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CEO power and corporate social responsibility

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Abstract

Purpose – The purpose of this paper is to examine the impact of chief executive officer (CEO) power on corporate social responsibility (CSR) performance.
Design/methodology/approach – The authors use regression analysis to investigate the research question.
Findings – Using a 23-year panel sample with 1,574 unique US firms and 8,575 firm-year observations, the authors find a significant and negative relation between CEO power and CSR, suggesting that firms with more powerful CEOs engage in less CSR activities.
Originality/value – The results reveal that more powerful CEOs become less responsive to the needs of stakeholder groups, confirming the validity of the stakeholder theory of CSR.

Keywords Corporate social responsibility, Stakeholder theory, CEO power, Managerial ability
Paper type Research paper

1. Introduction

Chief executive officer (CEO) power has recently received much attention in finance research. Much of the prior research has examined the impact of powerful CEOs on firms' performance and outcomes. For example, studies find that CEO power is negatively related to market value and accounting performance of a firm (Bebchuk *et al.*, 2011), bond credit ratings (Liu and Jiraporn, 2010), leverage (Jiraporn *et al.*, 2012), firm productivity (Cronqvist *et al.*, 2009), the use of relative performance evaluation (Dikolli *et al.*, 2014) and the informativeness of stock prices (Withisuphakorn and Jiraporn, 2015). The above research suggests that more CEO power leads to more agency and governance problems. Despite the surge of attention on the importance of powerful CEOs on firms' performance and outcomes, there is surprisingly little evidence on how powerful CEOs influence corporate social responsibility (CSR), which has become an important corporate decision-making component.

As the fundamental theory of CSR, the stakeholder theory argues that firms have multiple stakeholder groups including customers, suppliers, employees, community groups, investors and government agencies. The proper goal of managers is to meet or satisfy the objectives of these different stakeholder groups simultaneously. Hence, managers, especially CEOs, play an important role in the process of balancing and addressing the objectives of different stakeholder groups (Freeman and Evan, 1990; Donaldson and Preston, 1995; Jones, 1995; Pirson and Malhotra, 2011). However, when CEOs become more powerful, we argue that these CEOs are less likely to engage in CSR activities because they are more likely to take actions to maximize their own interests such as maintaining or even increasing their power at the expenses of stakeholders including shareholders (Bebchuk *et al.*, 2011). Therefore, we posit a negative relation between CEO power and CSR.

The purpose of our study is to investigate the influence of CEO power on CSR. Following Bebchuk *et al.* (2011), we use CEO pay slice (CPS) to measure the level of CEO power. CPS is

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defined as "the fraction of the aggregate compensation of the firm's top-five executive team captured by the CEO." Using a 23-year panel sample with 1,574 unique US firms and 8,575 firm-year observations, we find a significantly negative relation between CPS and CSR, suggesting that firms with more powerful CEOs engage in less CSR activities. We also employ several additional tests including using alternative CEO power measure, changes analysis, fixed effect regression analysis, and two-stage OLS regression analysis (2SLS). These additional tests provide consistent results. We also investigate the relation between CEO power and individual CSR components (including community, corporate governance, diversity, employee relation, environment, human rights and product) and find that CEO power is negatively related to the first five components at a significant level. Moreover, we find that our results are stronger for firms in the environmentally sensitive industries or for small firms.

This study makes several important contributions. First, it adds to the current stream of literature that examines the impact of CEO power on corporate decision making and outcomes (e.g. Bebchuk *et al.*, 2011; Withisuphakorn and Jiraporn, 2015). We extend this line of research by providing evidence of the impact of CEO power on CSR activities. This study also adds to the literature on the determinants of CSR by examining one factor – CEO power that influences the decision of firms to implement CSR activities. Hence, the inclusion of CEO power may help users of financial statements better assess the CSR performance of a firm. Second, Moser and Martin (2012) encourage researchers to adopt the stakeholder theory of CSR by stating: "researchers would benefit from being more open to this alternative perspective (stakeholder theory) because it raises a variety of new and interesting research questions […]" (p. 799). Our results reveal that more powerful CEOs become less responsive to the needs of stakeholder groups, confirming the validity of the stakeholder theory of CSR. Thus, our study answers their call and documents evidence to support the importance of adopting the stakeholder theory of CSR. Third, from a practical perspective, the results should interest different stakeholder groups by demonstrating that having powerful CEOs may not be beneficial to an organization. For example, "green" investors may not invest in firms with powerful CEOs.

The rest of this paper is organized as follows. Section 2 presents literature review and hypothesis development. Section 3 describes the research design and Section 4 presents the main results. Section 5 discusses the results of additional analyses and Section 6 concludes this study.

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2. Literature review and hypothesis development

2.1 CEO power

Larcker and Tayan (2012) argue that it is still not clear whether having a powerful CEO is beneficial to an organization. Much of the prior research has examined the impact of having powerful CEOs on firms' performance and outcomes. For example, Adams *et al.* (2005) find that variability in firm performance increases with the degree of CEO power and more powerful CEOs are more likely to take extreme actions that may hurt the company. Liu and Jiraporn (2010) find that bond credit ratings are lower for firms with more powerful CEOs, suggesting that bond market views having powerful CEOs as negative news. Bebchuk *et al.* (2011) find that firms with more powerful CEOs demonstrate lower market value, lower accounting performance and lower stock returns, suggesting that having powerful CEOs leads to more agency problems. Morse *et al.* (2011) find that CEOs with more power are more likely to induce their boards to shift the weight on performance measures, suggesting CEO entrenchment. Jiraporn *et al.* (2012) find that more powerful CEOs use less debt financing, and the impact of changes in capital structure on firm performance is more negative for firms with more powerful CEOs. Dikolli *et al.* (2014)

find that firms with more powerful CEOs are less likely to use relative performance evaluation. Abernethy *et al.* (2015) find that more powerful CEOs influence their compensation contract design, suggesting that firms with more powerful CEOs are more likely to attach less challenging performance targets to their initial option grants. Withisuphakorn and Jiraporn (2015) find a negative relation between CEO power and the informativeness of stock prices, suggesting that firms with more powerful CEOs become less transparent. Taken together, the above studies on CEO power suggest that having powerful CEOs may not be beneficial to their firms.

2.2 Determinants of CSR

Consistent with Kim *et al.* (2014), we defines CSR as "social responsibility of business that encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time" (Carroll, 1979). The literature on CSR can be classified into two broad categories. The first category examines the impact of CSR activities on firm performance and outcomes. The second category investigates factors that can influence a firm's CSR activities and performance. Our study clearly belongs to the second category. Many prior studies have examined various factors that can influence a firm's CSR activities. For instance, studies like Ioannou and Serafeim (2012) and Liang and Renneboog (2017) document that country-level characteristics can affect firms' CSR performance. Roush *et al.* (2012) suggest that public pressure and firm size can determine the level of CSR activities. Chen *et al.* (2018) find that CEOs with longer tenure are less likely to engage in CSR activities. McCarthy *et al.* (2017) find a significant negative relation between CEO confidence and CSR performance. Many other studies (e.g. Thomas and Simerly, 1994; Godos-Diez *et al.*, 2011; Attig and Cleary, 2015; Chatjuthamard *et al.*, 2016) find that management characteristics such as management quality and certain manager personal characteristics are significantly related to a firm's CSR activities. Sun and Gunia (2018) find that the level of CSR activities depends on resource availability. For example, a firm is more likely to improve its overall CSR performance when the firm has sufficient economic resources (i.e. money). Chiang *et al.* (2017) suggest that firms with a plus or minus specification in their bond ratings have stronger incentives to reduce their irresponsible CSR activities. Jo and Harjoto (2012) find that firms with stronger corporate governance or internal control demonstrate better CSR performance. Wu *et al.* (2016) document that firms located in counties with more senior residents or in more religious counties display better CSR performance.

2.3 Hypothesis development

Prior CSR research suggests that if a firm strives to satisfy all stakeholders, the stakeholders will reciprocate by supporting the company. Under the stakeholder theory of CSR, the proper management goal is to meet or satisfy the objectives of different stakeholder groups simultaneously. Thus, managers, especially CEOs, play an important role in the process of balancing and addressing the objectives of different stakeholder groups (Freeman and Evan, 1990; Donaldson and Preston, 1995; Jones, 1995; Pirson and Malhotra, 2011). Moreover, Jo and Harjoto (2012) suggest that CSR firms demonstrate less agency problems and stronger corporate governance, leading to many positive outcomes. For example, a large body of CSR literature has documented that firms actively engaging in CSR activities also demonstrate superior financial performance (e.g. McGuire *et al.*, 1988; Waddock and Graves, 1997; Johnson and Greening, 1999; Roman *et al.*, 1999; Beurden and Gossling, 2008).

Powerful CEOs may exercise so much power that they tend to be secured in their positions, exacerbating managerial entrenchment. More powerful CEOs may also indicate possible CEO entrenchment rather than CEO power or ability. Prior studies (e.g. Belliveau *et al.*, 1996;

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Core *et al.*, 1999; Cronqvist *et al.*, 2009) suggest that entrenched CEOs receive higher compensation and they often have a negative impact on their firms. Once a CEO becomes an entrenched CEO, it will be very difficult for the board to replace him/her. In addition, a high level of excess CPS can be viewed as a reflection of significant agency and governance problems (Bebchuk *et al.*, 2011). Hence, when CEOs become more powerful, they may not act in the best interests of stakeholders including shareholders.

If CEOs do not act in the best interests of different stakeholder groups when CEOs become more powerful, then we predict that they are more likely to constrain CSR initiatives or activities because those CEOs are less likely to engage in CSR activities to satisfy different needs of stakeholders. Therefore, we expect a negative relation between CEO power and CSR activities. We propose the following hypothesis:

H1. CEO power is negatively related to CSR activities.

3. Research design

3.1 Measuring CEO power

According to Finkelstein (1992), power includes four dimensions: structural power, ownership power, expert power and prestige power. Structural power refers to the power from the position that an executive occupies in the hierarchy of an organization. Ownership power refers to voting interest that an executive holds in the organization. Expert power includes knowledge and experience. Prestige power refers to power derived from the top executive's reputation. Prestige power is the most intangible dimension and thus difficult to measure (Larcker and Tayan, 2012). Consistent with prior studies (e.g. Adams *et al.*, 2005; Jiraporn *et al.*, 2012), our focus is to identify whether other individuals at the top of the hierarchy participate in decision making with the CEO. Only the structural power indicates the power the CEO has over the board and other top executives as a consequence of his/her formal position and title (Adams *et al.*, 2005). In addition, structural power is the most commonly cited in the literature (e.g. Hambrick and Mason, 1984; Tushman and Romanelli, 1985; Adams *et al.*, 2005; Hambrick, 2007; Jiraporn *et al.*, 2012). Hence, we focus on the structural power dimension of the CEO power in our study.

It is possible that these four dimensions are not mutually exclusive. To mitigate this concern, we control for CEO's ownership power and expert power in the regression analysis. Specifically, following Adams *et al.* (2005) and Bebchuk *et al.* (2011), we use the level of CEO's stock ownership and whether CEO chairs the board to control for the ownership power and CEO's age and tenure to control for the expert power.

Bebchuk *et al.* (2011) introduce a new measure (CPS) to capture CEO power. CPS is defined as "the fraction of the aggregate compensation of the firm's top-five executive team captured by the CEO." Bebchuk *et al.* (2011) argue that the CPS is a suitable proxy for CEO power because CPS indicates the relative significance of the CEO in terms of ability, power or status. CPS also indicates the relative centrality of the CEO among the top-5 executives. Following Bebchuk *et al.* (2011), we use CPS to measure the CEO power in our study. We calculate CPS as a fraction of the combined total compensation of the top 5 executives. Total compensation includes salary, bonus, other annual pay, the total value of restricted stock granted that year, the Black-Scholes value of stock options granted that year, long-term incentive payouts, and all other total compensation (ExecuComp Item No. TDC1).

Prior studies (e.g. Adams *et al.*, 2005) also use a number of CEO power indicators such as whether the CEO also serves the chairman of board. Bebchuk *et al.* (2011) argue that CPS is a better measure to capture CEO power for the following two reasons. First, CPS captures the product of many observable and unobservable dimensions of the firm's

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top executives. Second, CPS is calculated based on total compensation information from executives in the same firm, so it controls for any firm-specific characteristics. In addition, Jiraporn *et al.* (2012) also argue that CPS is a better proxy for CEO power because it is a continuous variable, unlike other indicator, and CPS is linked to firm profitability, market value, and stock returns. Thus, it contains a significant amount of useful and important information.

3.2 Measuring corporate social responsibility (CSR)

Morgan Stanley Capital International (MSCI)'s ESG database has been actively providing rating data on CSR since 1991. Consistent with prior research (e.g. Deckop *et al.*, 2006; Dhaliwal *et al.*, 2011; Kim *et al.*, 2012; Jo and Harjoto, 2012; Sun and Stuebs, 2012; Wu *et al.*, 2016), we subtract total concerns from total strengths and assign equal weight to each area in calculating the CSR index score. Thus, our CSR measure (using seven CSR components[1]) is computed as follows:

$$\begin{aligned}\text{CSR} = {} & (\text{Total Community Strengths}–\text{Total Community Concerns}) \\ & + (\text{Total Corporate Governance Strengths}–\text{Total Corporate Governance Concerns}) \\ & + (\text{Total Diversity Strengths}–\text{Total Diversity Concerns}) \\ & + (\text{Total Employee Relations Strengths}–\text{Total Employee Relations Concerns}) \\ & + (\text{Total Environment Strengths}–\text{Total Environment Concerns}) \\ & + (\text{Total Human Rights Strengths}–\text{Total Human Rights Concerns}) \\ & + (\text{Total Product Strengths}–\text{Total Product Concerns}).\end{aligned}$$

3.3 Empirical specification

We use the following regression model to test the association between CEO power and CSR (Equation (1)):

$$\begin{aligned}\text{CSR}_{i,t} = {} & \beta_0 + \beta_1 \text{CPS}_{i,t} + \beta_2 \text{AGE}_{i,t} + \beta_3 \text{GEN}_{i,t} + \beta_4 \text{TENURE}_{i,t} + \beta_5 \text{CEOOWN}_{i,t} \\ & + \beta_6 \text{CHAIR}_{i,t} + \beta_7 \text{VP}_{i,t} + \beta_8 \text{SIZE}_{i,t} + \beta_9 \text{ROA}_{i,t} + \beta_{10} \text{LEV}_{i,t} + \beta_{12} \text{MTB}_{i,t} + \beta_{12} \text{ADV}_{i,t} \\ & + \beta_{13} \text{ASSETAGE}_{i,t} + \text{Industry and Year Indicators} + \varepsilon_{i,t}. \qquad (1)\end{aligned}$$

In Equation (1), the dependent variable (CSR) measures the corporate social responsibility performance of a firm. The independent variable of interest (CPS) captures the CEO power. In testing our hypothesis (*H1*), we expect a negative relation (i.e. $\beta_1 < 0$) between CEO power (CPS) and the social performance (CSR). Following Petersen (2009), we apply clustered standard errors regression as our primary analysis because the residuals of a given firm may be correlated across years (i.e. time effect) and the residuals of a given year may be correlated across different firms (i.e. firm effect) in studies that use panel samples. All variables are defined in Table AI.

In addition to variables of interest, we control for factors associated with CSR and CEO power established in prior literature. Specifically, following Bebchuk *et al.* (2011), we control for the age of CEO (AGE), tenure of CEO (TENURE), the level of CEO's stock ownership (CEOOWN), whether CEO chairs the board (CHAIR) and the number of vice presidents among the five-top executives (VP). Moreover, we control for the gender of CEO (GEN) because prior studies (e.g. Ho *et al.*, 2015) find the gender of CEOs matters in firm

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performance. Following prior CSR studies (e.g. Stuebs and Sun, 2010; Sun and Stuebs, 2012; Wu *et al.*, 2016), we control for firm size (SIZE), firm performance (ROA), leverage ratio (LEV), market to book ratio (MTB) and advertising activities[2] (ADV). We also control for the age of long-term assets[3] (ASSETAGE) because managers in firms with old assets are less responsive in CSR activities than those in firms with young assets (Cochran and Wood, 1984). We winsorize the continuous variables at the level 1 and 99 percent and include year- and industry-dummies (by two-digit SIC industry classification) in the regression analysis.

3.4 Sample selection and descriptive statistics

We begin our sample selection process by collecting CSR data from the MSCI's ESG database, including the seven major components during the period of 1991–2014. The initial CSR data set consists of 42,977 firm-year observations. Next, we use the Compustat database to obtain financial statement data, which include total assets (AT, No. 6), total book value of equity (CEQ, No. 60), outstanding common shares (CSHO, No. 25), long-term liabilities (DLTT, No. 9), income before extraordinary items (IB, No. 18), net property, plant and equipment (PPENT, No. 8), gross property, plant and equipment (PPEGT, No. 7), price at fiscal year-end (PRCC_F, No. 24) and advertising expenses (XAD, No. 45) over the period of 1991–2014. This data set consists of 316,039 firm-year observations. Next, we obtain CEO data from the ExecuComp database, including the top-5 executives' total pay (TDC1), CEO age, CEO tenure, CEO stock ownership, CEO gender, chair and the number of vice presidents. This data set from the ExecuComp database consists of 253,213 firm-year observations from 1992 to 2014. We merge the above three data sets and delete observations that are missing values for any of our variables in Equation (1). The final sample with complete data consists of 8,575 firm-year observations, representing 1,574 unique firms in the USA from 1992 to 2014.

Panel A of Table I reports the distribution of firm-year observations by fiscal year for the sample firms. For example, there are 82 firm-year observations in 2000 and 770 observations in 2010. 2014 has the largest number of observations (865). Panel B of Table I reports the distribution of firm-year observations by industry (first two SIC code). For instance, there are 309 firm-year observations in oil and gas extraction industries and 761 observations in chemical industries. The most heavily represented industry is business services (10.55 percent, SIC 73), followed by electric equipment (9.36 percent, SIC 36) and chemical (8.87 percent, SIC 28).

Table II presents sample descriptive statistics. Specifically, Table II reports the mean, standard deviation, median, 25th percentile and 75th percentile of the following variables: CSR, COM, CGOV, DIV, EMP, ENV, HUM, PRO, CPS, AGE, GEN, TENURE, CEOOWN, CHAIR, VP, SIZE, ROA, LEV, MTB, ADV and ASSETAGE. For example, the mean and median values of CSR and CPS are −0.141 (0.000) and 0.400 (0.400), respectively. The average age of CEOs is appropriately 55 and the average tenure of CEOs is about eight years in office. The median value of ROA is 0.054, suggesting that our sample firms demonstrate normal performance. Overall, the descriptive statistics of the variables are in line with those in prior studies (e.g. Bebchuk *et al.*, 2011; Sun and Stuebs, 2012).

Table III provides the correlation matrices for selected variables for our sample firms. For each pair of variables, we provide the Pearson and Spearman correlation coefficients and related (two-tailed) *p*-values. Both Pearson and Spearman show a significant and negative correlation between CEO power (CPS) and CSR. This negative association suggests that firms with more powerful CEOs engage in less CSR activities, consistent with our hypothesis. Overall, results in Table III lend support to the hypothesis.

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Panel A: firm-year observations by fiscal year

Fiscal year	Observations	Percent	Cumulative percent
1992	2	0.02	0.02
1993	60	0.70	0.72
1994	65	0.76	1.48
1995	56	0.65	2.13
1996	60	0.70	2.83
1997	66	0.77	3.60
1998	65	0.76	4.36
1999	80	0.93	5.29
2000	82	0.96	6.25
2001	169	1.97	8.22
2002	185	2.16	10.38
2003	416	4.85	15.23
2004	441	5.14	20.37
2005	470	5.48	25.85
2006	474	5.53	31.38
2007	583	6.80	38.18
2008	615	7.17	45.35
2009	704	8.21	53.56
2010	770	8.9	62.54
2011	757	8.83	71.37
2012	796	9.28	80.65
2013	794	9.26	89.91
2014	865	10.09	100.00
Total	8,575	100.00	

Panel B: firm-year observations by industry

2 SIC	Description	Obs	Percent	2 SIC	Description	Obs	Percent
01	Agricultural crops	13	0.15	44	Water transportation	22	0.26
02	Agricultural livestock	2	0.02	45	Air transportation	66	0.77
07	Agricultural services	11	0.13	46	Pipelines	54	0.63
10	Metal mining	38	0.44	48	Communications	180	2.10
12	Coal mining	5	0.06	49	Sanitary services	384	4.48
13	Oil and gas extraction	309	3.60	50	Durable wholesale	179	2.09
14	Mining	23	0.27	51	Nondurable wholesale	105	1.22
15	Building construction	102	1.19	52	Building materials	27	0.31
16	Heavy Construction	59	0.69	53	General stores	91	1.06
17	Special construction	13	0.15	54	Food stores	34	0.40
20	Food products	207	2.41	55	Automotive	80	0.93
21	Tobacco products	7	0.08	56	Apparel stores	127	1.48
22	Textile products	32	0.37	57	Furniture stores	29	0.34
23	Apparel products	62	0.72	58	Eating and drinking	137	1.60
24	Lumber products	65	0.76	59	Miscellaneous retail	149	1.74
25	Furniture	65	0.76	60	Depository institutions	14	0.16
26	Paper products	130	1.52	61	Non-depository institutions	43	0.50
27	Printing	126	1.47	62	Security brokers	97	1.13
28	Chemicals	761	8.87	63	Insurance carriers	217	2.53
29	Petroleum refining	51	0.59	64	Insurance agents	31	0.36
30	Rubber products	87	1.01	65	Real estate	16	0.19
31	Leather products	70	0.82	67	Investment offices	129	1.50
32	Stone products	79	0.92	70	Hotels	23	0.27
33	Primary metal	126	1.47	72	Personal services	31	0.36
34	Fabricated metal	156	1.82	73	Business services	905	10.55
35	Industrial machinery	589	6.87	75	Auto repair	27	0.31
36	Electronic equipment	803	9.36	78	Motion pictures	23	0.27
37	Transportation equipment	197	2.30	79	Amusement	39	0.45
38	Measuring instruments	607	7.08	80	Health services	202	2.36
39	Other manufacturing	69	0.80	82	Educational services	43	0.50
40	Railroad transportation	26	0.30	83	Social services	2	0.02
41	Local transit	2	0.02	87	Engineering and accounting	136	1.59
42	Freight transportation	41	0.48		Total	8,575	100.00

Notes: Panel A presents the firm-year observations by fiscal year. The sample consists of 8,575 firm-year observations from 1992 to 2014, representing 1,574 individual public US firms; Panel B presents the breakdowns of firm-year observations for each two-digit SIC industry. The sample consists of 8,575 firm-year observations from 1992 to 2014, representing 1,574 individual public US firms

Table I.
Sample distribution

Variable	Observations	Mean	SD	P25	Median	P75
CSR	8,575	−0.141	2.528	−2.000	0.000	1.000
COM	8,575	0.094	0.490	0.000	0.000	0.000
CGOV	8,575	−0.255	0.652	−1.000	0.000	0.000
DIV	8,575	−0.009	1.274	−1.000	0.000	0.000
EMP	8,575	0.077	1.052	0.000	0.000	0.000
ENV	8,575	0.105	0.834	0.000	0.000	0.000
HUM	8,575	−0.021	0.268	0.000	0.000	0.000
PRO	8,575	−0.125	0.583	0.000	0.000	0.000
CPS	8,575	0.400	0.116	0.333	0.400	0.464
AGE	8,575	54.780	6.874	50.000	55.000	59.000
GEN	8,575	0.970	0.171	1.000	1.000	1.000
TENURE	8,575	7.613	7.065	3.000	5.000	10.000
CEOOWN	8,575	0.204	0.403	0.000	0.000	0.000
CHAIR	8,575	0.585	0.493	0.000	1.000	1.000
VP	8,575	3.209	1.355	2.000	3.000	4.000
SIZE	8,575	7.446	1.484	6.330	7.340	8.433
ROA	8,575	0.053	0.080	0.024	0.054	0.091
LEV	8,575	0.184	0.172	0.011	0.163	0.292
MTB	8,575	3.092	3.440	1.535	2.319	3.733
ADV	8,575	0.012	0.036	0.000	0.000	0.007
ASSETAGE	8,575	0.486	0.160	0.372	0.473	0.595

Notes: This table reports the descriptive statistics of the variables. Specifically, this tables reports pooled means, standard deviations, 25th percentile, median and 75th percentiles of all dependent variables, independent variables of interest, and control variables. The sample consists of 8,575 firm-year observations from 1992 to 2014, representing 1,574 individual firms. All continuous variables are winsorized at 1 and 99 percentiles. Refer to Table AI for variable definition

Table II.
Sample descriptive statistics

4. Main results

Table IV reports the clustered standard errors regression results of Equation (1) testing our hypothesis. Based on the full sample, the coefficient on CPS is −1.274 (p-value < 0.0001) in the regression model. The negative and significant coefficients suggest that powerful CEOs lead to low CSR performance. Following prior studies (e.g. Jiraporn *et al.*, 2014), we exclude regulated firms (utility firms[4] and financial firms[5]) and re-run the same regression analysis. Table IV reports a negative (−1.435) and significant (p-value < 0.0001) coefficient on CPS. Thus, our *H1* is supported. For the control variables, CSR is significantly and positively associated with VP, SIZE, ROA, MTB and ADV, but negatively associated with AGE, GEN, LEV and ASSETAGE. These findings are consistent with general expectations. For example, the negative relation between CSR and GEN indicates that female CEOs are more likely to engage in CSR activities, relative to male CEOs. This evidence is consistent with prior research (i.e. Ho *et al.*, 2015). As a robustness check, we re-estimate Equation (1) using lagged CEO power (i.e. CEO power in year $t-1$) and still obtain similar results. Results are not tabulated for brevity.

Our primary findings suggest that firms with more powerful CEOs demonstrate a lower level of CSR activities or performance. In other words, more powerful CEOs are less likely to engage in CSR activities to satisfy different stakeholders. The finance literature documents that too much CEO power reflects more agency conflicts and weaker corporate governance, leading to more negative outcomes. Thus, the significant negative relation between CEO power and CSR is consistent with the stakeholder theory, which argues that companies with stronger governance and fewer agency problems (i.e. better-managed firms) should engage in more CSR activities to satisfy different needs of stakeholders because doing so can bring future benefits to the firm.

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	CSR	COM	CGOV	DIV	EMP	ENV	HUM	PRO	CPS	AGE	GEN	TENURE	CEOOWN	CHAIR	VP	SIZE	ROA	LEV	MTB	ADV	ASSETAGE
CSR	1.000	0.411	0.374	0.591	0.527	0.463	0.147	0.289	−0.021	0.032	−0.131	−0.033	0.034	−0.007	0.028	0.172	0.106	−0.007	0.135	0.071	−0.008
p-value		*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*0.052*	*0.003*	*<0.0001*	*0.002*	*0.002*	*0.489*	*0.011*	*<0.0001*	*<0.0001*	*0.547*	*<0.0001*	*<0.0001*	*0.445*
COM	0.531		0.082	0.237	0.155	0.210	0.054	0.052	0.012	0.011	−0.032	−0.050	0.013	−0.004	0.022	0.177	0.079	0.003	0.069	0.077	0.007
p-value	*<0.0001*		*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*0.256*	*0.293*	*0.003*	*<0.0001*	*0.230*	*0.731*	*0.044*	*<0.0001*	*<0.0001*	*0.748*	*<0.0001*	*<0.0001*	*0.526*
CGOV	0.359	0.104		−0.025	0.068	0.073	0.072	0.086	−0.053	0.030	−0.010	0.028	−0.041	−0.008	−0.006	−0.132	0.012	−0.037	−0.003	−0.017	0.003
p-value	*<0.0001*	*<0.0001*		*0.018*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*0.005*	*0.344*	*0.011*	*0.000*	*0.436*	*0.590*	*<0.0001*	*0.282*	*0.001*	*0.757*	*0.111*	*0.811*
DIV	0.603	0.316	−0.025		0.066	0.109	−0.063	−0.081	0.020	−0.003	−0.153	−0.114	0.173	0.075	0.059	0.323	0.035	0.084	0.099	0.109	0.039
p-value	*<0.0001*	*<0.0001*	*0.023*		*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*0.070*	*0.780*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*0.001*	*<0.0001*	*<0.0001*	*<0.0001*	*0.000*
EMP	0.610	0.190	0.086	0.098		0.166	0.072	0.114	−0.020	0.045	−0.015	0.005	−0.030	−0.030	0.008	0.132	0.120	−0.034	0.123	−0.006	0.018
p-value	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*		*<0.0001*	*<0.0001*	*<0.0001*	*0.062*	*<0.0001*	*0.166*	*0.626*	*0.005*	*0.005*	*0.477*	*<0.0001*	*<0.0001*	*0.001*	*<0.0001*	*0.598*	*0.090*
ENV	0.593	0.266	0.116	0.163	0.231		0.052	0.105	0.033	0.027	−0.034	0.013	−0.128	−0.039	−0.039	0.100	0.097	−0.013	0.090	0.057	−0.094
p-value	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*		*<0.0001*	*<0.0001*	*0.003*	*0.012*	*0.002*	*0.237*	*<0.0001*	*0.000*	*0.000*	*<0.0001*	*<0.0001*	*0.234*	*<0.0001*	*<0.0001*	*<0.0001*
HUM	0.180	0.083	0.092	−0.067	0.078	0.085		0.066	−0.006	−0.022	−0.014	0.024	−0.091	−0.021	−0.032	−0.040	−0.022	0.024	−0.038	−0.038	0.021
p-value	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*		*<0.0001*	*0.576*	*0.038*	*0.193*	*0.029*	*<0.0001*	*0.053*	*0.003*	*0.000*	*0.038*	*0.024*	*0.001*	*0.000*	*0.052*
PRO	0.282	0.018	0.106	−0.110	0.106	0.113	0.086		−0.042	0.014	−0.028	0.080	−0.013	−0.035	0.023	−0.214	0.037	−0.100	0.029	0.010	−0.068
p-value	*<0.0001*	*0.100*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*		*0.000*	*0.183*	*0.010*	*<0.0001*	*0.218*	*0.001*	*0.031*	*<0.0001*	*0.001*	*<0.0001*	*0.007*	*0.358*	*<0.0001*
CPS	−0.027	0.002	−0.039	−0.013	−0.031	0.017	0.001	−0.022		0.059	−0.024	−0.009	0.063	0.080	−0.025	0.166	0.047	0.103	0.029	−0.037	−0.044
p-value	*0.013*	*0.871*	*0.000*	*0.218*	*0.004*	*0.120*	*0.911*	*0.045*		*<0.0001*	*0.026*	*0.389*	*<0.0001*	*<0.0001*	*0.022*	*<0.0001*	*<0.0001*	*<0.0001*	*0.008*	*0.001*	*<0.0001*
AGE	0.022	−0.001	0.023	−0.019	0.036	0.030	−0.017	0.013	0.051		0.027	0.342	−0.040	0.228	0.020	0.081	0.005	0.042	−0.060	−0.054	0.020
p-value	*0.043*	*0.931*	*0.036*	*0.077*	*0.001*	*0.005*	*0.116*	*0.228*	*<0.0001*		*0.013*	*<0.0001*	*0.000*	*<0.0001*	*0.070*	*<0.0001*	*0.639*	*0.000*	*<0.0001*	*<0.0001*	*0.060*
GEN	−0.122	−0.033	−0.009	−0.173	−0.023	−0.035	−0.011	−0.032	−0.025	0.024		0.030	0.030	0.058	0.023	0.014	−0.003	0.011	−0.019	−0.086	0.016
p-value	*<0.0001*	*0.002*	*0.390*	*<0.0001*	*0.034*	*0.001*	*0.301*	*0.003*	*0.020*	*0.029*		*0.005*	*0.006*	*<0.0001*	*0.037*	*0.190*	*0.768*	*0.304*	*0.079*	*<0.0001*	*0.149*
TENURE	−0.033	−0.046	0.034	−0.102	−0.002	−0.007	0.014	0.088	−0.030	0.423	0.001		−0.061	0.273	−0.101	−0.165	0.044	−0.087	0.043	0.028	0.041
p-value	*0.002*	*<0.0001*	*0.002*	*<0.0001*	*0.840*	*0.495*	*0.181*	*<0.0001*	*0.006*	*<0.0001*	*0.906*		*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*0.010*	*0.000*
CEOOWN	−0.006	0.019	−0.039	0.151	−0.045	−0.139	−0.089	−0.018	0.081	−0.047	0.030	−0.053		0.113	0.136	0.001	0.019	−0.019	0.114	−0.035	0.062
p-value	*0.580*	*0.083*	*0.000*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*0.097*	*<0.0001*	*<0.0001*	*0.006*	*<0.0001*		*<0.0001*	*<0.0001*	*0.942*	*0.074*	*0.074*	*<0.0001*	*0.001*	*<0.0001*
CHAIR	−0.001	−0.005	−0.005	0.073	−0.032	−0.036	−0.017	−0.034	0.068	0.223	0.058	0.269	0.113		0.001	0.111	0.027	0.037	0.023	−0.040	0.093
p-value	*0.947*	*0.622*	*0.613*	*<0.0001*	*0.003*	*0.001*	*0.114*	*0.001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*		*0.896*	*<0.0001*	*0.012*	*0.001*	*0.034*	*0.000*	*<0.0001*
VP	0.010	0.021	−0.015	0.041	0.010	−0.049	−0.026	0.014	−0.044	0.029	0.022	−0.092	0.133	0.008		0.015	−0.060	0.010	−0.031	−0.091	−0.019
p-value	*0.349*	*0.053*	*0.173*	*0.000*	*0.376*	*<0.0001*	*0.018*	*0.211*	*<0.0001*	*0.006*	*0.046*	*<0.0001*	*<0.0001*	*0.467*		*0.177*	*<0.0001*	*0.366*	*0.004*	*<0.0001*	*0.079*
SIZE	0.245	0.225	−0.120	0.368	0.175	0.118	−0.028	−0.250	0.106	0.067	0.009	−0.184	−0.006	0.113	0.014		−0.081	0.433	−0.024	−0.096	0.233
p-value	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*0.009*	*<0.0001*	*<0.0001*	*<0.0001*	*0.404*	*<0.0001*	*0.565*	*<0.0001*	*0.208*		*<0.0001*	*<0.0001*	*0.025*	*<0.0001*	*<0.0001*
ROA	0.113	0.073	0.046	0.038	0.113	0.074	−0.024	0.011	0.052	0.010	−0.009	0.030	0.015	0.039	−0.063	−0.018		−0.265	0.473	0.144	−0.025
p-value	*<0.0001*	*<0.0001*	*<0.0001*	*0.000*	*<0.0001*	*<0.0001*	*0.025*	*0.302*	*<0.0001*	*0.377*	*0.416*	*0.006*	*0.156*	*0.000*	*<0.0001*	*0.094*		*<0.0001*	*<0.0001*	*<0.0001*	*0.023*
LEV	−0.019	−0.010	−0.036	0.050	−0.038	−0.001	0.024	−0.088	0.070	0.014	−0.007	−0.097	−0.034	0.012	0.015	0.331	−0.205		−0.084	−0.080	0.225
p-value	*0.072*	*0.344*	*0.001*	*<0.0001*	*0.000*	*0.948*	*0.028*	*<0.0001*	*<0.0001*	*0.189*	*0.534*	*<0.0001*	*0.002*	*0.272*	*0.159*	*<0.0001*	*<0.0001*		*<0.0001*	*<0.0001*	*<0.0001*
MTB	0.096	0.060	−0.004	0.078	0.069	0.054	−0.017	0.014	0.001	−0.060	−0.047	0.007	0.057	−0.013	−0.030	−0.018	0.235	−0.025		0.136	−0.022
p-value	*<0.0001*	*<0.0001*	*0.730*	*<0.0001*	*<0.0001*	*<0.0001*	*0.125*	*0.186*	*0.957*	*<0.0001*	*<0.0001*	*0.547*	*<0.0001*	*0.240*	*0.005*	*0.091*	*<0.0001*	*0.022*		*<0.0001*	*0.045*
ADV	0.054	0.056	0.030	0.083	−0.016	0.027	−0.025	−0.015	0.003	−0.050	−0.087	0.001	0.000	−0.025	−0.080	−0.116	0.126	−0.057	0.097		−0.078
p-value	*<0.0001*	*<0.0001*	*0.005*	*<0.0001*	*0.143*	*0.014*	*0.020*	*0.177*	*0.755*	*<0.0001*	*<0.0001*	*0.952*	*0.985*	*0.019*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*	*<0.0001*		*<0.0001*
ASSETAGE	−0.023	0.006	0.006	0.021	0.003	−0.085	0.031	−0.064	−0.021	0.001	0.016	0.037	0.049	0.090	−0.025	0.226	0.029	0.203	−0.008	−0.066	
p-value	*0.034*	*0.596*	*0.574*	*0.053*	*0.776*	*<0.0001*	*0.004*	*<0.0001*	*0.053*	*0.914*	*0.130*	*0.001*	*<0.0001*	*<0.0001*	*<0.0001*	*0.022*	*<0.0001*	*0.008*	*<0.0001*	*0.474*	*<0.0001*

Notes: This table reports the Pearson (below the diagonal) and Spearman (above the diagonal) correlations based on the sample of 8,575 firm-year observations over the period of 1992–2014, representing 1,574 individual firms. For each pair of variables, the Pearson and Spearman correlation coefficients and related (two-tailed) *p*-values are provided. All continuous variables are winsorized at the 1 and 99 percentiles before the correlation analysis. Refer to Table AI for variable definitions

Table III.
Correlation matrix

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5. Additional tests

5.1 Using alternative CEO power measure – managerial ability

Prior studies (e.g. Baik *et al.*, 2011; Bebchuk *et al.*, 2011) suggest that CEO pay is directly associated with the CEO ability. More-able CEOs are more likely to get paid more. Thus, CEO ability is a good alternative measure of CEO power. Following Demerjian *et al.* (2012), we argue that managerial ability (MA) (including CEO ability) is highly correlated to CEO ability, because CEOs can affect their firms by setting the "tone at the top" (Dyreng *et al.*, 2010). Demerjian *et al.* (2012) develop a new measure of MA based on managers' efficiency in generating revenues. They argue that more-able managers "better understand technology and industry trends, reliably predict product demand, invest in higher value projects, and manage their employees more efficiently than less able managers" (p. 1229). Demerjian *et al.* (2012) suggest that their measure (a comprehensive summary measure on MA) outperforms existing MA measures. In addition, their measure is robust to CEO switch and is valued by the market. Refer to Appendix 3 for detailed information on the MA measure.

We follow the procedures in Demerjian *et al.* (2012) to calculate the alternative CEO power measure – MA. Table V reports the regression results using MA as the explanatory variable of interest. Using the full sample, Table V reports that the coefficient on MA is –0.929 (p-value < 0.0001) in the regression model. The negative and significant coefficients again support the hypothesis (*H1*) that firms with more powerful CEOs engage in less CSR activities.

5.2 Changes analysis

Our primary analyses in Table IV use a level specification that regresses CSR on CEO power and various control variables. To mitigate the concern that correlated omitted variables that

Variables	Full sample			Excluding utility firms (SIC: 4000-4999) and financial firms (SIC: 6000-6999)		
	Estimate	*t*-value	Pr > |*t*|	Estimate	*t*-value	Pr > |*t*|
Intercept	−1.177	−3.14	0.002	−0.617	−1.51	0.131
CPS	−1.274***	−5.75	< 0.0001	−1.435	−6.17***	< 0.0001
AGE	−0.007*	−1.91	0.056	−0.009	−2.18**	0.029
GEN	−1.513***	−9.70	< 0.0001	−1.606	−9.25***	< 0.0001
TENURE	0.005	1.28	0.199	0.008	1.84*	0.066
CEOOWN	−0.143	−1.44	0.150	−0.157	−1.50	0.135
CHAIR	−0.016	−0.30	0.766	−0.079	−1.33	0.184
VP	0.036*	1.85	0.064	0.036	1.66*	0.096
SIZE	0.543***	20.78	< 0.0001	0.566	19.03***	< 0.0001
ROA	2.737***	8.72	< 0.0001	2.824	8.72***	< 0.0001
LEV	−1.097***	−6.86	< 0.0001	−1.010	−5.73***	< 0.0001
MTB	0.025***	3.15	0.002	0.024	2.87***	0.004
ADV	3.898***	5.09	< 0.0001	3.682	4.53***	< 0.0001
ASSETAGE	−0.671***	−3.99	< 0.0001	−0.799	−4.26***	< 0.0001
YEAR	Yes			Yes		
INDUSTRY	Yes			Yes		
Observations	8,575			7,252		
Adj. R^2	0.2256			0.2343		

Notes: The table reports the results from the clustered standard errors regression of CEO power on corporate social responsibility over the period of 1992–2014 based on the following model equation:

$$\text{CSR} = \beta_0 + \beta_1 \times \text{CPS} + \beta_x \times \text{Control Variables} + \text{Year and Industry Dummies} + \varepsilon.$$

The dependent variable (CSR) measures a firm's corporate social responsibility performance. The independent variable of interest (CPS) captures the CEO power. This table also presents the regression results based on the sample excluding utility firms (SIC: 4000-4999) and financial firms (SIC: 6000-6999). The industry-specific and year-specific intercepts are omitted for brevity. Continuous control variables are winsorized at 1 and 99 percentiles each year before entering the regression tests. Refer to Table AI for variable definitions. *,**,***Significant at the 10, 5 and 1 percent (two-tailed) confidence levels, respectively

Table IV.
CEO power and corporate social responsibility (main results)

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may influence CSR, we employ a changes analysis to provide additional evidence that differences in CEO power can be attributed to differences in CSR. Specifically, we conduct a bivariate changes analysis by regressing changes in CSR (ΔCSR) from year $t-1$ to year t on the corresponding changes in CEO power (ΔCPS) from year $t-1$ to year t. Table VI presents the results of this changes analysis of the relation between ΔCPS and ΔCSR. We find that the changes in CEO power (ΔCPS) are negatively and significantly related to changes in CSR (ΔCSR) at a marginal level. Specifically, based on the full sample, the coefficient on ΔCPS is −0.364 (p-value = 0.097) in the regression model. When the regulated firms are excluded from the full sample, the coefficient on ΔCPS is −0.393 (p-value = 0.077) in the regression model. These results suggest that an increase in CEO power can also lead to a decrease in CSR, consistent with the primary results.

5.3 Fixed-effects regression

Although we control for several variables that are possibly related to CEO power and/or CSR, this procedure may not effectively address the omitted-variable bias induced by unknown firm characteristics. For example, some unknown variables may affect CEO power and CSR performance simultaneously. To mitigate the omitted-variable concern, we use a fixed-effects regression, which removes the cross-sectional variation and analyzes only the variation over time within a firm. Because industry dummies are

Variables	Estimate	*t*-value	Pr > |*t*|
Intercept	−1.074	−2.70	0.007
MA	−0.929***	−4.11	< 0.0001
AGE	−0.009**	−2.24	0.025
GEN	−1.550***	−9.58	< 0.0001
TENURE	0.008*	1.85	0.065
CEOOWN	−0.283***	−2.80	0.005
CHAIR	−0.060	−1.02	0.306
VP	0.027	1.30	0.194
SIZE	0.550***	19.05	< 0.0001
ROA	3.073***	8.69	< 0.0001
LEV	−1.069***	−6.21	< 0.0001
MTB	0.027***	3.21	0.001
ADV	4.109***	4.87	< 0.0001
ASSETAGE	−0.827***	−4.41	< 0.0001
YEAR	Yes		
INDUSTRY	Yes		
Observations	7,435		
Adj. R^2	0.2310		

Notes: The table reports the results from the clustered standard errors regression of managerial ability on corporate social responsibility over the period of 1992–2014 based on the following model equation:

$$\text{CSR} = \beta_0 + \beta_1 \times \text{MA} + \beta_x \times \text{Control Variables} + \text{Year and Industry Dummies} + \varepsilon.$$

The dependent variable (CSR) measures a firm's corporate social responsibility performance. The independent variable of interest (MA) is used as an alternative measure for CEO power. The industry-specific and year-specific intercepts are omitted for brevity. Continuous control variables are winsorized at 1 and 99 percentiles each year before entering the regression tests. Refer to Table AI for variable definitions and Appendix 3 for the description of managerial ability variable. *,**,***Significant at the 10, 5 and 1 percent (two-tailed) confidence levels, respectively

Table V. Managerial ability and corporate social responsibility (alternative measure of CEO power)

time-invariant, we do not include them in the fixed-effects regression. Table VII reports the fixed-effects regression results of Equation (1) testing our hypothesis. Based on the full sample, the coefficient on CPS is −0.595 (p-value = 0.017) in the regression model. We obtain similar results after excluding regulated firms from the full sample. The negative and significant coefficients support *H1* that powerful CEOs lead to low CSR performance.

5.4 Two-stage OLS regression analysis (2SLS)

It is possible that socially irresponsible firms choose to hire and retain powerful CEOs. We explore the possibility of a reverse causality issue and incorporate the endogenous choice of CPS (Bebchuk *et al.*, 2011). Following Jiraporn *et al.* (2014), we perform a two-stage least squares regression (2SLS) analysis which controls for possible reverse causality. Two-stage regression analysis requires identifying an instrumental variable (IV) which is highly correlated to a firm's CEO power but does not influence CSR performance except through CEO power. Consistent with Jiraporn *et al.* (2014), we use the industry average CEO power (CPS_mean) of the firms in the same industry (by 2-digit SIC code). This variable is clearly related to the CEO power of a given firm, but it does not relate to the CSR performance of a given firm. In the first stage of 2SLS, we estimate CEO power (CPS) using the mean CPS score of the firms in the same industry. In the second stage of 2SLS, we use the instrumented values of CPS from the first stage and include them as independent variables in the second stage regression. We use the same set of control variables in both stages.

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Variables	Full sample Estimate	*t*-value	Pr > |*t*|	Excluding utility firms (SIC: 4000-4999) and financial firms (SIC: 6000-6999) Estimate	*t*-value	Pr > |*t*|
Intercept	−0.318	−15.39	< 0.0001	−0.309	−15.81	< 0.0001
ΔCPS	−0.364*	−1.69	0.097	−0.393*	−1.81	0.077
ΔAGE	0.006	0.51	0.612	0.001	0.09	0.927
ΔGEN	0.013	1.05	0.296	−0.829**	−2.52	0.015
ΔTENURE	−0.144	−0.28	0.782	0.016	1.23	0.226
ΔCEOOWN	0.030	0.61	0.543	0.056	1.07	0.291
ΔCHAIR	0.177	0.70	0.486	0.180	0.63	0.531
ΔVP	0.013	0.56	0.580	0.025	0.98	0.334
ΔSIZE	−0.252***	−2.75	0.008	−0.245**	−2.58	0.013
ΔROA	−0.098	−0.38	0.703	−0.048	−0.20	0.839
ΔLEV	−0.069	−0.32	0.752	−0.078	−0.34	0.737
ΔMTB	−0.007	−1.36	0.180	−0.005	−1.07	0.291
ΔADV	−0.298	−0.28	0.782	0.005	0.00	0.997
ΔASSETAGE	0.395	1.16	0.250	0.426	1.31	0.196
YEAR	Yes			Yes		
INDUSTRY	Yes			Yes		
Observations	5,087			4,322		
Adj. R^2	0.0504			0.0614		

Notes: The table reports the results from the clustered standard errors regression of the change in CEO power on the change in corporate social responsibility over the period of 1992–2014 based on the following model equation:

$$\Delta\text{CSR} = \beta_0 + \beta_1 \times \Delta\text{CPS} + \beta_x \times \Delta\text{Control Variables} + \text{Year and Industry Dummies} + \varepsilon.$$

The dependent variable (ΔCSR) measures the change in a firm's corporate social responsibility performance. $\Delta\text{CSR} = \text{CSR}_{i,t} - \text{CSR}_{i,t\text{-}1}$. The independent variable of interest (ΔCPS) captures the change in CEO power. $\Delta\text{CPS} = \text{CPS}_{i,t} - \text{CPS}_{i,t\text{-}1}$. This table also presents the regression results based on the sample excluding utility firms (SIC: 4000-4999) and financial firms (SIC: 6000-6999). The industry-specific and year-specific intercepts are omitted for brevity. Continuous control variables are winsorized at 1 and 99 percentiles each year before entering the regression tests. Refer to Table AI for variable definitions. *,**,***Significant at the 10, 5 and 1 percent (two-tailed) confidence levels, respectively

Table VI.
CEO power and corporate social responsibility (changes analysis)

Table VIII reports the 2SLS results for testing the hypothesis. The first stage regression reports the average CEO power (CPS_mean) is positively related (0.942) to individual CEO power at the significant level (p-value $<$ 0.0001). This suggests that our IV works well in the 2SLS. The second stage reports the coefficient on the instrumented CPS is negative (−1.274) and significant (p-value < 0.0001) in the regression model, suggesting that more powerful CEOs lead to lower CSR performance (i.e. *H1* is supported). In summary, the two-stage regression analysis (2SLS) lends support to the main results, suggesting that our conclusion is unlikely vulnerable to endogeneity.

5.5 CEO power and individual CSR component

The CSR score is constructed based on seven CSR components. The evidence thus far suggests that the overall CSR score is negatively associated with CEO power. To gain further insight, we conduct a robustness check where we explore the impact of CEO power on each of the seven individual CSR components, including community (COM), corporate governance (CGOV), diversity (DIV), employee relation (EMP), environment (ENV), human rights (HUM) and product (PRO). Table IX reports that CEO power has a significant and negative impact on five components including COM, CGOV, DIV, EMP

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Variables	Full sample			Excluding utility firms (SIC: 4000-4999) and financial firms (SIC: 6000-6999)		
	Estimate	*t*-value	Pr > |*t*|	Estimate	*t*-value	Pr > |*t*|
CPS	−0.595**	−2.39	0.017	−0.517**	−1.97	0.049
AGE	−0.003	−0.33	0.739	−0.008	−0.93	0.353
GEN	−0.186	−0.80	0.426	−0.118	−0.47	0.639
TENURE	−0.010	−1.20	0.232	−0.001	−0.07	0.946
CEOOWN	−0.308***	−3.25	0.001	−0.336***	−3.33	0.001
CHAIR	−0.317***	−2.75	0.006	−0.410***	−3.32	0.001
VP	0.027	0.90	0.371	0.016	0.49	0.623
SIZE	−0.290***	−3.97	< 0.0001	−0.225***	−2.89	0.004
ROA	1.070***	3.08	0.002	1.099***	3.08	0.002
LEV	0.108	0.44	0.660	0.127	0.49	0.623
MTB	−0.009	−1.16	0.247	−0.010	−1.25	0.210
ADV	−0.686	−0.44	0.661	−0.420	−0.25	0.806
ASSETAGE	1.017***	3.53	0.000	0.818***	2.60	0.009
YEAR	Yes			Yes		
INDUSTRY	No			No		
Observations	8,575			7,253		
Adj. R^2	0.6411			0.6486		

Notes: The table reports the results from the fixed-effects regression of CEO power on corporate social responsibility over the period of 1992–2014 based on the following model equation:

$$\text{CSR} = \beta_0 + \beta_1 \times \text{CPS} + \beta_x \times \text{Control Variables} + \text{Year and Industry Dummies} + \varepsilon.$$

The dependent variable (CSR) measures a firm's corporate social responsibility performance. The independent variable of interest (CPS) captures the CEO power. This table also presents the regression results based on the sample excluding utility firms (SIC: 4000-4999) and financial firms (SIC: 6000-6999). The industry-specific and year-specific intercepts are omitted for brevity. Continuous control variables are winsorized at 1 and 99 percentiles each year before entering the regression tests. Refer to Table AI for variable definitions. *,**,***Significant at the 10, 5 and 1 percent (two-tailed) confidence levels, respectively

Table VII.
CEO power and corporate social responsibility (fixed-effects regression)

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and ENV. For example, the coefficient on CPS is negative (−0.178) and significant (p-value < 0.001) where the dependent variable is CGOV, suggesting that higher CEO power leads to more corporate governance problems. This is consistent with Bebchuk *et al.* (2011). However, results in Table IX suggest that CEO power has no significant impact on HUM and PRO. Overall, Table IX suggests that CEO power impacts the majority of CSR components at a significant level.

5.6 Environmentally sensitive industries vs non-environmentally sensitive industries

Prior research (e.g. Cho *et al.*, 2012) suggests that environmental performance, as a critical component of CSR, should be more pronounced in environmentally sensitive industries. Hence, we investigate whether our results are stronger for firms in environmentally sensitive industries. Consistent with Cho *et al.* (2012), environmentally sensitive industries include the following industries (based on the first two digits of the SIC code): 10, 12, 13, 26, 28, 29, 33 and 49. Table X presents that the coefficient on CPS is −1.264 with a p-value of less than 0.0001 for firms in environmentally sensitive industries and −1.156 with a p-value of less than 0.0001 for firms not in environmentally sensitive industries. The coefficient comparison test shows that the difference between these two coefficients is statistically significant (F-stat. = 3.39; p-value = 0.0655). Hence, results of Table X suggest that our primary findings are stronger for firms in environmentally sensitive industries.

Variables	First stage Estimate	First stage *t*-value	First stage Pr > |*t*|	Second stage Estimate	Second stage *t*-value	Second stage Pr > |*t*|
Intercept	−0.005	−0.13	0.899	−1.177	−3.32	0.001
CPS_Mean	0.942***	10.42	< 0.0001			
CPS_Instumented				−1.274***	−5.80	< 0.0001
AGE	0.000**	2.34	0.019	−0.007*	−1.76	0.079
GEN	−0.021***	−2.96	0.003	−1.513***	−10.36	< 0.0001
TENURE	−0.001**	−2.47	0.014	0.005	1.20	0.230
CEOOWN	0.090***	17.39	< 0.0001	−0.143	−1.33	0.182
CHAIR	0.015***	5.63	< 0.0001	−0.016	−0.30	0.767
VP	−0.005***	−5.29	< 0.0001	0.036*	1.90	0.058
SIZE	0.005***	5.47	< 0.0001	0.543***	27.63	< 0.0001
ROA	0.090***	5.53	< 0.0001	2.737***	8.22	< 0.0001
LEV	0.026***	3.15	0.002	−1.097***	−6.51	< 0.0001
MTB	0.000	−0.77	0.440	0.025***	3.31	0.001
ADV	−0.032	−0.82	0.410	3.898***	5.00	< 0.0001
ASSETAGE	−0.038***	−4.19	< 0.0001	−0.671***	−3.67	0.000
YEAR	Yes			Yes		
INDUSTRY	Yes			Yes		
Observations	8,575			8,575		
Adj. R^2	0.1087			0.2256		

Notes: The table presents the results of two-stage OLS regression analysis (2SLS) with industry and year effects based on the full sample. In the first stage of 2SLS, we estimate the instrumented CPS using the average CEO power (CPS_Mean) in the same industry. We include all of the control variables, as well as the industry and year dummy variables. In the second stage of 2SLS, we use the instrumented values of CPS (CPS_Instrumented) from the first stage and include them as independent variables in the second stage regression. We use the same control variables in the second stage regression. The above procedures are applied in previous studies (e.g. Jiraporn *et al.*, 2014). The industry-specific and year-specific intercepts are omitted for brevity. Continuous control variables are winsorized at 1 and 99 percentiles each year before entering the regression tests. Refer to Table AI for variable definitions. *,**,***Significance at the 10, 5 and 1 percent (two-tailed) confidence levels, respectively

Table VIII.
CEO power and corporate social responsibility (two-stage OLS analysis (2SLS))

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5.7 The impact of firm size on the relation between CPS and CSR

In this test, we explore whether and how firm size (an important organizational factor) can influence the relation between CEO power and CSR. We median-split our sample based on the total firm assets and re-estimate our baseline regression for each group (small firms and large firms). Table XI reports that the coefficient on CPS is −0.946 with a *p*-value of less than 0.0001 for small firms and −0.618 with a *p*-value of 0.009 for large firms. The difference between these coefficients is statistically significant. Thus, we conclude that our results are stronger for small firms.

6. Conclusion

In this study, we investigate the relation between CEO power and CSR. We find that firms with more powerful CEOs are less likely to engage in CSR activities. On the one hand, our findings are in line with prior studies on CEO power that suggest too much CEO power reflects weaker corporate governance, more agency problems and other negative outcomes. On the other hand, our findings are consistent with the stakeholder theory of CSR, which argues that better-managed firms should engage in more CSR activities. Overall, our results support the stakeholder theory by showing a negative relation between CEO power and CSR. Our study also has practical implications. To investors, our results may discourage them from investing in firms

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Table IX.
CEO power and corporate social responsibility (individual CSR components)

Variables	COM Estimate	CGOV Estimate	DIV Estimate	EMP Estimate	ENV Estimate	HUM Estimate	PRO Estimate
Intercept	−0.380	0.858	−1.635	−0.768	−0.293	0.151	0.858
CPS	*−0.103***	*−0.178****	*−0.505****	*−0.439****	*−0.116**	−0.016	−0.002
AGE	−0.002**	−0.001	−0.002***	0.001	−0.002	−0.002***	−0.001
GEN	−0.061*	0.008	−1.176	−0.103	−0.093*	−0.024*	−0.113***
TENURE	0.001	0.001	−0.003	0.003*	0.000	0.001	0.003***
CEOOWN	0.024	−0.094***	−0.045	0.036	−0.064**	0.006	0.004
CHAIR	−0.024*	0.010	0.068***	−0.071***	0.014	0.004	−0.012
VP	0.011***	−0.006	0.027***	0.010	−0.007	−0.002	0.003
SIZE	0.097***	−0.081***	0.425***	0.135***	0.105***	−0.014***	−0.110***
ROA	0.281***	0.338***	0.507***	1.235***	0.523***	−0.077**	0.023***
LEV	−0.170***	−0.054	−0.427***	−0.470***	−0.105**	0.022	0.114
MTB	0.005***	−0.004**	0.012***	0.006*	0.005*	0.000	0.003
ADV	0.812***	0.366*	2.315***	0.615**	0.669***	−0.055	−0.627
ASSETAGE	−0.096***	0.041	−0.622***	0.055	−0.182***	0.062***	0.063
YEAR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
INDUSTRY	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,575	8,575	8,575	8,575	8,575	8,575	8,575
Adj. R^2	0.1335	0.1894	0.1885	0.2145	0.179	0.1606	0.1648

Notes: The table reports the results from the clustered standard errors regression of CEO power on each CSR component over the period of 1992–2014 based on the following model equation:

$$\text{Individual CSR Component} = \beta_0 + \beta_1 \times \text{CPS} + \beta_x \times \text{Control Variables}$$

$$+ \text{Year and Industry Dummies} + \varepsilon.$$

The dependent variable represents each individual CSR component, namely, COM, CGOV, DIV, EMP, ENV, HUM and PRO. The independent variable of interest (CPS) captures the CEO power. The industry-specific and year-specific intercepts are omitted for brevity. Continuous control variables are winsorized at 1 and 99 percentiles each year before entering the regression tests. Refer to Table AI for variable definitions and Table AII for description of individual CSR component. *,**,***Significant at the 10, 5 and 1 percent (two-tailed) confidence levels, respectively

Variables	Environmentally sensitive industries Estimate	*t*-value	Pr > |*t*|	Non-environmentally sensitive industries Estimate	*t*-value	Pr > |*t*|
Intercept	−2.459***	−2.62	0.009	−1.011**	−2.50	0.012
CPS	−1.264***	−5.43	< 0.0001	−1.156***	−4.79	< 0.0001
AGE	−0.013	−1.31	0.191	−0.007*	−1.83	0.067
GEN	−1.701***	−3.58	0.000	−1.430***	−9.17	< 0.0001
TENURE	0.022**	1.97	0.049	0.006	1.33	0.185
CEOOWN	−0.498**	−2.09	0.036	−0.071	−0.65	0.513
CHAIR	0.159	1.22	0.224	−0.064	−1.09	0.274
VP	0.085	1.48	0.138	0.030	1.50	0.135
SIZE	0.460***	8.04	< 0.0001	0.580***	19.76	< 0.0001
ROA	1.357**	2.09	0.037	3.154***	8.72	< 0.0001
LEV	−0.852**	−2.02	0.043	−1.083***	−6.31	< 0.0001
MTB	0.011	0.67	0.506	0.026***	3.05	0.002
ADV	8.289**	2.33	0.020	3.317***	4.61	< 0.0001
ASSETAGE	0.404	1.01	0.312	−1.039***	−5.61	< 0.0001
YEAR	Yes			Yes		
INDUSTRY	Yes			Yes		
Observations	1,804			6,771		
Adj. R^2	0.3017			0.2186		

Coefficient comparison test
Coefficient of CPS in ESI industries vs coefficient of CPS in non-ESI industries
F-Stat. = 3.39; p-value = 0.0655

Notes: The table reports the results from the clustered standard errors regression of CEO power on corporate social responsibility for two subsamples (firms in environmentally sensitive industries and firms in non-environmentally sensitive industries) over the period of 1992–2014 based on the following model equation:

$$\text{CSR} = \beta_0 + \beta_1 \times \text{CPS} + \beta_x \times \text{Control Variables} + \text{Year and Industry Dummies} + \varepsilon.$$

The dependent variable (CSR) measures a firm's corporate social responsibility performance. The independent variable of interest (CPS) captures the CEO power. The industry-specific and year-specific intercepts are omitted for brevity. Continuous control variables are winsorized at 1 and 99 percentiles each year before entering the regression tests. Refer to Table AI for variable definitions. *,**,***Significant at the 10, 5 and 1 percent (two-tailed) confidence levels, respectively

Table X.
CEO power and corporate social responsibility (environmentally sensitive industries vs non-environmentally sensitive industries)

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with powerful CEOs because too much CEO power leads to more negative outcomes. To the board of directors, our results may cause them to restrict or reduce CEO power because powerful CEOs can hurt not only the financial performance of a firm, but also the non-financial performance such as the CSR performance. To various stakeholders, our results may make them realize that firms with powerful CEOs are not socially responsible.

Nevertheless, this study has several limitations. First, it is difficult to measure CEO power because it is multi-dimensional. CPS is an approximate measure of CEO power. More precise measures of CEO power may yield stronger results. Second, our sample consists of large public firms in the USA. Future research can investigate the impact of CEO power on CSR in smaller firms or private firms. Thus, readers need to exercise caution when generalizing our findings. At last, we find that our results are stronger for small firms, suggesting that firm size can impact the relation between CEO power and CSR. Future research can explore other organizational factors that can influence this relation.

Variables	Small firms Estimate	*t*-value	Pr > |*t*|	Large firms Estimate	*t*-value	Pr > |*t*|
Intercept	1.409	3.61	0.000	−5.889	−8.26	< 0.0001
CPS	*−0.946***	*−5.15*	*< 0.0001*	*−0.618***	*−2.63*	*0.009*
AGE	−0.008**	−2.37	0.018	−0.007	−0.92	0.360
GEN	−1.473***	−11.51	< 0.0001	−1.060***	−4.26	< 0.0001
TENURE	0.009**	2.55	0.011	0.008	1.05	0.294
CEOOWN	−0.033	−0.34	0.735	−0.124	−0.70	0.485
CHAIR	−0.165***	−3.13	0.002	0.012	0.13	0.895
VP	−0.002	−0.12	0.908	0.093***	2.82	0.005
SIZE	0.184***	4.88	< 0.0001	0.889***	17.51	< 0.0001
ROA	0.707***	2.65	0.008	6.309***	9.01	< 0.0001
LEV	−0.546***	−3.15	0.002	−0.554**	−1.98	0.048
MTB	0.011	1.12	0.264	0.015	1.33	0.183
ADV	−0.204	−0.44	0.659	15.445***	5.32	< 0.0001
ASSETAGE	0.109	0.71	0.479	−1.520***	−4.79	< 0.0001
YEAR	Yes			Yes		
INDUSTRY	Yes			Yes		
Observations	4,287			4,288		
Adj. R^2	0.2719			0.3204		
Coefficient comparison	*F*-stat	*p*-value				
Test of CPS of small firms = CPS of large firms	15.34	< 0.0001				

Notes: The table reports the results from the clustered standard errors regression of CEO power on corporate social responsibility for small firms and large firms over the period of 1992–2014 based on the following model equation:

$$\text{CSR} = \beta_0 + \beta_1 \times \text{CPS} + \beta_x \times \text{Control Variables} + \text{Year and Industry Dummies} + \varepsilon.$$

The dependent variable (CSR) measures a firm's corporate social responsibility performance. The independent variable of interest (CPS) captures the CEO power. We decompose our sample into two subsamples: small vs large firms based on the median value of total assets. The industry-specific and year-specific intercepts are omitted for brevity. Continuous control variables are winsorized at 1 and 99 percentiles each year before entering the regression tests. Refer to Table AI for variable definitions. *,**,***Significant at the 10, 5 and 1 percent (two-tailed) confidence levels, respectively

Table XI. CEO power and corporate social responsibility (small firms vs large firms)

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Notes

1. Refer to Table AII for detailed information on CSR components.
2. We assume that advertising expenditures are zero when the data are missing.
3. The ratio of net long-term assets to gross long-term assets is used to measure the age of assets. The newer a firm's long-term assets, the closer this ratio will be to unity. As a firm's long-term assets age, this ratio will approach zero.
4. SIC code: 4000-4999.
5. SIC code: 6000-6999.

References

Abernethy, M., Kuang, Y.F. and Qin, B. (2015), "Do powerful CEOs influence compensation contract design?", *The Accounting Review*, Vol. 90 No. 4, pp. 1265-1306.

Adams, R.B., Almeida, H. and Ferreira, D. (2005), "Powerful CEOs and their impact on corporate performance", *Review of Financial Studies*, Vol. 18 No. 4, pp. 1403-1432.

Attig, N. and Cleary, S. (2015), "Managerial practices and corporate social responsibility", *Journal of Business Ethics*, Vol. 131 No. 1, pp. 121-136.

Baik, B., Farber, D.B. and Lee, S. (2011), "CEO ability and management earnings forecasts", *Contemporary Accounting Research*, Vol. 28 No. 5, pp. 1645-1668.

Bebchuk, L.A., Cremers, M. and Peyer, U. (2011), "The CEO pay slice", *Journal of Financial Economics*, Vol. 102 No. 1, pp. 199-221.

Belliveau, M.A., O'Reilly, C.A. and Wade, J.B. (1996), "Social capital at the top: effects of social similarity and status on CEO compensation", *Academy of Management Journal*, Vol. 39 No. 6, pp. 1568-1593.

Beurden, P. and Gossling, T. (2008), "The worth of values – a literature review on the relation between corporate social and financial performance", *Journal of Business Ethics*, Vol. 82 No. 2, pp. 407-424.

Carroll, A. (1979), "A three-dimensional conceptual model of corporate performance", *The Academy of Management Review*, Vol. 4 No. 4, pp. 497-505.

Chatjuthamard, P., Jiraporn, P., Tong, S. and Singh, M. (2016), "Managerial talent and corporate social responsibility: how do talented managers view corporate social responsibility?", *International Review of Finance*, Vol. 16 No. 2, pp. 265-276.

Chen, W., Zhou, G. and Zhu, X. (2018), "CEO tenure and corporate social responsibility performance", *Journal of Business Research*, Vol. 95, pp. 292-302.

Chiang, W., Shang, J. and Sun, L. (2017), "Broad bond rating change and irresponsible corporate social responsibility activities", *Advances in Accounting*, Vol. 39, pp. 32-46.

Cho, C.H., Guidry, R.P., Hageman, A.M. and Patten, D.M. (2012), "Do actions speak louder than words? An empirical investigation of corporate environmental reputation", *Accounting, Organizations and Society*, Vol. 37 No. 1, pp. 14-25.

Cochran, R. and Wood, R. (1984), "Corporate social responsibility and financial performance", *Academy of Management Journal*, Vol. 27 No. 1, pp. 42-56.

Core, J.E., Holthausen, R. and Larcker, D.F. (1999), "Corporate governance, chief executive officer compensation, and firm performance", *Journal of Financial Economics*, Vol. 51 No. 3, pp. 371-406.

Cronqvist, H., Heyman, F., Nilsson, M., Svaleryd, H. and Vlachos, J. (2009), "Do entrenched managers pay their workers more?", *Journal of Finance*, Vol. 64 No. 1, pp. 309-339.

Deckop, J.R., Merriman, K.K. and Gupta, S. (2006), "The effect of CEO pay structure on corporate social performance", *Journal of Management*, Vol. 32 No. 3, pp. 329-342.

Demerjian, P., Lev, B. and McVay, S. (2012), "Quantifying managerial ability: a new measure and validity tests", *Management Science*, Vol. 58 No. 7, pp. 1229-1248.

Dhaliwal, D., Li, O., Tsang, A. and Yang, Y. (2011), "Voluntary nonfinancial disclosure and the cost of equity capital: the initiation of corporate social responsibility reporting", *The Accounting Review*, Vol. 86 No. 1, pp. 59-100.

Dikolli, S.S., Diser, V., Hofmann, C. and Pfeiffer, T. (2014), "CEO power and relative performance evaluation", working paper, Duke University, Durham, NC.

Donaldson, P. and Preston, L.E. (1995), "The stakeholder theory of the corporation: concepts, evidence, and implications", *The Academy of Management Review*, Vol. 20 No. 1, pp. 65-91.

Dyreng, S., Hanlon, M. and Maydew, E. (2010), "The effects of executives on corporate tax avoidance", *The Accounting Review*, Vol. 85 No. 4, pp. 1163-1189.

Finkelstein, S. (1992), "Power in top management teams: dimensions, measurement, and validation", *Academy of Management Journal*, Vol. 35 No. 3, pp. 505-538.

Freeman, R.E. and Evan, W.M. (1990), "Corporate governance: a stakeholder interpretation", *The Journal of Behavioral Economics*, Vol. 19 No. 4, pp. 337-359.

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Godos-Diez, J., Fernandez-Gago, R. and Martinez-Campillo, A. (2011), "How important are CEOs to CSR practices? An analysis of the mediating effect of the perceived role of ethics and social responsibility", *Journal of Business Ethics*, Vol. 98 No. 4, pp. 531-548.

Hambrick, D. (2007), "Upper echelons theory: an update", *Academy of Management Review*, Vol. 32 No. 2, pp. 334-343.

Hambrick, D.C. and Mason, P. (1984), "Upper echelons: the organization as a reflection of its top managers", *Academy of Management Review*, Vol. 9 No. 2, pp. 193-206.

Ho, S.S.M., Li, A.Y., Tam, K. and Zhang, F. (2015), "CEO gender, ethical leadership, and accounting conservatism", *Journal of Business Ethics*, Vol. 127 No. 2, pp. 351-370.

Ioannou, I. and Serafeim, G. (2012), "What drives corporate social performance? The role of nation-level institutions", *Journal of International Business Studies*, Vol. 43 No. 9, pp. 834-864.

Jiraporn, P., Chintrakarn, P. and Liu, Y. (2012), "Capital structure, CEO dominance, and corporate performance", *Journal of Financial Services Research*, Vol. 42 No. 3, pp. 139-158.

Jiraporn, P., Jiraporn, N., Boeprasert, A. and Chang, K. (2014), "Does corporate social responsibility improve credit ratings? Evidence from geographic identification", *Financial Management*, Vol. 43 No. 3, pp. 505-531.

Jo, H. and Harjoto, M.A. (2012), "The causal effect of corporate governance on corporate social responsibility", *Journal of Business Ethics*, Vol. 106 No. 1, pp. 53-72.

Johnson, R.A. and Greening, D.W. (1999), "The effects of corporate governance and institutional ownership types on corporate social performance", *Academy of Management Journal*, Vol. 42 No. 5, pp. 564-576.

Jones, T.M. (1995), "Instrumental stakeholder theory: a synthesis of ethics and economics", *Academy of Management Review*, Vol. 20 No. 2, pp. 404-437.

Kim, Y., Li, H. and Li, S. (2014), "Corporate social responsibility and stock price crash risk", *Journal of Business & Finance*, Vol. 43, pp. 1-13.

Kim, Y., Park, M.S. and Wier, B. (2012), "Is earnings quality associated with corporate social responsibility?", *The Accounting Review*, Vol. 87 No. 3, pp. 761-796.

Larcker, D.F. and Tayan, B. (2012), "Is a powerful CEO good or bad for shareholders?", *Stanford Closer Look Series*, pp. 1-5.

Liang, H. and Renneboog, L. (2017), "On the foundation of corporate social responsibility", *Journal of Finance*, Vol. 72 No. 2, pp. 853-910.

Liu, Y. and Jiraporn, P. (2010), "The effect of CEO power on bond ratings and yields", *Journal of Empirical Finance*, Vol. 17 No. 4, pp. 744-762.

McCarthy, S., Oliver, B. and Song, S. (2017), "Corporate social responsibility and CEO confidence", *Journal of Banking and Finance*, Vol. 75, pp. 280-291.

McGuire, J., Sundgren, A. and Schneeweis, T. (1988), "Corporate social responsibility and firm financial performance", *Academy of Management Journal*, Vol. 31 No. 4, pp. 854-872.

Morse, A., Nanda, V. and Seru, A. (2011), "Are incentive contracts rigged by powerful CEOs?", *Journal of Finance*, Vol. 66 No. 5, pp. 1779-1821.

Moser, D. and Martin, P. (2012), "A broader perspective on corporate social responsibility research in accounting", *The Accounting Review*, Vol. 87 No. 3, pp. 797-806.

Petersen, M.A. (2009), "Estimating standard errors in finance panel data sets: comparing approaches", *Review of Financial Studies*, Vol. 22 No. 1, pp. 435-480.

Pirson, M. and Malhotra, D. (2011), "Foundations of organizational trust: what matters to different stakeholders?", *Organization Science*, Vol. 22 No. 4, pp. 1087-1104.

Roman, R., Hayibor, S. and Agle, B. (1999), "The relationship between social performance and financial performance", *Business and Society*, Vol. 38 No. 1, pp. 109-125.

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Roush, P.B., Mahoney, L.S. and Thorne, L. (2012), "The effect of public pressure on CSR behavior in a capital market experiencing excessive moral debt", *Accounting and the Public Interest*, Vol. 12, pp. 87-105.

Stuebs, M. and Sun, L. (2010), "Business reputation and labor efficiency, productivity, and cost", *Journal of Business Ethics*, Vol. 96 No. 2, pp. 265-283.

Sun, L. and Stuebs, M. (2012), "Corporate social responsibility and firm productivity: evidence from the chemical industry", *Journal of Business Ethics*, Vol. 118 No. 2, pp. 251-263.

Sun, X. and Gunia, B.C. (2018), "Economic resources and corporate social responsibility", *Journal of Corporate Finance*, Vol. 51, pp. 332-351.

Thomas, A.S. and Simerly, R.L. (1994), "The chief executive officer and corporate social performance: an interdisciplinary examination", *Journal of Business Ethics*, Vol. 13 No. 12, pp. 959-968.

Tushman, M. and Romanelli, E. (1985), "Organizational evolution: a metamorphosis model of convergence and reorientation", *Research in Organizational Behavior*, Vol. 7, JAI press, Greenwich, CT, pp. 171-222.

Waddock, S. and Graves, S. (1997), "The corporate social performance – financial performance link", *Strategic Management Journal*, Vol. 18 No. 4, pp. 303-319.

Withisuphakorn, P. and Jiraporn, P. (2015), "The effect of CEO power on the informativeness of stock prices: an empirical note", working paper, Pennsylvania State University, State College, PA.

Wu, D., Lin, C. and Liu, S. (2016), "Does community environment matter to corporate social responsibility?", *Finance Research Letters*, Vol. 18, pp. 1-9.

Further reading

Malik, M. (2015), "Value-enhancing capabilities of CSR: a brief review of contemporary literature", *Journal of Business Ethics*, Vol. 127 No. 2, pp. 419-438.

McWilliams, A. and Siegel, D. (2001), "Corporate social responsibility: a theory of the firm perspective", *Academy of Management Review*, Vol. 26 No. 1, pp. 117-127.

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Appendix 1

Variable	Description
CSR	= total net score of CSR rating, measured as total strengths minus total concerns, based on 7 social rating categories of KLD ratings data: community (COM), corporate governance (CGOV), diversity (DIV), employee relations (EMP), environment (ENV), human rights (HUM) and products (PRO)
COM	= net score of CSR ratings in community category
CGOV	= net score of CSR ratings in corporate governance category
DIV	= net score of CSR ratings in diversity category
EMP	= net score of CSR ratings in employee relation category
ENV	= net score of CSR ratings in environment category
HUM	= net score of CSR ratings in human rights category
PRO	= net score of CSR ratings in product category
CPS	= the fraction of the aggregate compensation of the firm's top-5 executive team captured by the CEO, following Bebchuk *et al.* (2011)
AGE	= the age of CEO
GEN	= 1 if a company's CEO is male, 0 otherwise
TENURE	= tenure of CEO in years
CEOOWN	= 1 if the CEO owns a stake of at least 20%, 0 otherwise
CHAIR	= 1 if the CEO chairs the board, 0 otherwise
VP	= the number of vice presidents
SIZE	= natural log of total assets (AT, No. 6)
ROA	= income before extraordinary items (IB, No. 18) scaled by total assets (AT, No. 6)
LEV	= long-term liabilities (DLTT, No. 9) divided by total assets (AT, No. 6)
MTB	= market value of common shares (CSHO, No. 25) × (PRCC_F, No. 24) divided by total book value of common shares (CEQ, No. 60)
ADV	= advertising expenses (XAD, No. 45) scaled by total assets (AT, No. 6)
ASSETAGE	= net property, plant and equity (PPENT, No. 8) divided by gross property, plant and equipment (PPEGT, No. 7)
MA	= managerial ability scores following Demerjian *et al.* (2012)

Table AI.
Variable definitions

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Appendix 2

Category	Strengths	Concerns
Community	Generous giving	Investment controversies
	Innovative giving	Negative economic impact
	Housing support	Indigenous people relations
	Education support	Tax disputes
	Peoples relations	Other concerns
	Non-US giving	
	Voluntary programs	
	Other strengths	
Corporate governance	Limited compensation	High compensation
	Ownership strength	Ownership concern
	Transparency strength	Transparency concern
	Accountability strength	Accountability concern
	Public policy strength	Public policy concern
	Other strengths	Other concerns
Diversity	CEO	Controversies
	Promotion	Non-representation
	Board of directors	Other concerns
	Work-life benefits	
	Women and minority	
	Employment of the disabled	
	Gay and lesbian policies	
	Other strengths	
Employee relations	Union relations	Union relations
	No-layoff policy	Health and safety concern
	Cash profit sharing	Workforce reductions
	Employee involvement	Retirement benefits concern
	Retirement benefits	Other concerns
	Health and safety	
	Other strengths	
Environment	Beneficial products	Hazardous waste
	Pollution prevention	Regulatory problems
	Recycling	Ozone depleting chemicals
	Clean energy	Substantial emissions
	Property, plant and equipment	Agriculture chemicals
	Other strengths	Climate change
		Other concerns
Human rights	Positive record in S. Africa	S. Africa
	Indigenous people relations	Northern Ireland
	Labor rights strength	Burma concern
	Other strengths	Mexico
		Labor right concern
		Indigenous people relations concern
		Other concerns
Products	Quality	Product safety concern
	Research and development innovation	Marketing-contracting concern
	Benefits to economically disadvantages	Antitrust
	Other strengths	Other concerns

Table AII. Description of CSR components (MSCI ESG database)

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Appendix 3. Managerial ability

Demerjian *et al.* (2012) develop a summary measure of managerial ability (MA), a performance-based measure of managers' efficiency in using their firms' resources to generate revenue. They use a two-step approach to develop the measure. First, they rely on data envelopment analysis (DEA) to estimate total firm efficiency by industry and year. Given a collection of points in a multi-dimensional space, DEA fits a piecewise linear envelope or frontier to the given data. The envelope indicates a normative ideal given the existing data. Points located on the envelope are optimally efficient, while points below the envelope are inefficient. DEA evaluates all points with respect to their deviation from the frontier. The value of the points on the frontier equals 1, and the values of other points which operate beneath the frontier are between 0 and 1. DEA requires identifying input and output variables. Demerjian *et al.* (2012) use seven input variables: cost of goods sold; selling, general and administrative expenses; property, plant and equipment; operating lease; research and development cost; goodwill; and other intangibles. The output variable is net sales.

Demerjian *et al.* (2012) acknowledge that total firm efficiency can be attributed to both manager-specific characteristics and firm-specific characteristics. Therefore, their second step is to attempt to identify the manager-specific characteristics of the total firm efficiency from DEA results. They regress the total firm efficiency on six firm-specific variables that could aid or hinder managers' ability. These six variables include firm size, firm market share, cash available, firm age, operational complexity and foreign operations. This regression is run controlling industry- and year-fixed effects. Demerjian *et al.* (2012) use the residuals from the regression as proxy for MA.

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