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Corporate Social Performance and Class Action Lawsuits

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Abstract We investigate the relationship between corporate social performance and litigation risk by examining US class action lawsuits. Previous business ethics research indicates that corporate social performance has risk management characteristics and offers insurance-like effects in corporate crises. Therefore, we posit that corporate social performance and the absence of business ethics controversies serve as risk management tools against US class action lawsuits. We find that a one standard deviation improvement in our measure for business ethics controversies of an average firm reduces its risk to face a US class action lawsuit by 14%. Moreover, an average sample firm with low corporate social performance exhibits twice as high losses in market value around the lawsuit filing compared to a high CSP firm, i.e., an abnormal loss of US $1bn. Our findings are important to understand the potential of cor-

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porate social performance as a risk-reducing mechanism and to shield against negative market impacts during litigation.

Keywords Litigation risk · corporate social performance · stakeholder theory · risk management theory · business ethics controversies · event study

Introduction

The business ethics literature refers to corporate scandals as a strong indication of a serious decay in business ethics (Chen, 2016). Firms affected by corporate scandals and managerial misconduct suffer financially (e.g., by compensation payments) and reputation-wise. Following this notion, research on business ethics has repeatedly considered the link between a firm's engagement in ethical, environmental, and social issues—coined corporate social performance—and financial performance or firm value (e.g., Aouadi and Marsat, 2018; Garcia-Castro et al., 2010; Wang et al., 2011; Cai et al., 2012).

Corporate social performance (CSP) is a multidimensional construct which combines a wide range of firm behaviour regarding environmental (e.g., pollution control), social (e.g., diversity), and corporate governance (e.g., stakeholder strategy) issues (Waddock and Graves, 1997; Griffin and Mahon, 1997). From a management perspective, research has concluded that CSP has risk-reducing characteristics (Cai et al., 2016; Harjoto and Laksmana, 2018; Benlemlih et al., 2018; Jo and Na, 2012). From an investment perspective, the impact of CSP on return and risk but also the probability of the occurrence of extreme events is essential. In this context, previous literature has neglected the explanatory power of former business ethics controversies (BEC) for US class action lawsuits—our measure of litigation risk. Therefore, we investigate to what extent (1) former business ethics controversies are an explanatory factor for future US class action lawsuits and (2) corporate social performance mitigates the negative financial outcomes during class action lawsuits.

Our study reinforces the notion of CSP as part of risk management policies in the business ethics literature. For instance, two similarly sized firms from our sample are from the healthcare sector, Mallinckrodt and TherapeuticsMD. They both faced a class action lawsuit due to neglecting their reporting du-

ties regarding a monopolistic position and a new drug application submission, respectively. Both lawsuits were filed in early 2017; however, their firm value impact differed substantially. While TherapeuticsMD lost about 40% of its firm value in 21 days around the filing of the lawsuit, Mallinckrodt lost less than 10%. One potential reason for this discrepancy is certainly the severity of the claim, which is possibly linked to business ethics standards in the respective firm. At this point, CSP enters the game. Mallinckrodt was—according to an external evaluation of its CSP and compared to its peers—among the top performing firms, while TherapeuticsMD was at the bottom of the CSP spectrum.

Returning to the potential explanatory power of business ethics controversies for US class action lawsuits, CSP can be perceived as an indicator of both transparency and risk management policies. Measures for CSP offer insights into firms which cannot be derived from financial reporting and thus increase transparency. The disclosure of CSP measures potentially reduces stakeholders' search and evaluation costs for such non-financial information (Kennett, 1980). Moreover, engaging in CSP can be perceived as a risk management initiative itself (Cai et al., 2016; Harjoto and Laksmana, 2018). Numerous empirical studies have supported this notion of risk management theory (e.g., Bouslah et al., 2013; El Ghoul et al., 2011; Lee and Faff, 2009; Luo and Bhattacharya, 2009; Albuquerque et al., 2018).

Furthermore, we posit—based on stakeholder theory—that, once a class action lawsuits has occurred, CSP mitigates the negative effects on firm value because it acts as a 'reservoir of goodwill'. By generating this 'reservoir of goodwill' through CSP, firms can build moral capital among different stakeholders, which acts as insurance against negative events (Fombrun and Shanley, 1990) and negative performance effects during a corporate crisis (Fombrun, 1996; Godfrey, 2005; Koh et al., 2014; Schnietz and Epstein, 2005). Thus, firms that

consider the interests of all stakeholders show long-term financial success since all the stakeholders' interests are aligned (Freeman, 2010). For instance, the financial performance of firms benefited from high CSP during the 07/08 financial crisis (Lins et al., 2017) and in cases of corrupt firm behaviour (Hong and Liskovich, 2016). Recently, however, Liu et al. (2019) found contradicting evidence that CSP does *not* protect shareholder wealth in cases of environmental lawsuits. The discussion above suggests that academic literature is still far from conclusive as to whether CSP can protect against losses from legal disputes.

We add empirical evidence on the risk management potential of CSP to the business ethics literature based on a panel data set containing 7671 firm-year observations of US firms from 2003 to 2017. We use scores from Thomson Reuters to proxy for firm exposure towards business ethics controversies and CSP. Moreover, our measure for litigation risk is based on US class action lawsuits from the Securities Class Action Clearinghouse (SCAC) of Stanford Law School. We explain litigation risk in an extended multiple panel regression model of Kim and Skinner (2012) as a function of BEC and well-documented control variables. We find that a one standard deviation improvement in the BEC score of an average firm reduces the probability for a US class action lawsuit by 14%.

We further apply an event study to investigate the insurance-like effects of high CSP during litigation. Recent empirical research has considered event study methodology as a powerful tool to investigate the link between CSP and stock market reactions (Hawn et al., 2018). We measure the market reaction to a firm's distress originating from litigation by abnormal returns. Abnormal returns are calculated by using data on actual returns from CRSP and expected returns from Fama and French's (1993) three-factor model. In support of stakeholder theory, we find support for an insurance-like effect of high CSP

for firms that face US class action lawsuits. In particular, an average sample firm (market cap: US $22.1bn) with low CSP experiences an abnormal loss in market value of US $1bn around the lawsuit filing compared to a high CSP firm.

We contribute to the discussion on the role of ethics in a business context. Our findings provide new insights into the CSP-related validity of risk management theory and stakeholder theory. First, to the best of our knowledge, our study is the first that empirically quantifies how a firm's involvement in business ethics controversies informs directly about the risk of litigation. It is in the interest of managers to run a business in an ethically responsible manner, as this can reduce the number of litigation cases and thus avoid damages to the reputation and an increase in the cost of capital. Second, using a large cross-section of US firms, we add to the stream of business ethics research on CSP, firm value, and risk (e.g., Harjoto and Laksmana, 2018; Benlemlih et al., 2018; Aouadi and Marsat, 2018). In particular, we show a moderating role of CSP on firm value during US class action lawsuits. This moderating role is especially relevant for investors. Investors could consider information about corporate social performance and business ethics controversies in their investment decisions and thus decrease their exposure towards idiosyncratic risk.

Corporate Social Performance and Risk

CSP has become increasingly important when assessing a firm's financial performance and risk.[1] While numerous empirical studies examined the direct relationship between CSP and financial performance (e.g., Ferrell et al., 2016;

[1] In our theoretical part, the term CSP refers to a firm's activities in all dimensions of sustainability and social responsibility (environmental, social, and governance; ESG). In our empirical part, we use measures such as ESG scores to proxy for CSP.

Girerd-Potin et al., 2014; Lev et al., 2010; Aouadi and Marsat, 2018), others focused on the risk dimension and the potential risk-reducing role of CSP (e.g., Harjoto and Laksmana, 2018; Utz, 2018; Cai et al., 2016). By focusing on a certain type of risk, litigation risk, our study complements a large number of studies concerning the risk dimension of CSP and its ethical implications for business.

Risk management theory strongly suggests that CSP substantially reduces firm exposure to various risk dimensions. In the absence of complete and symmetric information, this risk-reducing effect of CSP is based on two arguments from risk management theory: First, increased disclosure about CSP and business ethics controversies decreases information asymmetries (Cui et al., 2018), which translates into lower risk (Benlemlih et al., 2018; Healy and Palepu, 2001; Rajgopal and Venkatachalam, 2011). Second, engaging in CSP can be perceived as a risk management initiative itself (Cai et al., 2016; Harjoto and Laksmana, 2018) by providing necessary tools to deal with these risks. These risks can be linked to purely environmental (e.g., an oil spill) or social (e.g., violation of human rights), but also to shareholder-related (e.g., violation of share rights) controversies. Only a few studies found no effect of CSP on risk (Humphrey et al., 2012; Benlemlih and Girerd-Potin, 2017), while the majority of evidence suggested that CSP decreases idiosyncratic risk (Bouslah et al., 2013; Lee and Faff, 2009; Luo and Bhattacharya, 2009; Mishra and Modi, 2013), credit risk (Attig et al., 2013; Hsu and Chen, 2015; Jiraporn et al., 2014) and total firm risk (El Ghoul et al., 2011; Albuquerque et al., 2018).

Recent business ethics literature has supported these risk management characteristics of CSP (Cai et al., 2016; Harjoto and Laksmana, 2018; Benlemlih et al., 2018; Jo and Na, 2012). More specifically, Harjoto and Laksmana (2018) found that managers of firms with high CSP deviate less from optimal risk-taking levels and that CSP increases firm value by reducing ex-

cessive risk-taking. CSP is considered as mitigating the risk-taking behaviour of managers by working as a control mechanism. Cai et al. (2016) also built on the risk-reducing and transparency-increasing characteristics of environmental engagement and showed that this leads to lower firm risk, supporting the risk-reduction hypothesis of CSP. Moreover, this risk-reducing role also seems to hold for the social dimension of CSP (Benlemlih et al., 2018) and is economically stronger for firms in controversial industries (Jo and Na, 2012).

Further, high CSP leads to a lower risk of bankruptcy (Verwijmeren and Derwall, 2010). Recent research corroborated this finding by showing that CEO risk-taking incentives do not affect risk in firms with high CSP (Chakraborty et al., 2019), thus making bankruptcy more unlikely. Besides potentially reducing idiosyncratic risk, CSP also mitigates stock price crash risk and idiosyncratic volatility of stock prices (Cao et al., 2016; Kim et al., 2014; Utz, 2018). These findings point to a litigation risk-reducing role of CSP, as sudden stock price declines regularly cause litigation. Moreover, so-called 'sin firms' have their difficulties with engaging in CSP and thus are more likely to suffer under litigation (Hong and Kacperczyk, 2009). These findings support a negative relation between CSP and risk.

While risk management characteristics of CSP are well-documented in the literature, to the best of our knowledge, no previous study has investigated whether the occurrence of business ethics controversies[2] informs about a firm's probability (i.e., risk) of facing litigation. In accordance with Li and Wu (2018) and Chen (2016), we argue that the occurrence of BEC indicates a decay in business ethics and a lack of CSP and therefore, higher litigation risk. Vice versa, our argumentation suggests that firms experiencing fewer BEC show stronger CSP and therefore, lower litigation risk. We focus on US class action

[2] Business ethics controversies are related to the CSP of a firm, usually in the environmental, social, and governance dimensions.

lawsuits and BEC scores to proxy for litigation risk and the occurrence of BEC, respectively. Based on the risk management characteristics of CSP (Cai et al., 2016; Harjoto and Laksmana, 2018; El Ghoul et al., 2011; Albuquerque et al., 2018; Jo and Na, 2012; Benlemlih et al., 2018), we posit that fewer business ethics controversies, indicating stronger CSP, are linked to lower litigation risk. We formally state Hypothesis 1 as follows:

Hypothesis 1: Fewer previous-year business ethics controversies are linked to a lower current-year probability of facing a US class action lawsuit

The Moderating Role of Corporate Social Performance

The second part of our paper investigates the potential moderating effects of CSP on firm value in cases where the event of a US class action lawsuit already occurred. Before we deal with this potential moderating role in our empirical analysis, we briefly discuss how litigation impacts firm value and financial performance.

Impact of Litigation on Firm Value

In general, litigation is likely to have significant negative impacts on firm value since lawsuits usually come with costs related to large settlement payments and damages to reputation, creditworthiness, and general trust. More specifically, litigation significantly increases loans and bonds yield spreads and decreases credit ratings (Arena, 2018; Yuan and Zhang, 2015; La Rosa et al., 2018). It further increases the likelihood of financial covenants and collateral requirements in bank loan contracts, which is in line with the reputational loss a firm faces from litigation (Deng et al., 2014). Litigation reduces the future use of external financing and investments in capital expenditures and research

and development expenses (Arena and Julio, 2015; Autore et al., 2014). Additionally, cases of litigation have direct impacts on firm value. For instance, litigation triggered by underpricing in initial public offerings (IPOs) are often settled with payments in the two-digit percentage range of total proceeds raised by the IPOs (Lowry and Shu, 2002). These amounts are often significant and potentially diminish the success of a firm.

In support of this evidence, previous research has also argued that fewer litigation have positive effects on firm value. Smith and Stulz (1985) found that perfect market assumptions often do not hold and thus, shareholder value benefits from reducing risk. From a risk management perspective, fewer litigation positively influence financial performance by more stable cash flows and a better allocation of resources to strategic initiatives and investments (Sharfman and Fernando, 2008). Overall, litigation seems to have significant negative impacts on firm value and financial performance, while the absence of it enables firms to use their resources more efficiently and productively.

Insurance-Like Effect of CSP During Litigation

This section discusses how CSP could possibly mitigate negative effects of litigation on firm value. Previous research has shown that firms can build moral capital (i.e., a 'reservoir of goodwill') through CSP, which acts as insurance against negative firm value effects during a corporate crisis (Fombrun, 1996; Godfrey, 2005; Koh et al., 2014; Schnietz and Epstein, 2005). This notion of an insurance-like effect of CSP is grounded in stakeholder theory, according to which the interests of all internal and external stakeholders are considered (Freeman, 2010). Building moral capital among these stakeholders might lead to more moderate judgements during a corporate crisis. From a strategic management perspective, McWilliams et al. (2006) posited that CSP is a

strategic investment to build firm integrity among stakeholders. This strategic investment is likely to pay off in times of a corporate crisis.

For instance, Lins et al. (2017) found evidence supporting the insurance-like effect of CSP by showing that firms with high CSP inherently profited from their social capital during the financial crisis 2007/08. For corruption related lawsuits, Hong and Liskovich (2016)[3] showed that a one standard deviation increase in CSP leads to 25% lower fines compared to an average CSP firm. They also found that market valuation in the period after prosecution is significantly higher for firms with good CSP. Aouadi and Marsat (2018) found that firms which encounter ESG controversies but have a high CSP score display higher firm values.[4] Using a residual income model, Koh et al. (2014) showed that the insurance-like effect of CSP is stronger for firms in industries with high litigation rates.[5] However, the academic literature is still far from conclusive as to whether CSP can protect against losses from legal disputes. Very recently, Liu et al. (2019) found that CSP does not offer insurance-like effects to protect market value in cases of environmental lawsuits.

Similar to a financial crisis, ESG controversy, or corruption-related lawsuit, we perceive the event of a US class action lawsuit as a potential corporate crisis. Based on the notion of a 'reservoir of goodwill' and an insurance-like effect of CSP (Godfrey, 2005; Godfrey et al., 2009; Hsu and Chen, 2015; Koh et al.,

[3] In contrast to our study, Hong and Liskovich (2016) exclusively focused on violations of the Foreign Corrupt Practices Act (FCPA), i.e., corruption-related corporate misconduct. In this regard, we focus on a more comprehensive indicator of corporate misconduct, i.e., US class action lawsuits.

[4] Our study differs from Aouadi and Marsat (2018) in many respects. First, we focus on the relationship between litigation (i.e., which are mostly centred around non-ESG-related controversies) and firm value; while Aouadi and Marsat (2018) focus on ESG controversies and firm value. Second, while Aouadi and Marsat (2018) examine a cross-country sample, we use a homogeneous US sample, motivated by the US phenomenon of class action lawsuits. Third, we apply event study methodology to determine the moderating effect of CSP on the relationship between litigation and firm value.

[5] In contrast to Koh et al. (2014), we look at actual events of litigation (i.e., US class action lawsuits) instead of using firms from low and high litigation industries as proxies. Moreover, we derive the actual market impact on firm value around these events by our event study instead of adopting financial and accounting performance metrics.

2014; Schnietz and Epstein, 2005), we posit that firms with high CSP experience significantly lower declines in firm value caused by actual US class action lawsuits than firms with low CSP. Stakeholder theory suggests that firms with high CSP benefit from more moderate judgements in times of corporate crisis due to the moral capital they build among various kinds of stakeholders. We, therefore, state Hypothesis 2 as follows:

Hypothesis 2: Firms with high CSP exhibit smaller losses in terms of (cumulative) abnormal returns during US class action lawsuits than firms with low CSP.

Data and Methodology

Measures for Corporate Social Performance

We used data from Thomson Reuters to measure CSP and BEC; these data are designed to reflect a firm's performance on a broad variety of ESG issues. Thomson Reuters rates firms according to 178 carefully selected ESG issues, resulting in an overall ESG score and several sub-scores. The underlying measures are assessed according to criteria like comparability, data availability, and industry relevance ('Thomson Reuters ESG Scores,' 2017).[6] The overall ESG score was our measure for CSP (henceforth, CSP score). We used these ESG controversy scores as our measure for BEC (henceforth, BEC score) as they are also deemed as a viable standalone measure of a firm's performance on controversies ('Thomson Reuters ESG Scores,' 2017).[7] They are mainly

[6] We do not use ASSET4 ratings, the predecessor to Thomson Reuters ESG scores. Instead, we use the more recent Thomson Reuters ESG scores. Information about the methodology of these scores can be retrieved from: https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/esg-scores-methodology.pdf

[7] Thomson Reuters also provides a combined ESG score, which merges the overall ESG score with the ESG controversy score. However, we do not use this combined ESG score in our study. Instead, we apply the standalone overall ESG score as our measure for CSP and the standalone ESG controversy score as our measure for BEC.

designed to report on the number of controversies a firm was involved with in the past year.

Previous research has argued from different angles, however, that scores based on ESG data can be of limited informative value and accompanied by some caveats (e.g., Chatterji et al., 2009, 2016; Delmas and Blass, 2010; Drempetic et al., 2019; Escrig-Olmedo et al., 2014; Scalet and Kelly, 2010; Utz, 2019). For instance, this criticism includes disclosure quality, the validity of different aggregation levels of CSP scores, and the distinct scope of rating agencies. Thomson Reuters scores ensure comparability, data availability, and industry relevance with a reasonable level of variability, which facilitated us to attain statistical inference. Hence, these scores were appropriate for our analysis to understand the potential of these scores to explain the probabilities of future litigation.

Therefore, we retrieved CSP and BEC scores for all US firms for the period 2003 to 2017 from Thomson Reuters. For our panel data set, this procedure yielded 9683 firm-year observations. However, the sample size was reduced to 7671 firm-year observations after removing observations with missing control variable data and after lagging variables. CSP and BEC scores both range from zero to one. For instance, a score of .95 indicates that this firm belongs to the top 5% of firms regarding CSP or the occurrence of controversies. In other words, the higher the score, the better the CSP and the fewer controversies occurred in the past, respectively.

Proxies for Litigation Risk

We obtained US securities class action data from the Securities Class Action Clearinghouse (SCAC) of Stanford Law School.[8] These data on class action

[8] The data is open access and available via http://securities.stanford.edu

lawsuits are directly from court records (Liu et al., 2019; Aharony et al., 2015; Bhattacharya et al., 2007; Haslem, 2005) instead from less reliable newspaper sources (Flammer, 2013) or imprecise measures derived from industry membership (Koh et al., 2014). Following Kim and Skinner (2012), we only collected data for lawsuit filings against listed firms (i.e., mostly NYSE, ASE, or NASDAQ) and excluded filings that are related to IPO allocations, mutual funds, and analysts. Excluding these filings was also motivated by the fact that predominantly listed firms are rated by Thomson Reuters.

According to Kim and Skinner (2012), roughly 89% of the lawsuit filings contained in the entire database are related to misstatements or omissions of material information (i.e., violations of SEC Rule 10b-5). Most class actions (i.e., the plaintiffs) accuse firms (i.e., the defendant) of material misstatements regarding the business, failure to inform in time, or inadequate internal control (Kim and Skinner, 2012). The SCAC data on lawsuit filings contains important information such as the case filing date, the sector of the firm, the market status, and the class period.

After obtaining the data on US class action lawsuits from SCAC, we merged it with our data set from Thomson Reuters. This merge resulted in 734 firm-year observations with a class period, 303 with a lawsuit filing, and 276 with a start of a class period from a total of 7671 firm-year observations.

We used three distinct binary variables to proxy for litigation risk as each variable measures litigation risk from a slightly different angle. All three categorical variables took a value of either 1 or 0. The first variable, the occurrence of a class period (ClassPeriod), measured whether the defendant has been involved in potentially punishable endeavours at the time. The class period in a class action lawsuit is the period in which the defendant committed the alleged injury or infringement against the class. From a panel data perspective, if a class period spans over several years, the variable ClassPeriod took the value

of 1 in each respective year. The second variable, the occurrence of a start of a class period (ClassPeriodStart), was supposed to have the least explanatory power since it only indicates whether the potentially punishable endeavour started in that respective year. This variable only indicates the start of a class period from which it often takes several years until the plaintiffs filed the case. The third variable, the occurrence of a lawsuit filing (CaseFiled), was the most definite proxy for litigation and measures whether the defendant is eventually charged in a court of law. We included all three variables in our model for additional robustness of results.

Empirical Model to Explain Litigation Risk

During the last 25 years, research on litigation risk has widely used the industry membership measure of Francis et al. (1994, henceforth, FPS). This measure of litigation risk (henceforth, FPS measure) uses membership in biotechnology, retail, and information technology industries (henceforth, FPS industries) to proxy for litigation risk. Historically, these industries have the highest litigation rates (Francis et al., 1994). One stream of research on litigation risk focuses on what constitutes litigation risk and how it affects firm performance. Most of this research either uses some FPS industry dummy or only includes firms from the FPS industries in its sample to proxy for litigation risk (e.g., Ajinkya et al., 2005; Choi, 2006; Johnson et al., 2001, 2007; Matsumoto, 2002). However, other research has increasingly pointed out that this very crude measure of litigation risk is by far not the best way to capture litigation risk.

Instead, the idea of including additional firm and stock return characteristics into models of litigation risk has evolved (e.g., Alexander, 1991; Johnson et al., 2000; Rogers and Stocken, 2005; Skinner, 1997). Kim and Skinner (2012) built on these findings and showed that firm and return characteristics increase

the predictive power of the model substantially. They found that only using the FPS measure to proxy for litigation risk, shows a very low overall goodness of fit and predictive ability (McFadden pseudo–R^2 and Cox&Snell pseudo–R^2 of 0.01% and 0.20%, respectively). After adding lagged firm and return characteristics to their model, overall goodness of fit and predictive ability increased considerably (McFadden pseudo-R2 and Cox&Snell pseudo–R2 of 12.47% and 4.65%, respectively). Therefore, we used the 'best' model identified by Kim and Skinner (2012) (henceforth, KS model) and adjusted it with our BEC score.[9]

Adopting and adjusting the KS model by the BEC score had two basic motivations: First, by using the most efficient litigation risk model available to date, we minimised the omitted variables bias and ensured a large sample at the same time. Since we already included the variables that according to Kim and Skinner (2012) best capture litigation risk, our model likely predicts the 'true' value of BEC to explain litigation risk. Second, including BEC scores into the KS model to estimate litigation risk is a very simple and parsimonious approach to examine the explanatory power of business ethics controversies.

In addition to the FPS measure and consistent with Kim and Skinner (2012), Lowry and Shu (2002), Donelson et al. (2012), Field et al. (2005), and Bliss et al. (2018), we included control variables for firm size (Size), sales growth (SalesGrowth), return (Ret), return skewness (RetSkew), return standard deviation (RetStdDev), and stock turnover (Turnover). We lagged all variables by one year since we were interested in the ex-ante predictive ability of BEC scores. If we measured the variables in the year during the lawsuit,

[9] Kim and Skinner (2012) tested various models with different sets of variables. In terms of model selection, we adopted their cost-benefit perspective. They found that including more variables marginally increases the goodness of fit and predictive ability but collecting data for more and more variables is costly for the researcher in terms of time and a lower sample size. Therefore, we decided to stick to the most cost-benefit efficient model, as they suggested.

we would have included stock price movements that trigger litigation and not ex-ante litigation risk (Kim and Skinner, 2012). Hence, lagging the variables accounted for potential reverse causality concerns. Consistent with previous research (e.g., Matsumura et al., 2014; Oikonomou et al., 2014; Goss and Roberts, 2011), we winsorized the accounting- and return-related continuous variables at the 1%- and 99%-level.

Therefore, our empirical model looks as follows:

$$\begin{aligned} \text{Prob}(Litigation = 1) = \beta_0 &+ \beta_1 \cdot BECScore_{t-1} + \beta_2 \cdot FPS_t \\ &+ \beta_3 \cdot Size_{t-1} + \beta_4 \cdot SalesGrowth_{t-1} \\ &+ \beta_5 \cdot Ret_{t-1} + \beta_6 \cdot RetSkew_{t-1} \\ &+ \beta_7 \cdot RetStdDev_{t-1} + \beta_8 \cdot Turnover_{t-1} + \epsilon \end{aligned} \tag{1}$$

where:

Prob($Litigation = 1$) is a binary variable that takes the value of 1 or 0. It takes the value of 1 if a ClassPeriod, CaseFiling, or ClassPeriodStart (depending on the specification of the model) occurred during the year, 0 otherwise;

$BECScore_{t-1}$ is a continuous variable that takes values between 0 and 1, lagged by one year. Higher values indicate fewer controversies than lower values;

FPS_t is a binary variable that takes the value of 1 or 0. It takes the value of 1 if the firm is a member of the FPS industries, namely biotechnology, retail, and information technology, 0 otherwise;

$Size_{t-1}$ is a continuous variable calculated as the natural logarithm of total assets, lagged by one year;

$SalesGrowth_{t-1}$ is a continuous variable calculated as the change in sales compared to the previous year (in %), lagged by one year;

Ret_{t-1} is a continuous variable calculated as the market-adjusted 12-month stock return, lagged by one year;

$RetSkew_{t-1}$ is a continuous variable calculated as the skewness of the 12-month return, lagged by one year;

$RetStdDev_{t-1}$ is a continuous variable calculated as the standard deviation of the 12-month return, lagged by one year;

$Turnover_{t-1}$ is a continuous variable calculated as the total 12-month stock turnover scaled by average shares outstanding, lagged by one year.

Descriptive Statistics

Table 1 shows summary statistics for all variables from Model 1. An average sample firm has a per-year probability of 7.6% for being involved in a class action lawsuit. However, the average probability that a case is filed is only 3.1% per year. This discrepancy suggests that class periods usually last two to three years before the case is filed. While case filings are more definite, class period years are also a valid measure of litigation risk as they are an early sign of future case filings. The FPS variable suggests that roughly 25% of sample firms belong to one of the biotechnology, information technology, and retail industries. As mentioned earlier, these industries are expected to have higher litigation risk than firms from other industries (Francis et al., 1994). Unreported sub-sample descriptive statistics show that, indeed, firms from FPS industries have 27% more class period years, 37% more case filings, and 35% more class period starts.[10]

[10] The unreported results are available on request from the authors.

The sample firms have a BEC score mean of .465, indicating that they have slightly more business ethics controversies than all firms from the Thomson Reuters rating universe.[11] However, the BEC score median of .573 indicates a slightly left-skewed distribution. In fact, looking at the empirical cumulative distribution function of BEC scores reveals a kink between about 0.3 and 0.5.[12] This finding suggests that our sample firms tend to be located either in the lower (i.e., < 0.3) or upper (i.e., > 0.5) part of the BEC score continuum, indicating adequate variation and thus good explanatory power.

Table 1 Summary Statistics. Table 1 reports time-series averages of cross-sectional means and standard deviations (Std. Dev.), the minimum, the 50^{th} percentiles (median) and the maximum for all dependent and independent variables.

	count	mean	std	min	50%	max
ClassPeriod	7618.0	0.076	0.264	0.000	0.000	1.000
CaseFiled	7618.0	0.031	0.173	0.000	0.000	1.000
ClassPeriodStart	7618.0	0.027	0.163	0.000	0.000	1.000
CSPScore	7618.0	0.486	0.172	0.098	0.455	0.980
BECScore	7618.0	0.465	0.219	0.001	0.573	0.864
FPS	7618.0	0.249	0.433	0.000	0.000	1.000
Size	7618.0	8.766	1.496	5.463	8.641	13.309
SalesGrowth	7618.0	0.042	0.192	-0.875	0.056	0.518
Ret	7618.0	0.156	0.340	-0.865	0.164	1.216
RetSkew	7618.0	0.001	0.007	-0.017	0.000	0.018
RetStdDev	7618.0	0.088	0.048	0.028	0.076	0.287
Turnover	7618.0	2.620	1.877	0.284	2.098	11.007
BTM	7618.0	0.484	0.367	-0.161	0.403	1.976
Leverage	7618.0	0.915	1.997	-6.460	0.554	12.987

Figure 1 shows Pearson correlations between the variables from Model 1. As expected, the more class period years a firm has, the more lawsuit filings it ultimately experiences. However, the occurrence of a class period start only

[11] Thomson Reuters applies an industry benchmark system for their scores. For instance, a score of 0.7 indicates that the respective firm belongs to the 30% best-performing firms. Therefore, the mean of all firms' scores in the Thomson Reuters universe turns out to be 0.5.

[12] Results from the visual exploratory data analysis are unreported but available on request from the authors.

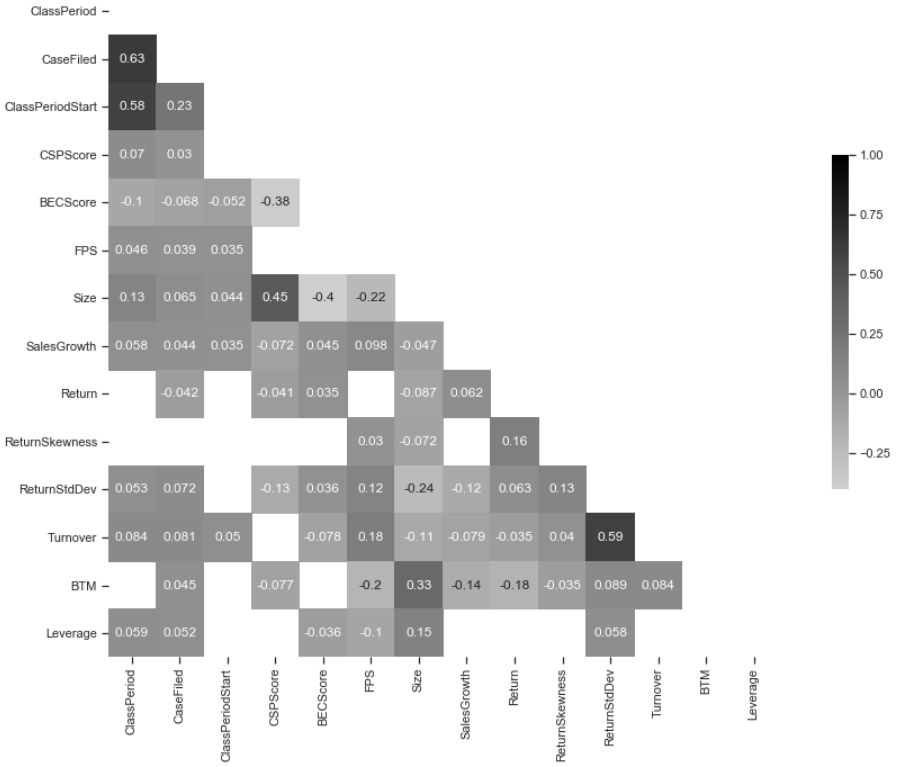
weakly correlates with lawsuit filings in the same year, indicating that the start of a class period does not necessarily lead to a filing in the same year. In other words, a class period often spans several years, indicating that the controversial behaviour usually lasts several years. As expected, the correlations between BEC and the litigation risk variables are negative and significant. Higher BEC scores indicate fewer controversies in the past. Consistent with Hypothesis 1, this finding suggests that firms with fewer prior-year controversies also experience fewer US class action lawsuits in the current year.

Moreover, the correlations between the FPS variable and the litigation risk variables are positive and significant, suggesting that firms from biotechnology, information technology, and retail industries experience more US class action lawsuits. This finding is consistent with previous research (e.g., Ajinkya et al., 2005; Choi, 2006; Francis et al., 1994; Johnson et al., 2001; Matsumoto, 2002). Besides, larger firms are more strongly affected by US class action lawsuits, consistent with the notion of larger visibility (Aouadi and Marsat, 2018). However, due to strong correlations between independent and control variables, these bi-variate correlations have to be interpreted with caution. Especially size highly and negatively correlates with BEC, indicating that larger firms do have more controversies. Therefore, we control for firm size and a host of other control variables in our multiple panel regression design.

Multiple panel regression results

We estimated two model specifications for each of the three dependent variables (ClassPeriod, CaseFiled, and ClassPeriodStart). One specification only included the BEC score. The other one comprised the full model, including all control variables. Hence, we ran six model specifications in total. Similar to Johnson et al. (2000) and Rogers and Stocken (2005), we used a Probit model

Fig. 1 Pearson Correlations. This figure shows Pearson correlation coefficients between the dependent, independent, and control variables. Only coefficients that are statistically significant at a two-sided p-value < 0.01 are displayed.



to estimate the probability of US class action lawsuits.[13] Table 2 displays the results from the multiple panel regressions of the six model specifications. In Specifications 1, 3, and 5, BEC score significantly ($p < 0.01$) and negatively correlates with the litigation risk variables. After adding the control variables, Specifications 2, 4, and 6 still uniquely show a negative and statistically significant ($p < 0.05$) relationship between BEC score and litigation risk with coefficients reaching from -0.30 to -0.36. This finding supports Hypothesis 1 that firms with fewer prior-year BEC have a lower probability of being sued

[13] Unsurprisingly, unreported results show that using a Logit model does not qualitatively change our results.

by US class actions. In line with risk management theory, risk-reducing characteristics of CSP and more symmetric information seem to be at work here.

Table 2 Multiple Panel Regression Results. This table shows the results from regressing ClassPeriod, CaseFiled, and ClassPeriodStart on BEC scores and several control variables. We use probit panel regressions and adjust the standard errors that were used to calculate the test statistics and significance levels by a two-dimensional cluster to account for possible correlation of residuals across firm and time (Cameron et al., 2011; Gow et al., 2010; Thompson, 2011). Standard errors in parentheses. * $p < .1$, ** $p < .05$, *** $p < .01$

	Class Period		Case Filed		Class Period Start	
	(1)	(2)	(3)	(4)	(5)	(6)
BECScore_{t-1}	−0.77***	−0.30**	−0.67***	−0.36**	−0.55***	−0.33**
	(0.13)	(0.13)	(0.13)	(0.15)	(0.13)	(0.14)
FPS_t		0.26***		0.23***		0.20***
		(0.08)		(0.07)		(0.07)
Ret_{t-1}		−0.06		−0.23***		−0.04
		(0.06)		(0.08)		(0.08)
RetSkew_{t-1}		1.80		−3.41		5.18
		(3.31)		(4.66)		(4.26)
RetStdDev_{t-1}		2.10***		3.33***		0.81
		(0.68)		(0.66)		(0.74)
SalesGrowth_{t-1}		0.75***		0.79***		0.58***
		(0.18)		(0.18)		(0.21)
Size_{t-1}		0.18***		0.13***		0.08***
		(0.03)		(0.03)		(0.02)
Turnover_{t-1}		0.06***		0.04***		0.05***
		(0.02)		(0.02)		(0.02)
Intercept	−1.10***	−3.35***	−1.58***	−3.37***	−1.68***	−2.81***
	(0.07)	(0.33)	(0.06)	(0.30)	(0.06)	(0.26)
MargEff BECScore	−0.106	−0.038	−0.045	−0.020	−0.034	−0.019
MargEff FPS		0.032		0.013		0.011
N	7618	7618	7618	7618	7618	7618
F-statistic	36.305	14.348	27.163	17.184	18.034	8.729
P-value	0.000	0.000	0.000	0.000	0.000	0.000

By calculating marginal effects, we showed how strong the effect of BEC scores is on the predicted probability of a US class action lawsuit. As shown at the bottom of Table 2, the coefficients translate into marginal effects of −0.038, −0.02, and −0.019 of BEC scores on ClassPeriod, CaseFiled, and ClassPeriodStart, respectively. Thus, the model predicts that an average firm decreases the risk of having a class period by 0.83% ($-0.038 \cdot 0.219$) if it increases the BEC score by one standard deviation (i.e., 0.219). Considering

that the probability of having a class period is 7.6% for an average firm, this decrease of 0.83% percentage points is certainly considerable. Even more so when considering that an increase in the BEC score by one standard deviation is still conservative. Especially firms in the lower BEC score spectrum can potentially increase their BEC score to a larger extent than a one standard deviation (analogous to a decreasing marginal utility). Moreover, the model predicts that the risk of a case filing drops by 0.44% ($-0.02 \cdot 0.219$) percentage points if the BEC score is increased by one standard deviation. This drop is substantial. Considering the total risk of a case filing is 3.1%, dropping this risk by 0.44% percentage points to 2.66% is a decrease of about 14%.

Consistent with Kim and Skinner (2012), we further found that being a member of an FPS industry translates into a higher litigation risk between 1.1% (for ClassPeriodStart) and 3.2% (for ClassPeriod). However, being part of an FPS industry is not up to the discretion of managers. Hence, from a management and investment perspective, reducing this source of risk is less attractive. Managers could only pull out of the industry and thus most likely completely undermine their business model. Investors would have to exclude highly litigious industries from their investment universe. The decrease in litigation risk through an increased BEC score, however, has far more important implications. For instance, investors could consider BEC scores in their investment decisions without excluding whole industries from their investment universe.

Event Study

In our event study, we examined whether CSP builds moral capital that provides insurance-like effects in times of corporate crisis by mitigating negative market impacts of US class action lawsuits on firm value.

Event Study Sample

We measured CSP by the firms' Thomson Reuters ESG score in the respective event year. From our base panel sample of 7671 firm-year observations, 303 observations included a class action lawsuit (i.e., the number of total lawsuit filings in the sample, represented by the variable CaseFiling). We followed previous research (Karpoff et al., 2008; Gande and Lewis, 2009; Liu et al., 2019) by constituting each lawsuit filing as a firm-specific event. We assigned the firms' CSP scores in the event year to each filing.

Our sample of 303 US class action lawsuits was split into tertiles. Therefore, we ranked US class action lawsuits according to the firms' event-year CSP score. The top tertile only contained lawsuits from firms that had event-year CSP scores superior to the scores of firms from the mid and bottom tertile. The mid tertile included lawsuits from firms that had event-year CSP scores superior to the scores of firms from the bottom tertile but inferior to the ones from the top tertile. The bottom tertile contained lawsuits from firms that had the lowest CSP scores. This approach ensured adequate within-sample variability.

Event Study Methodology

We used state-of-the-art event study methodology to investigate Hypothesis 2 by modelling the market impact of US class action lawsuits in dependence of the firms' CSP. In other words, we tested whether CSP offers a 'reservoir of goodwill' and insurance-like effects around the event of a US class action lawsuit (CaseFiling). Therefore, we started with calculating abnormal returns for the event window surrounding the event day $[-10, +10]$. We used a comparably long pre-event period of 10 days to prevent underestimating the loss in firm value due to anticipation effects prior to lawsuit filings (Gande and

Lewis, 2009). Our estimation window of 730 days ended 90 days before the event date. To calculate expected returns ($ER_{j,t}$) for firm j and day t, we used the Fama-French three-factor model (Fama and French, 1993):

$$ER_{j,t} = \alpha + R_f + \gamma_m \cdot (R_m - R_f) + \delta_s \cdot SMB + \gamma_v \cdot HML \tag{2}$$

where $ER_{j,t}$ is the expected return of firm j on day t; R_f is the risk-free return rate; R_m is the return on a value-weighted market portfolio; SMB measures excess return of small caps over big caps; HML measures excess return of stocks with a high book-to-market ratio over stocks with a low book-to-market ratio; α is unexplained by the model. By applying the multi-factor risk model of Fama and French (1993), we captured possible effects on abnormal returns stemming from differences in firm fundamentals (e.g., firm size and book-to-market value).

From the actual returns ($ACR_{j,t}$) of each firm j and day t, we subtracted the expected returns ($ER_{j,t}$) to calculate abnormal returns ($AR_{j,t}$) for the event window $[-10, +10]$ surrounding each event date:

$$AR_{j,t} = ACR_{j,t} - ER_{j,t} \tag{3}$$

To calculate a firm's cumulative abnormal return ($CAR_{j,\tau}$), we simply summed each firm j's AR for the period $[-10, \tau]$:

$$CAR_{j,\tau} = \sum_{t=-10}^{\tau} AR_{j,t} \tag{4}$$

Event Study Results

Based on the notion of an insurance-like effect of CSP, firms with higher CSP should benefit from their higher moral capital in times of corporate crisis. As

shown earlier, a lawsuit filing can have severe financial and reputational consequences and thus serves as a negative and unexpected event. If stakeholder theory holds, firms with higher CSP should exhibit lower negative AR than firms with lower CSP around class action lawsuit filings (cf., Hypothesis 2).

Figure 2 shows the mean cumulative abnormal returns (Mean CAR) for the sub-samples and the event window of $[-10, +10]$. Most noticeable, top CSP firms experience considerably lower negative CAR than mid or bottom CSP firms. While on the event day, the CAR of top CSP firms reach their lowest point at about -6%, mid and bottom CSP firms exhibit their lowest CAR at about -11% and -10%, respectively. Mean CAR at the end of the event window are -4.93% for top CSP firms, -10.37% for mid CSP firms, and -9.56% for bottom CSP firms (Table 3). We apply two-sample t-tests to compare the CAR of the mid and bottom CSP tertile with the top CSP tertile firms. The two differences,[14] -5.44% and -4.63%, respectively, are both significantly smaller than zero at a 5% significance level.

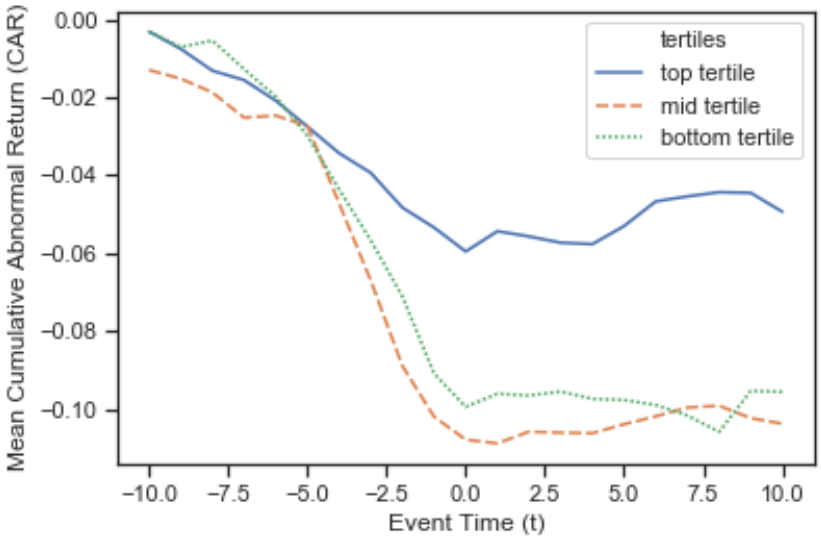
As unreported results show, the pre-event negative AR of top CSP firms are substantially smaller compared to AR of mid and bottom CSP firms. While daily mean AR for top CSP firms are only in the magnitude of -0.5%, mid and bottom CSP firms experience mean AR of approximately -2%. Our results in Table 3 indicate that the market reaction accrues prior to the event date. This pattern is consistent with the anticipation effect documented in Gande and Lewis (2009). Moreover, AR of top CSP firms seem to be recovering more strongly from their lowest point at event day.

Hence, our finding strongly supports Hypothesis 2 that CSP offers some insurance-like effect and a 'reservoir of goodwill' to firms if they face a corpo-

[14] The mean difference of either groups is calculated as the mean CAR at the end of the event window. For the mid-minus-top tertile portfolio, we calculate $-10.37\% + 4.93\% = -5.44\%$, and for the bottom-minus-top tertile portfolio, we calculate $-9.56\% + 4.93\% = -4.63\%$.

rate crisis such as a US class action lawsuit. Our results show that top CSP firms experience a significantly less severe negative market impact from lawsuit filings. Firms' CSP seems to mitigate the negative market effects of litigation and thus positively moderates the negative relationship between litigation risk and firm value.

Fig. 2 Mean Cumulative Abnormal Returns (Mean CAR). This figure shows mean CAR across all 303 litigation cases in the event window from −10 days to +10 days relative to the respective event date. We split the sample into tertiles by event-year CSP score.



Robustness Checks

We used a series of robustness checks that corroborates our main results. First, in addition to Fama and French's (1993) three-factor model, we alternatively used a market-adjusted model from the Center for Research in Security Prices (CRSP) that defines AR in excess of a value-weighted market return. We also controlled for using Carhart's (1997) four-factor model that includes a

Table 3 (Cumulative) Abnormal Returns. This table displays mean abnormal returns (AR) and mean cumulative abnormal returns (CAR) for a total event window of 21 days $[-10, +10]$. We split the sample in tertiles (top, mid, bottom) by the firms' event-year CSP score. In parentheses, we report standardized cross-sectional t-statistics (Boehmer et al., 1991) for AR and cross-sectional t-statistics for CAR. * $p < .1$, ** $p < .05$, *** $p < .01$

	AR			CAR		
	Top	Mid	Bottom	Top	Mid	Bottom
t_{-10}	−0.0031	−0.0031**	−0.0031	−0.0031	−0.0129*	−0.0031
	(−1.47)	(−2.06)	(−1.53)	(−1.10)	(−1.82)	(−1.28)
t_{-9}	−0.0044	−0.0022	−0.004	−0.0075*	−0.0152*	−0.007*
	(−0.4)	(−0.24)	(−0.80)	(−1.68)	(−1.93)	(−1.70)
t_{-8}	−0.0056**	−0.0035	0.0017	−0.0131**	−0.0187**	−0.0054
	(−2.51)	(−1.34)	(−0.36)	(−2.45)	(−2.21)	(−0.81)
t_{-7}	−0.0024	−0.0065	−0.0074*	−0.0155***	−0.0252**	−0.0127*
	(−1.00)	(−0.98)	(−1.69)	(−2.95)	(−2.08)	(−1.78)
t_{-6}	−0.0053	0.0005	−0.007***	−0.0208***	−0.0246*	−0.0198**
	(−1.31)	(0.16)	(−3.22)	(−2.96)	(−1.81)	(−2.54)
t_{-5}	−0.0067***	−0.0026	−0.01*	−0.0275***	−0.0273**	−0.0298***
	(−2.58)	(−0.45)	(−1.92)	(−3.23)	(−2.02)	(−2.82)
t_{-4}	−0.0068	−0.0199***	−0.0137**	−0.0343***	−0.0471***	−0.0435***
	(−1.50)	(−2.59)	(−2.08)	(−3.76)	(−2.9)	(−3.44)
t_{-3}	−0.0051	−0.0198*	−0.0131**	−0.0393***	−0.067***	−0.0567***
	(−1.61)	(−1.92)	(−2.12)	(−3.84)	(−3.59)	(−4.19)
t_{-2}	−0.0089	−0.0219***	−0.0144**	−0.0482***	−0.0889***	−0.0711***
	(−1.23)	(−2.64)	(−2.14)	(−3.38)	(−4.13)	(−4.58)
t_{-1}	−0.0051**	−0.013*	−0.0198**	−0.0534***	−0.102***	−0.0909***
	(−2.06)	(−1.85)	(−2.52)	(−4.07)	(−4.73)	(−5.48)
t_0	−0.0061**	−0.0059**	−0.0085	−0.0595***	−0.1078***	−0.0994***
	(−2.16)	(−2.12)	(−1.22)	(−4.29)	(−4.99)	(−5.48)
t_1	0.0052**	−0.001	0.0034	−0.0543***	−0.1088***	−0.096***
	(2.08)	(−0.23)	(1.22)	(−3.92)	(−4.87)	(−5.15)
t_2	−0.0013	0.003	−0.0005	−0.0557***	−0.1058***	−0.0965***
	(−0.09)	(0.89)	(0.31)	(−3.90)	(−4.88)	(−5.32)
t_3	−0.0016	−0.0003	0.001	−0.0573***	−0.1061***	−0.0955***
	(−0.17)	(0.00)	(−0.05)	(−3.76)	(−4.91)	(−5.25)
t_4	−0.0004	−0.0001	−0.0019	−0.0576***	−0.1062***	−0.0974***
	(0.10)	(−0.37)	(−0.74)	(−3.78)	(−4.85)	(−5.37)
t_5	0.0046*	0.0023	−0.0003	−0.053***	−0.1039***	−0.0976***
	(1.71)	(−0.45)	(−0.15)	(−3.84)	(−4.80)	(−5.29)
t_6	0.0063*	0.002	−0.0013	−0.0467***	−0.1018***	−0.0989***
	(1.93)	(0.52)	(−0.03)	(−3.69)	(−4.94)	(−5.29)
t_7	0.0013	0.0023	−0.0027	−0.0454***	−0.0996***	−0.1016***
	(0.27)	(1.35)	(−1.09)	(−3.49)	(−4.80)	(−5.38)
t_8	0.0011	0.0005	−0.0042	−0.0443***	−0.0991***	−0.1058***
	(0.37)	(0.16)	(−0.95)	(−3.3)	(−4.68)	(−5.28)
t_9	−0.0002	−0.0032	0.0105***	−0.0445***	−0.1023***	−0.0953***
	(0.38)	(−1.07)	(2.86)	(−3.3)	(−4.76)	(−4.92)
t_{10}	−0.0049*	−0.0014	−0.0003	−0.0493***	−0.1037***	−0.0956***
	(−1.78)	(−0.28)	(−0.40)	(−3.24)	(−4.78)	(−4.90)

momentum factor to calculate the expected and abnormal returns. Results from Table 4 show that none of these alternative models qualitatively changed our main results.

Second, we varied the estimation window to calculate expected returns from 730 days to 200 days and decreased the gap between the estimation and event window from 90 days to 30 days. We also shortened the event window to 11 days $[-5, +5]$. As Figure 3a and Figure 3b show, none of these alternative specifications qualitatively changed our main results.

Third, we used alternative cut-off points to assign the firms into four instead of three groups based on their CSP score (i.e., we used quartiles instead of tertiles). As Figure 3c shows, our main result also holds under these alternative sub-samples.

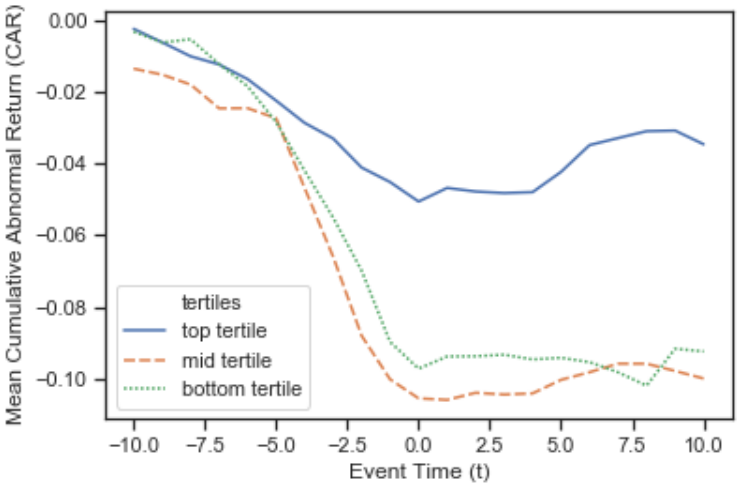
Fourth, we ran a 'placebo' event study by shifting the event dates one year into the future. On this artificial event day, no significant AR should exist, and the returns of firms with different CSP scores should not differ substantially. Daily AR are fairly low (between 0.5% and 1%), and most of them statistically not significant.[15] CAR range from 1.4% to 3.1% and are also statistically not significant (Figure 4). Alleviating concerns about firm selection bias, results from this 'placebo' event study further corroborate our main result of lower negative AR and CAR for firms with high CSP on the days surrounding a US class action lawsuit filing.

Managerial and Business Ethics Implications

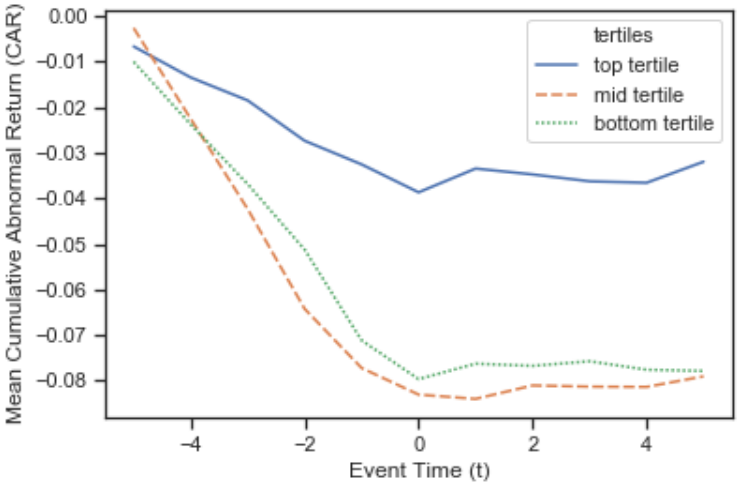
Our results add to the business ethics literature on CSP and risk (e.g., Cai et al., 2016; Harjoto and Laksmana, 2018; Benlemlih et al., 2018; Jo and Na, 2012). Unlike previous studies, our investigation focuses on the mere number

[15] For brevity, we do not report detailed test statistics for the robustness checks, but they are available on request from the authors.

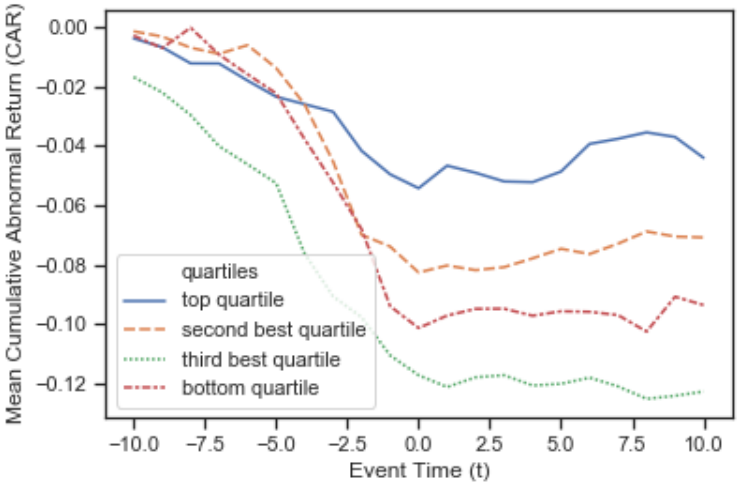
Fig. 3 Mean Cumulative Abnormal Returns (Mean CAR). Robustness checks



(a) Alternative Estimation Window. We reduced the estimation window to 200 days and the gap between the estimation and event window to 30 days.



(b) Alternative Event Window. We shortened the event window to 11 days $[-5, +5]$.

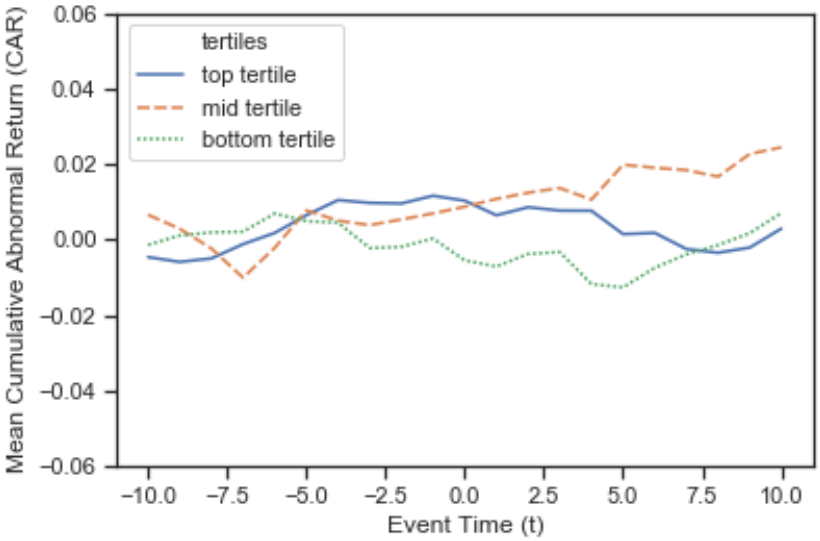


(c) Alternative Cut-Offs. In this graph, we use alternative cut-offs and thus assign the firms in our sample into quartiles based on their event-year CSP score.

Table 4 Alternative Models. This table shows the results for CAR from our base Fama and French model together with the alternative Carhart four-factor model and the CRSP value-weighted market model as robustness checks. In contrast to Table 3, *t*-statistics for CAR in this table are standardised and thus slightly differ.

		ESG Tertiles		
		Top	Mid	Bottom
Fama-French Model	Mean CAR	−0.0493***	−0.1037***	−0.0956***
	Stand. *t*-statistic	−3.39	−4.52	−5.55
	Patell *Z*	−5.71	−10.03	−9.54
Carhart Model	Mean CAR	−0.0476***	−0.1035***	−0.0921***
	Stand. *t*-statistic	−3.35	−4.55	−5.29
	Patell *Z*	−5.54	−10.08	−9.23
CRSP Market Model	Mean CAR	−0.0455***	−0.0972***	−0.0879***
	Stand. *t*-statistic	−3.17	−4.24	−5.14
	Patell *Z*	−5.14	−9.18	−8.57

Fig. 4 Placebo Event Study. In this graph, we shifted the real event date by one year into the future to create an artificial event date on which no class action lawsuit is filed.



of past business ethics controversies to account for a firm's decay in business ethics. As a consequence of this decay, firms are increasingly involved in class action lawsuits and thus have a higher risk of litigation. In line with reduced information asymmetries, we find that scores on the involvement of firms in business ethics controversies provide useful information to stakeholders about

litigation risk. Stakeholders can draw from these results that the parsimonious and simple driver of litigation risk—the mere number of business ethics controversies—is easy to adopt in decision-making processes.

From a management perspective, litigation risk is one component of a firm's risk exposure. Although, in theory, diversification eliminates idiosyncratic risk, empirical results show that idiosyncratic risk and expected returns are positively correlated (Fu, 2009; Merton, 2006). Thus, for firms with high litigation risk, valuation models capture higher risk by using a higher cost of capital to discount future cash flows. Firms with fewer business ethics controversies may benefit from reporting their comparably lower exposure to class action lawsuits. This lower risk exposure results in a lower cost of capital, which allows firms to invest financial resources more efficiently. Lower cost of capital also implies higher firm value, *ceteris paribus*.

Moreover, in accordance with previous studies on insurance-like effects of CSP (e.g., Godfrey et al., 2009; Hsu and Chen, 2015; Koh et al., 2014; Schnietz and Epstein, 2005), we show that CSP shields against negative events by effectively lowering the negative impacts of litigation on firm value. While Hong and Liskovich (2016) observe lower declines in firm value for high CSP firms in cases of violations of the Foreign Corrupt Practices Act (FCPA), we expand this type of investigation into a more comprehensive setting. Finding an insurance-like effect has implications for a long series of studies on a positive relationship between CSP and firm value (e.g., Ferrell et al., 2016; Girerd-Potin et al., 2014; Lev et al., 2010). Our study adds to this discussion on 'doing well by doing good' by finding evidence for a positive moderating effect of CSP on firm value during US class action lawsuits. We further apply an event study design, which is an approach to capture concerns about reverse causality properly.

This moderating effect of CSP has implications for a firm's risk management strategy. Managers might include aspects of CSP into their decision making to mitigate the financial constraints during class action lawsuits. According to our results, an average sample firm facing a class action lawsuit with low CSP has an excess loss in market value of about US $1bn (4.63% of US $22.1bn)[16] compared to a high CSP firm. From the managerial opportunism perspective, high CSP might be a tool to retain the value of the firm during a corporate crisis and thus to possibly sustain equity-based management compensation. Moreover, the moderating effect of CSP potentially prevents firms from financial distress in a corporate crisis. Distressed firms tend to fire sale assets at lower prices in crises periods (Ang and Mauck, 2011) and may jeopardise long-term perspectives of their business. Hence, in a firm's risk management strategy, high CSP could be considered as a defence mechanism to acquisitions and fire sales at low prices.

Concluding Remarks

We have investigated whether the mere occurrence of business ethics controversies in the past explains future litigation risk and whether CSP positively moderates the negative effects of litigation on firm value. First, we found that improving the BEC score of an average firm by one standard deviation reduces the predicted probability for a US class action lawsuit by 14%. Fewer business ethics controversies are thus linked to lower litigation risk. We further found that, on average, firms with high CSP experience approximately half as high negative AR around a class action lawsuit filing compared to firms with low or mediocre CSP.

[16] The mean CAR of the top CSP firms is -4.93%, and the mean CAR of the bottom CSP firms is -9.56% (both at the end of the event window). Calculating the difference between these two numbers results in 4.63%.

Compliance with Ethical Standards

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