponsible and zero otherwise) for firm i in year t on the irresponsibility index. Table 7 reports the regression results. The coefficients for highly responsible firms are significant and negative at both the metro- and firm-year levels. The coefficient for highly irresponsible firms is significantly positive at the metro level but not significant at the firm level. In addition, the alpha (α) for the negative binomial model at the metro level is zero for highly responsible firms but 0.425 for highly irresponsible firms. This shows that the independent variables explain the regional variations for highly responsible firms very well but do not explain a significant part of regional clustering for highly irresponsible firms. Table 7 confirms the findings in Tables 2, 3, 4 that social norms foster firms to be responsible but do not effectively deter firms from acting irresponsibly.

Conclusion

This paper expands the current theoretical work on CSR and social norms. It identifies an important social driver for CSR, namely social responsibility norms that encourage individuals to help others without expecting personal gains. It highlights the essential role of social norms of responsibility in influencing corporate behaviors through internalization and external pressure. This study further delineates key intermediaries for these norms to diffuse into corporate ethics and influence CSR. These include political leaders who set regulatory frameworks, corporate managers who shape internal policies, employees who uphold ethical values, and the public who demand accountability from companies. By identifying social responsibility norms as a motivator for CSR and outlining the various pathways through which social norms shape CSR, this paper offers valuable insights for practitioners, policymakers, and scholars seeking to promote responsible business practices.

This study reports several important empirical findings. It documents that firms headquartered in cities with fewer irresponsible behaviors have better ESG scores. The results show a strong and positive relationship between social norms of responsibility and CSR performance for responsible firms, but not for irresponsible firms. Political corruption and option backdating are reported to play dominant roles in determining CSR, indicating that political and corporate leaders are important intermediaries through which social norms of responsibility permeate corporate boundaries to influence CSR. In addition, local executives are confirmed as one of the channels through which social norms influence CSR. Furthermore, this study reports that communities with high (low) responsible norms do not value responsible corporate behaviors more than communities with low (high) social norms. However, when firms in responsible cities

commit irresponsible actions, they are punished in terms of firm value significantly more than firms in other cities.

The empirical findings of this study have significant implications for business ethics as CSR is an integral part of ethical corporate behaviors. First, the paper provides strong evidence that business ethical and responsible practices are heavily influenced by local societal norms. To promote ethical business practices and align corporate objectives with societal goals, it is important to cultivate a responsible social environment. Conversely, this paper documents some indirect evidence that corporate behaviors can influence social norms. Given that corporations have been expanding their power and reach, not only in their local communities but also internationally, their cultures and ethics may play an important role in shaping local and global societal norms.

Second, while social norms can foster responsible business behaviors, they are not effective at deterring unethical conduct. Ethical norms may establish the upper limit of responsible corporate behavior, but regulations are necessary to set the lower limit of corporate conducts. Ethical norms can provide guidance for ethical decision-making, while regulations set legal standards and consequences for non-compliance. By considering both ethical norms and regulations, companies can align their behavior with societal expectations, operate within legal frameworks, and promote responsible corporate conducts.

Third, responsible norms and ethics also exhibit a negative bias, whereby responsible norms tend to punish irresponsible behaviors more than they reward responsible actions in terms of firm value. This negative bias is consistent with the overreaction to negative outcomes documented in neuroscience, psychology, and business literature. This negative bias can present a challenge for companies and policymakers seeking to promote responsible corporate behavior. Responsible norms drive individuals and firms to act responsibly but may not bring monetary rewards for positive behaviors. Policymakers and companies can consider implementing better incentive structures that reward positive behavior, in addition to establishing clear ethical standards and consequences for non-compliance.

Lastly, the ethical norms of political and business leaders are key determinants of corporate responsibility. While regulators have recently emphasized the importance of ethical business leadership, such as the Sarbanes–Oxley Act's requirement for CEOs and CFOs to certify their corporate financial statements to reduce misreporting, business ethics literature has often overlooked the role of political leaders in shaping ethical standards. The findings of this study underscore the value of ethical political leadership and highlight the importance of setting high ethical standards for both political and business leaders. To create a culture that prioritizes responsible corporate behavior and business ethics, it is necessary to promote ethical leadership at all levels of society.

Declarations

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