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Does Firms' Corporate Social Responsibility Reduce Crime?

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Abstract

This study examines the impact of firms' corporate social responsibility (CSR) on state crime rates in the U.S. from 2004 to 2020. Our research bolsters the expanding work under the Law and Political Economy Project out of Yale University and Economics of Crime Working Group of National Bureau of Economic Research (NBER). Our empirical results show that states with domiciled firms having better CSR performance exhibit significantly lower crime rates. This lower crime incidence is driven by the environmental, social, and governance dimensions of CSR. Our study is the first to document the societal impact of CSR by analyzing state crime rates, and we conclude that CSR activities have positive externalities on society.

Keywords: Corporate Social Responsibility (CSR); Environment, Social, and Governance (ESG); Crime Incidence; Externalities

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Introduction

The past decade has witnessed companies crafting corporate social responsibility (CSR) initiatives and implementing them in practice. CSR comprises a wide variety of environmental, social, and governance (ESG) topics, activities, and policies (Christensen et al., 2021). CSR and ESG have a large amount of overlap, with some scholars even arguing that the two are interchangeable (Cho, 2020; Gillan et al., 2021).[1] Our research, by focusing on crime incidence, expands the work of the Law and Political Economy Project (https://lpeproject.org) and Economics of Crime Working Group of National Bureau of Economic Research (NBER). CSR refers to a business taking into account its overall social, economic, and environmental impacts and launching initiatives to ensure that these impacts are positive. CSR initiatives are often broken down into four categories of responsibility: environmental, philanthropic, ethical, and economic (Barnett et al., 2020).[2] Our research studies the societal impact of CSR by analyzing state crime rates and examines whether CSR activities generate positive externalities for U.S. society.

The research on CSR measures activities and benefits to specific stakeholders (e.g., shareholders, employees, suppliers, customers, and policymakers).[3] Using a sample of U.S. public firms, Harjoto and Jo (2015) find that CSR intensity lessens analysts' earnings forecast

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[1] A nuanced distinction between CSR and ESG is that CSR represents firms doing good things in society in addition to profit seeking whereas ESG is a risk-based perspective while maintaining the focus on profits.

[2] Environmental initiatives focus on the preservation of natural resources, while philanthropic initiatives focus on donating to worthy causes that may not be (directly) associated with the firm's business purpose. Ethical responsibility ensures fair and honest business operations, while economic responsibility promotes the fiscal support of the firm's goals.

[3] CSR refers to the responsibility of companies to consumers, communities and the environment while generating profits and being legally accountable to shareholders and employees. When presenting the mechanism of the impact of CSR on crime, this paper is centered throughout on the stakeholder theory, where the stakeholders involved in corporate society responsibility include shareholders, employees, suppliers, communities, etc. ESG is not entirely consistent with the mechanisms of influence described in the text. We thank an anonymous reviewer for providing this insightful comment.

dispersion, stock return volatility, implicit cost of capital, and that it enhances firm value. Friede et al. (2015) combine the findings from about 2,200 studies conducted since the 1970s and find that a large majority of those studies report a positive relationship between corporate financial performance and ESG. Marin et al. (2009) demonstrate that CSR initiatives affect consumer loyalty through customers' positive impression of and identification with the company. However, the literature has stopped short of assessing the social impact of CSR activities (Barnett et al., 2020).

To address this research gap, our research analyzes the social impact of CSR activities by investigating the relationship between CSR activities and crime rates. Crime is a serious social problem (Davidson 2019) and a significant governmental concern. Gallup poll data show that crime emerged as a central issue among registered voters in the 2022 U.S. midterm elections.

CSR can be characterized as "delegated philanthropy" (Benabou & Tirole, 2010). CSR has a positive effect on stakeholders, including employees and suppliers, and influences the environment and society. Our research hypothesizes that states with lower crime rates have domiciled firms with high CSR scores. Figure 1 depicts our hypothesis development. Firms engaging in CSR activities influence the crime rate because CSR activities support employees, who are then less likely to commit crimes. On one hand, CSR initiatives can foster a more equitable and inclusive work environment, thereby mitigating factors like discrimination and prejudice that often contribute to criminal behavior. On the other hand, a firm affects the social environment and community through its CSR activities.

[Insert Figure 1 Here]

Companies engaging in a variety of CSR activities instill a culture of social responsibility among their employees and probably elevate the ethical standards of employees, reducing their

propensity to engage in criminal activities. In addition, this positive effect extends beyond the workplace through social interaction. The employees' families and communities are likely influenced by the employees themselves, thereby lowering their likelihood of criminal behavior. CSR performance also propagates social rules and norms to the local residents and community, reducing the incidence of crime.

To investigate how firms engaging in CSR activities affect crime rates, we use a panel dataset from Refinitiv for publicly listed U.S. firms for 2004–2020. We run panel regressions with time and firm fixed effects, along with control variables documented to influence crime rates. Our results show that firms' stronger CSR performance reduces crime rates. We document that the crime rate is significantly lower in states whose firms have higher CSR scores. Our results are economically significant and robust to the use of different controls. An increase in CSR of one standard deviation (0.171) is associated with a 0.63 percentage point decrease in the crime rate. Our results hold for overall CSR performance as well as for the three pillars of CSR: social, environmental, and corporate governance.

Moreover, we disaggregate the overall crime incidence and test the relationship between CSR engagement and two kinds of crimes: violent and property. For sensitivity tests, we rerun our primary specification by applying alternative measures for overall CSR performance. Notably, our main finding remains unchanged with the alternative CSR metric from Refinitiv and the CSR measure constructed using MSCI.

We also confirm the robustness of the relationship between CSR and local crime rates by adding other control variables and excluding subsamples. We deploy a two-stage least squares (2SLS) approach to estimate the relationship between CSR and crime rates to solve the

endogeneity problem and corroborate their negative relationship.[4] Our research is consistent with the finding that CSR engagement engenders positive externalities in society.

Our study makes a twofold contribution. It contributes to the theoretical stream of CSR literature. We extend the research on the impact of CSR activities on society as CSR activities of firms might have externalities on society and the environment. Studies on CSR concentrate on assessing CSR practices (e.g., Chin et al., 2013; Berrone et al., 2017; Berg et al., 2022) and their benefit to various stakeholders (e.g., Marin et al., 2009; Harjoto & Jo, 2015; Friede et al., 2015). The overall social impact of CSR activities remains understudied in CSR research (Barnett et al., 2020). This study fills an important research gap in the knowledge of the social consequences of CSR. It also offers valuable insights into the broader societal implications of business practices, including their impact on mitigating social problems and ultimately helping the long-term well-being of communities while creating more sustainable and equitable societies. It undergirds the idea that CSR activities benefit not only businesses by improving corporate financial performance and reputation, but also society by enhancing the mutual relationship with stakeholders and creating shared value.

This study's other contribution is the empirical evaluation of the CSR performance of local firms and local crime rates. Our study is the first to provide evidence on social impact of CSR activities by examining the relationship between CSR activities and crime rates.[5] Moreover, this study contributes practical insights into CSR's influence in engaging stakeholders for societal improvement. This study reinforces the value of CSR engagement and encourages other

[4] Other reasons may give rise to a correlation between CSR and crime rate, the overall correlation cannot be interpreted as a causal effect, thus creating an endogeneity problem.
[5] In other words, we measured the impact of micro-CSR on the macro-environment.

stakeholders, such as regulators, suppliers, and customers, to pay closer attention to a company's CSR initiatives. By supporting and promoting responsible business conduct, stakeholders contribute to the improvement of the community and society, thereby creating a safer and more sustainable society in which to live and work.

The remainder of this paper is organized as follows: Section 2 details the literature review. Section 3 develops the hypotheses. Section 4 presents the sample construction, which includes the *data,* variables, and descriptive statistics. Section 5 reports the empirical results. Section 6 presents additional analyses. Section 7 concludes.

1. Literature review

Patten (2013) identified three waves in CSR accounting research that gained mainstream attention in the 1960s: The first wave defined corporate social responsibility accounting and expanded the traditional role of accounting. The second wave investigated how markets respond to CSR, the use and perception of CSR information, and the connection between environmental performance and financial outcomes. The third wave concentrated on disclosure of environmental information. Barnett et al. (2020) summarized several categories of research that examined the CSR impact after 1968. One category is CSR activities, including considerations affecting CSR activities (Chin et al., 2013), green washing (Parguel et al., 2011; Du, 2015; Berrone et al., 2017), and CSR ratings (Bear et al., 2010; Gibson Brandon et al., 2021; Berg et al., 2022). The other categories are output and outcome of a CSR activity; many papers have explored the consequences of the financial performance of CSR activity (Barnett, 2007; Choi &

Jung, 2008; Martin, 2009; Flammer, 2015). Barnett (2007) introduced a conceptual framework showing how firms generate financial returns by engaging in CSR activities.

Despite this extensive array of scholarship, few studies have examined the social impacts of CSR activities (Barnett et al., 2020). Social impacts are beneficial outcomes originating from pro-social activities that are entitled to the expected targets for the broader community, organizations, or environments (Stephan et al., 2016; Rawhouser et al., 2019). Determining the social impacts of CSR is challenging, as this multifaceted notion exerts complex effects on stakeholders and data collection can be difficult.

Some researchers have studied the social impact of specific CSR initiatives. Sinha and Chaudhari (2018) investigated the impact of CSR initiatives through an education program introduced by a company to improve the academic performance of primary school students. Using a sample of 411 B2B firms, Pfajfar et al. (2022) found that diversity and inclusion, which are part of employee-focused CSR, show a positive link to the perceived benefits of CSR actions for society, customers, and employees and are positively associated with the quality of B2B relationships.

Individuals commit crimes as the consequence of multiple social, economic, psychological, and biological factors. The most prominent and enduring sociological framework of crime and its causes were developed in the 20th century; it comprised social disorganization theory (Shaw & McKay, 1942; Kornhauser, 1978), Durkheim's anomie theory, and social control theory (Hirschi, 1969).

Legal sanctions and punishment are effective deterrents of criminal activities (Ehrlich, 1973; Sampson & Cohen, 1988; Levitt, 1998; Nagin, 1998). The fear of sanctions or punishment can deter individuals from committing crimes. Since the work of Jeremy Bentham and Cesare Beccaria and more recently Stigler (1995), scholars have been theorizing about the deterrent effects of legal sanctions and punishment on criminal behavior, and today many researchers empirically investigate and verify the deterrent effects.[6] Sampson and Cohen (1988) used a cross-sectional dataset of 171 American cities to provide evidence that proactive policing strongly discourages robbery, replicating and extending Wilson and Boland's (1978) framework. However, other forms of sanctions and factors can also play a role in deterring criminal activities. Administering a survey study with participants from five countries with distinct cultures, Mann et al. (2016) showed that a person's internal sense of guilt can reduce the tendency to engage in dishonest and illegal actions. Buonanno (2003) listed several socioeconomic determinants of crime, including poverty, social exclusion, wage and income inequality, cultural and family background, level of education, and the unemployment rate. Violent crime and property crime have similar determinants (Kposowa et al., 1995; Han et al., 2013).

CSR and crime have a complex relationship as noted by Hong et al. (2019). Hong et al. (2019) found that socially responsible firms receive lighter sanctions from prosecutors. This phenomenon could be a consequence of the halo effect (Thorndike, 1920), in which ratings of one quality bled over to assessments of other characteristics. Firms with high CSR scores may

[6] Jeremy Bentham and Cesare Beccaria both thought about deterrence by using their understanding of how all people make decisions. They thought that the decision to commit a crime is often largely rational; hence, criminals' decision-making works in much the same way as non-criminals' decision-making in line with Stigler (1995).

receive the benefit of the doubt, which facilitates case settlements and results in reduced sanctions for infractions. Using data on violent crime in China, Yin et al. (2024) find that companies that participate in CSR activities are more resilient to the negative regional public sentiment and have relatively high stock returns. Del Bosco and Misani (2011) proposed that CSR initiatives that enhance a firm's legitimacy, stakeholder satisfaction, and perception of fairness can discourage white-collar crimes such as fraud, hacking, industrial espionage, counterfeiting, and corruption. They proposed that these CSR initiatives lessen the motivation for potential offenders to commit a crime against a company and make it more difficult for them to rationalize their illegal behavior. In addition, these CSR initiatives promote rule compliance and social supervision by stakeholders who can prevent or deter crime by limiting the opportunity for potential offenders to participate in criminal actions.

CSR-based public-private partnerships can address social problems. These partnerships between companies and law enforcement can be effective in preventing crime (Van den Berg, 1995; Hardouin, 2009; Prenzler & Sarre, 2012; Gill, 2013). Prenzler and Sarre (2012) identified several traits of effective public–private partnerships, such as shared interest, authoritative leadership on each side promoting participation, mutual respect among the parties, and formal high-level information sharing. Maphosa and Maunganidze (2021) used a qualitative study that adopted semi-structured interviews and secondary data analyses to determine the nature of the involvement of the business sector in crime prevention.

Avina (2011) listed several examples of the enhanced effectiveness and efficiency of crime prevention, with the most fertile ground being the IT arena. Microsoft responded to the plea of Toronto Police with a Child Exploitation Tracking System, which supports criminal investigators

in organizing and sharing media. The Microsoft Government Security Program is a security assurance program through which government clients can access Microsoft's security-related information, documentation, and technology. The Microsoft Government Security Program has garnered the support of more than 45 countries in its efforts to reduce the risk of cybercrime and protect against security threats. CSR-based public–private partnerships prove that corporations can participate in crime prevention. Our research takes this public–private partnership view a step further to study whether corporations can have a broad impact on crime deterrence through CSR engagements.

2. Hypothesis development

CSR has had several positive and direct effects on employees (Rupp & Mallory, 2015). Gond et al. (2010) designed an integrative model that explains how CSR influences employees' trust, organizational commitment, and job satisfaction. CSR activities can increase workplace equity and equality and decrease discrimination and prejudice, both of which are important factors in crime reduction (Stigler, 1995).

A firm serves a crucial role in the social environment, which also affects crime. The Industrial Revolution in Europe and North America created a wave of company towns. As defined by Allen (1966), a classic company town is a community in which a company owns all the real estate and offers most of the amenities. A company builds a company town to "support the operations of a single company" and "for the benefit of its employees." In a company town,[7]

[7] Another similar context is college towns (Qian & Yao, 2017). Illinois's Pullman, Pennsylvania's Hershey and California's San Jose are examples of company towns.

the company dominates the local economy and the community. Littlewood (2014) examines how mine companies in three company times engage through CSR with development, sustainability and viability.

A firm affects its social environment and community through its CSR activities. The significance of the social environment lies in the way in which the values, attitudes, and perceptions of the groups with whom a person most regularly interacts affect his or her behavior (Davidson, 2019). One key tenet of CSR activities is "being good by doing good." Companies commit to doing good to instill in their employees a sense of responsibility to doing good themselves. According to social learning theory, employees who often constitute a significant part of the local population observe this CSR engagement and are more likely to emulate it. In addition, situational action theory posits that a person's propensity to commit crime is affected by his or her moral values and a law-relevant moral context (Wikstrom, 2006). In an ethical environment and responsible culture, CSR activities are likely to enhance the morality of employees, deterring them from engaging in crime.

CSR performance also communicates social rules and norms to the local residents and community, also leading to a decrease in the crime rate. Social capital is a measure of the value of resources; more specifically, it can be regarded as trust, shared norms and values, and associational relationships. In this way, CSR activities can be viewed as generating social capital (Fitzgerald, 2003), which has a significant impact on crime reduction (Lederman, 2002; Buonanno et al., 2009). Social interaction also plays a role in criminal activities (Glaeser, 1996). The relationship between social interaction and criminal activities suggests not only independent decision-making, but also collective influence leading to the incidence of crimes. The

surrounding environment, such as neighbors and community dynamics, influences individuals' decisions to commit crimes. The positive effects of firms' CSR activities extend beyond the workplace and into employees' social networks. Employees interacting with families, neighbors, and other community members will transmit shared ethical values to the community and influence social norms, reducing the propensity of local residents to commit crimes. Taken together, this reasoning leads to the following hypothesis:

H1: Firms' CSR engagement reduces local crime rates.

CSR engagement might reduce local crime rates through its components' effects when CSR is decomposed into three pillars: environmental, social, and governance (ESG). The environmental pillar measures how a firm affects the environment and manages environmental risks and opportunities. It takes into account issues such as emissions reduction and the depletion of natural resources; at the same time it evaluates a company's capacity to innovate by adopting eco-friendly technologies and processes.

The social pillar measures how a firm contributes to the community and creates a positive work environment. It considers product safety and a company's commitment to being a good and supportive entity that provides assistance and resources to the workforce.

The governance pillar measures a company's governance principles and supervision procedures. It is concerned with the management structure and compensation and assesses ESG reporting and transparency as well as the capacity to harmonize its interests with those of its stakeholders. On one hand, strengthening corporate governance and environmental governance can strengthen the social responsibility and ethical norms of firm employees and local residents

in the community, leading to a reduction in criminal activities. On the other hand, exposure to bad environment can foster aggressive behavior. Visible signs of disorder such as broken windows are indicative of impending crime. Burkhardt et al. (2019) show that a 10% increase in same-day exposure to PM2.5, a marker of air pollution, is associated with a 0.14% increase in violent crimes. Companies engaging in environmentally friendly CSR activities, which focus on eco-efficiency and emission reductions, can create a healthier community environment. This may result in lower crime rates. To acquire a comprehensive understanding of the factors that contribute to criminal activity and the social and environmental consequences of CSR performance, it is necessary to evaluate each dimension in relation to the occurrence of crime. Hypotheses 2 through 4 are stated in a disaggregated CSR dimensional basis as follows, also in an alternative form:

H2: Corporate environmental performance reduces local crime rates.

H3: Corporate social performance reduces local crime rates.

H4: Corporate governance performance reduces local crime rates.

3. Sample construction

Our sample consists of U.S. listed companies from 2004 to 2020. Crime data are retrieved from the Uniform Crime Reporting (UCR) releases, which started generating U.S. crime statistics in 1930. Given that CSR and ESG have significant interactions and are interchangeable (Cho, 2020), we measure CSR using the comprehensive ESG data from Refinitiv. This measurement for CSR has been used in many papers (e.g., Bofinger et al., 2022; Habermann & Fischer, 2023; Havlinova & Kukacka, 2023). Refinitiv offers comprehensive ESG data covering

70% of the global market capitalization, across more than 400 metrics, with a history of data collection dating back to the 2002.

Control variables were collectively derived from the Bureau of Labor Statistics, the UCR, and the Bureau of Economic Analysis. After combining firms' state information from Compustat databases, firms from the Refinitiv ESG database, and state-level annual crime data, our final sample consisted of 24,641 firm-year observations from 3,967 unique companies. Please see sample construction in Table 1.

[Insert Table 1 Here]

We use the overall ESG combined score (ESGC) as a proxy for a firm's CSR.[8] Corporate environmental performance, corporate social performance, and corporate governance performance are calculated based on scores in 10 categories in Refinitiv. There are 186 metrics in Refinitiv that are essential when assessing the ESG performance of companies. These 186 metrics are the foundation for calculating the 10 main themes of ESG: resource use, emissions, innovation, workforce, human rights, community, product responsibility, management, shareholders, and CSR strategy. These subcategories together comprise the overall ESG score.

CRIME is state-level annual crime rates. *CRIME* refers to violent and property crimes committed by local residents. People who commit crimes against other people and property do so not only commit their crimes in their hometowns but also elsewhere. *CONTROLS* is a vector of

[8] Compared to ESG scores on account of company-reported data provided by Refinitiv, the ESGC score provides a more holistic and comprehensive picture of companies' CSR performance. The ESGC score is computed based on the ESG and ESG controversies scores, which include 23 controversial ESG topics (e.g., negative media stories) that materially and significantly affect a firm's overall ESG score. The scoring uses percentile rank methodology, and the range of all scores is from 0% to 100%.

deterrence and socioeconomic characteristics identified as relevant in the context of crime incidence. These characteristics are included in the analyses as follows: *GDP*, as Andresen (2015) shows that it affects crime rates; officer rate (*OFFICER*), with findings police added to the force reduce the number of crimes committed by residents (Levitt, 2004; Evans & Owens, 2007); unemployment rate (*UNEMPLOY*), which has a mixed and inconsistent relationship with crime (Smith et al., 1992; Buonanno, 2003) ; and personal income (*INCOME*) because there is a relationship between crime and income (Buonanno, 2003; Hipp, 2007). The definition of variables is introduced in the Appendix.

Table 2 provides the descriptive statistics for all variables used in the analysis of our final sample. The mean of CSR score (proxied as ESGC) is 0.359. With respect to the three ESG rating pillars, on average, the governance pillar tops the ranking with an average score of 0.453, while the environmental pillar is the worst performer with an average score of 0.208. The logarithm of the crime rate per 100,000 residents has an average of 7.904. The average natural logarithm of GDP per state is 13.4; the average rate of police officers per resident is 0.24%; the average unemployment rate is 5.8%; and the average natural logarithm of personal income per capita is 10.8.

[Insert Table 2 Here]

5. Empirical results

We employ a multivariate analysis to examine our hypotheses. As our baseline test, we examine the prediction that a state with firms having high CSR ratings will have residents who

are less likely to engage in criminal activities. The estimation equation used to investigate how firm-level CSR engagement impacts society-level crime rates is:

$$CRIME_{s,t} = \alpha + \beta_1 * CSR_{i,s,t} + \beta_2 * Controls_{s,t} + Firm\ \&\ Year\ Fixed\ Effects + \varepsilon_{i,t} \quad (1)$$

$CRIME_{s,t}$ is measured as the natural logarithm of annual state-level crime rates in state *s* and year *t*. The crime rate is computed as the number of reported crimes per 100,000 residents. $CSR_{i,s,t}$ is proxied by the ESGC score from Refinitiv for firm *i* in state *s* and year *t*. Equation (1) includes firm and year fixed effects to control for unobserved heterogeneity at the firm level and remove potential bias stemming from unobserved factors that vary over time. It contains the following control variables: *GDP*, the natural logarithm of gross domestic product measured at the state-year level; *OFFICER*, the number of police officers per 1,000 residents measured at the state-year level; *UNEMPLOY*, the proportion of the civilian labor force that is unemployed measured at the state-year level; *INCOME*, the natural logarithm of per capita personal income measured at the state-year level; and ε, the error term. All standard errors in the regressions are clustered at the firm level.

Table 3 shows the ESG measures in Refinitiv.

[Insert Table 3 Here]

Table 4 reports our findings from estimating Equation (1). Column (1) in Table 4 presents the results from the baseline regression of crime rates on CSR. The coefficient of *CSR* is negative and statistically significant at the 1% level (*t*-statistic = -5.10), which is in line with

Hypothesis 1 that CSR engagement has a significantly negative association with the crime rate.[9] Regarding social significance magnitude, an increase in *CSR* of one standard deviation (0.171) is associated with a 0.63 percentage point reduction in crime rates. Regarding the control variables, we find that GDP, officer rate, and unemployment rate are negatively and significantly associated with CSR, and personal income is positively and significantly associated with CSR.

Several studies have examined the three pillars (environmental, social, and governance) separately and concluded that one or more of them drive a specific association (Dimson et al., 2015; Sassen et al., 2016; Habermann & Fischer, 2023). To better understand the distinct influence of the three pillars on local crime rates, we estimate Equation (1) but change the dependent variable from *CSR* to *ENV*, *SOC*, or *GOV*. The calculation of *ENV, SOC*, and *GOV* follows Hassan et al. (2021). The pillar score is the relative sum of the corresponding category weights from Refinitiv: *ENV* contains the subcategories of resource use, emissions, and innovation; *SOC* contains the subcategories of the workforce, human rights, community, and product responsibility; and *GOV* contains the subcategories of management, shareholders, and CSR strategy.

Columns (2)–(4) in Table 4 present the results from the regression of crime rates on the three pillars. The coefficient of *ENV* is negative and statistically significant at the 1% level (*t*-statistic = -2.79), which is in line with Hypothesis 2, arguing that firms' environmental engagement has a significantly negative association with the crime rate. The coefficient of *SOC*

[9] In untabulated analyses, we examined how the number of employees in a firm affects its CSR performance in relation to the crime rate. Our finding suggests that states with firms that have a higher average number of employees are more sensitive to the intensity of CSR influence in lowering crime rates, which supports the view that CSR can affect the crime rate by instilling a sense of responsibility in employees.

is negative and statistically significant at the 1% level (*t*-statistic = -5.38), which is consistent with Hypothesis 3 that firms' social engagement has a significantly negative association with the crime rate.[10] The coefficient of *GOV* is negative and statistically significant at the 10% level (*t*-statistic = -1.69), which is in line with Hypothesis 4 arguing that corporate governance has a significantly negative association with the crime rate. Regarding economic magnitude, an increase of one standard deviation in *ENV* (0.256) is associated with a 0.49 percentage point reduction in crime rate while an increase of one standard deviation in *SOC* (0.203) is associated with a 0.75 percentage point reduction in crime rate. The economic impact of CSR performance is somewhat attenuated in terms of the corporate governance dimension, in which an increase of one standard deviation in *GOV* (0.219) is associated with a 0.18 percentage point lower crime rate.

An explanation for the strongest impact of the social pillar is that firms that adopt ethical business practices and support community development programs can contribute to a safer, more stable, and equitable society, which directly reduces crime rates. An explanation for the weaker impact of corporate governance is that this pillar measures CSR activities related more to management and shareholder treatment. These corporate internal practices have less of a spillover effect on the community and society.[11]

[Insert Table 4 Here]

6. Additional analyses

[10] It is interesting that the SOC pillar has the strongest effect among the three pillars of CSR.
[11] This is not unlike the well-known result in the macroeconomics literature that when the marginal propensity to consume is lower, the income is higher, thereby negatively affecting the multiplier effect of government stimulus (Fisher et al., 2020).

In an additional analysis, we distinguish violent crimes from property crimes. Violent crimes are composed of four offenses. Violent crimes are homicide, rape, robbery, and aggravated assault. Property crimes are burglary, larceny, and motor vehicle theft. Both kinds of crimes have an adverse effect on the well-being and quality of life of the victims and wider communities. To protect public safety and order, law enforcement agencies and the criminal justice system take both types of crimes seriously and endeavor to prevent crimes and prosecute the people who commit them. The relationship between CSR and crime depends on the type of crime; therefore, it is essential to understand these relationships.

Considering that the determinants of violent and property crimes have both similarities and differences (Kposowa et al., 1995; Han et al., 2013), we test the relationship between CSR engagement and violent crime as well as property crime. The estimation equation used to investigate the impact of firm-level CSR engagement on different types of society-level crime rates is:

$$CRIMETYPE_{s,t} = \alpha + \beta_1 * CSR_{i,s,t} + \beta_2 * Controls_{s,t} + Firm\ \&\ Year\ Fixed\ Effects + \varepsilon_{i,t} \qquad (2)$$

CRIMETYPE is one of the following crime categories: *Propertycrime, Larceny, Burglary, Vehicletheft, Violentcrime, Robbery, Homicide, Assault,* or *Rape*. *CSR* is proxied by the ESGC score from Refinitiv. Equation (2) uses fixed-effects models to account for time-invariant unobservable heterogeneity and control for socioeconomic factors: *GDP*, *OFFICER*, *UNEMPLOY*, and *INCOME.* ε is the error term. Variable measurements for aggregate crime categories used in the analysis are shown in Appendix. All standard errors in the regressions are clustered at the firm level.

Table 5 presents our findings on disaggregated crime analysis. In Panel A, we examine the relationship between CSR and property crimes. Columns (1)–(5) in Panel A show that, as CSR engagement increases, each type of property crime significantly decreases. Panel B repeats the analysis of Panel A, with violent crimes as dependent variables. The results are similar to those of Panel A, in which the coefficients of CSR are negative and significant. Our findings indicate that raising CSR performance can lower the rate of various violent and property crimes.

Regarding economic significance, an increase in *CSR* of one standard deviation (0.171) is associated with a 0.63 percentage point reduction in *Propertycrime* and a 0.75 percentage point reduction in *Violentcrime*. GDP shows a negative association with property crime as well as all types of property crimes. In contrast, the results in Panel B indicate a less consistent effect of GDP on violent crime, with the relationship being sometimes positive and sometimes negative, suggesting a less clear relationship between GDP and violent crime. These findings are in line with those of Andresen (2015).

[Insert Table 5 Here]

To check the robustness of our results, we use *CSR1,* which is the ESG score from Refinitiv, as an alternative proxy for CSR. This measure integrates ESG factors without discounting significant ESG controversies that influence a firm. The results are presented in Column (1) of Table 6. The results show that the significant negative relationship between CSR performance and crime rates still holds. Furthermore, we include additional control variables that influence both *CSR* and *CRIME* in Equation (1): *EDU,* the proportion of the population over age 25 with at least a high school diploma or equivalent certificate, and (2) *CRIMEAGE*, the proportion of the population between ages 25 and 29. Column (2) in Table 6 reports the results.

Our findings remain qualitatively unchanged after adding two more control variables. We also control for firm-level time-varying characteristics that influence both *CSR* and *CRIME* in Equation (1): *ROA*, net income to total assets; (2) *LEVERAGE*, long-term debt over total assets; and (3) *SALEGROW*, the difference between the current gross sales and the previous gross sales, divided by the previous gross sales. We exclude firms in the financial industry because the regulatory practices in this industry influence financial reporting. Column (3) in Table 6 presents the results. Our findings remain qualitatively unchanged after adding three more control firm-level time-varying characteristic variables.

These results confirm that, when firms in a state are more engaged in CSR activities, the incidence of crime in that state will be less than in other states where firms are less engaged. With the same level of integrity, large public firms not only engage in CSR initiatives within their communities, but also extend CSR activities to other states given their extensive business coverage. Recognizing that large public companies' CSR activities are probably not limited to their local areas, we conduct a sensitivity analysis to mitigate any potential bias arising from the widespread operation of these large listed firms. When we exclude firms listed in the S&P 500, it is interesting to note that we obtain a qualitatively similar result, as shown in Column (4) of Table 6.

[Insert Table 6 Here]

Although our analyses indicate a significant correlation between firms' CSR engagement and local incidence of crime, this relationship might be subject to endogeneity problems, such as measurement errors, omitted variable bias, and reverse causality. To address these potential endogeneity problems, we complement our empirical analysis with an instrumental variable

approach. A firm's CSR performance is affected by unobservable and non-time-invariant factors. We deploy a 2SLS instrumental variable approach to check the robustness of our results. Following previous studies (Cheng et al., 2014; Habermann & Fischer, 2023), we choose the state-level average industry CSR performance as an instrument for CSR. The mean of industry CSR data is an appropriate exogenous proxy considering that prior studies have adopted the method (Lev & Sougiannis, 1996). We anticipate that the state-industry means will be linked with the company's CSR ratings but will be uncorrelated with the error terms. Other firms also influence the CSR performance of a firm within the industry. For example, in the banking industry, the Net-Zero Banking Alliance, launched by 43 founding banks, has now grown to more than 100 member banks that have issued a statement that they will devote themselves to aligning their lending and investment portfolios with net-zero emissions by 2050. We structure the following instrumental variable specifications:

$$CSR_{i,s,t} = \gamma_0 + \gamma_1 * CSR\_IV_{i,s,t} + \gamma_2 * Controls_{s,t} + Firm\ \&\ Year\ Fixed\ Effects + \mu_{i,t} \quad (3a)$$

and

$$CRIME_{s,t} = \alpha + \beta_1 * CSR_{i,s,t} + \beta_2 * Controls_{s,t} + Firm\ \&\ Year\ Fixed\ Effects + \varepsilon_{i,t} \quad (3b)$$

The instrument variable *CSR_IV* for each firm *i* is calculated as the average score across firms within the same industry and the same state, excluding the contribution of the firm being instrumented. We also use the control variables *GDP, OFFICER*, *UNEMPLOY*, and *INCOME.* Equations (3a) and (3b) include firm and year fixed effects to control for unobserved heterogeneity at the firm level and remove potential bias stemming from unobserved factors that vary over time. ε and μ are the error terms. All standard errors in the regressions are clustered at

the firm level. Columns (1) and (2) in Table 7 show the results from the first and second stages of the 2SLS tests for Equations (3a) and (3b), respectively. Consistent with our predictions, *CSR_IV* is significantly and positively associated with CSR scores in the first-stage regression. For the second stage, we take the predicted values of *CSR* and fit them into our original model in Equation (1). In the second-stage regression, the coefficient of *CSR_Predicted* is still negative and significant at the 5% level. The outcome demonstrates that local firms' higher level of CSR performance leads to a lower level of local crime rates.

[Insert Table 7 Here]

As we have previously shown, states with businesses that participate in CSR have lower local crime rates. Our evaluation of CSR performance was based on the Refinitiv ESGC score. Given the presence of discrepancies in CSR ratings among prominent CSR rating agencies (Chatterji et al., 2016; Berg et al., 2022), relying on a single CSR rating agency's evaluation may result in biased or incomplete conclusions about the relationship between CSR performance and local crime rates. To mitigate potential bias and assess the robustness of the findings, we re-evaluate our main specifications using an alternative CSR metric derived from the MSCI ESG KLD STATS database (formerly KLD Research and Analytics). MSCI gathers data from company reports, government databases, regulatory filings, news articles, and other publicly accessible sources. In the MSCI database, companies are assessed based on various strengths and concerns across seven categories: community, diversity, employee relations, environment, product, human rights, and corporate governance.

Previous research conducted in the U.S. has extensively employed the MSCI ESG KLD STATS database for CSR studies (Krüger, 2015; Hasan et al., 2018; Albuquerque et al., 2019).

We follow Jo and Harjoto (2012) and McCarthy et al. (2017) to construct CSR scores using the MSCI database. We subtract the total number of concerns from the total number of strengths for each category, and then we aggregate these net category scores to form a *CSR2* measure that incorporates strengths while deducting concerns. We re-estimate Equation (1) using CSR performance variable (*CSR2*) from an alternative database.

Column (1) in Table 8 reports the robustness test results. The coefficient of *CSR2* is negative and statistically significant at the 1% level, suggesting that our findings remain consistent when utilizing this alternative metric from MSCI. Each category consists of a range of strengths and concerns across various CSR areas. We also re-estimate Equation (1), focusing on the strengths and concerns of CSR performance. Columns (2) and (3) in Table 8 summarize these results. The negative relationship is significant for strengths in CSR performance (*CSR_S*). The positive relationship is significant for concerns in CSR performance (*CSR_C*). These results are consistent with the baseline regression results reported using Refinitiv's ESG rating.

[Insert Table 8 Here]

7. Conclusions

The extensive and growing body of CSR research literature overwhelmingly focuses on firm financial performance, but offers little insight into how CSR practices address their social mission. This paper provides the first evidence that firms' engagement in CSR activities has social impacts, especially in lowering crime incidence. Our empirical strategy used a sample of 24,641 firm-year observations of U.S. listed companies to test the relationship between CSR performance and crime rates cross-sectionally and over time. We find that a state with companies

with high CSR ratings outperforms a state with companies with low CSR ratings in terms of fewer crimes, after controlling for a variety of socioeconomic factors.

To ensure the robustness of our results, we conducted sensitivity analyses using alternative measures for overall CSR performance, incorporating additional control variables into the analysis while excluding subsamples. These tests yielded consistent results, supporting our primary conclusions. To address a potential endogeneity problem, we adopted a 2SLS approach to corroborate the negative relationship between CSR engagement and crime rates. Furthermore, we checked the three pillars of CSR and found that corporate environmental performance, corporate social performance, and corporate governance performance can reduce crime rates. However, compared to corporate governance, this phenomenon is driven more by corporate environmental and social performance. We then disaggregated crime into two components, violent crime and property crime, and find negative relationships between CSR performance and each of these subcomponents, thereby providing a better understanding of the way to prevent different forms of criminal behavior. Overall, our research is consistent with the finding that CSR engagement engenders positive externalities in society.

Our research findings have implications for regulators, government officials, police officers, corporate management, and shareholders. Law enforcement officers can be better informed when establishing a crime prevention strategy, particularly through public–private partnerships. The results of this study give corporations more incentives to engage in CSR activities. Companies' involvement in CSR activities represents not only moral and philanthropic behavior, but also sustainable business practices. Employers' participation in CSR activities can create a better community, characterized by a safer environment for their corporate assets and the generation of

long-term shareholder value. By taking a proactive approach to CSR initiatives, companies indirectly lower the possibility of property damage, inventory loss, and reputational damage in their local communities.

Moreover, we highlight the need for further research in the externality of CSR literature. We provide novel insights into the social impacts of CSR engagement, and future research can extend our research designs. Social impacts are a multifaceted concept encompassing various stakeholders, issues, and results. Our research findings bolster the expanding work of the Law and Political Economy Project (https://lpeproject.org) out of Yale University and Economics of Crime Working Group of National Bureau of Economic Research.

Future researchers can use other research methodologies, such as experiments or surveys, or use small data for specific CSR initiatives to examine how CSR engagement leads to achieving social and environmental objectives. They can consider exploring the social impacts of CSR initiatives on various social issues (e.g., employment discrimination, alcoholism, vehicle accident, divorce, dropping out of school) to shed light on potential synergies that could expand the function and influence of CSR activities. Thus, future studies can provide further evidence that society benefits from companies' CSR activities.

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Appendix

Variables	Definitions	Source
Firm-level variables		
CSR	ESGC Score	Refinitiv
CSR1	ESG Score	Refinitiv
CSR2	Net CSR measure that subtracts the total number of concerns from the total number of strengths across all seven CSR categories	MSCI
CSR_IV	Average score across firms within the same industry and the same state, excluding the contribution of the firm being instrumented.	Refinitiv
CSR_S	CSR measure that sums up total number of strengths across all seven CSR categories	MSCI
CSR_C	CSR measure that sums up total number of concerns across all seven CSR categories	MSCI
ENV	Environmental pillar score is relative sum of the emission, innovation, and resource use categories weights	Refinitiv
SOC	Social pillar score is relative sum of the community, human rights, product responsibility, and workforce categories weights	Refinitiv
GOV	Governance pillar score is relative sum of the corporate social responsibility strategy, management, and shareholder categories weights	Refinitiv
ROA	Net income over total assets	Compustat

LEVERAGE	Long-term debt over total assets	Compustat
SALEGROW	Difference between the current gross sales and the previous gross sales, divided by the previous gross sales	Compustat
State-level variables		
CRIME	Natural logarithm of annual crime rates which is the number of reported crimes per 100,000 residents, measured at the state level	UCR
Violentcrime	Natural logarithm of annual violent crime rates which is the number of reported violent crimes per 100,000 residents, measured at the state level	UCR
Propertycrime	Natural logarithm of annual property crime rates which is the number of reported property crimes per 100,000 residents, measured at the state level	UCR
Larceny	Natural logarithm of annual larceny rates which is the number of reported larceny per 100,000 residents, measured at the state level	UCR
Burglary	Natural logarithm of annual burglary rates which is the number of reported burglary per 100,000 residents, measured at the state level	UCR
Vehicletheft	Natural logarithm of annual vehicle theft rates which is the number of reported vehicle theft per 100,000 residents, measured at the state level	UCR
Robbery	Natural logarithm of annual robbery rates which is the number of reported crimes per 100,000 residents, measured at the state level	UCR
Homicide	Natural logarithm of annual homicide rates which is the number of reported homicide per 100,000 residents, measured at the state level	UCR
Assault	Natural logarithm of annual aggravated assault rates which is the number of reported aggravated assault per 100,000 residents, measured at the state level	UCR
Rape	Natural logarithm of annual rape rates which is the number of reported rape per 100,000 residents, measured at the state level	UCR

GDP	Natural logarithm of state-level gross domestic product	Bureau of Economic Analysis
OFFICER	State-level rate of police officers per 1,000 residents	UCR
UNEMPLOY	State-level the proportion of the civilian labor force that is unemployed	Bureau of Labor Statistics
INCOME	Natural logarithm of state-level per capita personal income	Bureau of Economic Analysis
EDU	State-level the percentage of population that is over age 25 with a high school degree or equivalency certificate or higher diploma	U.S. Census Bureau
CRIMEAGE	State-level the percentage of population age 25–29	U.S. Census Bureau

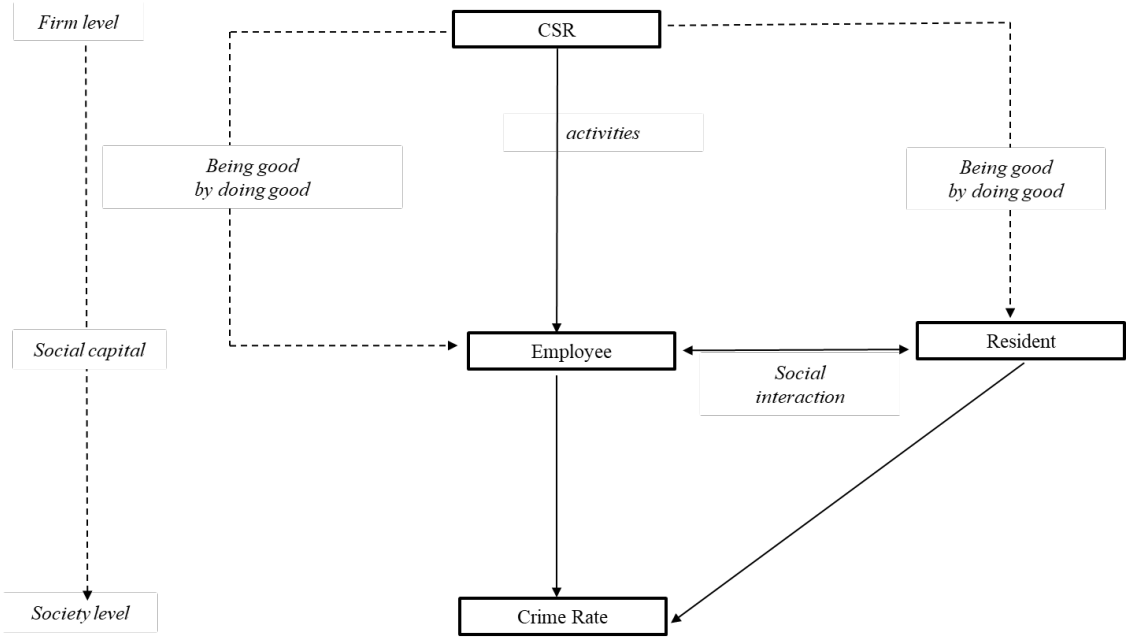

Figure 1. The relationship between crime rate and CSR

Table 1. Sample construction

	Sample
Beginning ESGC sample	129,655
Merge with Compustat and drop duplicates, missing data and non-U.S. firms	(105,014)
Final sample	24,641

Table 2. Descriptive statistics

Variable	N	Mean	Median	SD	Min	Max
CRIME	24,641	7.904	7.937	0.283	7.127	8.786
CSR	24,641	0.359	0.331	0.171	0.004	0.925
ENV	24,641	0.208	0.081	0.256	0.000	0.984
SOC	24,641	0.412	0.379	0.203	0.000	0.985
GOV	24,641	0.453	0.451	0.219	0.002	0.995
GDP	24,641	13.444	13.340	0.901	10.267	14.957
OFFICER	24,641	2.438	2.317	0.581	1.426	7.527
UNEMPLOY	24,641	0.058	0.050	0.022	0.022	0.137
INCOME	24,641	10.829	10.836	0.202	10.204	11.401

Variables are defined in the Appendix.

Table 3. ESG measures in Refinitiv

Pillar	Category	Metrics	Category weights
Environmental	Resource Use	20	11%
Environmental	Emissions	28	15%
Environmental	Innovation	20	11%
Social	Workforce	30	16%
Social	Human Rights	8	4%
Social	Community	14	8%
Social	Product Responsibility	10	5%
Governance	Management	35	19%
Governance	Shareholders	12	6%
Governance	CSR Strategy	9	5%
Summary		186	100%

Table 4. The relationship between crime rate and CSR

VARIABLES	(1) *CRIME*	(2) *CRIME*	(3) *CRIME*	(4) *CRIME*
CSR	-0.037***			
	(-5.10)			
ENV		-0.019***		
		(-2.79)		
SOC			-0.037***	
			(-5.38)	
GOV				-0.008*
				(-1.69)
GDP	-0.226***	-0.224***	-0.225***	-0.225***
	(-4.74)	(-4.68)	(-4.75)	(-4.69)
OFFICER	-0.041***	-0.041***	-0.041***	-0.041***
	(-9.98)	(-10.02)	(-10.03)	(-9.97)
UNEMPLOY	-0.755***	-0.746***	-0.757***	-0.748***
	(-6.43)	(-6.34)	(-6.45)	(-6.35)
INCOME	0.764***	0.762***	0.771***	0.764***
	(12.14)	(12.10)	(12.33)	(12.07)
CONSTANT	3.331***	3.312***	3.250***	3.320***
	(6.52)	(6.46)	(6.36)	(6.46)
Observations	24,641	24,641	24,641	24,641
Adj. R-squared	0.847	0.847	0.847	0.846
Firm FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

This table presents the regression results that test the relationship between crime rates and CSR. Variables are defined in Appendix. Standard errors are clustered at the firm level. t-statistics are in parentheses. *, **, *** represent significance at the 10%, 5%, and 1% levels, respectively.

Table 5. The relationship between different types of crime and CSR

Panel A: Property crime rates and CSR

	(1)	(2)	(3)	(4)
VARIABLES	*Propertycrime*	*Larceny*	*Burglary*	*Vehicletheft*
CSR	-0.037***	-0.029***	-0.052***	-0.057***
	(-4.73)	(-3.74)	(-4.53)	(-3.43)
GDP	-0.222***	-0.157***	-0.469***	-0.187*
	(-4.36)	(-3.31)	(-6.69)	(-1.66)
OFFICER	-0.044***	-0.044***	-0.079***	-0.037***
	(-10.10)	(-7.71)	(-10.88)	(-3.64)
UNEMPLOY	-0.685***	-0.807***	0.033	-1.690***
	(-5.23)	(-7.21)	(0.18)	(-7.31)
INCOME	0.777***	0.683***	1.018***	0.338**
	(11.19)	(11.21)	(10.41)	(2.24)
CONSTANT	3.018***	2.766***	2.146***	5.061***
	(5.38)	(5.27)	(2.70)	(4.46)
Observations	24,641	24,641	24,641	24,641
Adj. R-squared	0.854	0.819	0.898	0.717
Firm FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Table 5. The relationship between different types of crime and CSR (Continued)

Panel B: Violent crime rates and CSR

VARIABLES	(1) *Violentcrime*	(2) *Robbery*	(3) *Homicide*	(4) *Assault*	(5) *Rape*
CSR	-0.044***	-0.059***	-0.031**	-0.044***	-0.028*
	(-4.39)	(-4.66)	(-2.24)	(-3.76)	(-1.95)
GDP	-0.042	0.590***	-0.976***	-0.333***	0.191**
	(-0.74)	(7.43)	(-12.06)	(-5.42)	(2.32)
OFFICER	-0.025***	-0.078***	-0.040***	0.001	0.005
	(-4.01)	(-8.70)	(-4.11)	(0.27)	(0.77)
UNEMPLOY	-1.514***	-0.115	-2.471***	-1.819***	-0.268
	(-12.41)	(-0.69)	(-13.22)	(-12.52)	(-1.53)
INCOME	0.310***	-0.053	0.140	0.613***	0.388***
	(4.02)	(-0.54)	(1.50)	(6.92)	(4.10)
CONSTANT	3.559***	-2.007***	13.121***	3.611***	-3.153***
	(5.43)	(-2.83)	(12.03)	(4.70)	(-3.74)
Observations	24,641	24,641	24,641	24,641	24,641
Adj. R-squared	0.507	0.788	0.492	0.448	0.722
Firm FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

This table presents the regression results that test the relationship between different types of crime and CSR. Variables are defined in Appendix. Standard errors are clustered at the firm level. t-statistics are in parentheses. *, **, *** represent significance at the 10%, 5%, and 1% levels, respectively.

Table 6. Robustness tests

VARIABLES	(1) *CRIME*	(2) *CRIME*	(3) *CRIME*	(4) *CRIME*
CSR1	-0.042***			
	(-5.03)			
CSR		-0.037***	-0.031***	-0.050***
		(-5.15)	(-3.56)	(-4.82)
GDP	-0.225***	-0.236***	-0.147**	-0.296***
	(-4.75)	(-4.97)	(-2.22)	(-3.47)
OFFICER	-0.041***	-0.040***	-0.041***	-0.036***
	(-9.99)	(-10.11)	(-8.07)	(-8.06)
UNEMPLOY	-0.752***	-0.763***	-0.907***	-0.877***
	(-6.40)	(-6.58)	(-5.84)	(-5.95)
INCOME	0.767***	0.755***	0.735***	0.660***
	(12.22)	(12.02)	(8.37)	(6.48)
EDU		0.032		
		(0.14)		
CRIMEAGE		1.423***		
		(3.12)		
ROA			-0.013*	
			(-1.78)	
LEVERAGE			-0.009	
			(-1.09)	
SALEGROW			-0.005***	
			(-2.76)	
CONSTANT	3.295***	3.438***	2.578***	5.327***
	(6.45)	(6.54)	(3.90)	(7.83)
Observations	24,641	24,641	15,060	17,209
Adj. R-squared	0.847	0.847	0.847	0.793
Firm FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

This table presents the robustness check that test the relationship between crime rates and CSR. Variables are defined in Appendix. Standard errors are clustered at the firm level. t-statistics are in parentheses. *, **, *** represent significance at the 10%, 5%, and 1% levels, respectively.

Table 7. IV Regression for crime rate and CSR

VARIABLES	(1) CSR	(2) *CRIME*
	First stage	Second stage
CSR_IV	0.509***	
	(30.48)	
CSR_Predicted		-0.038**
		(-2.49)
GDP	0.078	-0.226***
	(1.55)	(-4.74)
OFFICER	0.000	-0.041***
	(0.01)	(-9.98)
UNEMPLOY	0.111	-0.755***
	(0.94)	(-6.44)
INCOME	0.054	0.764***
	(0.77)	(12.14)
CONSTANT	-1.547***	3.331***
	(-2.66)	(6.52)
Observations	24,641	24,641
Adj. R-squared	0.554	0.847
Firm FE	YES	YES
Year FE	YES	YES

This table presents the IV Regression that test the relationship between crime rates and CSR. Variables are defined in Appendix. Standard errors are clustered at the firm level. t-statistics are in parentheses. *, **, *** represent significance at the 10%, 5%, and 1% levels, respectively.

Table 8. The relationship between crime rate and CSR using MSCI CSR performance

VARIABLES	(1) *CRIME*	(2) *CRIME*	(3) *CRIME*
CSR2	-0.001***		
	(-2.98)		
CSR_S		-0.001**	
		(-2.32)	
CSR_C			0.001*
			(1.65)
GDP	-0.178***	-0.179***	-0.178***
	(-4.92)	(-4.94)	(-4.92)
OFFICER	-0.029***	-0.029***	-0.029***
	(-7.68)	(-7.68)	(-7.66)
UNEMPLOY	-1.013***	-1.014***	-1.011***
	(-7.67)	(-7.67)	(-7.64)
INCOME	0.630***	0.631***	0.631***
	(13.98)	(13.99)	(13.98)
CONSTANT	4.094***	4.098***	4.086***
	(8.64)	(8.65)	(8.63)
Observations	31,830	31,830	31,830
Adj. R-squared	0.865	0.865	0.865
Firm FE	YES	YES	YES
Year FE	YES	YES	YES

This table presents the sensitivity test that test the relationship between crime rates and CSR using MSCI CSR performance. The sample period is 2004-2019 due to the data availability of MSCI. Variables are defined in Appendix. Standard errors are clustered at the firm level. t-statistics are in parentheses. *, **, *** represent significance at the 10%, 5%, and 1% levels, respectively.

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