Can Corporate Social Responsibility Fill Institutional Voids?

By Swee-Sum Lam, Weina Zhang and Christopher Yuen Kwong Chien

Executive Summary

In the literature, there is mixed empirical evidence on whether corporate social responsible actions create or destroy firm value. Using a comprehensive international dataset on firm-level social responsible actions from 2009 to 2014, we perform the analysis on the relation between corporate social responsibility (CSR) and the Tobin's Q, which is a common measure for firm value in the literature. The CSR is a continuous variable ranging from 1 to 100. It also contains three sub-dimensions such as environment, social and governance performance.

We have three main results. Our first result shows that high CSR score is associated with higher firm value on average but the economic significance is small. This is because the three sub-components of CSR are pulling the firm value in the opposite directions. While good environmental score is positively related to the firm value, good social and governance scores are negatively related to the firm value. This second result supports the view that the relationship between a firm's corporate social performance and the benefit that it imparts is complex in nature rather than strictly positive or negative.

Institutional voids refer to the absence of institutions or intermediaries that are instrumental in supporting business operations in a country. We conjecture that the CSR and firm valuation relation can be moderated by the institutional frameworks that firms operate in, such that the presence of greater institutional voids will result in greater firm valuation for its CSR and vice versa.

Our last result reveals supporting evidence for this conjecture. Specifically, we construct three sets of institutional voids, capturing the degree of financial market development, economic development and government institution development. These institutional voids directly affect how firms operate and generate value in the country. We find that firms' environmental and social responsible actions receive higher valuation in countries with weaker institutions.

Our results have important implications for firms operating in international settings. In a country where the institutional void is greater, firms can enhance their value by engaging in more socially responsible actions especially in the environmental and social aspects. By doing so, firms are filling the structural gaps left in the country, the value that is recognized and appreciated by investors for these responsible firms.

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Swee-Sum Lam, Weina Zhang and Christopher Yuen Kwong Chien*

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Abstract

Institutional voids refer to the absence of institutions or intermediaries that are instrumental in supporting business operations in a country. We conjecture that the corporate social responsibility (CSR) and firm valuation relation is moderated by the institutional frameworks that firms operate in, such that the presence of greater institutional voids will result in greater firm valuation for its CSR and vice versa. Using 134,823 observations of 2,542 firms across 44 countries from 2009 to 2014, we find supporting empirical evidence. Moreover, among different types of CSR activities, firms' environmentally and socially responsible actions 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.

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* Swee-Sum Lam, swee.sum@nus.edu.sg, and Weina Zhang, weina@nus.edu.sg, are at NUS Business School, National University of Singapore. Lam is the director at Asia Centre for Social Entrepreneurship and Philanthropy (ACSEP) under NUS Business School and Zhang is the research director at ACSEP. Christopher is from JP Morgan, christopher.chien@jpmorgan.com. The corresponding address is at 15 Kent Ridge Drive, NUS Business School, Singapore 119245.

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., Aguinis & Glavas, 2012; Bouslah, Kryzanowski, & M'Zali, 2013; Servaes & Tamayo, 2013; Wagner, Lutz, & Weitz, 2009). A joint study by United Nations Global Compact and Accenture in 2010 found that 93% of the 766 participant CEOs around the globe believe that CSR will be an "important" or "very important" factor for their organizations' future success (Lacy, Cooper, Hayward, & Neuberger, 2010). 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, 2014). Moreover, developments such as the signature of the Principles for Responsible Investment (PRI)[1] agreement by major market players and the increasing institutionalization of B-Corp as a legal entity class in the U.S. (e.g., Clark & Vranka, 2013) 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., Barnett & Salomon, 2012; Bouslah et al., 2013; Porter & Kramer, 2002, 2011). In contrast, opponents predict that CSR is inherently value destroying, driven by selfish motives (e.g., Gramlich & Finster, 2013). 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 ratings agency with extensive experience in analyzing firms based on

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[1] http://www.unpri.org/, retrieved on 30/3/2015.

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 1–100, with 100 being the highest). The MSCI ESG ratings have been extensively used in recent studies (e.g., Barnett & Salomon, 2012; Cheng, Hong, & Shue, 2013; Deng, Kang, & Low, 2013; Ormiston & Wong, 2013; Servaes & Tamayo, 2013). 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., Doidge, Karolyi, & Stulz, 2004; Jiao, 2010; Aggarwal, Erel, Ferreira, & Matos, 2011; Su et al., 2014). Our final sample consists of 134,823 monthly observations of 2,542 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 the Tobin's Q measure at 1.63. The weak economic result prompts us to delve into three sub-dimensions of the ESG scores including 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., Bouslah et al., 2013; Cheng et al., 2014; Sharfman and Fernando, 2008), 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., Daske, Hail,

Leuz, & Verdi, 2008; Zheng, Luo, & Maksimov, 2014). Firms in countries with better investor protection have easier access to external funding (e.g., Doidge, Karolyi, & Stulz, 2007; Klapper & Love, 2004; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2001; Low, Tee, & Kew, 2015). Moreover, investors seem to take into account environmental and social risks when making investment decisions (e.g., Rettab, Brik, & Mellahi, 2009; Sharfman & Fernando, 2008). 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., Khanna & Palepu, 1997; Miller, Lee, Chang, & Le Breton-Miller, 2009; Montiel, Husted, & Christmann, 2012). We find that the valuation effect of CSR is significantly more pronounced in weaker institutional frameworks and vice versa. Similar results are also reported in El Ghoul, Guedhami and Kim (2017) using slightly different sample and time periods.

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 timeframe, 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., Hull & Rothenberg, 2008; Serveas & Tamayo, 2013; Siegel & Vitaliano, 2007). As such, we rerun our models excluding firms operating under regulated industries (e.g., Aggarwal et al., 2011), which constitute banking, energy, insurance, telecommunication, transportation, and utility companies, and those under the Triumvirate of Sin (e.g., Hong & Kacperczyk, 2009), 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 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., Aggarwal et al., 2011; Arya & Zhang, 2009; Brammer, Pavelin, & Porter, 2009; Su et al., 2014). Secondly, consistent with literature, we provide evidence for the notion of CSR as value creating, drawing on institutional void theory to contextualize the CSR-valuation relation by observing it across different socio-economic 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., Aguinis et al., 2012; Margolis & Walsh, 2003).

The rest of this paper is organized as follows. Section 2 explores the theoretical background surrounding the literature, reviews existing empirical findings and concludes with formal definitions of our hypotheses. Section 3 describes the data used in this study, presents our methodology and showcases summary statistics. Section 4 outlines our results and discussion. Section 5 concludes.

2. Theoretical Background and Hypothesis Development

2.1. Theories on the Impact of CSR on Firm Value

Friedman's (1970) classic argument argues 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, which is to say, engages in open and free competition without deception or fraud", which by extension, means that a firm's voluntary pursuance of CSR incurs unnecessary costs and thus reduces its financial performance (e.g., Barnett & Salomon, 2012), resulting in additional firm risk borne by shareholders. By extension, 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., Brammer & Millington, 2008; Cheng et al., 2013; Friedman, 1970).

On the other hand, Freeman's (1984) seminal stakeholder theory argues that businesses do not exist as isolated units in a vacuum, and thus, the presence and interactions with other actors[2] who are able to affect the firm follows that an increase in firms' CSR will result in improved stakeholder relationships, eventually resulting in better financial performance (e.g., Barnett & Salomon, 2012; Orlitzky, Schmidt, & Rynes, 2003; Peloza, 2009) and reductions in firm risk (e.g., Sharfman & Fernando, 2008). 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., Jiao, 2010). Notably, Porter and Kramer (2011) suggest that valuable benefits are created when firms approach societal issues from a 'shared value perspective' and invent new ways of operating to address them, which could manifest through various avenues, such as a reduction in transaction costs (Jones, 1995), or the creation of nouveau market opportunities (Fombrun, Gardberg, & Barnett, 2000), for example. This notion of CSR as a strategic advantage (e.g., Edmans, 2012; Fombrun & Shanley, 1990; Prahalad & Hamel, 1994; Siegel & Vitaliano, 2007) is supported by a variety of studies. For example, some scholars have drawn links between a firm's CSR and its resulting capital structure (e.g., Bae, Kang, & Wang, 2011; Verwijmeren & Derwall, 2010), fewer capital constraints (Cheng et al., 2014), lower costs of capital (e.g., El Ghoul, Guedhami, Kwok, & Mishra, 2011; Goss & Roberts, 2011; Sharfman & Fernando, 2008), or increased employee attractiveness (e.g., Greening & Turban, 2000; Turban & Greening, 1997).

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

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[2] As Jiao (2010) has noted, there has been an ongoing debate regarding an accurate depiction and definition of the term stakeholders (e.g., Freeman, 1984). However, Jiao (2010) concedes that studies generally consider employees, customers, suppliers, governmental bodies, competitors, and investors as notable stakeholders, among others.

to mitigate the risk experienced by firms (e.g., Sharman & Fernando, 2008) 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 "values-driven" investor). This preferential selection then results in investors requiring a return premium due to the increased risk that non-socially responsible firms bear (e.g., Derwall, Koedijk, & Ter Horst, 2011; Hong & Kacperczyk, 2009; Renneboog, Ter Horst, & Zhang, 2008). This preference for socially responsible firms also manifests as an increase in investor demand, leading to a premium in firm valuation (e.g., Galema et al., 2008; Renneboog et al., 2008), and may also improve firm performance via avenues such as a more favorable cost of equity (e.g., Cheng et al., 2014).

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, stock price, etc.,) is complex in nature rather than strictly positive or negative (e.g., Barnett & Salomon, 2006; Muller & Kräussl, 2011; Ullmann, 1985). Along this train of thought, McWilliams and Siegel (2001) 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 Observations on the 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., Aguinis and Glavas, 2012; Margolis et al., 2007; Orlitzky et al., 2003; Peloza, 2009), such that higher levels of CSR can result in lower idiosyncratic risk (e.g., Godfrey, Merrill, & Hansen, 2009; Lee and Faff, 2009), higher market

to book ratios (e.g., Galema et al., 2008), lower levels of firm idiosyncratic volatility (e.g., Boutin-Dufresne & Savaria, 2004), and higher valuations (e.g., Jiao, 2010).

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., Bouslah et al., 2013; Hong & Kacperczyk, 2009), or fail to fully incorporate the value of a firm's intangible assets into their valuations (e.g., Edmans, 2011). 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., Waddock & Graves, 1997), with Brammer and Millington (2008) 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. (2011) 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., Ullmann, 1985; Wood, 1991), such that conflicting findings across studies may arise through sampling or measurement errors (e.g., Aguinis, Pierce, Bosco, Dalton, & Dalton, 2011) or a lack of sophistication when measuring stakeholder effects (e.g., Harrison & Freeman, 1999; Orlitzky et al., 2003). 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., Chin, Hambrick, & Treviño, 2013; Chiu & Sharfman, 2009; Di Giuli & Kostovetsky, 2014; Hong & Kostovetsky, 2012; Hong, Kubik, & Scheinkman, 2012; Ormiston & Wong, 2013). Last but not least, scholars suggest that this variation points towards the significant knowledge gap that still exists regarding the mechanisms through which CSR affects the firm (e.g., Aguinis & Glavas, 2012; Ullmann, 1985).

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., Dollar, Hallward-Driemeier, & Mengistae, 2005; Khanna & Palepu, 1997; La Porta et al., 2001). 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., Cheng et al., 2014). 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., Rettab et al., 2009). Another example is the effect of an undeveloped 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., Khanna & Palepu, 1997; Miller et al., 2009).

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., Khanna & Palepu, 1997, 2010; Porter & Kramer, 2006).

2.4. Hypothesis Development

In sum, extant research to date on both the theoretical and empirical fronts have yet to converge towards a consensus on the underlying mechanisms that link CSR with its observed outcomes (e.g., Aktas, Bodt, & Cousion, 2011; Baron, Harjoto, & Jo, 2011; Margolis et al., 2007; Mattingly & Berman, 2006; Orlitzky et al., 2003; Peloza, 2009). Whilst 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., Bouslah et al., 2013; Jiao, 2010; Zheng et al., 2014). Thus, we hypothesize that:

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

Khanna and Palepu (1997) 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 work to increase informational asymmetry and decrease market efficiency (Khanna & Palepu, 1997). 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., Chua, Eun, & Lai, 2007). Similarly, an environment with underdeveloped economic institutions may force firms to find innovative

ways to obtain skilled labor (Khanna & Palepu, 1997). Anecdotally, Khanna and Palepu (1997) 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 (Khanna & Palepu, 1997). Indeed, Khanna and Palepu (2010) 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[3]. Finally, we only retain firms that have enough available data to construct control variables. This procedure yields 134,823 monthly observations of 2,542 companies across 44 countries and 128 industries.

To assess the CSR-firm value relation, we examine the impact of CSR on both static and temporal measures of firm value, utilizing monthly Tobin's Q (TOBINW) in our analyses. To mitigate the effect of outliers on our observations, we winsorize Tobin's Q at the 2.5 and 97.5 percentiles. We see that firms in both developed and emerging markets generally experience similar patterns of firm valuation over the time period of 2009 to 2014.

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 segregates our sample of 44 countries into 23 developed markets and 21 emerging markets. Table 1 provides the number of firms by country.

[Insert Table 1 about here]

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, assigning them a numerical ESG index score (from 1–100, with 100 being the highest). MSCI ESG constructs indices of sustainable investment value and risk factors of more than 6,300 public corporations worldwide using a specialized list of 150 RiskMetrics adjusted for various market, regional, ownership or sector differences[4]. MSCI only considers CSR issues that have a material impact on the firm, implying that the index score parallels the firm's investment in

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[3] https://datahelpdesk.worldbank.org/knowledgebase/articles/114933-where-are-your-data-on-taiwan/, retrieved on 30/3/2015.

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

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 (ESG), environment (E), social (S), governance (G) scores, and marginal month-on-month changes in CSR component scores by year and market classification for our sample.

Whilst firms in developed markets tend to have better environment scores, we note that firms in both markets consistently improve their average score year on year. This phenomenon is not present when we examine social and governance dimensions. For the social dimension, firms in both markets appear to converge towards 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 go 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., Flammer, 2015; Porter & Kramer, 2011).

[Insert Table 2 about here]

3.2. Tobin's Q Cross-Sectional Regressions

We examine the CSR-valuation relation using Tobin's Q to proxy for firm value. 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., Aggarwal et al., 2011; Jiao, 2010). Thus, we estimate the following equations below:

$$\text{Tobin's } Q_{i,t} = \beta_0 + \beta_1 \text{ CSR Overall}_{i,t-1} + \beta_2 X_{i,t-1} + \varepsilon_{i,t} \qquad (1)$$

$$Tobin's\ Q_{i,t} = \beta_0 + \sum_{d=1}^{D}\ \beta_d\ CSR_{i,d,t-1} + \beta_4\ X_{i,t-1} + \varepsilon_{i,t} \tag{2}$$

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 assets ratio (LCAPXW), cash to assets ratio (LCASHW), year on year sales growth (LSGRW), advertising expenditure to total assets 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., McWilliams & Siegel, 2000; Servaes & Tamayo, 2013). 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, LADW, at the 2.5 and 97.5 percentiles. We provide detailed descriptions of our firm-level characteristic data variables in Appendix Table A1. 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 σ_ε^2. 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 equation (1) and β_d for equation (2), which measures whether a firm's CSR drives changes 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 multi-dimensional 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., Khanna & Palepu, 1997, 2010).

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) from the Index of Economic Freedom, 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 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 Barth, Lin, Ma, Seade, and Song (2013), Low et al. (2015), and Williams (2014) in utilizing the World Bank Governance Indexes (WBGI). The World Bank constructs indexes from 441 variables taken from 35 different sources produced by 33 organizations (Kaufmann, Kraay, & Mastruzzi, 2009). 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). We provide detailed descriptions of our institutional void data in Appendix Table A1.

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 re-run 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:

$$\text{Tobin's } Q_{i,t} = \beta_0 + \sum_{d=1}^{D} \beta_d CSR_{i,d,t-1} + \beta_4 IFV_{i,t} + \sum_{n=1}^{N} \beta_n CSR_{i,n,t-1} \times IFV_{i,t} + \beta_8 X_{i,t-1} + \varepsilon_{i,t} \quad (3)$$

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

3.4. Summary Statistics and Correlation Coefficient Matrix

Table 3 details summary statistics for key variables by market classification. Firstly, we note that firms in emerging markets tend to bear a valuation premium and experience lower monthly equity returns compared to firms in developed markets. Firms in emerging markets also tend to have higher valuation and equity return variation than firms in developed markets. This shows that emerging markets tend to have greater risks, which could be reflective of the greater levels of informational asymmetry present in these markets (e.g., Doidge et al., 2004; Khanna & Palepu, 1997; Zhang, 2006). Secondly, we note that a firm's mean CSR component score ranges from 44.96 to 52.62 with standard deviations that range from 28.40 to 33.30. This

showcases the broad variation in firm-level CSR, and shows that there are distinctly 'high CSR' and 'low CSR' firms. Fourthly, when we examine our 12 country-level measures, we observe that emerging markets have markedly lower scores and generally exhibit much higher variation as compared to developed markets[5]. For example, the average for the mean WBGI score is about 70 percent higher in developed markets, suggesting the greater prevalence of institutional voids in emerging markets (e.g., Khanna & Palepu, 1997).

[Insert Tables 3 about here]

Panel A of Table 4 presents the correlation coefficient matrix between country-level measures of institutional framework strength. We find that our measures are generally positively correlated[6], with correlation coefficients ranging from -0.15 to 0.96. In line with our earlier assertions, the range of correlations confirms that a country's institutional framework is an inherently complex and multi-dimensional. The generally positive correlations between measures suggest that a country's commitment towards improving its institutional frameworks tends to manifest in increased performance across all dimensions. Panel B of Table 4 presents the correlation coefficient matrix between key variables used in our cross-sectional Tobin's Q regressions. Similarly, the correlations between factors are generally small, with the exception of certain firm-level controls such as return on assets and capital expenditure to total assets. Our findings in Panel C of Table 4 are consistent with prior studies investigating Tobin's Q (e.g., Bebchuk & Cohen, 2005; Dowell, Hart, & Yeung, 2000; Jiao, 2010).

[Insert Tables 4 about here]

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[5] The exception is the ratio of total investment to GDP, which we note is about 50.0% higher in emerging markets as compared to developed markets.

[6] We note that the negative correlation coefficient for the ratio of total investment to GDP is in line with our expectations. In this case, a country with better institutional frameworks (i.e., in developed markets) would have fewer deficiencies that require infrastructural development, thus requiring less spending on investments.

4. Empirical Findings

4.1. The Valuation of CSR

Columns 1 and 2 of Table 5 report the results of the cross-sectional regressions of one month forward Tobin's Q on CSR whilst columns 3 and 4 of Table 5 report the results of two month forward Tobin's Q on CSR. We include industry and country fixed effects to address omitted variable bias (e.g., Garcia-Castro, Ariño, & Canela, 2011). Consistent with other scholars, we find that the effects of our controls are similar (e.g., Aggarwal et al., 2011; Bebchuk & Cohen 2005; Galema et al., 2009; Hong & Kacperczyk, 2009; Jiao, 2010). In columns 1 and 2, in line with extant research, we note 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. Column 3 and 4 show similar results. Observing columns 1 through 4 of Table 5, we note that our results suggest that the aggregation of CSR dimensions has a confounding effect when examining the CSR-valuation relation.

[Insert Tables 5 about here]

Here, the regression results show that environmental CSR has a statistically significant positive effect on firm value. These results are in line with prior findings (e.g., Aktas et al., 2011; Bouslah et al., 2013; Cheng et al., 2014; Flammer, 2013, 2015; Jiao, 2010; Sharfman & Fernando, 2008). 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[7], China's renewed pledge

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[7] http://www.bloomberg.com/news/articles/2015-03-13/oil-sands-rules-get-tougher-as-alberta-seeks-less-damage, retrieved on 30/3/2015.

to fight smog post-release of the viral documentary 'Under the Dome'[8], and America's continued push for carbon emission reduction[9]). 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.

For social CSR, column 2 of Table 5 reports a statistically significant negative effect on Tobin's Q. This finding is similar to prior results. Indeed, Brammer, Brooks and Pavelin (2006) and Semenova, Hassel, and Nilsson (2010) 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., Waddock & Graves, 1997; Barnett & Salomon, 2012) after stakeholders' recognize that firm behavior as being genuine, implying that firms have to consistently pursue socially responsible initiatives in subsequent periods before they are rewarded (e.g., Brammer and Millington 2008; Greening and Turban, 2000).

For governance CSR, column 2 of Table 5 reports a statistically significant but economically negligible negative effect on Tobin's Q. This result is also in line with prior findings (e.g., Cheng et al., 2014; El Ghoul et al., 2011; Jiao, 2010). In particular, Cheng et al. (2014) 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.

In summary, these results provides 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 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

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[8] http://www.bloomberg.com/news/articles/2015-03-07/china-pollution-film-vanishes-as-xi-makes-pledge-on-environment, retrieved on 30/3/2015.

[9] http://www.bloomberg.com/politics/articles/2015-03-19/obama-orders-40-reduction-in-carbon-emissions-by-u-s-agencies, retrieved on 30/3/2015.

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 6 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.

In the base case, we observe that the CSR-firm value relation (i.e., firms in strong institutional frameworks) is generally consistent with our earlier findings. All coefficients for environmental, social, and governance CSR remain generally statistically significant.

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, both sets of regressions show that environmental CSR has a statistically significant positive effect on firm value for firms in weak institutional frameworks. One standard deviation increase in environmental CSR predicts an increase in Tobin's Q of about 0.06, representing an increase of about 3.5% from the mean of 1.63.

For social CSR, both sets of regressions show that social CSR has 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. One standard deviation increase in social CSR predicts an increase in Tobin's Q of about 0.03, representing an increase of about 2.1% from the mean of 1.63.

For governance CSR, both sets of 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. One standard deviation increase in governance CSR predicts an increase in Tobin's Q of about 0.03, representing an increase of about 1.9% from the mean of 1.63.

[Insert Tables 6 about here]

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, whilst 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 multi-dimensional nature of governance.

In sum, 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 timeframe. In these specifications, we re-estimate regression specifications (1), (2) and (3) by using three 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., Hull & Rothenberg, 2008; Serveas & Tamayo, 2013; Siegel & Vitaliano, 2007). As such, we rerun our models excluding firms in regulated industries (e.g.,

Aggarwal et al., 2011), which constitute banking, energy, insurance, telecommunication, transportation, and utility companies, and those under the Triumvirate of Sin (e.g., Hong & Kacperczyk, 2009), 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 whilst 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, whilst 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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Table 1. The List of Firms within Each Country

Developed Markets				Emerging Markets			
Country	**Freq.**	**Firms**	**(%)**	**Country**	**Freq.**	**Firms**	**(%)**
AUS	4,416	85	4.40	BRA	3,810	87	11.01
AUT	550	11	0.55	CHL	1,143	21	3.30
BEL	794	14	0.79	CHN	4,576	84	13.23
CAN	6,077	118	6.07	COL	552	11	1.60
CHE	2,109	38	2.11	CZE	204	3	0.59
DEU	3,046	56	3.04	EGY	433	10	1.25
DNK	741	17	0.74	GRC	414	11	1.20
ESP	1,632	32	1.62	HUN	248	4	0.72
FIN	983	17	0.98	IDN	1,410	27	4.08
FRA	4,705	80	4.70	IND	4,011	84	11.59
GBR	6,208	122	6.17	KOR	5,681	104	16.42
HKG	1,808	33	1.81	MAR	117	3	0.34
IRL	279	5	0.27	MEX	1,461	30	4.22
ISR	733	15	0.73	MYS	2,107	46	6.09
ITA	1,672	36	1.67	PER	71	2	0.21
JPN	20,381	346	20.34	PHL	779	19	2.25
NLD	1,324	25	1.32	POL	1,049	26	3.03
NOR	468	8	0.47	RUS	1,093	23	3.16
NZL	341	8	0.34	THA	1,073	24	3.10
PRT	417	9	0.41	TUR	1,285	25	3.71
SGP	1,817	31	1.81	ZAF	3,078	55	8.90
SWE	1,925	32	1.93				
USA	37,802	705	37.73				
Total	**100,228**	**1,843**	**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 2. The Summary Statistics of CSR Component Scores by Year

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	3,730	39.57	32.99	43.16	46.70	0.12	0.18	0.94
2010	5,277	44.04	35.48	44.86	49.64	0.28	0.14	-0.16
2011	6,021	43.78	36.79	44.01	49.02	0.11	-0.02	-0.03
2012	6,073	42.06	42.85	43.29	45.75	0.31	-0.48	-0.70
2013	7,006	40.40	50.49	45.15	46.50	1.00	0.35	1.06
2014	6,488	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 sub-sample (i.e., developed/emerging market) averages of overall, environment, social, governance, and marginal month-on-month changes in CSR component scores by year for the time period of 2009 to 2014.

Table 3. The Summary Statistics of Key Variables

Variable	Obs	Mean	Sd. Dev.	Min	Max	Obs	Mean	Sd. Dev.	Obs	Mean	Sd. Dev.
			Full Sample				*Developed Markets*			*Emerging Markets*	
CSR Dimension Scores											
ESG	134,823	43.62	28.77	1.00	100.00	100,228	43.96	29.13	34,595	42.64	27.69
E	134,823	52.62	33.30	1.00	100.00	100,228	55.67	33.02	34,595	43.79	32.53
S	134,823	52.21	32.13	1.00	100.00	100,228	54.62	32.48	34,595	45.24	30.04
G	134,823	44.96	28.40	1.00	100.00	100,228	43.93	29.29	34,595	47.92	25.41
Country-level measures of institutional framework strength											
CINV	134,823	21.93	6.52	10.86	48.66	100,228	19.85	2.86	34,595	27.95	9.66
FREE	134,823	71.78	8.54	50.30	90.00	100,228	75.45	5.28	34,595	61.14	7.16
GDPPC	134,823	10.36	0.67	3.02	11.27	100,228	10.67	0.19	34,595	9.48	0.79
GFDDB	134,823	104.80	58.19	17.28	302.74	100,228	120.45	58.50	34,595	59.48	22.72
GFDDP	134,823	52.59	35.66	0.05	193.41	100,228	61.02	34.03	34,595	28.16	28.27
GFDDS	134,823	94.79	50.85	15.17	524.41	100,228	100.16	53.09	34,595	79.24	39.81
WGIRQ	134,823	81.60	16.36	26.32	100.00	100,228	89.39	5.78	34,595	59.02	16.14
WGIRL	134,823	82.09	17.76	23.70	100.00	100,228	91.00	5.02	34,595	56.29	16.15
WGIGE	134,823	84.28	14.75	19.62	100.00	100,228	91.50	4.63	34,595	63.35	14.04
WGIPS	134,823	62.77	21.25	5.19	98.58	100,228	71.93	12.37	34,595	36.24	19.22
WGICC	134,823	80.21	19.15	11.48	100.00	100,228	89.83	6.09	34,595	52.33	16.64
WGIVA	134,823	77.07	20.65	4.74	100.00	100,228	86.23	8.29	34,595	50.50	22.65
Key variables used in Fama-Macbeth (1973) cross-sectional Tobin's Q regressions											
TOBIN	134,823	1.63	0.93	0.83	5.07	100,228	1.62	0.89	34,595	1.67	1.03
LROAW	134,823	5.30	5.63	-5.09	21.72	100,228	4.99	5.40	34,595	6.19	6.15
LLEVW	134,823	108.81	135.92	0.00	644.49	100,228	109.02	139.02	34,595	108.22	126.50
LCAPXW	134,823	0.05	0.05	0.00	0.19	100,228	0.05	0.04	34,595	0.06	0.05
LCASHW	134,823	0.08	0.07	0.00	0.31	100,228	0.08	0.07	34,595	0.07	0.07
LSGRW	134,823	7.48	17.35	-29.09	59.80	100,228	5.30	16.28	34,595	13.80	18.75
LADW	134,823	0.13	0.12	0.00	0.48	100,228	0.15	0.12	34,595	0.10	0.09
LASSET	134,823	9.56	1.45	5.39	15.05	100,228	9.66	1.45	34,595	9.25	1.40

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

Table 4. The Correlation Coefficient Matrix among Key Variables

Panel A	*Economic Development*				*Financial Market Development*				*Governmental Institution Development*				
	CINV	FREE	GDPPC		GFDDB	GFDDP	GFDDS		WGIRQ	WGIRL	WGIGE	WGIPS	WGICC
CINV	1.00												
FREE	-0.48	1.00											
GDPPC	-0.48	0.75	1.00										
GFDDB	-0.17	0.34	0.28		1.00								
GFDDP	-0.34	0.38	0.51		-0.15	1.00							
GFDDS	-0.07	0.52	0.28		0.24	0.05	1.00						
WGIRQ	-0.60	0.90	0.80		0.30	0.35	0.35		1.00				
WGIRL	-0.54	0.85	0.78		0.38	0.40	0.29		0.94	1.00			
WGIGE	-0.49	0.86	0.81		0.43	0.36	0.33		0.95	0.96	1.00		
WGIPS	-0.42	0.71	0.68		0.52	0.15	0.20		0.81	0.83	0.84	1.00	
WGICC	-0.57	0.83	0.77		0.48	0.28	0.27		0.94	0.96	0.95	0.88	1.00
WGIVA	-0.69	0.68	0.60		0.25	0.28	0.11		0.81	0.85	0.77	0.72	0.82

Panel B:	TOBINW	ESG	E	S	G	LROAW	LLEVW	LCAPXW	LCASHW	LSGRW	LADW	LASSET	LDDUM
TOBINW	1.00												
ESG	0.12	1.00											
E	0.04	0.40	1.00										
S	0.02	0.33	0.06	1.00									
G	0.12	0.81	0.02	0.09	1.00								
LROAW	0.70	0.08	-0.02	0.01	0.09	1.00							
LLEVW	-0.20	0.01	0.07	-0.05	0.01	-0.31	1.00						
LCAPXW	0.15	-0.05	-0.23	0.08	0.05	0.16	-0.13	1.00					
LCASHW	0.25	-0.03	0.09	-0.02	-0.09	0.22	-0.14	-0.10	1.00				
LSGRW	0.16	0.01	-0.09	-0.03	0.05	0.19	-0.05	0.12	0.02	1.00			
LADW	0.38	0.09	0.24	0.05	-0.04	0.26	-0.13	-0.06	0.27	-0.05	1.00		
LASSET	-0.48	-0.07	0.21	-0.11	-0.08	-0.42	0.40	-0.27	-0.21	-0.10	-0.24	1.00	
LDDUM	-0.12	0.00	0.02	0.02	-0.01	0.07	-0.07	-0.01	-0.09	-0.08	-0.07	0.08	1.00
CINV	-0.05	-0.07	-0.17	-0.11	0.00	0.03	-0.02	0.10	0.02	0.20	-0.20	-0.03	0.09
FREE	0.03	0.05	0.05	0.12	0.02	-0.02	-0.07	-0.08	-0.01	-0.16	0.11	0.01	-0.07
GDPPC	-0.01	-0.02	0.11	0.09	-0.08	-0.06	-0.01	-0.10	0.02	-0.17	0.14	0.11	-0.09
GFDDB	-0.17	-0.16	0.10	0.04	-0.27	-0.16	-0.03	-0.09	0.13	-0.16	0.10	0.02	0.12
GFDDP	0.11	-0.11	0.02	0.01	-0.13	0.03	0.01	-0.06	0.02	-0.08	0.18	0.02	-0.23
GFDDS	0.08	0.02	-0.06	0.02	0.06	0.11	-0.10	-0.05	-0.02	0.00	-0.06	-0.02	0.00
WGIRQ	-0.02	0.11	0.13	0.14	0.05	-0.08	-0.02	-0.10	-0.03	-0.21	0.13	0.08	-0.06
WGIRL	-0.02	0.08	0.15	0.14	0.01	-0.09	-0.02	-0.11	-0.02	-0.21	0.16	0.07	-0.05
WGIGE	-0.04	0.03	0.13	0.13	-0.04	-0.09	-0.03	-0.11	0.01	-0.21	0.16	0.07	-0.04
WGIPS	-0.10	0.06	0.15	0.13	-0.04	-0.13	-0.04	-0.08	0.02	-0.20	0.12	0.06	0.03
WGICC	-0.06	0.07	0.17	0.15	-0.02	-0.11	-0.02	-0.12	0.01	-0.22	0.16	0.07	-0.01
WGIVA	0.03	0.16	0.19	0.16	0.09	-0.07	0.01	-0.08	-0.07	-0.20	0.18	0.05	-0.05

This table displays both the correlation coefficient matrix for key variables for the time period of 2009 to 2014. Panel A presents the correlation coefficient matrix between country-level measures of institutional framework strength. Panel B presents the correlation coefficient matrix between key variables used in our Fama-Macbeth (1973) cross-sectional Tobin's Q regressions.

Table 5: The relation between corporate social responsibility and forward measures of firm value

	(1) Forward Tobin's Q		(2) Forward Tobin's Q		(3) Forward 2 MONTH Tobin's Q		(4) Forward 2 MONTH Tobin's Q
ESG	0.0001** (2.59)	E	0.0007*** (18.97)	ESG	0.0002*** (4.46)	E	0.0007*** (17.91)
		S	-0.0003*** (-9.05)			S	-0.0002*** (-6.96)
		G	-0.0001*** (-2.87)			G	-0.0001 (-1.53)
LROAW	0.0854*** (81.26)	LROAW	0.0852*** (81.36)	LROAW	0.0840*** (77.56)	LROAW	0.0839*** (77.45)
LLEVW	0.0006*** (50.58)	LLEVW	0.0006*** (50.00)	LLEVW	0.0006*** (44.98)	LLEVW	0.0006*** (44.50)
LCAPXW	1.6819*** (34.73)	LCAPXW	1.6885*** (34.88)	LCAPXW	1.5524*** (32.79)	LCAPXW	1.5598*** (32.54)
LCASHW	0.6632*** (22.09)	LCASHW	0.6552*** (21.72)	LCASHW	0.6413*** (19.54)	LCASHW	0.6336*** (19.25)
LSGRW	0.0029*** (13.14)	LSGRW	0.0030*** (13.30)	LSGRW	0.0025*** (12.92)	LSGRW	0.0025*** (13.11)
LADW	1.2521*** (49.99)	LADW	1.2436*** (50.11)	LADW	1.2729*** (53.40)	LADW	1.2630*** (53.41)
LASSET	-0.1649*** (-76.43)	LASSET	-0.1691*** (-74.82)	LASSET	-0.1635*** (-97.95)	LASSET	-0.1678*** (-95.17)
LDDUM	-0.1797*** (-27.86)	LDDUM	-0.1794*** (-28.12)	LDDUM	-0.1692*** (-21.51)	LDDUM	-0.1691*** (-21.53)
Constant	3.2075*** (21.75)	Constant	3.2560*** (21.87)	Constant	3.0768*** (20.01)	Constant	3.1720*** (21.73)
Obs.	134,823	Obs.	134,823	Obs.	126,749	Obs.	126,749
R-squared	0.71	R-squared	0.71	R-squared	0.70	R-squared	0.70
Ind Dum	YES	Ind Dum	YES	Ind Dum	YES	Ind Dum	YES
Ctr Dum	YES	Ctr Dum	YES	Ctr Dum	YES	Ctr Dum	YES

This table displays full sample regression estimates of forward one and two month 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. Columns 1 and 2 report estimates of Fama-Macbeth (1973) regressions of forward one-month Tobin's Q on aggregated and disaggregated CSR. Columns 3 and 4 report estimates of Fama-Macbeth (1973) regressions of forward two month Tobin's Q on aggregated and disaggregated CSR. Standard errors are clustered on year and country. T-statistics are reported in parentheses. *, **, *** Indicates significance level at the 10%, 5%, and 1% respectively.

Table 6. The Link between Institutional Environment, Corporate Social Responsibility and Tobin's Q

IFV =	*Economic Development*			*Financial Market Development*			*Government Quality*					
	CINV	FREE	GDPPC	GFDDB	GFDDP	GFDDS	WGIRQ	WGIRL	WGIGE	WGIPS	WGICC	WGIVA
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
E	0.0004***	0.0003***	0.0003***	0.0003***	0.0004***	0.0006***	0.0002***	0.0002***	0.0003***	0.0003***	0.0002***	0.0001***
	(10.94)	(7.02)	(7.16)	(8.09)	(11.34)	(18.15)	(6.43)	(6.86)	(8.14)	(6.14)	(6.49)	(2.86)
S	-0.0005***	-0.0004***	-0.0005***	-0.0005***	-0.0004***	-0.0003***	-0.0005***	-0.0005***	-0.0005***	-0.0006***	-0.0006***	-0.0006***
	(-11.32)	(-10.28)	(-12.22)	(-12.43)	(-11.36)	(-6.70)	(-12.62)	(-12.56)	(-13.65)	(-14.26)	(-13.40)	(-15.88)
G	-0.0001	-0.0005***	-0.0005***	-0.0002***	0.0000	-0.0003***	-0.0005***	-0.0005***	-0.0005***	-0.0004***	-0.0005***	-0.0006***
	(-1.21)	(-13.38)	(-15.31)	(-4.02)	(0.23)	(-7.51)	(-14.02)	(-15.34)	(-15.09)	(-9.22)	(-13.99)	(-13.60)
IFV	1.0252***	-0.1720	0.2777*	0.7313***	0.7070***	-0.1098	0.0904	0.2355	0.3498**	0.5049***	0.1936	0.3543**
	(8.30)	(-0.93)	(1.75)	(5.08)	(5.48)	(-0.77)	(0.54)	(1.44)	(2.27)	(3.14)	(1.15)	(2.36)
E × IFV	0.0009***	0.0018***	0.0022***	0.0012***	0.0020***	0.0003*	0.0020***	0.0021***	0.0020***	0.0016***	0.0020***	0.0025***
	(11.80)	(21.26)	(23.70)	(12.91)	(27.23)	(1.95)	(23.30)	(21.13)	(19.42)	(19.77)	(20.78)	(30.13)
S × IFV	0.0007***	0.0005***	0.0011***	0.0007***	0.0009***	-0.0001	0.0010***	0.0013***	0.0012***	0.0013***	0.0014***	0.0014***
	(6.54)	(4.65)	(8.43)	(7.17)	(8.40)	(-0.37)	(9.51)	(11.05)	(11.98)	(12.00)	(12.34)	(15.73)
G × IFV	-0.0003*	0.0014***	0.0020***	0.0003*	-0.0010***	0.0012***	0.0016***	0.0019***	0.0021***	0.0009***	0.0017***	0.0016***
	(-1.92)	(8.99)	(11.43)	(1.81)	(-4.99)	(5.07)	(9.40)	(11.96)	(12.19)	(6.89)	(12.37)	(11.82)
LROAW	0.0851***	0.0852***	0.0852***	0.0851***	0.0852***	0.0852***	0.0851***	0.0852***	0.0852***	0.0851***	0.0851***	0.0851***
	(82.21)	(82.18)	(82.80)	(81.83)	(81.68)	(81.48)	(82.81)	(83.22)	(82.54)	(82.70)	(83.02)	(82.49)
LLEVW	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***
	(49.56)	(49.20)	(51.08)	(50.03)	(50.53)	(50.79)	(49.54)	(50.53)	(50.22)	(49.91)	(49.87)	(51.56)
LCAPXW	1.6915***	1.6998***	1.7020***	1.6971***	1.6936***	1.6867***	1.6812***	1.6967***	1.6932***	1.6894***	1.6877***	1.6893***
	(34.01)	(35.41)	(35.08)	(35.32)	(33.78)	(34.82)	(34.36)	(34.28)	(34.39)	(34.79)	(33.96)	(34.23)
LCASHW	0.6564***	0.6514***	0.6556***	0.6527***	0.6608***	0.6620***	0.6526***	0.6518***	0.6505***	0.6483***	0.6518***	0.6469***
	(21.89)	(20.94)	(21.33)	(21.97)	(21.79)	(22.14)	(21.14)	(21.40)	(21.22)	(21.83)	(21.39)	(21.05)
LSGRW	0.0029***	0.0029***	0.0029***	0.0030***	0.0029***	0.0029***	0.0029***	0.0029***	0.0029***	0.0029***	0.0029***	0.0029***
	(13.27)	(13.37)	(13.32)	(13.28)	(13.42)	(13.27)	(13.36)	(13.30)	(13.22)	(13.24)	(13.43)	(13.24)
LADW	1.2473***	1.2592***	1.2513***	1.2468***	1.2526***	1.2447***	1.2441***	1.2481***	1.2517***	1.2409***	1.2419***	1.2358***
	(49.02)	(52.50)	(51.87)	(50.44)	(49.99)	(49.81)	(50.53)	(52.25)	(51.84)	(51.20)	(51.09)	(50.36)
LASSET	-0.1690***	-0.1683***	-0.1683***	-0.1685***	-0.1675***	-0.1688***	-0.1686***	-0.1686***	-0.1686***	-0.1688***	-0.1689***	-0.1685***
	(-73.41)	(-72.71)	(-71.69)	(-72.91)	(-74.80)	(-75.10)	(-71.91)	(-71.91)	(-73.05)	(-70.74)	(-71.82)	(-72.67)
LDDUM	-0.1793***	-0.1820***	-0.1831***	-0.1802***	-0.1782***	-0.1811***	-0.1823***	-0.1825***	-0.1836***	-0.1802***	-0.1826***	-0.1820***
	(-28.02)	(-28.19)	(-29.29)	(-28.33)	(-27.27)	(-28.21)	(-29.10)	(-28.49)	(-29.49)	(-28.12)	(-29.23)	(-28.37)
Constant	2.4758***	3.0564***	2.8886***	2.5714***	2.7093***	2.9767***	2.9048***	2.9392***	2.9346***	2.7329***	2.9282***	2.7615***
	(21.09)	(24.75)	(22.09)	(21.30)	(19.89)	(24.67)	(23.93)	(24.29)	(22.69)	(23.30)	(21.95)	(23.29)
Obs.	134,823	134,823	134,823	134,823	134,823	134,823	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	0.71	0.71	0.71	0.71	0.71	0.71
Ind Dum	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ctr Dum	YES	YES	YES	YES	YES	YES	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. Refer to Appendix A for variable definitions. Regressions include industry and country dummies as indicated. T-statistics are reported in parentheses. *, **, *** Indicates significance level at the 10%, 5%, and 1% respectively.

Appendix

Table A1 – Descriptions of variables.

Label	Variable	Source	Definition
TOBINW	Tobin's Q	FactSet Inc.	Market value of equity minus the book value of equity plus the book value of total assets divided by total assets, winsorized.
ESG	Overall ESG Performance	MSCI Inc.	Index based measure of a firm's overall ESG performance.
E, S, G	Discrete ESG Performance	MSCI Inc.	Index based measure of a firm's ESG performance on three discrete dimensions, namely environment, social and governance.
LROAW	Return on Assets	FactSet Inc.	Net income divided by total assets, winsorized.
LLEVW	Leverage to Equity Ratio	FactSet Inc.	Total debt divided by total equity, winsorized.
LCAPXW	Capital Expenditure to Assets Ratio	FactSet Inc.	Total capital expenditure divided by total assets, winsorized.
LCASHW	Cash to Assets Ratio	FactSet Inc.	Total cash divided by total assets, winsorized.
LSGRW	Year on Year Sales Growth	FactSet Inc.	One year growth in net sales, winsorized.
LADW	Advertising Expense to Assets Ratio	FactSet Inc.	Total advertising expenditure divided by total assets, winsorized.
LASSET	Log Assets	FactSet Inc.	Log of total assets.
LDDUM	Dividend Dummy	FactSet Inc.	Equals 1 if dividends > 0.
CINV	Investment to GDP	International Monetary Fund	Expressed as a ratio of total investment in current local currency and GDP in current local currency. Investment or gross capital formation is measured by the total value of the gross fixed capital formation and changes in inventories and acquisitions less disposals of valuables for a unit or sector.
FREE	Economic Freedom Index	Index of Economic Freedom	Average of ten quantitative and qualitative factors that assess a country's level of economic freedom, ranging from 0-100, with lower scores representing a lesser degree of economic freedom.
GDPPC	GDP per Head	Economist Intelligence Unit	GDP at purchasing power parity in US$, divided by population.
GFDDB	Bank Deposits to GDP	International Monetary Statistics; International Monetary Fund	Total value of demand, time and saving deposits at domestic deposit money banks as a share of GDP. Deposit money banks comprise commercial banks and other financial institutions that accept transferable deposits, such as demand deposits.
GFDDP	Outstanding Domestic Private Debt Securities to GDP	Bank for International Settlements	Total amount of domestic private debt securities (amount outstanding) issued in domestic markets as a share of GDP. It covers data on long-term bonds and notes, commercial paper and other short-term notes.
GFDDS	Stock Market Capitalization to GDP	Global Stock Markets Factbook; S&P	Total value of all listed shares in a stock market as a percentage of GDP.
WGIRQ	Regulatory Quality Index	World Bank Governance Index; Kaufmann et al. (2009)	Index based measure ranking nations on a scale of 0-100, with lower scores representing a lesser degree of regulatory quality. Measures the government's ability to implement and formulate sound policies that permit and promote private sector development.

WGIRL	Rule of Law Index	World Bank Governance Index; Kaufmann et al. (2009)	Index based measure ranking nations on a scale of 0-100, with lower scores representing a lesser degree of rule of law. Measures the agents' confidence in and willingness to abide by societal rules, with an emphasis on contract enforcement, property rights, the police, and the courts, and the probability of crime and violence.
WGIGE	Government Effectiveness Index	World Bank Governance Index; Kaufmann et al. (2009)	Index based measure ranking nations on a scale of 0-100, with lower scores representing a lesser degree of government effectiveness. Measures quality of public service, quality of civil service and its independence from political pressures, quality of policy, and the credibility of the government's commitment to its policies.
WGIPS	Political Stability Index	World Bank Governance Index; Kaufmann et al. (2009)	Index based measure ranking nations on a scale of 0-100, with lower scores representing a lesser degree of political stability. Measures the possibility that the government will be compromised through unconstitutional or violent means.
WGICC	Control of Corruption Index	World Bank Governance Index; Kaufmann et al. (2009)	Index based measure ranking nations on a scale of 0-100, with lower scores representing a lesser degree of corruption control. Measures the extent which public power is exercised for private gain, and the likelihood that private interests and the elite 'capture' the state.
WGIVA	Voice and Accountability Index	World Bank Governance Index; Kaufmann et al. (2009)	Index based measure ranking nations on a scale of 0-100, with lower scores representing a lesser degree of voice and accountability. Measures how much a country's citizens are able to participate in government selection, freedom of association, expression, and media.

Table A2 – Number of observations by country and year.

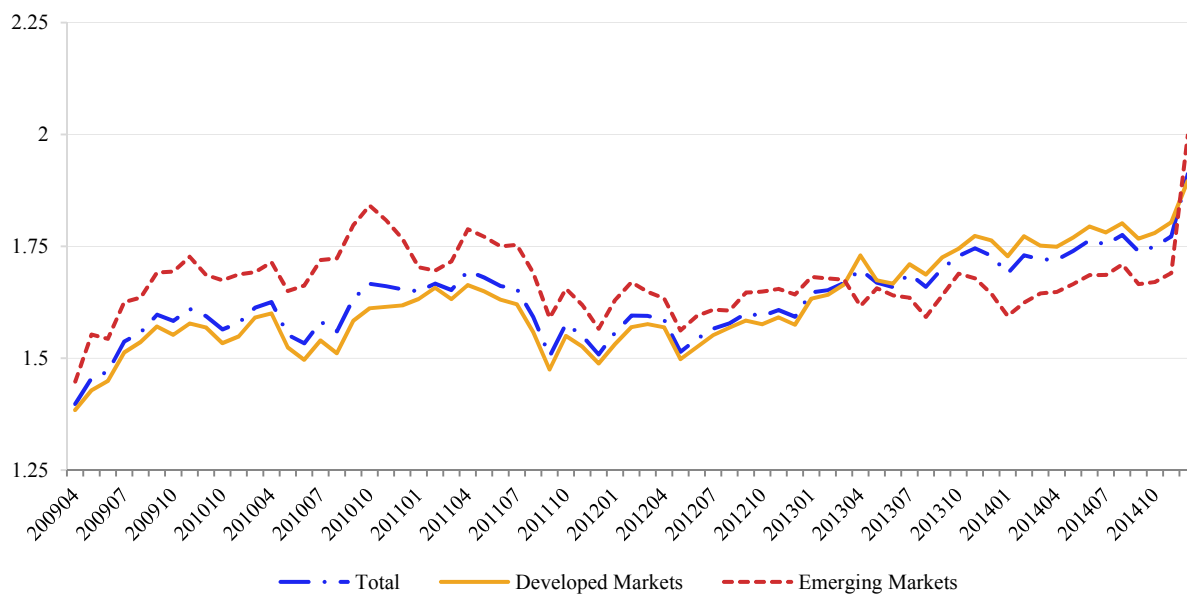| Country	2009	2010	2011	2012	2013	2014	Total
AUS	582	789	761	752	769	763	4,416
AUT	67	92	96	102	105	88	550
BEL	117	155	155	136	120	111	794
BRA	351	568	713	726	775	677	3,810
CAN	788	1,069	1,107	1,122	1,049	942	6,077
CHE	258	354	360	385	391	361	2,109
CHL	107	149	201	204	251	231	1,143
CHN	504	705	801	827	916	823	4,576
COL	54	78	93	96	115	116	552
CZE	27	36	36	36	36	33	204
DEU	387	513	539	543	527	537	3,046
DNK	111	128	131	125	120	126	741
EGY	70	84	96	88	60	35	433
ESP	243	315	298	269	257	250	1,632
FIN	144	192	190	161	154	142	983
FRA	642	863	825	813	801	761	4,705
GBR	785	1,071	1,111	1,098	1,100	1,043	6,208
GRC	90	95	69	19	41	100	414
HKG	235	292	309	333	328	311	1,808
HUN	36	48	48	47	36	33	248
IDN	126	204	258	265	290	267	1,410
IND	426	595	690	711	825	764	4,011
IRL	27	52	53	48	54	45	279
ISR	125	161	144	119	96	88	733
ITA	287	322	296	281	246	240	1,672
JPN	2,751	3,674	3,561	3,452	3,485	3,458	20,381
KOR	672	907	994	1,017	1,108	983	5,681
MAR	18	24	24	24	27	0	117
MEX	180	252	252	235	269	273	1,461
MYS	219	310	328	306	472	472	2,107
NLD	163	220	241	227	241	232	1,324
NOR	63	84	89	84	82	66	468
NZL	45	60	60	60	57	59	341
PER	11	12	12	12	12	12	71
PHL	39	72	117	155	208	188	779
POL	115	142	170	165	231	226	1,049
PRT	68	95	84	69	50	51	417
RUS	121	182	200	202	218	170	1,093
SGP	211	313	330	345	317	301	1,817
SWE	236	339	349	363	333	305	1,925
THA	84	135	185	186	243	240	1,073
TUR	126	181	216	215	282	265	1,285
USA	4,911	6,565	6,516	6,524	6,663	6,623	37,802
ZAF	354	498	518	537	591	580	3,078
Total	16,976	22,995	23,626	23,484	24,351	23,391	134,823

This table displays the number of observations by country and year 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 A3 – The effect of the institutional environment on the relation between corporate social responsibility and forward 2 MONTH Tobin's Q.

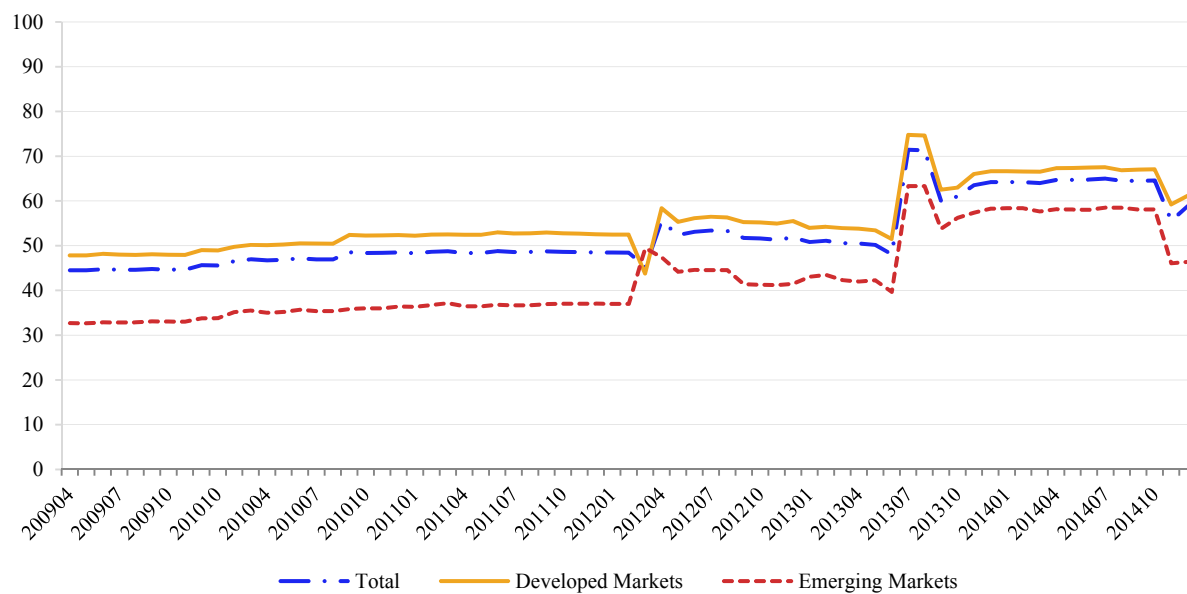|	Economic Development			Financial Market Development			Government Quality					
IFV =	CINV	FREE	GDPPC	GFDDB	GFDDP	GFDDS	WGIRQ	WGIRL	WGIGE	WGIPS	WGICC	WGIVA
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
E	0.0004***	0.0003***	0.0003***	0.0004***	0.0004***	0.0007***	0.0003***	0.0003***	0.0003***	0.0003***	0.0003***	0.0002***
	(11.22)	(7.55)	(8.04)	(9.18)	(11.44)	(15.66)	(7.18)	(7.96)	(8.71)	(7.23)	(7.78)	(3.94)
S	-0.0004***	-0.0004***	-0.0004***	-0.0004***	-0.0004***	-0.0002***	-0.0004***	-0.0005***	-0.0004***	-0.0005***	-0.0005***	-0.0006***
	(-9.80)	(-9.01)	(-10.87)	(-10.59)	(-8.79)	(-5.23)	(-10.79)	(-11.46)	(-12.34)	(-12.60)	(-12.24)	(-14.20)
G	-0.0000	-0.0005***	-0.0005***	-0.0002***	0.0001	-0.0003***	-0.0005***	-0.0005***	-0.0005***	-0.0003***	-0.0005***	-0.0005***
	(-0.01)	(-13.09)	(-14.27)	(-3.21)	(1.37)	(-6.50)	(-12.76)	(-13.84)	(-14.34)	(-7.97)	(-12.62)	(-11.36)
IFV	0.8711***	-0.4359***	0.0682	0.5114***	0.6373***	-0.1867	0.3004*	0.1092	0.1560	0.2790*	0.2482*	0.1780
	(7.13)	(-3.05)	(0.45)	(3.68)	(4.41)	(-1.25)	(1.86)	(0.72)	(0.97)	(1.79)	(1.74)	(1.14)
E × IFV	0.0010***	0.0018***	0.0023***	0.0012***	0.0020***	0.0002*	0.0020***	0.0021***	0.0020***	0.0016***	0.0019***	0.0025***
	(14.20)	(25.99)	(29.05)	(12.49)	(22.96)	(1.84)	(28.82)	(28.40)	(22.35)	(25.88)	(27.01)	(40.37)
S × IFV	0.0007***	0.0006***	0.0011***	0.0007***	0.0009***	-0.0001	0.0010***	0.0013***	0.0012***	0.0013***	0.0014***	0.0015***
	(5.83)	(4.99)	(8.34)	(7.03)	(7.67)	(-0.69)	(9.05)	(10.73)	(11.28)	(11.78)	(11.98)	(13.90)
G × IFV	-0.0003**	0.0016***	0.0021***	0.0003*	-0.0011***	0.0013***	0.0017***	0.0020***	0.0023***	0.0009***	0.0017***	0.0016***
	(-2.35)	(8.92)	(11.03)	(1.86)	(-5.10)	(4.33)	(9.21)	(11.05)	(11.85)	(5.99)	(11.48)	(10.08)
LROAW	0.0837***	0.0839***	0.0838***	0.0838***	0.0839***	0.0839***	0.0838***	0.0838***	0.0838***	0.0837***	0.0837***	0.0838***
	(78.51)	(78.54)	(79.05)	(77.81)	(77.61)	(77.47)	(79.15)	(79.62)	(78.74)	(79.03)	(79.39)	(78.86)
LLEVW	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***	0.0006***
	(43.44)	(43.68)	(45.04)	(44.89)	(44.74)	(45.25)	(44.00)	(44.68)	(44.57)	(44.45)	(44.30)	(45.42)
LCAPXW	1.5659***	1.5728***	1.5766***	1.5701***	1.5658***	1.5560***	1.5538***	1.5680***	1.5661***	1.5614***	1.5591***	1.5624***
	(31.57)	(33.22)	(32.89)	(33.30)	(31.54)	(32.39)	(32.12)	(31.98)	(32.16)	(32.49)	(31.61)	(31.81)
LCASHW	0.6349***	0.6296***	0.6336***	0.6300***	0.6400***	0.6397***	0.6301***	0.6292***	0.6280***	0.6260***	0.6293***	0.6245***
	(19.40)	(18.54)	(18.91)	(19.28)	(19.42)	(19.69)	(18.66)	(18.93)	(18.78)	(19.23)	(18.82)	(18.52)
LSGRW	0.0025***	0.0025***	0.0025***	0.0025***	0.0025***	0.0025***	0.0025***	0.0025***	0.0025***	0.0025***	0.0025***	0.0025***
	(13.03)	(13.16)	(13.15)	(13.08)	(13.25)	(13.05)	(13.19)	(13.07)	(13.00)	(13.05)	(13.25)	(13.05)
LADW	1.2663***	1.2800***	1.2706***	1.2666***	1.2718***	1.2635***	1.2630***	1.2675***	1.2711***	1.2597***	1.2607***	1.2544***
	(52.31)	(55.79)	(55.08)	(53.49)	(53.24)	(53.32)	(53.75)	(55.32)	(55.00)	(54.09)	(54.29)	(53.55)
LASSET	-0.1676***	-0.1669***	-0.1669***	-0.1671***	-0.1661***	-0.1674***	-0.1673***	-0.1672***	-0.1673***	-0.1675***	-0.1676***	-0.1672***
	(-92.10)	(-92.08)	(-91.23)	(-92.70)	(-94.90)	(-95.02)	(-91.38)	(-90.84)	(-93.34)	(-89.62)	(-91.02)	(-92.11)
LDDUM	-0.1687***	-0.1720***	-0.1733***	-0.1698***	-0.1676***	-0.1710***	-0.1723***	-0.1725***	-0.1737***	-0.1700***	-0.1726***	-0.1718***
	(-21.49)	(-21.76)	(-22.35)	(-21.51)	(-20.80)	(-21.71)	(-22.27)	(-22.14)	(-22.43)	(-21.67)	(-22.36)	(-21.83)
Constant	2.4336***	2.9204***	2.7908***	2.6604***	2.7298***	2.9464***	2.7725***	2.8724***	2.8647***	2.7752***	2.8326***	2.7484***
	(18.55)	(23.67)	(22.35)	(23.43)	(21.76)	(24.74)	(22.49)	(23.85)	(24.21)	(24.96)	(24.56)	(24.49)
Obs.	126,749	126,749	126,749	126,749	126,749	126,749	126,749	126,749	126,749	126,749	126,749	126,749
R-squared	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.71
Ind Dum	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ctr Dum	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

This table displays full sample regression estimates of forward two month 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. Refer to Appendix A for variable definitions. Regressions include industry and country dummies as indicated. T-statistics are reported in parentheses. *, **, *** Indicates significance at the 10.0%, 5.0%, and 1.0% levels.

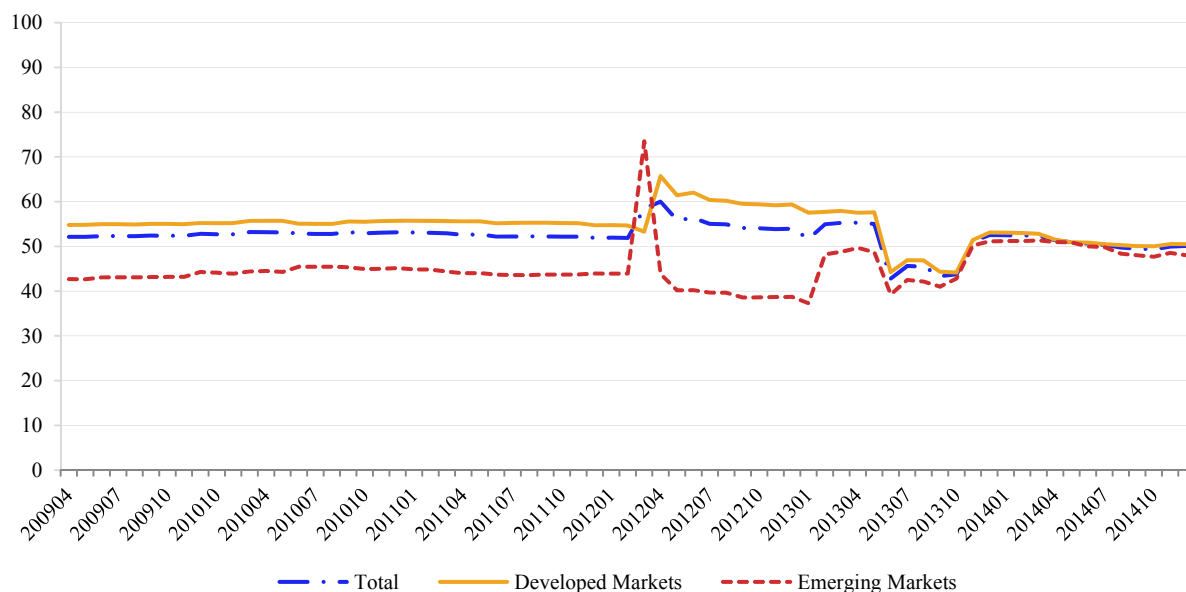**Figure 1** – Average Tobin's Q, winsorized, over time by year.

This figure displays both the full sample and sub-sample (i.e., developed/emerging market) average Tobin's Q over time for the time period of 2009 to 2014.

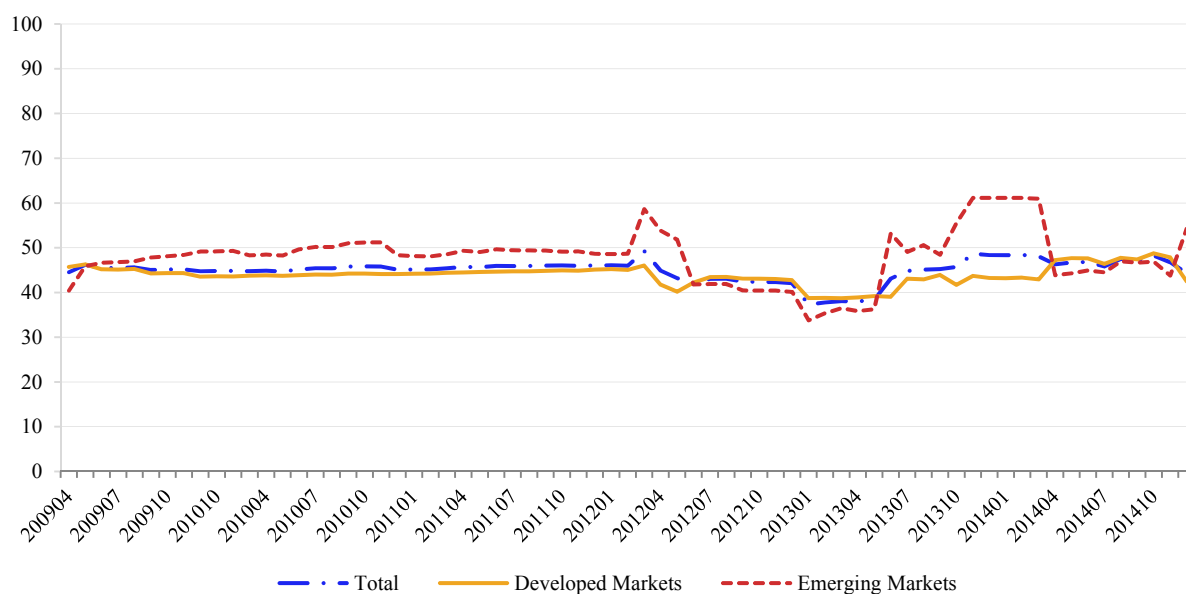**Figure 2** – Average environment score over time by year.

This figure displays both the full sample and sub-sample (i.e., developed/emerging market) average environment score over time for the time period of 2009 to 2014.

Figure 3 – Average social score over time by year.

This figure displays both the full sample and sub-sample (i.e., developed/emerging market) average social score over time for the time period of 2009 to 2014.

Figure 4 – Average governance score over time by year.

This figure displays both the full sample and sub-sample (i.e., developed/emerging market) average governance score over time for the time period of 2009 to 2014.