Firm Value in Commonly Uncertain Times: The Divergent Effects of Corporate Governance and CSR

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University of South Florida
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Kiyoung Chang
Univeristy of South Florida Sarasota-Manatee, United States, Sarasota
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Firm Value in Commonly Uncertain Times:
The Divergent Effects of Corporate Governance and CSR

Richard Borghesi[*]
University of South Florida
borghesi@usf.edu

Kiyoung Chang
University of South Florida
chang1@sar.usf.edu

Ying Li
University of Washington
yli2@uw.edu

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[*] Corresponding author. College of Business, University of South Florida, 8350 North Tamiami Trail, Sarasota, FL 34243. 941-359-4524.

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Abstract

Economic uncertainty disrupts firms' ability to create value. Most related literature examines how various organizational characteristics affect value under extreme conditions – the global financial crisis. However, recent work in quantifying economic uncertainty now makes it possible to take a more nuanced approach in investigating the conditions under which this value reduction can be mitigated during more 'commonly uncertain' periods. In this paper we analyze the effects of corporate governance mechanisms and social responsibility investments on Tobin's q across 13 years and 40 countries. Evidence suggests that shareholder-centric corporate governance policies restrict board and executive flexibility during uncertain times, and therefore stifle their ability to react effectively to adverse macroeconomic changes. We also find that CSR initiatives serve as insurance in that they preserve value under uncertainty by acting as a reservoir of social capital.

Firm Value in Commonly Uncertain Times:
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1. Introduction

Over time firms face varying levels of economic uncertainty, from occasional financial market turmoil to less severe but more frequent shifts in economic policy. Being well-prepared for such uncertainties helps the firm survive and potentially thrive. One component of preparedness is implementing optimal corporate governance strategies, and another imperative is the generation and maintenance of social capital (e.g., firm reputation, brand, and trust) that can be tapped when needed. Below we examine the relation between global economic policy uncertainty, corporate governance policies, social responsibility initiatives, and firm value across 40 countries.

We begin with the notion that highly resilient firms will be governed by policies that enable them to weather downturns. Good corporate governance mechanisms should be designed to balance the focus on long-term value creation with short-term adaptability in the event of a crisis. Recent changes in corporate governance practices may have disrupted this balance, as in the past two decades shareholder rights have greatly increased relative to the rights of other stakeholders such as employees and boards of directors (Cremers, Masconale, and Sepe, 2016). This shift may be problematic because shareholders introduce a limited commitment problem – they are uncertain about the value of the firm and its projects (asset-pricing inefficiency) and have strong exit rights. As a result they cannot credibly commit in the long-term. This places undue pressure on directors and executives to focus on short-term earnings at the expense of long-term value (Barton and Wiseman, 2014). We therefore argue that shareholder-centric corporate governance policies may be especially detrimental during uncertain times, when the limited commitment problem is

exacerbated. In such instances, firm value may be improved by protecting managers against overly vigilant shareholders in the short-term while leaving them accountable in the long-term. We believe that in some situations more protected boards may be more empowered to deal with adverse economic fluctuations and therefore more able to add value via their advisory role. And, when executives can be relatively free to exercise discretion in responding to threats they may be better positioned to guide the firm through uncertainty.

In addition to optimizing corporate governance policies, the production and maintenance of social capital can be imperative in sustaining or expanding competitive advantages during uncertain times. Gathering information, deciding who to bargain with, and protecting existing contracts each impose costs and risks on the corporation (Coase, 1960), and these costs increase during difficult times. Social capital can be generated via corporate social responsibility initiatives, which reduce contracting costs because the trust and loyalty created via stable relationships with external stakeholders helps the firm to survive (Chang, Kim, and Li, 2014; El Ghoul, Guedhami, and Kim, 2016). Lins, Servaes and Tamayo (2017) argue that trust pays off when the overall level of trust in corporations and markets suffers a negative shock, and show that firms with high social capital as measured by corporate social responsibility (CSR) scores had significantly higher returns than firms with low social capital during the recent global financial crisis. Likewise, Cheng, Ioannou, and Serafeim (2014) show that contracting costs are reduced by superior CSR because it limits the likelihood of short-term opportunistic behavior. They also find that firms with better CSR performance signal their long-term focus and differentiate themselves by reducing informational asymmetry between the firm and investors.

In this study we examine the relation between corporate governance policies, CSR intensity, and firm value (as measured by Tobin's q) over time as global economic policy

uncertainty waxes and wanes. Our main contribution to the existing literature is twofold. First, we provide evidence that the negative influence of policy uncertainty on firm value is mitigated for firms with *lower* corporate governance performance scores (those with less rigid governance policies). These governance scores describe board structure (e.g., number of independent directors, CEO/chairman duality, and board ethnic/gender diversity), board function (e.g., committee member independence and number of board meetings), shareholder rights (e.g., protections for minority shareholders and staggered boards), and vision and strategy (e.g., open reporting). Thus, our findings suggest that when the business environment is more risky firms can benefit from increased separation between ownership and control. Second, we show that there is a positive relation between CSR intensity and firm value only when global economic policy uncertainty is high. In other words, social capital reserves generated via CSR activities act as insurance in that they can be drawn on to help the firm weather difficult times.

Our study may provide much needed insight for both practitioners and academics because economic policy uncertainty is both value-reducing and nearly ubiquitous yet to date little work has been done to identify alleviating factors when events such as trade and military wars, elections, and interest rate changes occur. From a practitioner viewpoint, shareholders, boards, and managers can benefit from a better understanding of how governance and CSR policies help firms create value in ordinarily uncertain times. And, from an academic standpoint, the vast majority of literature that examines governance and corporate social responsibility under uncertainty focuses on an extreme circumstance – the recent global crisis. To our knowledge, this study is the first to utilize the global policy uncertainty index of Baker, Bloom, and Davis (2016) to prescribe corporate governance and CSR practices. Our approach adds value to work of Lins, Servaes, and Tamayo (2017), van Essen, Englen, and Carney (2013), Gupta, Krishnamurti, and Tourani-Rad

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(2013), Berger, Imbierowicz, and Rauch (2016), and Erkens, Hung, and Matos (2012). Each of these studies focuses on the valuation effects of corporate governance or CSR policies strictly during the recent global financial crisis whereas the results of our study provide an understanding of how these policies affect value during mild, moderate, and severe financial crises over the long run. The rest of the paper is structured as follows. Section 2 discusses prior literature and develops two testable hypotheses. Section 3 describes the data while section 4 presents methodology and results. We then conclude in section 5.

2. Prior Literature and Hypotheses Development

The length and magnitude of macroeconomic downturns are impossible to predict and their effects are difficult to understand in advance. Uncertainty creates difficulties for corporations in effectively planning and distributing resources. For example, when policy uncertainty increases firms become reluctant to invest (Bloom, Floetotto, Jaimovich, Saporta, and Terry, 2014; Gulen and Ion, 2016), the cost of financing and stock market volatility increase (Pastor and Veronisi, 2013), and managerial risk aversion is heightened (Panousi and Papanikolaou, 2012).

Variations in corporate governance characteristics across firms may explain why some firms cope better with environmental financial stress better than do others. However, even in the absence of such macroeconomic uncertainty optimal corporate governance policies are difficult to prescribe and vary widely across firms and societies (Gupta, Krishnamurti, and Tourani-Rad, 2013). When facing economic headwinds, directors and executives need the flexibility to redirect resources to better suit prevailing circumstances. Therefore, relatively shareholder-centric corporate governance mechanisms (e.g., CEO/chair separation, highly independent and diverse boards, strong legal protections for minority shareholders, etc.) which may be optimal in more

steady-state times can be problematic in a crisis. We next address the nuances of corporate governance policies and the roles of boards and managers during both steady-state and uncertain periods.

Boards have two primary responsibilities – monitoring and strategic advising of executives. Managerial monitoring mitigates the agency costs resulting from the separation of ownership and control (Jensen and Meckling, 1976), and research shows that shareholders benefit from more vigilant boards. Specifically, boards having CEO/chair separation (Fama and Jensen, 1983), fewer members (Yermack, 1996), more frequent meetings (Grove, Patelli, Victoravich, and Xu, 2011), independent functional committees (Bruno and Claessens, 2010), and a higher overall proportion of independent directors (van Essen, van Oosterhout, and Carney, 2012) tend to add to firm value on average.

However, intense monitoring can reduce the desire of high-level managers to communicate important strategic information to board members (Holmstrom, 2005), thereby reducing the ability of the board to effectively advise. And, since board resources are constrained, increased monitoring time comes at the cost of advising time. In this spirit, Faleye, Hoitash, and Hoitash (2011) show that acquisition performance suffers and corporate innovation declines when boards monitor too intensely. Further, overzealous monitoring may stifle managerial flexibility when it is most needed. For example, Williamson (2007) finds that firms having a high proportion of non-executive directors are less able to respond when crises occur. Perhaps empowered managers are better suited to handle economic uncertainty because the latitude over strategy and its implementation that executives have may increase when they are protected from shareholders.

While only recently have researchers examined managerial entrenchment during severe crises, its effects on firm value during steady-state times has been widely studied. In prior

literature, entrenchment has typically been measured via the E-Index (Bebchuk, Cohen, and Ferrell, 2009). Evidence indicates that six entrenchment provisions matter most for firm value – staggered boards, poison pills, golden parachutes, supermajority requirements for charter amendments, supermajority requirements for bylaws amendments, and supermajority requirements for mergers. Work by hundreds of authors suggests that entrenchment destroys value via one mechanism or another.[1] However, research by Cremers, Masconale, and Sepe (2016) shows that specific facets of entrenchment can add value under some circumstances.

Authors divide the E-Index into two subcomponents – the commitment index which includes three bilateral provisions, and the incumbent index which includes three unilateral provisions. Bilateral provisions include staggered boards, supermajority requirements to modify the charter, and the authority to approve mergers. Unilateral provisions include poison pills, golden parachutes, and supermajority votes to amend bylaws. Evidence suggests that bilateral (unilateral) provisions increase (decrease) value. In other words, under certain circumstances having a strong buffer between shareholders and managers/directors that enables the latter group to have wide discretion and commit themselves to long-term objectives can be beneficial, and we further explore this possibility.

Recently researchers have focused on corporate governance policies under extreme circumstances – the recent global financial crisis (e.g., Gupta, Krishnamurti, and Tourani-Rad, 2013; Berger, Imbierowicz, and Rauch, 2016; Erkens, Hung, and Matos, 2012). While focusing on this single event may provide insight, it offers a somewhat incomplete understanding since such events occur quite infrequently. It may be more helpful to develop an understanding of the value of social capital and variations in corporate governance policies in 'commonly uncertain' times.

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[1] http://www.law.harvard.edu/faculty/bebchuk/studies.shtml

This would help stakeholders plan for events that the economy will regularly face (e.g., elections, changes in governmental policies, military and trade conflicts, etc.). Therefore, rather than limiting the analysis to the global crisis we examine the effects of continuous innovations in uncertainty on firm value across 13 years.

Additionally, we study the effects of uncertainty both domestically and internationally because complicating any prescription for optimal corporate governance strategies are cross-country variations in economic development (Chen, Li, and Shapiro, 2011), and differences in national institutions (Henrekson and Jakobsson, 2012), institutional ownership (Erkens, Hung, and Matos, 2012), and government ownership (van Essen, van Oosterhout, and Heugens, 2012). For example, van Essen, Engelen, and Carney (2013) find that government owners helped under-performing firms weather the recent global financial crisis. This effect is driven partly by the fact that governmental support made creditors and suppliers more willing and able to maintain commitments to the firm. Further, companies located in countries having bank-based (as opposed to market-based) financial systems may experience differences in performance during crises (Levine, 1991; Rajan and Zingales, 1998). This brings us to our first hypothesis.

Hypothesis 1: Firms having higher corporate governance scores – those that are more shareholder-centric – will have lower (higher) values when uncertainty is higher (lower).

Van Essen, Engelen, and Carney (2013) offer some support for this hypothesis by showing that particularly strong governance policies that provide effective managerial oversight in steady-state times (such as incentive alignment between shareholders and managers, an independent board, and strong legal protections for minority shareholders) were suboptimal during the global

financial crisis. As in Williamson (2007), they argue that managers must have sufficient discretion if they are to exercise initiative and decisive leadership during difficult times, and find that when the CEO was also the chair of the board firms performed better from 2008 to 2009. However, there is not universal agreement on this topic. Using a US-based sample, Lins, Servaes, and Tamayo (2017) find that firms with more entrenched managers performed worse during the global financial crisis after accounting for the effects of social capital. We next discuss the role of social capital (in the form of CSR) on firm value.

The relation between CSR and firm value has been extensively studied yet a consensus has not been established regarding directionality (Margolis, Elfenbein, and Walsh, 2007). Some goals of CSR include increased demand among customers (Doh, Lawton, and Rajwani, 2012) and generation or enhancement of a competitive advantage (Porter and Kramer, 2006). However, those that support the value-loss model propose that CSR imposes unnecessary costs to a firm (Friedman, 1962; Galaskiewicz, 1997). That is, CSR may be the product of agency problems between shareholders seeking wealth maximization and managers engaging in CSR for the sake of their own social preferences or to establish relationships with specific stakeholders (Jensen and Meckling, 1976).

The pro-CSR literature has found several mechanisms by which value may be added. One general theme is that better CSR is associated with improved stakeholder engagement and relationships. For example, Cheng, Ioannou, and Serafeim (2014) show that superior CSR better positions firms to obtain financing, thereby allowing investment when the opportunity would not otherwise present itself. They propose that better access to finance comes from CSR's ability to reduce agency costs (via enhanced stakeholder engagement) and to mitigate informational asymmetry (via increased transparency). Additionally, high-CSR firms are better able to obtain

resources because of greater stakeholder support, improved efficiency, and enhanced firm reputation, brand, and trust (Porter and Kramer, 2011). El Ghoul, Guedhami, and Kim (2017) offer evidence that the value of CSR initiatives is greater in countries that lack market-supporting institutions since such environments have increased transactions costs and limited access to resources. In addition, CSR can reduce agency problems because it requires managers to adopt a long-term outlook (Eccles, Ioannou, and Serafeim, 2012).

From an uncertainty perspective, strong stakeholder relationships built over time via CSR activities may represent critical resources during downturns. Crisis situations result in lower levels of trust. During such times shareholders, creditors, and business partners are likely to look for evidence that the firm is trustworthy, and CSR may be a strong signal of dependability and stability. Thus, the social capital generated by high-CSR firms may enable these firms to sustain or create a competitive advantage in rapidly changing and/or adverse environments. This brings us to our second hypothesis.

Hypothesis 2: Firms having greater (lesser) CSR intensity will have higher values when uncertainty is higher (lower).

After testing these two main hypotheses we extend our analysis by examining the effects of specific aspects of corporate governance and CSR on firm value. We begin with ownership characteristics. Blockholders and institutional investors monitor managerial strategies to ensure value maximization (Shleifer and Vishny, 1986), and institutional owners especially serve important external disciplining and monitoring roles (Gillian and Starks, 2007). While such activities can serve minority shareholders well during steady-state times they may also impede

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firm flexibility during times of crisis. For example, Erkens, Hung, and Matos (2012) find that during the financial crisis firms having a high proportion of institutional ownership underperformed. We believe that when economic policy uncertainty is higher, firms having higher institutional and blockholder ownership levels will be overly constrained and will therefore have lower values.

We also examine the relation between firm value and CEO/chair separation, staggered boards, and board independence under varying levels of policy uncertainty. Yang and Zhao (2014) find that firms having CEO/chair duality outperform non-duality firms when their competitive environments change, lending support to the idea that duality saves information costs and enables speedy decisions. Research also indicates that staggered boards can add value by credibly committing the firm to long-term projects (Cremers, Litov, and Sepe, 2017). That is, trustworthiness may be particularly important during market tumult when investors perceive that certain firms may not be able to follow through on prior commitments.

Finally, board independence may affect firm value via two routes. First, in terms of monitoring, it may be that more independent boards are better monitors and thus create value by reducing agency problems. Second, in terms of advising, a high proportion of independent directors may present a greater information asymmetry problem. That is, management may be less willing to communicate private information to outside directors and therefore these outsiders may have an informational disadvantage over their insider counterparts (Armstrong, Core, and Guay, 2014), in which case they are less able to effectively advise. This would lead us to suspect a negative relationship between value and board independence during uncertain times.

3. Data

In our study, we utilize the global economic policy uncertainty (GEPU) index generated and maintained by Baker, Bloom, and Davis, which captures data from 40 countries.[2] The measure, which is computed as an annual average of monthly GDP-weighted GEPU normalized to a mean of 100 from 1997 to 2015, spikes when events such as trade and military wars, elections, interest rate changes, and financial crises occur. Large-magnitude events occur relatively frequently (there were 13 significant index spikes in the US alone between 1985 and 2015), providing sufficient variation to reliably measure the effects of changes in GEPU on firm value.

Financial variables are obtained from Worldscope, country-level macroeconomic variables are gathered from World Bank, and our institutional ownership data come from Factset. The remainder of our data come from the ASSET4 database which contains economic, environmental, social, and governance aspects of corporate social performance for approximately 4,300 publicly traded companies from the U.S. and abroad.[3] This particular dataset has been used extensively to study the effect governance policies on CSR intensity (Farrell, Liang, and Renneboog, 2016; Fauver, McDonald, and Taboada, 2018) and the relation between CSR and access to finance (Cheng, Ioannou, and Serafeim, 2014) and firm value (El Ghoul, Guedhami, and Kim, 2012; Bajic and Yurtoglu, 2016). Our CSR metric is derived from environmental and social performance scores that include the following aspects: emissions reduction, product innovation, resource reduction, product responsibility, community contributions, human rights, diversity and opportunity, employment quality, health and safety, and training and development.

We generate our governance scores from five categories which capture 1) board structure (e.g., % independent board members, CEO/chair duality, and board diversity), 2) board function

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[2] http://www.policyuncertainty.com/global_monthly.html
[3] See El Ghoul, Guedhami, and Kim (2016) for an extended description.

(e.g., committee representation by independent directors), 3) compensation policy (e.g., performance-based compensation and number of years until option vesting), 4) shareholder rights (e.g., policies on treatment of minority stockholders, equal voting rights, and staggered boards), and 5) vision and strategy (e.g., open reporting). Variables are structured such that higher values indicate more shareholder-centric policies.

4. Methodology and Results

We measure the effects of variations in GEPU, governance indicators, and CSR on firm value as measured by Tobin's q. Descriptive statistics relating to our sample are presented in Tables 1 and 2. The data consist of 22,491 firm-year observations from 2002 to 2014. A total of 40 countries are represented and around 35% of observations come from the United States. Table 2 reports firm-level financial characteristics, GEPU, corporate governance (CG), CSR, and country-level macroeconomic variables.[4] Looking at the primary variables of interest, Tobin's q takes a mean (median) value of 1.81 (1.44), while those for GEPU are 1.16 (1.14), those for CSR are each 0.54, and those for CG are 0.54 (0.63).

[Insert Table 1 About Here]

[Insert Table 2 About Here]

In each of our regression models, to mitigate endogeneity concerns we lag the CG and CSR variables one period, utilize 4-digit SIC, country, and year fixed effects, and report standard errors clustered at the country and year levels. In Table 3A we observe the effects of CG, CSR, and GEPU on firm value as measured by Tobin's q. Model (1) examines the relationship between our corporate governance index variable and firm value. Results indicate that on average variations in

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[4] For our empirical analyses, GEPU, CSR, and CG are each divided by 100.

the lagged corporate governance index do not explain differences in firm value. This result may reflect the fact there is not a one-size-fits-all prescription for 'good' governance characteristics across time and countries. Some firms, perhaps those with high cash holdings, free cash flows, capital expenditures, or low dividends, debt, and pay-for-performance sensitivity, are best served by having more restrictive policies, while others are not. We do, however, expect to see that when we interact CG with GEPU the resulting coefficient is negative, which would indicate that restrictive governance policies are value-reducing during times of economic uncertainty.

[Insert Table 3A About Here]

In model (2) we consider the relationship between CSR and firm value. As in Ferrell et al. (2016), which also uses ASSET4 to study the valuation effects of CSR, we find that CSR has a positive influence on valuation. There are several channels that may produce this result including improved access to finance (Cheng, Ioannou, and Serafeim, 2014), reduced transactions costs (El Ghoul et al., 2017), and increased brand asset value (Bardos, Ertugrul, and Gao, 2017). However, it is important to note that we have not yet controlled for GEPU in making this determination. We first need to demonstrate that global policy uncertainty reduces firm value due to the negative relationship between uncertainty and investment, the increased cost of capital, and the disruption of stakeholder relationships. The significantly negative coefficient estimate from model (3) confirms this expectation.

We propose above that firms having strong shareholder rights protections in place may be at a disadvantage during uncertain times because the discretion and latitude of boards and managers may be too limited. For example, management may have private information suggesting that a particular strategy is best, but may not be able to credibly convey this private information to shareholders. We see the first evidence of this dynamic in model (4) where the coefficient on the

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interaction between GEPU and CG is negative. This provides support for hypothesis 1. Thus, while prior work shows that strictly during the global financial crisis corporate governance policies that assure stringent managerial oversight may not be optimal or else are value-neutral (Gupta, Krishnamurti, and Tourani-Rad, 2013), we are the first to show that the negative effects of economic policy uncertainty are, in more commonly uncertain times, counterbalanced when shareholder rights are limited. Given the theory established above, our interpretation is that having strong boards and empowered managers enhances operational flexibility and lowers organizational inertia.

Our theoretical framework suggests that CSR activities build social capital that acts as insurance during times of uncertainty. So, while we expect to see that when GEPU and CSR are both high firm value should be higher than otherwise, we do not necessarily expect to see that CSR adds value in general. Results in model (5) are consistent with this view – the estimate on the interaction between GEPU and CSR is positive and highly statistically significant (this finding provides support for hypothesis 2), yet the CSR estimate is insignificant. Taken together this indicates that the value of CSR investments may reside largely in CSR's ability to offset the effects of external organizational stress. Further, when we combine the two sets of interaction terms into a single equation in model (6) the values of the $GEPU_t*CG_{t-1}$ and $GEPU_t*CSR_{t-1}$ coefficients increase as do the robust t-statistics. Results are economically meaningful; we calculate that a one standard deviation increase (decrease) in $GEPU_t*CSR_{t-1}$ ($GEPU_t*CG_{t-1}$) results in an 11.37% (8.97%) increase in Tobin's q.[5] As a robustness test in model (7) we exclude US-based corporations and observe that our main results remain intact.

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[5] From Table 3A model (6): (0.4296*0.3071/1.1603) = 0.1137; (0.4411*(-0.2360)/1.1603) = -0.0897.

To this point in the analysis we have taken the same approach as the majority of related literature by utilizing a *global* economic policy uncertainty index. Thus, our study so far assumes that all firms regardless of country of incorporation are exposed to the same global uncertainty shock. However, firms are also exposed to national uncertainty shocks, so it may be insightful to examine the effects of local economic policy uncertainty.[6] In Table 3B we introduce two new variables – the national economic policy uncertainty (NEPU) index and the foreign economic policy uncertainty (FEPU) index, the latter of which excludes the country's own economic policy uncertainty, so the NEPU effect is orthogonal to that of the FEPU.

[Insert Table 3B About Here]

Results in Table 3B, which are most analogous to those in model (6) of Table 3A, confirm that after controlling for economic policy uncertainty neither changes corporate governance nor changes in CSR are associated with changes in firm value as measured by Tobin's *q*. We do see that the country-level measure of economic policy uncertainty has a much more statistically reliable negative effect on firm value than does the global measure depicted in Table 3A (robust t-statistics -4.406 vs -1.844). However, model (1) also suggests that when NEPU is high overly restrictive corporate governance is not associated with reduced firm value ($CEPU_t * CG_{t-1}$ = -0.022). This result, when contrasted with model (6) from Table 3A, implies that when it comes to governance mechanisms foreign global uncertainty has a stronger influence on value than does national uncertainty. CSR efforts, on the other hand, do add significant value when country-level EPU is high ($CEPU_t * CSR_{t-1} = 0.225^{***}$). This may be an indication that corporate CSR efforts are primarily nationally-focused.

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[6] We thank an anonymous referee for offering this suggestion.

Model (2) in Table 3B, which includes foreign EPU interactions, illustrates that national and foreign EPU each have a highly significant detrimental effect on firm value. Additionally, we see that both FEPU*CG_{t-1} and FEPU*CG_{t-1} have higher degrees of statistical significance than do NEPU*CG_{t-1} and NEPU*CG_{t-1}. It may be reasonable to conclude that global economic policy uncertainty is the more robust determinant of firm value, potentially due to the heavy worldwide influence of EPU originating from within the United States. We see some evidence of this in Table 3A model (7), in which a significant proportion of GEPU and GEPU*CG effects are lost when US-based firms are excluded from the sample. Therefore, below we further explore our hypotheses using the global measure of uncertainty. First, however, we explore potential endogeneity concerns.

It is possible that an omitted variable bias is influencing our results. Unobserved factors may, for instance, influence both firm value and corporate governance. To tackle the endogeneity issue we conduct a say on pay (SOP) analysis. The enactment of say on pay legislation (e.g., Thomas and Van der Elst, 2015; Correa and Lel, 2016), represents an external corporate governance shock. In our analysis, SOP is set to 1 in the year after the country enacted say on pay legislation, else 0. Since the enactment of SOP will limit the ability of directors to actuate their own policies and will increase shareholder pressure on managers we expect to see a negative association between GEPU*SOP and Tobin's q.

Model (1) in Table 4, which uses our more-traditional GEPU variable, confirms this expectation (GEPU$_t$*SOP$_t$ = -0.104[*]). In model (2), which employs the alternative national and foreign EPU measures, we again observe that the effect of foreign global SOP shock mimics the effect of a high (restrictive) corporate governance score (FEPU$_t$*SOP$_t$ = -0.446[***]). Because SOP enactment represents an exogenous corporate governance shock, we therefore reason that the

likelihood that our prior corporate governance results are significantly driven by missing variables is somewhat low. Additionally, each of the models in tables 4 and 6 include annual country- and industry-mean CSR and CG variables to mitigate the potential effect of omitted variables.

[Insert Table 4 About Here]

Moving on, in Table 5 Panel A we examine the effects of institutional ownership, top five shareholder ownership, independent institutional ownership (mutual funds and independent investment advisers), CEO/chair duality, staggered boards, and board independence on firm value. If increased shareholder rights are detrimental during uncertain times, then we expect to see negative estimates on most of the interactions between these variables and GEPU. The exception would be CEO/chair duality, for which a positive estimate would imply that more empowered CEOs are better positioned to lead their organizations through economic uncertainty.

[Insert Table 5 About Here]

Results from model (1) indicate that during times of high GEPU having strong institutional owners can be detrimental. This is consistent with Erkens, Hung, and Matos (2012), who find that during the global crisis financial firms with higher institutional ownership experienced larger losses. Our interpretation is that institutional owners are less willing to cede strategic decision-making rights to directors and managers and so, during times of crisis, firms with higher institutional ownership will be less flexible. Estimates from model (2) show that a similar relationship holds for institutional blockholders. The statistically insignificant estimate on Top5 IO is consistent with Wright, Ferris, Sarin, and Awasthi (1996), Holderness and Sheehan (1988), and McConnell and Servaes (1990), who find that the presence of large blockholders does not significantly affect firm performance on average. However, the negative estimate on

GEPU$_t$*Top5 IO indicates that such blockholders can restrict managerial flexibility when the economic environment is turbulent. In model (3) we see that a similar result holds for independent institutional ownership.

In model (4) we examine the effect of CEO/chair duality on firm value and, consistent with Chang, Lee, and Shim (2018), find that in times of high economic policy uncertainty it is advantageous for firms to have more influential CEOs. Finally, in models (5) and (6), while we do see a negative relationship on the interaction between GEPU and staggered and independent boards, we do not find evidence that this effect is significant. The net take-away from the analyses presented in Table 5 Panel A is that when shareholder rights are strong, firm managers may be limited in their scope and speed of action during periods of high economic policy uncertainty when flexibility and swiftness is required.

Hypothesis 2 proposes that corporate social responsibility will exhibit a substantially different relationship. Specifically, strong stakeholder relationships built over time via CSR activities may represent critical resources during downturns. In Table 5 Panel B we separate CSR into three key components – social, environmental, and employee policy to identify which types of CSR investments can be tapped in difficult times. In model (1) we examine the social aspects of CSR which include product responsibility, community, human rights, and diversity and opportunity, and find that these aspects in aggregate add value when economic uncertainty is high. In model (2) we see that on average environmental policy efforts reduce value (Environment$_{t-1}$ = -0.168**), but the social capital they generate serves as insurance during periods of high GEPU. In effect, expenditures on environmental CSR can be likened to insurance premiums that pay off in times of uncertainty.

Because much recent global economic policy uncertainty work has been isolated to the recent financial crisis, we conclude our analyses by contrasting results generated 1) over the entire sample period (2002 to 2014), 2) during the financial crisis (2007 to 2009), 3) throughout the great recession (2007 to 2012 including the European sovereign debt crisis), and 4) for sovereign debt downgrades. The variable Financial Crisis is set to 1 when the year is 2007, 2008, or 2009, Crisis is set to 1 when the year is in the inclusive range 2007 to 2012, and Country Downgrade is set to 1 if a country's sovereign debt is downgraded in the current or prior year. In Table 6, model (1) confirms that over the entire sample period the value-reducing effect of high GEPU is offset by CSR activities and exacerbated by strict corporate governance policies. Models (2) through (4) show that our findings are generally consistent across the three periods of high uncertainty. Additionally, following the approach of Faleye et al. (2011), in model (5) we isolate the effect of CSR and CG levels in 2006 to control for reverse causality between these variables and Tobin's q. Results suggest that our main results are unlikely to be driven by the endogenous nature of corporate social responsibility or corporate governance, though we cannot eliminate potential such concerns with certainty.

[Insert Table 6 About Here]

5. Conclusions

A growing body of research examines the effects of variations in corporate governance and CSR policies under extreme circumstances – the recent global financial crisis. Evidence suggests that during this specific period well-governed firms do not perform better than poorly governed firms. This may occur because more stringent governance rules can be counterproductive – such measures may compromise executives' ability to respond appropriately to shock. Research also shows that during the global financial crisis high-CSR firms were rewarded with lower financing

and transactions costs and greater access to capital for their long-term investment focus, increased trustworthiness, and more stable relationships with internal and external stakeholders. Our contribution is to extend these analyses beyond this limited circumstance and into more commonly uncertain times. Employing the global economic policy uncertainty (GEPU) index of Baker, Bloom, and Davis (2016) we examine the effects of variations in corporate governance and CSR policies on firm value (as measured by Tobin's q) across 40 countries and over 13 years of waxing and waning GEPU.

We find that managerial and board flexibility is particularly important when economic environmental pressures increase and less so when they decrease. Our results suggest that implementing corporate governance policies that limit shareholder rights during uncertain times is important because unencumbered boards and managers are able to respond more swiftly to policy shifts in the economic environment with their own strategic changes. Specifically, firms with higher institutional ownership and top-five institutional shareholder holdings, and those having a higher proportion of independent directors have lower (higher) values when global economic policy uncertainty rises (falls).

Additionally, we demonstrate that without controlling for GEPU, CSR investments are positively associated with firm value in general. However, once we account for variations in policy uncertainty, CSR investments increase firm value only when GEPU becomes relatively high. We reason that CSR-intense firms can maintain (or build) a competitive advantage during times of economic policy uncertainty because the social capital that their prior CSR investments have generated can offset the negative aspects of economic policy uncertainty in general (as opposed to strictly during the recent global financial crisis). Further, our analysis indicates that investments in environmental and employee policy can have a negative overall effect on firm value after

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controlling for GEPU.   However, when GEPU is high we observe that investments in social, environmental, and employee CSR are all value-positive propositions.

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Table 1. Sample Country Distribution

Table 1 describes the distribution of our data by country. The sample spans from 2002 to 2014 and consists of all WorldScope non-financial firms having associated ASSET4 corporate social responsibility and corporate governance data.

Country	Obs.	CSR	CG	Tobin's q
Australia	963	0.4095	0.6473	1.8256
Austria	136	0.6537	0.3488	1.4528
Belgium	149	0.6339	0.5123	1.5111
Brazil	211	0.6775	0.2788	1.9682
Canada	1,312	0.4268	0.7704	1.6474
Chile	58	0.4648	0.0800	1.7730
China	391	0.3130	0.2863	1.8188
Czech Republic	15	0.5890	0.2024	1.4771
Denmark	169	0.5790	0.3643	2.6778
Finland	155	0.7509	0.5689	1.6114
France	535	0.8154	0.5890	1.5344
Germany	696	0.7012	0.3242	1.5060
Greece	150	0.4880	0.2192	1.5070
Hong Kong	531	0.3489	0.3409	1.7359
Hungary	10	0.6362	0.4372	1.1296
India	31	0.8801	0.6787	3.2063
Indonesia	88	0.6545	0.2755	2.9748
Ireland	120	0.4209	0.6729	1.8767
Italy	314	0.6498	0.4389	1.3878
Japan	3,735	0.5749	0.1182	1.3237
Luxembourg	73	0.5348	0.4909	1.6706
Malaysia	128	0.4239	0.4041	2.2573
Mexico	114	0.5599	0.2056	2.1614
Netherlands	252	0.7186	0.6436	1.7147
New Zealand	39	0.4142	0.5237	1.7943
Norway	122	0.6304	0.5676	1.7187
Poland	35	0.2860	0.1830	1.2860
Portugal	27	0.6856	0.5659	1.8418
Russia	192	0.4897	0.2982	1.4354
Saudi Arabia	39	0.3425	0.0600	2.0313
Singapore	241	0.4032	0.4834	1.5650
South Africa	147	0.7532	0.6688	2.2232
South Korea	308	0.6885	0.1703	1.4281
Spain	86	0.7555	0.4694	2.1514
Sweden	372	0.6888	0.5354	1.8855
Switzerland	473	0.6116	0.4851	2.3185
Thailand	73	0.5865	0.4719	2.5886

Turkey	65	0.5571	0.2254	1.9147
United Kingdom	2,098	0.6256	0.7338	1.8970
United States	7,838	0.4765	0.7461	2.0851
Total	22,491	0.5359	0.5410	1.8173

Table 2. Sample Descriptive Statistics

This table reports firm-level characteristics including global economic policy uncertainty (GEPU), corporate social responsibility (CSR), corporate governance (CG), and country-level macroeconomic variables. Tobin's q is the market value of total assets (TA)/book value of TA. GEPU comes from the website of Baker, Bloom, and Davis. CSR is obtained from the ASSET4 database, and is calculated as an arithmetic average of social and environmental scores. CG is the corporate governance score obtained from the ASSET4 database. Employee Policy takes value 1 if the firm has a policy that aims at maintaining long-term employment growth and stability, else 0. Financial variables come from WorldScope and are Winsorized at the 2.5% level. All country-level macroeconomic variables come from World Bank. LogTA is the log of total assets. Leverage is total debt divided by TA. ROA is the ratio of income before extraordinary items divided by TA. R&D is research and development expenses divided by TA. Missing R&D is set to 1 if R&D expenses are missing, else 0. CAPX is capital expenditures. FA is fixed assets. SGA is selling, general, and administrative expenses. Missing SGA is 1 if SGA expenses are missing, else 0. GDP per Capita is expressed as 10,000 US$. GDP Growth is GDP per Capita$_t$ divided by GDP per Capita$_{t-1}$ − 1. Inflation is measured as the GDP deflator.

Variables	Obs.	Mean	Median	p25	p75	Sd
Tobin's q_t	22,491	1.8173	1.4361	1.1104	2.0648	1.1823
GEPU$_t$	22,491	1.1550	1.1447	0.9279	1.4714	0.3943
CSR$_t$	22,491	0.5359	0.5434	0.2475	0.8318	0.2933
CG$_t$	22,491	0.5410	0.6330	0.2303	0.8105	0.3070
Employee Policy$_{t-1}$	21,443	0.2634	0.0000	0.0000	1.0000	0.0000
LogTA$_{t-1}$	22,491	15.4277	15.4554	14.6171	16.4013	1.2235
Leverage$_{t-1}$	22,491	0.2415	0.2310	0.1126	0.3457	0.1704
ROA$_{t-1}$	22,491	0.0480	0.0488	0.0203	0.0885	0.0985
(R&D/TA)$_{t-1}$	22,491	0.0194	0.0004	0.0000	0.0228	0.0366
Missing R&D$_{t-1}$	22,491	0.3921	0.0000	0.0000	1.0000	0.4882
(CAPX/TA)$_{t-1}$	22,491	0.0570	0.0423	0.0233	0.0725	0.0509
(FA/TA)$_{t-1}$	22,491	0.3265	0.2772	0.1408	0.4709	0.2289
(Dividends/TA)$_{t-1}$	22,491	0.0197	0.0118	0.0025	0.0267	0.0237
(SGA/TA)$_{t-1}$	22,491	0.1885	0.1412	0.0656	0.2591	0.1733
Missing SGA$_{t-1}$	22,491	0.0000	0.0000	0.0000	0.0000	0.0000
GDP per Capita$_t$	22,491	4.2648	4.4308	3.7866	4.9782	1.3606
GDP Growth$_t$	22,491	0.0105	0.0140	0.0044	0.0195	0.0248
Inflation$_t$	22,491	0.0173	0.0179	0.0076	0.0266	0.0228

Table 3A. The Effects of Corporate Governance, CSR, and GEPU on Firm Value

This table contains multivariate regression models that depict the relationship between corporate governance (CG), corporate social responsibility (CSR), and global economic policy uncertainty (GEPU) on firm value. The dependent variable in each model is Tobin's q. Model (7) excludes US-based firms. All models include SIC 4-digit industry, country, and year fixed effects. Robust t-statistics are calculated after clustering at the country and year levels, and are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

Variables	(1) Tobin's q	(2) Tobin's q	(3) Tobin's q	(4) Tobin's q	(5) Tobin's q	(6) Tobin's q	(7) Tobin's q
CG_{t-1}	-0.066			0.099		0.064	0.049
	(-1.377)			(0.918)		(0.573)	(0.446)
CSR_{t-1}		0.217***			-0.067	-0.074	-0.155
		(5.370)			(-0.806)	(-0.889)	(-1.333)
$GEPU_t$			-3.078*	-0.295	-0.625***	-0.443*	-0.069
			(-1.875)	(-1.235)	(-2.611)	(-1.844)	(-0.420)
$GEPU_t*CG_{t-1}$				-0.147*		-0.236***	-0.138*
				(-1.691)		(-2.604)	(-1.719)
$GEPU_t*CSR_{t-1}$					0.243***	0.307***	0.317***
					(3.592)	(4.685)	(3.533)
$LogTA_{t-1}$	-0.215***	-0.250***	-0.234***	-0.215***	-0.251***	-0.249***	-0.221***
	(-14.545)	(-14.641)	(-17.880)	(-14.560)	(-14.599)	(-14.292)	(-13.308)
$Leverage_{t-1}$	0.064	0.076	0.068	0.065	0.078	0.082	0.143*
	(0.871)	(1.044)	(0.989)	(0.883)	(1.086)	(1.140)	(1.757)
ROA_{t-1}	1.926***	1.915***	1.786***	1.930***	1.915***	1.918***	1.505***
	(9.037)	(9.003)	(9.450)	(9.038)	(9.009)	(9.029)	(6.422)
$(R\&D/TA)_{t-1}$	4.955***	4.835***	4.809***	4.949***	4.844***	4.869***	4.027***
	(10.981)	(10.704)	(10.645)	(10.935)	(10.742)	(10.775)	(6.763)
$Missing R\&D_{t-1}$	-0.017	-0.009	-0.018	-0.017	-0.010	-0.011	-0.031*
	(-1.153)	(-0.570)	(-1.219)	(-1.166)	(-0.641)	(-0.755)	(-1.664)
$(CAPX/TA)_{t-1}$	2.237***	2.213***	2.292***	2.244***	2.223***	2.210***	1.669***
	(9.518)	(9.596)	(10.446)	(9.558)	(9.694)	(9.599)	(8.028)
$(FA/TA)_{t-1}$	-0.542***	-0.550***	-0.595***	-0.544***	-0.545***	-0.545***	-0.434***
	(-10.611)	(-10.607)	(-12.818)	(-10.638)	(-10.494)	(-10.503)	(-7.603)
$(Dividends/TA)_{t-1}$	10.279***	10.013***	9.910***	10.279***	10.022***	9.987***	9.855***
	(19.269)	(18.389)	(17.732)	(19.227)	(18.545)	(18.423)	(13.396)
$(SGA/TA)_{t-1}$	0.917***	0.852***	0.957***	0.919***	0.852***	0.858***	0.772***
	(12.134)	(11.142)	(11.327)	(12.170)	(11.146)	(11.204)	(6.689)
GDP per Capita$_t$	-0.077***	-0.073***	-0.065**	-0.086***	-0.072***	-0.084***	-0.105***
	(-2.878)	(-2.742)	(-2.585)	(-3.322)	(-2.731)	(-3.279)	(-4.607)
GDP Growth$_t$	2.151**	2.120**	2.355***	2.150**	2.062**	1.957**	1.146
	(2.510)	(2.463)	(2.654)	(2.524)	(2.425)	(2.339)	(1.433)
Inflation$_t$	1.545*	1.592**	1.320*	1.443*	1.722**	1.532*	1.445*
	(1.955)	(1.999)	(1.808)	(1.825)	(2.163)	(1.936)	(1.946)
Observations	20,345	20,345	22,449	20,345	20,345	20,345	13,210
Adj R-Squared	0.502	0.503	0.496	0.502	0.504	0.505	0.538
Year Fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Standard Errors Clustered by	Country & Year	Country & Year	Country & Year	Country & Year	Country & Year	Country & Year	Country & Year

Table 3B. Alternative Measures of Economic Policy Uncertainty

This table contains multivariate regression models that depict the relationship between corporate governance (CG), corporate social responsibility (CSR), national economic policy uncertainty (NEPU), and foreign global economic policy uncertainty (FEPU) on firm value. The latter variable captures GEPU excluding that country's own economic policy uncertainty. The dependent variable in each model is Tobin's q. All models include SIC 4-digit industry, and country fixed effects. Robust t-statistics are calculated after clustering at the country and year levels, and are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

Variables	(1) Tobin's q	(2) Tobin's q
CG_{t-1}	-0.129	-0.185
	(-0.813)	(-1.273)
CSR_{t-1}	-0.015	0.091
	(-0.148)	(0.877)
$NEPU_t$	-0.403***	-0.321***
	(-4.406)	(-4.132)
$NEPU_t*CG_{t-1}$	-0.022	0.016
	(-0.172)	(0.141)
$NEPU_t*CSR_{t-1}$	0.225***	0.143*
	(2.843)	(1.882)
$FEPU_t$		-0.488***
		(-3.814)
$FEPU_t*CG_{t-1}$		-0.301*
		(-1.663)
$FEPU_t*CSR_{t-1}$		0.475***
		(3.326)
Observations	18,492	18,492
Adj R-Squared	0.491	0.493
Financial Vars Controlled	Yes	Yes
Country Vars Controlled	Yes	Yes
Year Fixed	No	No
Industry Fixed	Yes	Yes
Country Fixed	Yes	Yes
Standard Errors Clustered by	Country & Year	Country & Year

Table 4. Enactment of Say on Pay Laws

This table shows the results of utilizing the enactment of say on pay (SOP) laws as an exogenous corporate governance shock to test for the potential presence of an omitted variable bias. SOP is set to 1 in the year after the country enacted say on pay legislation, else 0. All models include firm fixed effects. Robust t-statistics are calculated after clustering at the country and year levels and are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

Variables	(1) Tobin's q	(2) Tobin's q
CSR_{t-1}	-0.070	0.085
	(-0.836)	(0.732)
SOP_t	0.227**	0.209**
	(2.549)	(2.008)
$GEPU_t$	-0.306***	
	(-3.759)	
$GEPU_t*CSR_{t-1}$	0.176***	
	(2.950)	
$GEPU_t*SOP_t$	-0.104*	
	(-1.750)	
$NEPU_t$		-0.003***
		(-2.987)
$NEPU_t*CSR_{t-1}$		0.061
		(0.700)
$NEPU_t*SOP_t$		0.000
		(0.438)
$FEPU_t$		-0.678***
		(-3.446)
$FEPU_t*CSR_{t-1}$		0.581***
		(3.585)
$FEPU_t*SOP_t$		-0.446**
		(-2.279)
Country CSR Avg$_t$	-0.767***	-0.650**
	(-3.044)	(-2.146)
Country CG Avg$_t$	0.579**	0.686**
	(2.284)	(2.054)
Industry CSR Avg$_t$	-0.133	-0.186
	(-0.501)	(-0.684)
Industry CG Avg$_t$	-0.337*	0.089
	(-1.902)	(0.349)
Observations	19,846	17,926
Adj R-squared	0.764	0.750
Financial Vars Controlled	Yes	Yes
Country Vars Controlled	Yes	Yes
Year Fixed	No	No
Firm Fixed	Yes	Yes
Standard Errors Clustered by	Country & Year	Country & Year

Table 5. The Effects of Aspects of Corporate Governance and CSR on Firm Value

The dependent variable in each model is Tobin's *q*. In Panel A, IO is institutional ownership, Top5 IO is the ownership of the top 5 institutional owners, and Indep IO is the ownership of mutual funds and independent investment advisers. Each ownership variable is expressed as a percentage of market capitalization. CEO Duality is 1 if the CEO is also the chairman of the board, else 0. Staggered Board is 1 if the company has a staggered board structure, else 0. Indep Board is the fraction of independent board members. In Panel B, Employee Policy takes value 1 if a firm has a policy that aims at maintaining long-term employment growth and stability, else 0. All models include SIC 4-digit industry, country, and year fixed effects. Robust *t*-statistics are calculated after clustering at the country and year levels, and are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

Panel A. The Effects of Corporate Governance Aspects on Firm Value

Variables	(1) Tobin's q	(2) Tobin's q	(3) Tobin's q	(4) Tobin's q	(5) Tobin's q	(6) Tobin's q
GEPU$_t$	-5.233**	-5.917**	-5.258**	-0.364	-0.386*	-0.040
	(-2.160)	(-2.360)	(-2.170)	(-1.274)	(-1.654)	(-0.153)
IO$_{t-1}$	0.190					
	(1.483)					
GEPU$_t$*IO$_{t-1}$	-0.175**					
	(-2.207)					
Top5 IO$_{t-1}$		-0.265				
		(-1.076)				
GEPU$_t$*Top5 IO$_{t-1}$		-0.517***				
		(-2.817)				
Indep IO$_{t-1}$			0.214			
			(1.566)			
GEPU$_t$*Indep IO$_{t-1}$			-0.190**			
			(-2.277)			
CEO Duality$_{t-1}$				-0.021		
				(-1.009)		
GEPU$_t$*CEO Duality$_{t-1}$				0.031**		
				(2.260)		
Staggered Board$_{t-1}$					0.015	
					(0.338)	
GEPU$_t$*Stag Board$_{t-1}$					-0.009	
					(-0.252)	
Indep Board$_{t-1}$						-0.074
						(-0.693)
GEPU$_t$*Indep Board$_{t-1}$						-0.067
						(-0.725)
Observations	18,183	18,183	18,183	19,383	18,926	16,960
Adj R-Squared	0.496	0.498	0.496	0.504	0.501	0.502
Financial Vars Controlled	Yes	Yes	Yes	Yes	Yes	Yes
Country Vars Controlled	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed	Yes	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed	Yes	Yes	Yes	Yes	Yes	Yes
Std. Errors Clustered by	Country & Year	Country & Year	Country & Year	Country & Year	Country & Year	Country & Year

Panel B. The Effects of CSR Aspects on Firm Value

Variables	(1) Tobin's q	(2) Tobin's q	(3) Tobin's q
$GEPU_t$	-0.573**	-0.616***	-0.460**
	(-2.341)	(-2.590)	(-1.977)
$Social_{t-1}$	0.019		
	(0.235)		
$GEPU_t*Social_{t-1}$	0.145**		
	(2.244)		
$Environmental_{t-1}$		-0.168**	
		(-2.058)	
$GEPU_t*Environmental_{t-1}$		0.278***	
		(3.887)	
Employee Policy$_{t-1}$			-0.098**
			(-2.455)
$GEPU_t*$Employee Policy$_{t-1}$			0.001***
			(4.331)
Observations	20,021	20,021	20,021
Adj R-Squared	0.517	0.518	0.516
Financial Vars Controlled	Yes	Yes	Yes
Country Vars Controlled	Yes	Yes	Yes
Year Fixed	Yes	Yes	Yes
Industry Fixed	Yes	Yes	Yes
Country Fixed	Yes	Yes	Yes
Standard Errors Clustered by	Country & Year	Country & Year	Country & Year

Table 6. External Uncertainties and the Effect of CSR and CG on Firm Value

The dependent variable in each model is Tobin's q. External uncertainty measures include global economic policy uncertainty (GEPU), Financial Crisis (2007-2009), Crisis (2007-2012 including the European sovereign debt crisis), and Country Downgrade (sovereign debt rating downgrade). Country CSR (CG) Avg is the annual country CSR (CG) score. Industry CSR (CG) Avg is the annual SIC2 industry CSR (CG) score. Financial Crisis is set to 1 if the year is 2007, 2008, or 2009, else 0. Crisis is 1 if the year is 2007, 2008, 2009, 2010, 2011, or 2012, else 0. Country Downgrade takes a value of 1 if a sovereign bond downgrades this or last year, else 0. CSR2006 (CG2006) is the CSR (CG) value in 2006. All models include firm and year fixed effects. Robust t-statistics are calculated after clustering at the country and year levels and are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% level, respectively.

Variables	(1) Tobin's q	(2) Tobin's q	(3) Tobin's q	(4) Tobin's q	(5) Tobin's q
$GEPU_t$	-0.034				-0.279***
	(-0.152)				(-3.101)
CSR_{t-1}	-0.060	0.127**	0.109**	0.152***	
	(-0.705)	(2.554)	(1.979)	(3.150)	
$GEPU_t*CSR_{t-1}$	0.214***				
	(3.559)				
CG_{t-1}	0.052	-0.065	-0.026	-0.106*	
	(0.512)	(-1.143)	(-0.404)	(-1.925)	
$GEPU_t*CG_{t-1}$	-0.164*				
	(-1.899)				
Financial Crisis		-0.128			
		(-1.445)			
Financial Crisis*CSR_{t-1}		0.131***			
		(2.589)			
Financial Crisis*CG_{t-1}		-0.206**			
		(-2.084)			
Crisis			-0.127		
			(-1.361)		
Crisis*CSR_{t-1}			0.109**		
			(2.254)		
Crisis*CG_{t-1}			-0.180**		
			(-2.356)		
Country Downgrade				-0.074	
				(-1.488)	
Country Downgrade*CSR_{t-1}				0.116**	
				(2.539)	
Country Downgrade*CG_{t-1}				-0.114	
				(-1.465)	
$GEPU_t*CSR2006$					0.019***
					(3.418)
$GEPU_t*CG2006$					-0.106**
					(-2.070)
Country CSR Avg_t	-0.590**	-0.550**	-0.533**	-0.534**	
	(-2.411)	(-2.072)	(-2.045)	(-2.114)	
Country CG Avg_t	0.526**	0.657***	0.491*	0.547**	
	(2.049)	(2.681)	(1.886)	(2.093)	
Industry CSR Avg_t	-0.191	-0.185	-0.180	-0.197	
	(-0.733)	(-0.699)	(-0.679)	(-0.751)	
Industry CG Avg_t	-0.353**	-0.364**	-0.375**	-0.320*	
	(-1.993)	(-2.078)	(-2.133)	(-1.827)	

Observations	19,649	19,588	19,588	19,588	18,658
Adj R-Squared	0.764	0.765	0.765	0.765	0.761
Financial Vars Controlled	Yes	Yes	Yes	Yes	Yes
Country Vars Controlled	Yes	Yes	Yes	Yes	Yes
Year Fixed	Yes	Yes	Yes	Yes	Yes
Firm Fixed	Yes	Yes	Yes	Yes	Yes
Standard Errors Clustered by	Country & Year	Country & Year	Country & Year	Country & Year	Country & Year

Appendix – Variable Definitions

Variable	Description	Source
CAPX	Capital Expenditures	WorldScope
CEO Duality	1 if the CEO is also the chairman of the board, else 0	ASSET4
CG	Corporate Governance score; weighted average of board structure, board function, compensation policy, shareholder rights, and visions and strategy; 0 to 1	Calculated; ASSET4
CG2006	CG value in 2006	ASSET4
Country CG Avg	Annual country (SIC2 industry) CG average	Calculated; ASSET4
Country CSR Avg	Annual country (SIC2 industry) CSR average	Calculated; ASSET4
Country Downgrade	1 if a sovereign bond downgrades this or last year, else 0	Manual
Crisis	1 if the year is 2007, 2008, 2009, 2010, 2011, or 2012, else 0	Manual
CSR	Corporate Social Responsibility; see Social and Environmental definitions	ASSET4
CSR2006	CSR value in 2006	ASSET4
Dividends	Common stock dividends	WorldScope
Employee Policy	1 if a firm has a policy that aims at maintaining long-term employment growth and stability, else 0	ASSET4
Environmental	Environmental CSR score; weighted average of emission reduction, product innovation, and resource reduction scores; 0 to 1	Calculated; ASSET4
FA	Fixed Assets	WorldScope
Financial Crisis	1 if the year is 2007, 2008, or 2009, else 0	Manual
GDP Growth	% change in GDP	Calculated; World Bank
GDP per Capita (unit U$10,000)	(GDP/10,000)/total population	Calculated; World Bank
GEPU	Global Economic Policy Uncertainty (see Baker, Bloom, and Davis, 2016); an annual average of monthly GDP-weighted GEPU normalized to a mean of 100	policyuncertainty.com
FEPU	Foreign EPU; GEPU excluding a country's own economic policy uncertainty	Calculated
Independent Board	Ratio of independent board members to total board members	Calculated; ASSET4
Industry CG Avg	Annual (SIC2 industry) CG average	Calculated; ASSET4
Industry CSR Avg	Annual (SIC2 industry) CSR average	Calculated; ASSET4
Inflation	Country annual inflation rate	World Bank
IO	Institutional Ownership, expressed as a percentage of total market capitalization	Calculated; Factset

Leverage	Total Debt over TA	Calculated; WorldScope
LogTA	Natural log of TA	Calculated; WorldScope
Missing R&D	1 if R&D is missing, else 0	Manual
Missing SGA	1 if SGA is missing, else 0	Manual
NEPU	National EPU; EPU of a particular country	policyuncertainty.com
No R&D	Includes all firms with R&D = 0 or missing	N/A
Positive R&D	Includes all firms with R&D > 0	N/A
R&D	Research and Development Expense	WorldScope
ROA	Net Income/TA	Calculated; WorldScope
SGA	Selling, General, and Administrative Expense	WorldScope
SR	Shareholder Rights; management's commitment and effectiveness towards following best practice corporate governance principles related to shareholder policy and equal treatment of shareholders	ASSET4
Social	Social CSR score; weighted average scores of product responsibility, community, human rights, diversity and opportunity, employment quality, health and safety, and training and development; 0 to 1	Calculated; ASSET4
Staggered Board	1 if the company has a staggered board structure, else 0	ASSET4
TA	Total Assets	WorldScope
Tobin's q	Market Value of TA/Book Value of TA	Calculated; WorldScope
Top5 IO	Institutional holdings of the top-5 institutions, expressed as a percentage of total market capitalization	Calculated; Factset