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Can Corporate Social Responsibility Fill Institutional Voids?

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Abstract

We conduct empirical analysis on the relation between firm value and corporate social responsibility (CSR) using 134,823 observations of 2542 firms across 44 countries from 2009 to 2014. We find that the firm value is positively related to the overall CSR score of the firm. At a more granular level, we find that good environmental score is positively related to the firm value and good social and governance scores are negatively related to the firm value. Since these firms operate in different institutional frameworks, we explore whether the institutional voids—the absence of institutions or intermediaries that are instrumental in supporting business operations in a country—may result in greater firm valuation for its CSR and vice versa. Our results show that firms' environmental scores and social scores receive higher valuation in countries with weaker institutions. Overall, our findings suggest that CSR creates value for firms by filling institutional voids in their home country.

Keywords: corporate social responsibility, firm value, institutional theory, institutional voids

1. Introduction

In recent years, an increasing focus has been placed on corporate social responsibility (CSR) strategies as an integral function of business (e.g., [1–3]). A joint study by the United Nations Global Compact and Accenture in 2010 found that 93% of the 766 CEOs as participants around the globe believe that CSR will be an "important" or "very important" factor for their organizations' future success [4]. The Forum for Socially Responsible Investing in the United

States (USSIF) also showed that socially responsible investing (SRI) currently expanded to 6.57 trillion in 2014, representing 17.9% of all assets under management in the United States (USSIF, [5]). Moreover, developments such as the signature of the Principles for Responsible Investment (PRI) agreement by major market players and the increasing institutionalization of B Corp as a legal entity class in the United States (e.g., [6]) serve to showcase CSR's increasing relevance in modern business world.

Despite a surging interest in CSR, a seemingly fundamental question remains unresolved— does CSR create value for firm? Traditional shareholder theory suggests that CSR can create value only if it increases the firm's expected future cash flows and reduces firm risk (e.g., [2, 7, 8]). In contrast, opponents predict that CSR is inherently value destroying, driven by selfish motives (e.g., [9]). We aim to reconcile the differences in the literature by performing a comprehensive cross-country empirical study on CSR and firm valuation relation.

We use the international CSR data from Morgan Stanley Capital International (MSCI), which is an independent rating agency with extensive experience in analyzing firms based on a wide range of CSR dimension assessments. Firms are rated on their environmental, social, and governance (ESG) performance, by receiving numerical ESG index scores (from 1 to 100, with 100 being the highest). The MSCI's ESG ratings have been extensively used in recent studies (e.g., [7, 10]). We measure firm value by Tobin's Q. This measure is popular because it captures both the expected tangible and intangible value of the firm (e.g., [11–13]). Our final sample consists of 134,823 monthly observations of 2542 companies across 44 countries and 128 industries from 2009 to 2014.

Our first result shows that CSR is associated with higher firm value on average, but the economic significance is small. Specifically, a one standard deviation increase in the ESG score will lead to an increase in Tobin's Q by 28 basis points. This is about 0.17% of the mean value of Tobin's Q measure at 1.63. The weak economic result prompts us to delve into three subdimensions of the ESG scores (environmental, social, and governance scores).

Our second result shows that the environment score is positively and significantly related to firm value, whereas the social and governance scores are both negatively and significantly related to firm value at the 1% significance level. Although similar findings have been documented in the United States (e.g., [2, 14]), our results have expanded the research scope to 49 countries.

Given that our sample firms span across different countries, we wonder whether the CSR-firm value relation is affected by different institutional environments that these firms operate in. The literature has provided some indications on the relation between firm valuation and institutional frameworks. For example, the quality of country-level governance is shown to have a material impact on financial markets and firm-level corporate policy (e.g., [15]). Firms in countries with better investor protection have easier access to external funding (e.g., Doidge et al. [16, 17, 18]). Moreover, investors seem to take into account environmental and social risks when making investment decisions (e.g., [19, 20]). Since firms are not operating in a vacuum and are affected by the institutional framework within their home countries, same argument may apply to the CSR-firm valuation relation. Our empirical setting allows for a deep investigation since we have firms from many different countries.

Our third main result reveals how the CSR and firm value relation changes in the presence of different institutional voids in financial, economic, and governmental institutions (e.g., [21, 22]). We find that the valuation effect of CSR is significantly more pronounced in weaker institutional frameworks and vice versa.

We also perform several robustness tests. First, we examine the possibility that our observations are driven by market reaction rather than material value creation. We find no evidence for reversions in firm value over a longer time frame, which suggests that our findings are driven by material value creation. Second, we examine the possibility that our findings are driven by firms in regulated industries or "sin" firms (e.g., [3]). As such, we rerun our models excluding firms operating under regulated industries (e.g., [11]), which constitute banking, energy, insurance, telecommunication, transportation, and utility companies, and those under the Triumvirate of Sin (e.g., [23]), which constitute alcohol, gambling, and tobacco companies. Our main results remain robust.

Our study contributes to three strands of the literature. First, to the best of our knowledge, our study is one of the first studies to explore the CSR-firm value relation on an international scale. We integrate an institution-based view with an institutional void perspective, using a large panel dataset. Indeed, preexisting studies of CSR have generally been conducted in a single country with a dearth of researchers investigating cross-country effects (e.g., [11, 24]). Secondly, consistent with literature, we provide evidence for the notion of CSR as value creation, drawing on institutional void theory to contextualize the CSR-valuation relation by observing it across different socioeconomic and political regimes. Lastly, our study provides a deeper understanding on the underlying mechanisms through which CSR actions lead to particular outcomes at an institutional level (e.g., [1, 24]).

2. Literature review

2.1. Existing theories on CSR-firm value relationship

Traditionally, researchers believe that the responsibility of a business is "to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game and engages in open and free competition without deception or fraud" [25]. This implies that a firm's voluntary pursuance of CSR incurs unnecessary costs and thus reduces its financial performance, resulting in additional firm risk borne by shareholders. A firm's spending on CSR is a manifestation of managerial agency, as managers use corporate resources to confer managerial benefits instead of adding to firm value (e.g., [10, 26]).

On the other hand, Freeman's [27] seminal stakeholder theory argues that businesses do not exist as isolated units in a vacuum, and, thus, the presence and interactions with other actors[1] who are able to affect the firm follows that an increase in firms' CSR will result in improved stakeholder

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[1]As Jiao [12] has noted, there has been an ongoing debate regarding an accurate depiction and definition of the term stakeholders (e.g., [25]). However, Jiao [12] concedes that studies generally consider employees, customers, suppliers, governmental bodies, competitors, and investors as notable stakeholders, among others.

relationships, eventually resulting in a better financial performance (e.g., [7, 28, 29]) and reductions in firm risk (e.g., [20]). It follows that stakeholder welfare is thus a means for firms to invest in intangible assets that would add value to the firm (e.g., [13]). Notably, Porter and Kramer [8] suggest that valuable benefits are created when firms approach societal issues from a "shared value perspective" and invent new ways of operation to address them, which could manifest through various avenues, such as a reduction in transaction costs [30] or the creation of nouveau market opportunities [31]. This notion of CSR as a strategic advantage is supported by a variety of studies (e.g., [32, 33]). For example, some scholars have drawn links between a firm's CSR and its resulting capital structure (e.g., [34]), fewer capital constraints [14], lower costs of capital (e.g., [20]), or increased employee attractiveness (e.g., Greening and Turban [35]).

The literature has also put forward conceptual theories on how CSR can positively affect the firm. Firstly, the risk management theory proposes that the pursuance of CSR has the ability to mitigate the risk experienced by firms (e.g., [20]) by being less prone to social and regulatory changes, for example. Secondly, the shunned stock theory assumes that socially responsible investors select assets on different reasons unrelated to profit motives (i.e., a "value-driven" investor). This preferential selection then results in investors requiring a return premium due to the increased risk that nonsocially responsible firms bear (e.g., [23, 36]). This preference for socially responsible firms also manifests as an increase in investor demand, leading to a premium in firm valuation (e.g., [37]), and may also improve firm performance via avenues such as a more favorable cost of equity (e.g., [14]).

Researchers who are in favor of a neutral relationship between CSR and firm performance argue that the relationship between a firm's corporate social performance and the benefit that it imparts (e.g., financial performance and stock price) is complex in nature rather than strictly positive or negative (e.g., [38, 39]). Along this train of thought, McWilliams and Siegel [40] outline a supply and demand model of CSR, concluding that each firm will select an optimal level of CSR at each point in time determined via cost–benefit analyses.

2.2. Empirical evidence on CSR-firm value relationship

Empirically, investigations into the CSR-firm value relation have resulted in a series of mixed findings. However, multiple literature reviews suggest that the CSR-firm performance relationship is generally positive in nature (e.g., [1, 28, 29]), such that higher levels of CSR can result in lower idiosyncratic risk (e.g., [41]), higher market to book ratios (e.g., [37]), and higher valuations (e.g., [13]).

The large degree of variability inherent in the literature could be symptomatic to a suite of underlying causes. For example, market actors could disagree on the inherent value of a firm's CSR and its corresponding impact (e.g., [2, 23]) or fail to fully incorporate the value of a firm's intangible assets into their valuations (e.g., [42]). Other scholars suggest that these results could be due to the time lag between the operationalization of CSR and the realization of its benefits (e.g., [43]), with Brammer and Millington [26] noting that firms with unusually poor social performance do best in the short run and unusually good social performance do best over longer time horizons, alongside Derwall et al. [36] who observed that the market

systematically undervalues how a firm's CSR can influence its expected future cash flows. The opacity of results could also reflect the inherent difficulty in evaluating and quantifying CSR (e.g., [44]), such that conflicting findings across studies may arise through sampling or measurement errors (e.g., [45]) or a lack of sophistication when measuring stakeholder effects (e.g., [28, 46]). Researchers could also be operating under the assumption of a level of firm homogeneity, disregarding important granular firm-level or individual-level variations that may be mediators or moderators of CSR (e.g., [47, 48]). Last but not least, scholars suggest that this variation points toward the significant knowledge gap that still exists regarding the mechanisms through which CSR affects the firm (e.g., [1]).

2.3. The impact of country-level institutional frameworks

Institutional environments matter for firms because they influence the firm's costs and benefits associated with pursuing various activities (e.g., [17, 21]). In particular, the literature highlights the importance of three country-level institution frameworks, namely, financial, economic, and governmental institutions.

First, firms are affected by the degree of financial market development. In this case, firms without access to developed financial markets may face capital constraints, such that firms may be forced to forgo worthwhile investments (e.g., [14]). Further, firms operating in markets that are financially globalized have superior access to foreign capital markets and are less dependent on the extent of financial market development in their own country. For example, Doidge et al. (2007) show that firms find it costlier to improve corporate governance in countries with poorly developed financial markets.

Second, firms are affected by the degree of economic development. For example, firms situated in countries lacking in critical infrastructure (i.e., security services, telecommunication, utility services, etc.) might find themselves unable to pursue beneficial opportunities due to these constraints (e.g., [19]). Another example is the effect of an underdeveloped labor market, where a labor market in short supply of skilled employees or lacking contract-enforcing mechanisms puts firms who are unable to obtain and retain a robust workforce at a competitive disadvantage (e.g., [21, 22]).

Lastly, firms are affected by the degree of governmental institution development. For example, government ineffectiveness can significantly affect firms through poor regulation quality and lax contract enforcement. This may subsequently limit firm innovation, cause the exploitations of companies, or discourage firms from engaging in potentially beneficial ventures (e.g., [8, 21, 49]).

2.4. Hypothesis development

In summary, extant research to date on both the theoretical and empirical fronts has yet to converge toward a consensus on the underlying mechanisms that link CSR with its observed outcomes (e.g., [28, 29]). While theoretical links between CSR and firm value have been established, whether or not this phenomenon is reproduced in different institutional frameworks remains an empirical question. Thus, we hypothesize that:

Hypothesis 1: CSR creates value for the firm.

Scholars have also put forth evidence that CSR is heterogeneous in nature such that the inherent dimensionality of CSR has implications for value creation (e.g., [2, 13]). Thus, we hypothesize that:

Hypothesis 2: The CSR-valuation relation is heterogeneous in nature and CSR dimension is dependent, such that there is significant heterogeneity in valuation effects across different groups of stakeholders.

Khanna and Palepu [21] introduce the notion of institutional voids, which they define as the absence of institutions or intermediaries that are instrumental in supporting business operations in the context of a country's capital, labor, and product markets, its regulatory system, and its mechanisms of contract enforcement. For example, in an environment with underdeveloped financial institutions, the absence of mechanisms such as financial reportage, watchdog oversight, and analyst coverage works to increase informational asymmetry and decrease market efficiency. It follows that these financial markets will experience a decrease in investor willingness, negatively impacting capital access and forcing firms to seek alternative means (e.g., [50]). Similarly, an environment with underdeveloped economic institutions may force firms to find innovative ways to obtain skilled labor. Anecdotally, Khanna and Palepu [21] describe how Microsoft was compelled to collaborate with local firms and other stakeholders to aid the development of China's software industry and subsequently demonstrated how this has led to significant benefits for the firm. Lastly, an environment with underdeveloped governmental institutions might require firms to leverage their relationship with the government and reputation established by prior dealings, as they cannot rely on the robustness of the judicial system. Indeed, Khanna and Palepu [49] theorize that a key motivation behind a firm's engagement in CSR arises from a need to fill these institutional voids to subsequently allow their business to thrive in these markets. Thus, we hypothesize that:

Hypothesis 3: The CSR-valuation relation is moderated by the institutional frameworks that firms operate in, such that the presence of greater (lesser) institutional voids in financial, economic, and governmental institutions will result in a greater (lesser) valuation effect.

3. Data and methodology

3.1. Data

To investigate our hypotheses, we start by extracting all firm-level constituents of the MSCI AC World Index, which captures large and medium market capitalization stocks of both developed and emerging market countries, on a monthly basis for the time period of 2009 to 2014. We then extract firm-level characteristics from FactSet Research Systems (hereafter, FactSet) and merge this database with MSCI's ESG database. To be included in our dataset, we require firms to have non-missing ESG scores. We also drop firms from Taiwan for consistency across our analyses, as the World Bank does not report important country-level statistics for Taiwan.[2] Finally, we only retain firms that have enough available data to construct control variables. This procedure yields 134,823 monthly observations of 2542 companies across 44 countries and 128 industries.

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[2]https://datahelpdesk.worldbank.org/knowledgebase/articles/114933-where-are-your-data-on-taiwan/, retrieved on 30 March 2015

To validate the significance of cross-country variation valuation exposure to CSR, we observe the results of our investigations under differing institutional and macroeconomic conditions in later tests. In this study, we use MSCI's market classification criteria, which segregate our sample of 44 countries into 23 developed markets and 21 emerging markets. **Table 1** provides the number of firms by country.

For our analyses, we exploit a firm-level measurement of how much CSR a firm undergoes to empirically test our hypotheses. The source of this data is MSCI's ESG database, which independently rates firms on their environmental, social, and governance (ESG) performance,

Developed markets				*Emerging markets*			
Country	Freq.	Firms	Percentage (%)	Country	Freq.	Firms	Percentage (%)
AUS	4416	85	4.40	BRA	3810	87	11.01
AUT	550	11	0.55	CHL	1143	21	3.30
BEL	794	14	0.79	CHN	4576	84	13.23
CAN	6077	118	6.07	COL	552	11	1.60
CHE	2109	38	2.11	CZE	204	3	0.59
DEU	3046	56	3.04	EGY	433	10	1.25
DNK	741	17	0.74	GRC	414	11	1.20
ESP	1632	32	1.62	HUN	248	4	0.72
FIN	983	17	0.98	IDN	1410	27	4.08
FRA	4705	80	4.70	IND	4011	84	11.59
GBR	6208	122	6.17	KOR	5681	104	16.42
HKG	1808	33	1.81	MAR	117	3	0.34
IRL	279	5	0.27	MEX	1461	30	4.22
ISR	733	15	0.73	MYS	2107	46	6.09
ITA	1672	36	1.67	PER	71	2	0.21
JPN	20,381	346	20.34	PHL	779	19	2.25
NLD	1324	25	1.32	POL	1049	26	3.03
NOR	468	8	0.47	RUS	1093	23	3.16
NZL	341	8	0.34	THA	1073	24	3.10
PRT	417	9	0.41	TUR	1285	25	3.71
SGP	1817	31	1.81	ZAF	3078	55	8.90
SWE	1925	32	1.93				
USA	37,802	705	37.73				
Total	**100,228**	**1843**	**100**	**Total**	**34,595**	**699**	**100**

This table displays the number of firms by country for the time period of 2009 to 2014. The sample includes all firms extracted from the MSCI AC World Index between 2009 and 2014 with sufficient firm-level and CSR data.

Table 1. The list of firms in each country.

assigning them a numerical ESG index score (from 1 to 100, with 100 being the highest). MSCI's ESG constructs indices of sustainable investment value and risk factors of more than 6300 public corporations worldwide using a specialized list of 150 RiskMetrics adjusted for various markets, regional, ownership, or sector differences.[3] MSCI only considers CSR issues that have a material impact on the firm, implying that the index score parallels the firm's investment in CSR. Throughout the course of this study, we utilize MSCI's global rating, which compares each individual firm's ratings to all rated firms.

Table 2 reports the average overall environment (E), social (S), and governance (G) scores and marginal month-on-month changes in CSR component scores by year and market classification

| Year	Obs.	ESG	E	S	G	ΔE	ΔS	ΔG
2009	16,976	44.04	44.75	52.36	45.28	0.14	0.05	0.03
2010	22,995	44.91	47.30	52.99	45.22	0.28	0.07	−0.03
2011	23,626	45.17	48.58	52.47	45.75	0.07	−0.07	0.03
2012	23,484	43.24	51.38	55.05	43.91	0.20	0.16	−0.30
2013	24,351	40.17	57.79	49.74	42.58	0.90	−0.24	0.30
2014	23,391	44.44	63.51	50.81	47.18	−0.83	−0.22	−0.11
Total	**134,823**	**43.62**	**52.62**	**52.21**	**44.96**	**0.13**	**−0.05**	**−0.01**
Developed markets								
2009	13,246	45.30	48.07	54.95	44.88	0.15	0.02	−0.22
2010	17,718	45.17	50.83	55.41	43.91	0.28	0.05	0.01
2011	17,605	45.65	52.61	55.36	44.63	0.06	−0.09	0.04
2012	17,411	43.66	54.35	59.15	43.27	0.17	0.38	−0.16
2013	17,345	40.08	60.73	51.59	41.00	0.85	−0.48	−0.01
2014	16,903	44.17	66.06	51.19	46.18	−0.71	−0.21	0.41
Total	**100,228**	**43.96**	**55.67**	**54.62**	**43.93**	**0.14**	**−0.06**	**0.02**
Emerging markets								
2009	3730	39.57	32.99	43.16	46.70	0.12	0.18	0.94
2010	5277	44.04	35.48	44.86	49.64	0.28	0.14	−0.16
2011	6021	43.78	36.79	44.01	49.02	0.11	−0.02	−0.03
2012	6073	42.06	42.85	43.29	45.75	0.31	−0.48	−0.70
2013	7006	40.40	50.49	45.15	46.50	1.00	0.35	1.06
2014	6488	45.16	56.88	49.82	49.77	−1.13	−0.25	−1.48
Total	**34,595**	**42.64**	**43.79**	**45.24**	**47.92**	**0.12**	**−0.02**	**−0.11**

This table displays both the full sample and subsample (i.e., developed/emerging market) averages of overall environment, social, and governance scores and marginal month-on-month changes in CSR component scores by year from 2009 to 2014.

**Table 2.** The summary statistics of CSR component scores by year.

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[3]MSCI's RiskMetrics increased its coverage from 105 dimensions to 150 dimensions starting May 2013.

for our sample. We also plot the time series average of the three CSR component scores over time from **Figures 1–3**.

While firms in developed markets tend to have better environment scores, we note that firms in both markets consistently improve their average score year over year. This phenomenon is not present when we examine social and governance dimensions. For the social dimension, firms in both markets appear to converge toward the middle score of 50 over time. For the governance dimension, we see that firms in emerging markets tend to outperform firms in developed markets. When we observe the marginal month-on-month changes over time, we see that CSR ratings for firms in both markets tend to stay constant over time and appear to have similar patterns of change across all three dimensions. This indicates that on average, a firm's ESG score tends to stay constant, but there are also firms that experience large changes in ESG scores. This is consistent with the fact that firms tend to undergo periodic, substantial investments in CSR (i.e., rethinking energy source procedures, reconceiving manufacturing processes to be more sustainable, etc.) versus gradual improvements over time (e.g., [8, 51]).
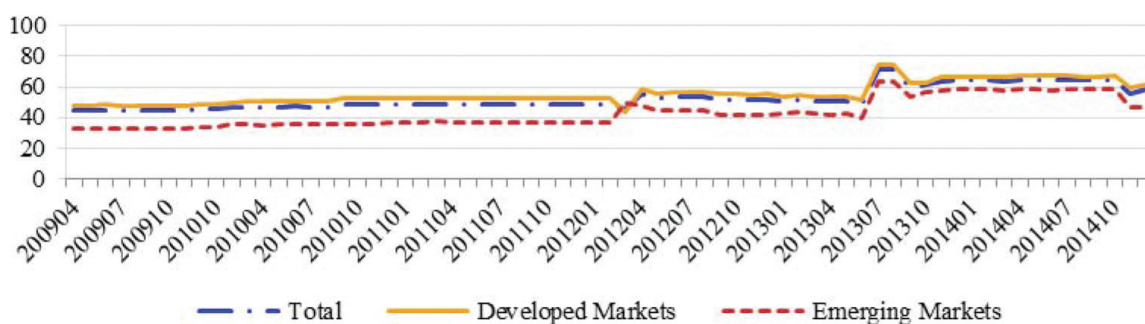
Figure 1. Average environment score.
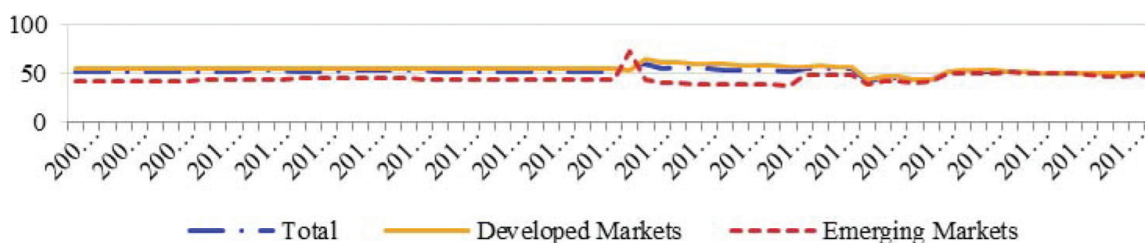
Figure 2. Average social score.
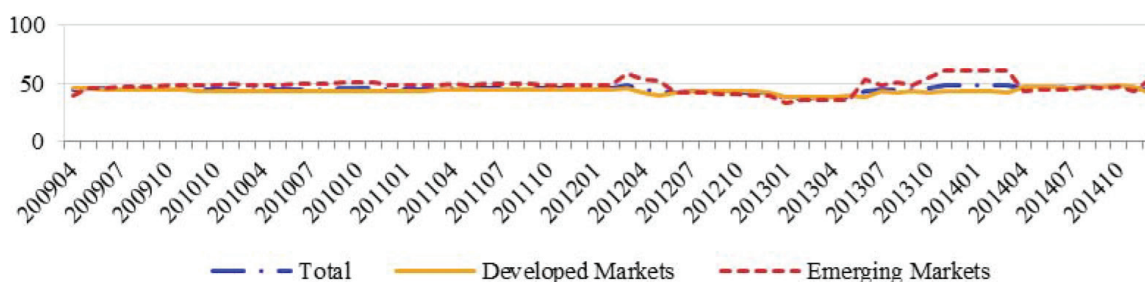
Figure 3. Average governance score.

3.2. Tobin's Q in cross-sectional regressions

To assess the CSR-firm value relation, we examine the impact of CSR on firm value, utilizing monthly Tobin's Q (TOBINW) in our analyses. We define Tobin's Q as the market value of equity minus the book value of equity plus the book value of total assets divided by total assets (e.g., [13]). To mitigate the effect of outliers on our observations, we winsorize Tobin's Q at the 2.5 and 97.5 percentiles. **Figure 4** shows that firms in both developed and emerging markets generally experience similar patterns of firm valuation over the time period of 2009 to 2014. Empirically, we estimate the following equations below:

$$Tobin"s\ Q_{i,t} = \beta_0 + \beta_1\ CSR\ Overall_{i,t-1} + \beta_2\ X_{i,t-1} + \varepsilon_{i,t} \tag{1}$$

$$Tobin"s\ Q_{i,t} = \beta_0 + \sum_{d=1}^{D} \beta_d\ CSR_{i,d,t-1} + \beta_4\ X_{i,t-1} + \varepsilon_{i,t} \tag{2}$$

here, *Tobin's Q$_{i,t}$* is firm *i*'s Tobin's Q at time *t*. *CSR Overall$_{i,t-1}$* is the overall index measure of CSR for firm *i* at time *t-1*. *CSR$_{i,d,t-1}$* is the individual dimension index measures of CSR for firm *i* relative to dimension *d* (i.e., environment, social, governance) at time *t-1*. $X_{i,t-1}$ is a vector of firm-level controls obtained from FactSet at time *t-1*, which include return on assets (LROAW), leverage-to-equity ratio (LLEVW), capital expenditure-to-asset ratio (LCAPXW), cash-to-asset ratio (LCASHW), year-on-year sales growth (LSGRW), advertising expenditure-to-total asset ratio (LADW), log of total assets (LASSET), and a dummy variable if the firm paid out dividends (LDDUM). In particular, we take special care to collect data on advertising expenditure as prior research has suggested that the valuation effect of CSR is moderated by firm visibility (e.g., [3, 52]). In order to mitigate the effect of outliers on our observations, we winsorize firm-level characteristics defined as ratios, namely, LROAW, LLEVW, LCAPXW, LCASHW, LSGRW, and LADW, at the 2.5 and 97.5 percentiles. We also include year dummies to account for yearly sources of heterogeneity. $\varepsilon_{i,t}$ is the stochastic error term, assumed to be independent and identically distributed random variables with zero mean and constant variance. Similarly, we also include industry and country dummies to account for industry and country sources of heterogeneity. We are interested in the coefficient β_1 for Eq. (1) and β_d for Eq. (2), which measures whether a firm's CSR drives changes
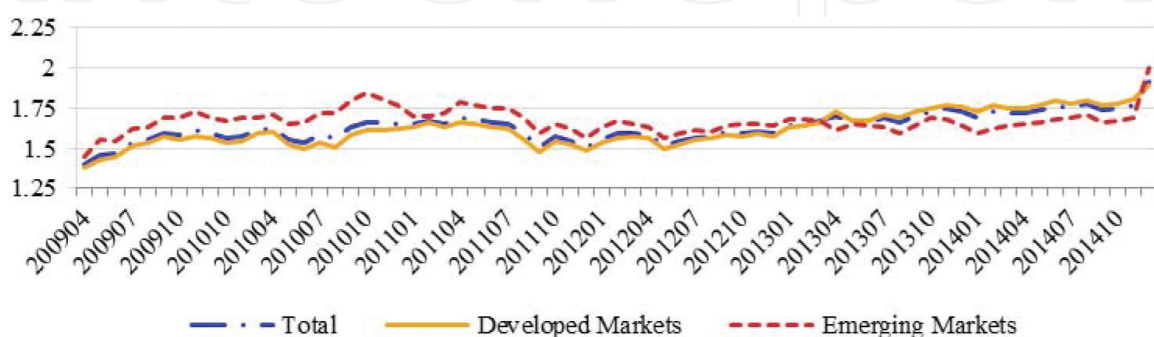

Figure 4. Average Tobin's Q.

in valuation even after controlling for other firm characteristics. Here, the null hypothesis expects these coefficients to be zero, while the alternate hypothesis is that they are significant and greater than zero.

3.3. Institutional void analysis

Next, we explore how the CSR-valuation relation changes in the presence of different institutional voids related to financial, economic, and governmental institutions. To capture the complex and multidimensional nature of a country's institutional framework, we collect a variety of county-level measures to serve as proxies for the presence of institutional voids. We then utilize these measures to observe the sensitivity of the CSR-valuation relation to institutional voids in financial, economic, and governmental institutions (e.g., [21, 49]).

First, we collect measures related to economic development. These include the log of gross domestic product (GDP) per capita (GDPPC) from the Economist Intelligence Unit, Index of Economic Freedom (FREE), and the ratio of total investment to GDP (CINV) from the International Monetary Fund (IMF) to capture the rate of infrastructural development.

Second, we collect measures related to financial market development. This includes the ratio of bank deposits to GDP (GFDDB) from the International Financial Statistics and IMF, the ratio of the outstanding domestic private debt securities to GDP (GFDDP) from the Bank for International Settlements, and the ratio of stock market capitalization to GDP (GFDDS) from the Global Stock Markets Factbook and Standard and Poor's.

Lastly, we collect measures related to governmental institution development. We follow Low, Tee, and Kew [18] in utilizing the World Bank Governance Indexes (WBGI). The World Bank constructs indices from 441 variables taken from 35 different sources produced by 33 organizations (Kaufmann, Kraay and Mastruzz [53]). WBGI measures six dimensions of country governance, which include voice and accountability (WGIVA), government effectiveness (WGIGE), regulatory quality (WGIRQ), rule of law (WGIRL), control of corruption (WGICC), and political stability (WGIPS). **Table 3** reports the summary statistics of the key variables as well as these institutional void measures.

To explore the moderating effect of institutional voids on the CSR-valuation relation, we construct a series of dummy variables. For each measure, we sort countries according to their performance and assign them a value of 1 if they place in the lower 50th percentile for that month. The only exception is the ratio of total investment to GDP, where we assign countries a value of 1 if they place in the upper 50th percentile for that month. For each measure of institutional voids, we rerun our regression estimates with the inclusion of the dummy term and the interaction term of the dummy and CSR. This models the marginal valuation effect of CSR in the presence of institutional voids. Thus, we estimate the following equation:

$$Tobin"s\ Q_{i,t}\ =\ \beta_0 + \sum_{d=1}^{D} \beta_d\ CSR_{i,d,t-1} + \beta_4\ IFV_{i,t} + \sum_{n=1}^{N} \beta_n\ CSR_{i,n,t-1} \times IFV_{i,t} + \beta_8\ X_{i,t-1} + \varepsilon_{i,t} \qquad (3)$$

here, $IFV_{i,t}$ is a dummy that takes a value of 1 if the country that firm i operates in scores in the lower 50th percentile for a given measure of institutional framework strength at time t and

Variable	Obs.	Mean	Std.	Min.	Max.
Tobin's Q	134,823	1.63	0.93	0.83	5.07
ESG	134,823	43.62	28.77	1	100
E	134,823	52.62	33.30	1	100
S	134,823	52.21	32.13	1	100
G	134,823	44.96	28.40	1	100
Country-level institutional void measures					
CINV	134,823	21.93	6.52	10.86	48.66
FREE	134,823	71.78	8.54	50.30	90
GDPPC	134,823	10.36	0.67	3.02	11.27
GFDDB	134,823	104.80	58.19	17.28	302.74
GFDDP	134,823	52.59	35.66	0.05	193.41
GFDDS	134,823	94.79	50.85	15.17	524.41
WGIRQ	134,823	81.60	16.36	26.32	100
WGIRL	134,823	82.09	17.76	23.70	100
WGIGE	134,823	84.28	14.75	19.62	100
WGIPS	134,823	62.77	21.25	5.19	98.58
WGICC	134,823	80.21	19.15	11.48	100
WGIVA	134,823	77.07	20.65	4.74	100

This table displays both the full sample and subsample (i.e., developed/emerging market) summary statistics for key variables for the time period of 2009 to 2014.

Table 3. Summary statistics of the main variables.

$CSR_{i,n,t-1} \times IFV_{i,t}$ is the individual dimension index measures of CSR for firm i relative to dimension n (i.e., environment, social, governance) interacted with the dummy.

4. Empirical findings

4.1. The valuation of CSR

Models 1 and 2 of **Table 4** report the results of the cross-sectional regressions of 1-month forward Tobin's Q on CSR as shown in Eqs. (1) and (2), while Models 3 and 4 report the results of 2-month forward Tobin's Q on CSR.

Observing Models 1 through 4 of **Table 4**, we note that our results suggest that the aggregation of CSR dimensions has a confounding effect when examining the CSR-valuation relation. Specifically, Model 1 shows that the firm value and the overall CSR score are statistically significant at the 1% level but economically small. One standard deviation increase in the overall

	Model 1	Model 2	Model 3	Model 4
ESG	0.0001**		0.0002***	
	(2.59)		(4.46)	
E		0.0007***		0.0007***
		(18.97)		(17.91)
S		−0.0003***		−0.0002***
		(−9.05)		(−6.96)
G		−0.0001***		−0.0001
		(−2.87)		(−1.53)
Obs.	134,823	134,823	126,749	126,749
R-Squared	0.71	0.71	0.70	0.70
Control	Yes	Yes	Yes	Yes
Ind. dum	Yes	Yes	Yes	Yes
Ctr. dum	Yes	Yes	Yes	Yes

This table displays full sample regression estimates of 1- and 2-month forward Tobin's Q on CSR from 2009 to 2014. The main independent variables are the firm's (lagged) environment (E), social (S), and governance (G) scores. Refer to Appendix A for variable definitions. Regressions include industry and country dummies as indicated. Models 1 and 2 report estimates of Fama-MacBeth [54] regressions of 1-month forward Tobin's Q on aggregated and disaggregated CSR. Models 3 and 4 report estimates of Fama-MacBeth [54] regressions of 2-month forward Tobin's Q on aggregated and disaggregated CSR. Standard errors are clustered on year and country. T-Statistics are reported in parentheses. *, **, and *** indicate the significance level at the 10, 5, and 1%, respectively.

Table 4. The relationship between CSR and firm value.

CSR score is related to an increase in Tobin's Q of about 0.0029, representing an increase of about 0.18% from the mean of 1.63.

Model 2 shows that the three subdimensions have different relations to the firm value. The environmental CSR has a statistically significant positive effect on firm value. These results are in line with prior findings (e.g., [2, 13, 14, 20, 51, 55]). Anecdotally, we also note that actors in the global business environment (i.e., policy-makers, activists, etc.) have long argued for the importance of environmental performance for shareholders, drawing significant attention to corporate environmental conscientiousness (e.g., the toughening of oil sands rules in Canada[4], China's renewed pledge to fight smog post-release of the viral documentary "Under the Dome,"[5] and America's continued push for carbon emission reduction[6]). One standard deviation increase in environmental CSR is related to an increase in Tobin's Q of about 0.02, representing an increase of about 1.4% from the mean of 1.63.

[4]http://www.bloomberg.com/news/articles/2015-03-13/oil-sands-rules-get-tougher-as-alberta-seeks-less-damage, retrieved on 30 March 2015
[5]http://www.bloomberg.com/news/articles/2015-03-07/china-pollution-film-vanishes-as-xi-makes-pledge-on-environment, retrieved on 30 March 2015
[6]http://www.bloomberg.com/politics/articles/2015-03-19/obama-orders-40-reduction-in-carbon-emissions-by-u-s-agencies, retrieved on 30 March 2015

For social CSR, Model 2 reports a statistically significant negative effect in Tobin's Q. This finding is similar to the prior results. Indeed, Brammer, Brooks, and Pavelin [56] find a negative relation between social CSR and market value. A possible explanation for this result is the view that CSR has the potential to materialize as future benefits (e.g., [7, 43]) after stakeholders recognize that firm behavior as being genuine implies that firms have to consistently pursue socially responsible initiatives in subsequent periods before they are rewarded (e.g., [26]; Greening and Turban 2000).

For governance CSR, Model 2 reports a statistically significant but economically negligible negative effect in Tobin's Q. This result is also in line with prior findings (e.g., [13, 14, 24]). In particular, Cheng et al. [14] postulate that the weaker effect of corporate governance stems from the fact that the main driver of corporate governance is the country-level institutional structures that firms operate in.

We also include all the control variables (including LROAW, LLEVW, LCAPXW, LCASHW, LSGRW, LADW, LASSET, LDDUM), industry, and country-fixed effects (e.g., [57]). In unreported results, we find that the effects of our controls are similar to the findings in the literature (e.g., [13, 23]). Specifically, across Models 1 to 4, we find a positive relation with return on assets, leverage, capital expenditure, cash, sales growth, advertising expenditure, and a negative relation with firm size and dividend payout.

In summary, these results provide empirical support for our first two hypotheses, whereby CSR creates value for the firm on average and that the CSR-valuation relation is heterogeneous in nature and CSR dimension is dependent, such that there is significant heterogeneity in valuation effects across different groups of stakeholders.

4.2. The moderating effect of institutional voids on the CSR-firm value relation

Next, we investigate how the CSR-firm value relation changes in the context of different institutional frameworks by modeling the marginal valuation effect of CSR in the presence of institutional voids. **Table 5** reports the results of the cross-sectional regressions of Tobin's Q on CSR with the inclusion of institutional framework dummies and their interaction terms as shown in Eq. (3).

Across all models with different specifications of institutional void (*IFV*), we observe that the CSR-firm value relation (i.e., firms in strong institutional frameworks) is generally consistent with our earlier findings. All coefficients except one for environmental, social, and governance CSR remain generally statistically significant at the 1% level.

In line with our expectations, we find significant differences in the CSR-firm value relation across institutional frameworks in our institutional void analysis. For environmental CSR, all regression models show that environmental CSR has a statistically significant positive effect on firm value for firms in weak institutional frameworks. On average, one standard deviation increase in environmental CSR predicts an increase in Tobin's Q of about 0.067, representing an increase of about 4.1% (given the mean is at 1.63). The average effect is

	Economic development			*Financial market development*		
IFV =	CINV	FREE	GDPPC	GFDDB	GFDDP	GFDDS
E	0.0004***	0.0003***	0.0003***	0.0003***	0.0004***	0.0006***
	(10.94)	(7.02)	(7.16)	(8.09)	(11.34)	(18.15)
S	−0.0005***	−0.0004***	−0.0005***	−0.0005***	−0.0004***	−0.0003***
	(−11.32)	(−10.28)	(−12.22)	(−12.43)	(−11.36)	(−6.70)
G	−0.0001	−0.0005***	−0.0005***	−0.0002***	0.0000	−0.0003***
	(−1.21)	(−13.38)	(−15.31)	(−4.02)	(0.23)	(−7.51)
IFV	1.0252***	−0.1720	0.2777*	0.7313***	0.7070***	−0.1098
	(8.30)	(−0.93)	(1.75)	(5.08)	(5.48)	(−0.77)
E × IFV	0.0009***	0.0018***	0.0022***	0.0012***	0.0020***	0.0003*
	(11.80)	(21.26)	(23.70)	(12.91)	(27.23)	(1.95)
S × IFV	0.0007***	0.0005***	0.0011***	0.0007***	0.0009***	−0.0001
	(6.54)	(4.65)	(8.43)	(7.17)	(8.40)	(−0.37)
G × IFV	−0.0003*	0.0014***	0.0020***	0.0003*	−0.0010***	0.0012***
	(−1.92)	(8.99)	(11.43)	(1.81)	(−4.99)	(5.07)
Obs.	134,823	134,823	134,823	134,823	134,823	134,823
R-Squared	0.71	0.71	0.71	0.71	0.71	0.71
Control	Yes	Yes	Yes	Yes	Yes	Yes
Ind. dum	Yes	Yes	Yes	Yes	Yes	Yes
Ctr. dum	Yes	Yes	Yes	Yes	Yes	Yes

	Government quality					
IFV =	WGIRQ	WGIRL	WGIGE	WGIPS	WGICC	WGIVA
E	0.0002***	0.0002***	0.0003***	0.0003***	0.0002***	0.0001***
	(6.43)	(6.86)	(8.14)	(6.14)	(6.49)	(2.86)
S	−0.0005***	−0.0005***	−0.0005***	−0.0006***	−0.0006***	−0.0006***
	(−12.62)	(−12.56)	(−13.65)	(−14.26)	(−13.40)	(−15.88)
G	−0.0005***	−0.0005***	−0.0005***	−0.0004***	−0.0005***	−0.0006***
	(−14.02)	(−15.34)	(−15.09)	(−9.22)	(−13.99)	(−13.60)
IFV	0.0904	0.2355	0.3498**	0.5049***	0.1936	0.3543**
	(0.54)	(1.44)	(2.27)	(3.14)	(1.15)	(2.36)

IFV =	Government quality					
	WGIRQ	WGIRL	WGIGE	WGIPS	WGICC	WGIVA
E × IFV	0.0020***	0.0021***	0.0020***	0.0016***	0.0020***	0.0025***
	(23.30)	(21.13)	(19.42)	(19.77)	(20.78)	(30.13)
S × IFV	0.0010***	0.0013***	0.0012***	0.0013***	0.0014***	0.0014***
	(9.51)	(11.05)	(11.98)	(12.00)	(12.34)	(15.73)
G × IFV	0.0016***	0.0019***	0.0021***	0.0009***	0.0017***	0.0016***
	(9.40)	(11.96)	(12.19)	(6.89)	(12.37)	(11.82)
Obs.	134,823	134,823	134,823	134,823	134,823	134,823
R-Squared	0.71	0.71	0.71	0.71	0.71	0.71
Control	Yes	Yes	Yes	Yes	Yes	Yes
Ind. dum	Yes	Yes	Yes	Yes	Yes	Yes
Ctr. dum	Yes	Yes	Yes	Yes	Yes	Yes

This table displays full sample regression estimates of Tobin's Q on CSR from 2009 to 2014. The main independent variables are the firm's (lagged) environment (E), social (S), and governance (G) scores. The interaction effect models the marginal valuation effect of CSR in the presence of institutional voids across 12 different measures of institutional framework strength. Regressions include industry and country dummies as indicated. T-Statistics are reported in parentheses. *, **, and *** indicate the significance level at the 10, 5, and 1%, respectively.

Table 5. The link between institutional environment, CSR, and Tobin's Q.

about 0.6% in the strong institutional frameworks. Hence, it indicates an increase of 3.5% in Tobin's Q.

For social CSR, all regressions show a statistically significant positive effect on firm value for firms in weak institutional frameworks. In addition, the interaction between social CSR and weak institutional frameworks is positive such that the joint effect transforms the negative base case effect into a positive one. Interestingly, this suggests that the market recognizes the benefit to the firm upon filling these institutional voids and, thus, actively rewards firms who are working to fill them. On average, one standard deviation increase in social CSR predicts an increase in Tobin's Q of about 0.015, representing an increase of about 0.9% (given the mean is at 1.63). In the strong institutional frameworks, the effect is about −0.9% in Tobin's Q with a one standard deviation increase in the social CSR.

For governance CSR, most regressions show that governance CSR generally has a statistically significant positive effect on firm value for firms in weak institutional frameworks. Similarly, the significant and positive effect of governance CSR also suggests that the market recognizes and rewards firms in weak institutional frameworks who work to fill institutional voids. On

average, one standard deviation increase in governance CSR predicts an increase in Tobin's Q of about 0.02, representing an increase of about 1.3% (given the mean is at 1.63). In the strong institutional frameworks, the effect is about −0.6% in Tobin's Q with a one standard deviation increase in the governance CSR.

Observing the pattern of coefficient significance, we note that our results suggest that the positive valuation effect of environmental and governance CSR is driven by the country's economic and financial sector development, while the positive return effect of social CSR is driven by the country's quality of law and government effectiveness. The degree of the variation is likely caused by the inherently complex and multidimensional nature of governance.

In summary, we find support for our third hypothesis, whereby the CSR-valuation relation is moderated by the institutional frameworks that firms operate in, such that the presence of greater (lesser) institutional voids in financial, economic, and governmental institutions will result in a greater (lesser) valuation effect.

4.3. Robustness tests

We perform two robustness tests. First, we examine the longevity of value creation attributed to CSR to test if our observations are driven by market reaction rather than material value creation. According to theory, CSR should create long-term value for the firm, and as such, we expect that there are no reversions in firm value over a longer time frame. In these specifications, we re-estimate regression specifications (1), (2), and (3) by using 3-month forward values of Tobin's Q. Our results are robust with different forward measures of the firm valuation. This suggests that our observations are likely not driven by market over- or under-reaction.

Second, we examine the possibility that our findings are driven by firms in regulated industries or "sin" stocks (e.g., [3]). As such, we rerun our models excluding firms in regulated industries, which constitute banking, energy, insurance, telecommunication, transportation, and utility companies, and those under the Triumvirate of Sin (e.g., [23]), which constitute alcohol, gambling, and tobacco companies.

We find that our results are similar and lend themselves to the same conclusions and omit these results for brevity. This test provides evidence for the robustness of our results and suggests that the underlying mechanism driving the CSR-firm value relation is not likely due to firms in regulated industries or "sin" firms.

5. Conclusion

This study advances the ongoing research on the effect of CSR on firm value by integrating an institution-based view with an institutional void perspective. We draw on institutional void theory to argue for country-level institutional frameworks as a systemic, institutional-level

driver of CSR value creation. Our study answers the call for a greater understanding of the underlying mechanisms of CSR, specifically at an institutional level, and expands on studies investigating the valuation effect of CSR through an international investigation across both developed and emerging markets. Moreover, by disaggregating CSR into its three discrete pillars, we are able to demonstrate the valuation effect of CSR at a granular level. Consistent with our hypotheses and expectations, we find that CSR has a more pronounced positive effect on firm value in markets with greater institutional voids.

Our results have important implications for managers. For firms operating in weak institutional frameworks, we suggest that CSR may be an effective method to create firm value. Along these lines, firms may adopt higher standards in areas such as product development or human resources, for example. By doing so, firms might be able to accrue valuable intangible assets while simultaneously filling institutional voids. Conversely, in environments with strong institutional frameworks, we suggest that managers only pursue CSR initiatives that are likely to add value, as our results suggest that efforts to deceive stakeholders will likely be futile. This study also presents the disclaimer that CSR may not necessarily be the silver bullet for improving firm performance. Indeed, while CSR may be a useful tool in a manger's arsenal, the fundamentals of good firm performance should stem from solid business decisions and strategies that play to their core competencies.

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References

[1]   Aguinis H, Glavas A. What we know and don't know about corporate social responsibility: A review and research agenda. Journal of Management. 2012;**38**(4):932-968

[2]   Bouslah K, Kryzanowski L, M'Zali B. The impact of the dimensions of social performance on firm risk. Journal of Banking & Finance. 2013;**37**(4):1258-1273

[3]   Servaes H, Tamayo A. The impact of corporate social responsibility on firm value: The role of customer awareness. Management Science. 2013;**59**(5):1045-1061

[4]   The Forum for Sustainable and Responsible Investment in the US (USSIF). 2014 Report on socially responsible investing trends in the United States. 2014. Retrieved from: http://www.ussif.org/ Accessed on 11/1/15

[5] Lacy P, Cooper T, Hayward R, Neuberger L. A New Era of Sustainability. UN Global Compact-Accenture CEO Study. Accenture; 2010

[6] Clark Jr WH, Vranka L. The need and rationale for the benefit corporation: Why it is the legal form that best addresses the needs of social entrepreneurs, investors, and ultimately, the public. 2013. http://benefitcorp.net/sites/default/files/Benefit_Corporation_White_Paper.pdf [Accessed: April 2015]

[7] Barnett ML, Salomon RM. Does it pay to be really good? Addressing the shape of the relationship between social and financial performance. Strategic Management Journal. 2012;**33**(11):1304-1320

[8] Porter ME, Kramer MR. Creating shared value. Harvard Business Review. 2011;**89**(1/2): 62-77

[9] Gramlich D, Finster N. Corporate sustainability and risk. Journal of Business Economics. 2013;**83**(6):631-664

[10] Cheng IH, Hong H, Shue K. Do managers do good with other people's money? Working paper No.19432, National Bureau of Economic Research; 2016

[11] Aggarwal R, Erel I, Ferreira M, Matos P. Does governance travel around the world? Evidence from institutional investors. Journal of Financial Economics. 2011;**100**(1):154-181

[12] Doidge C, Karolyi GA, Stulz RM. Why are foreign firms listed in the US worth more? Journal of Financial Economics. 2004;**71**(2):205-238

[13] Jiao Y. Stakeholder welfare and firm value. Journal of Banking & Finance. 2010;**34**(10): 2549-2561

[14] Cheng B, Ioannou I, Serafeim G. Corporate social responsibility and access to finance. Strategic Management Journal. 2014;**35**(1):1-23

[15] Zheng Q, Luo Y, Maksimov V. Achieving legitimacy through corporate social responsibility: The case of emerging economy firms. Journal of World Business. 2015;**50**(3):389-403

[16] Doidge C, Karolyi GA, Stulz RM. Why do countries matter so much for corporate governance? Journal of Financial Economics. 2007;**86**(1):1-39

[17] La Porta R, Lopez-de-Silanes F, Shleifer A, Vishny RW. Law and Finance. Berlin/Heidelberg: Springer; 2001. pp. 26-68

[18] Low SW, Tee LT, Kew SR. Does the quality of governance matter for equity market risk? Evidence from emerging and developed equity markets. Journal of Business Economics and Management. 2015;**16**(3):660-674

[19] Rettab B, Brik AB, Mellahi K. A study of management perceptions of the impact of corporate social responsibility on organisational performance in emerging economies: The case of Dubai. Journal of Business Ethics. 2009;**89**(3):371-390

[20] Sharfman MP, Fernando CS. Environmental risk management and the cost of capital. Strategic Management Journal. 2008;**29**(6):569-592

[21] Khanna T, Palepu K. Why focused strategies may be wrong for emerging markets. Harvard Business Review. 1997;**75**:41-54

[22] Miller D, Lee J, Chang S, Le Breton-Miller I. Filling the institutional void: The social behavior and performance of family vs. non-family technology firms in emerging markets. Journal of International Business Studies. 2009;**40**(5):802-817

[23] Hong H, Kacperczyk M. The price of sin: The effects of social norms on markets. Journal of Financial Economics. 2009;**93**(1):15-36

[24] El Ghoul S, Guedhami O, Kim Y. Country-level institutions, firm value, and the role of corporate social responsibility initiatives. Journal of International Business Studies. 2017;**48**(3):360-385

[25] Friedman M. The Social Responsibility of Business Is to Increase Its Profits. Berlin/Heidelberg: Springer; 1970. pp. 173-178

[26] Brammer S, Millington A. Does it pay to be different? An analysis of the relationship between corporate social and financial performance. Strategic Management Journal. 2008;**29**(12):1325-1343

[27] Freeman RE. Strategic Management: A Stakeholder Approach. Boston: Pitman; 1984

[28] Orlitzky M, Schmidt FL, Rynes SL. Corporate social and financial performance: A meta-analysis. Organization Studies. 2003;**24**(3):403-441

[29] Peloza J. The challenge of measuring financial impacts from investments in corporate social performance. Journal of Management. 2009;**35**(6):1518-1541

[30] Jones TM. Instrumental stakeholder theory: A synthesis of ethics and economics. Academy of Management Review. 1995;**20**(2):404-437

[31] Fombrun CJ, Gardberg NA, Barnett ML. Opportunity platforms and safety nets: Corporate citizenship and reputational risk. Business and Society Review. 2000;**105**(1):85-106

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

[33] Prahalad CK, Hamel G. Strategy as a field of study: Why search for a new paradigm? Strategic Management Journal. 1994;**15**(S2):5-16

[34] Bae KH, Kang JK, Wang J. Employee treatment and firm leverage: A test of the stakeholder theory of capital structure. Journal of Financial Economics. 2011;**100**(1):130-153

[35] Greening DW, Turban DB. Corporate social performance as a competitive advantage in attracting a quality workforce. Business & Society. 2000;**39**(3):254-280.

[36] Derwall J, Koedijk K, Ter Horst J. A tale of values-driven and profit-seeking social investors. Journal of Banking & Finance. 2011;**35**(8):2137-2147

[37] Galema R, Plantinga A, Scholtens B. The stocks at stake: Return and risk in socially responsible investment. Journal of Banking & Finance. 2008;**32**(12):2646-2654

[38] Barnett ML, Salomon RM. Beyond dichotomy: The curvilinear relationship between social responsibility and financial performance. Strategic Management Journal. 2006;**27**(11):1101-1122

[39] Muller A, Kräussl R. Doing good deeds in times of need: A strategic perspective on corporate disaster donations. Strategic Management Journal. 2011;**32**(9):911-929

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

[41] Godfrey PC, Merrill CB, Hansen JM. The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. Strategic Management Journal. 2009;**30**(4):425-445

[42] Edmans A. Does the stock market fully value intangibles? Employee satisfaction and equity prices. Journal of Financial Economics. 2011;**101**(3):621-640

[43] Waddock SA, Graves SB. The corporate social performance. Strategic Management Journal. 1997;**8**(4):303-319

[44] Wood DJ. Corporate social performance revisited. Academy of Management Review. 1991;**16**(4):691-718

[45] Aguinis H, Pierce CA, Bosco FA, Dalton DR, Dalton CM. Debunking myths and urban legends about meta-analysis. Organizational Research Methods. 2011;**14**(2):306-331

[46] Harrison JS, Freeman RE. Stakeholders, social responsibility, and performance: Empirical evidence and theoretical perspectives. Academy of Management Journal. 1999;**42**(5): 479-485

[47] Di Giuli A, Kostovetsky L. Are red or blue companies more likely to go green? Politics and corporate social responsibility. Journal of Financial Economics. 2014;**111**(1):158-180

[48] Hong H, Kostovetsky L. Red and blue investing: Values and finance. Journal of Financial Economics. 2012;**103**(1):1-19

[49] Khanna T, Palepu K. Winning in Emerging Markets: A Road Map for Strategy and Execution. Brighton, Massachusetts: Harvard Business Press; 2010

[50] Chua CT, Eun CS, Lai S. Corporate valuation around the world: The effects of governance, growth, and openness. Journal of Banking & Finance. 2007;**31**(1):35-56

[51] Flammer C. Does corporate social responsibility lead to superior financial performance? A regression discontinuity approach. Management Science. 2015;**61**(11):2549-2568

[52] McWilliams A, Siegel D. Corporate social responsibility and financial performance: Correlation or misspecification? Strategic Management Journal. 2000;**21**(5):603-609

[53] Kaufmann D, Kraay A, Mastruzzi M. Governance matters VIII: aggregate and individual governance indicators. World Bank Policy Research Working Paper No 4978. 2009; 1996-2008

[54] Fama EF, MacBeth JD. Risk, return, and equilibrium: Empirical tests. The Journal of Political Economy. 1973;**81**(3):607-636

[55] Flammer C. Corporate social responsibility and stock prices: The environmental awareness of shareholders. Academy of Management Journal. 2013;**56**(3):758-781

[56] Brammer S, Brooks C, Pavelin S. Corporate social performance and stock returns: UK evidence from disaggregate measures. Financial Management. 2006;**35**(3):97-116

[57] Garcia-Castro R, Ariño MA, Canela MA. Does social performance really lead to financial performance? Accounting for endogeneity. Journal of Business Ethics. 2010;**92**(1):107-126