IS A CLIENT'S CORPORATE SOCIAL RESPONSIBILITY PERFORMANCE A SOURCE OF AUDIT COMPLEXITY?

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ABSTRACT

This study examines whether corporate social responsibility (CSR) performance impacts financial audit fees of US listed firms from 2000 to 2016. We use the CSR performance ratings from the KLD database to measure firms' CSR performance. Using the sum of a firm's CSR strengths and concerns as a measure of a firm's overall involvement in CSR related matters, we find that a greater score is associated with higher audit fees. Further, we disaggregate this measure into CSR concerns and CSR strengths and find that both measures are positively related to audit fees. In additional analyses, we find that firms involved in certain CSR initiatives (strengths) as well as controversies (concerns) pay higher audit fees due to increased audit complexity. Our findings suggest that firms' CSR performance is a source of audit complexity, in addition to other sources that have been documented in prior literature.

1. INTRODUCTION

Over the past few decades, there has been a paradigm shift in societal values and concerns relating to social and environmental issues. For example, Epstein-Reeves (2010) find that more than 88% of consumers believe companies should try to achieve their business goals while also taking action to improve society and the environment. A CSR study carried out by Cone Communications (2017) reveals that 78% of consumers want companies to address important social justice issues, and 76% of those surveyed would reject doing business with companies that supported issues contrary to their beliefs. As a result, businesses' future prospects and risks are linked to society's views regarding their social performance, and therefore, managers are increasingly adopting CSR policies and allocating significant portions of their budgets to CSR, e.g., in 2010, large US firms spent $28 billion on sustainability and $15 billion on corporate philanthropy (Di Giuli & Kostovetsky, 2014).

In this paper, we examine whether a firm's CSR performance, both in terms of adverse CSR controversies as well as positive CSR activities, affect audit fees. In particular, we posit that firms involved in CSR-related matters pay higher audit fees as a result of increased audit complexity arising from the impact of CSR performance on firms' operating environment as well as financial reporting complexity (e.g., PwC, 2016). While prior research examines the impact of adverse CSR activities on audit pricing and finds that firms involved in CSR controversies pay higher audit fees due to a higher level of assessed business risk (Koh & Tong, 2013), we posit that the effect of a firm's CSR performance on audit complexity is also a relevant channel that affects audit fees.

Specifically, we examine three hypotheses. First, we assess whether a firm's overall involvement in CSR related matters affect audit fees. Using ratings on firms' CSR performance from the Kinder, Lydenberg, and Domini (hereafter "KLD") dataset, we measure a firm's overall CSR performance using the *sum* of a firm's CSR concerns and CSR strengths, as

opposed to a *net* measure (i.e., CSR strengths less CSR concerns) typically used in prior studies (e.g., Di Giuli & Kostovetsky, 2014; Jo & Na, 2012; Kim, Park, & Wier, 2012). We posit that from an auditor's perspective, a firm with zero strengths and zero concerns is less complex compared to a firm with five strengths and five concerns, even though both firms have a net score of zero. That is, CSR strengths and CSR concerns are not opposite in terms of their effect on the production of audits.

Second, we examine how firms' CSR concerns affect audit fees. We posit that in addition to a risk story as documented in prior research (Koh & Tong, 2013), accounting issues arising from CSR controversies (e.g., litigations, environmental liability) increase accounting reporting complexity and thus audit complexity, leading to higher audit fees for firms with CSR concerns relative to firms with no CSR related controversies.

Lastly, we examine the effect of positive CSR activities on audit fees. On the one hand, auditors may charge lower audit fees to firms with strong CSR performance as these firms tend to perform better financially and are perceived as being more proactive, leading to a lower level of assessed business risk for auditors. Considering the risk factor alone, one would expect firms' positive CSR performance to have the opposite effect on audit fees as negative CSR controversies. However, CSR strengths can reflect the extent to which firms make additional investments in CSR activities, requiring additional resources, procedures, practices, policies, programs, and systems (Tsoutsora, 2014; McWilliams & Siegel, 2001), increasing the variety and amount of information the auditor must process (Gray & Manson, 2007; Perrini et al., 2011; Pirson & Turnbull, 2018). As such, a firm's investment in CSR initiatives could increase its operating complexity and accounting reporting complexity (Campbell, 1988), leading to increased audit complexity and a higher level of audit fees for firms involved in positive CSR activities as a result. For example, a firm's investment in research and development of clean technology could give rise to accounting issues dealing with intangible assets, an area

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perceived to be of high audit complexity (Datta, Jha, & Kulchania, 2020). Thus, the effect of positive CSR activities on audit fees is an empirical question.

Using a sample of 14,018 observations of US-listed firms during the period 2000 to 2016, we find that a firm's overall CSR performance, measured by the sum of CSR related concerns and strengths, is positively associated with audit fees. In addition, we find a positive effect on audit fees from both positive and negative CSR activities. In additional analyses, we use measures of audit complexity following Hoitash and Hoitash (2018) and Datta et al. (2020) and find that positive, as well as negative CSR activities are associated with higher audit complexity. Our findings are robust to controlling for potential endogeneity biases using the entropy balancing matching approach following recent research (Wilde, 2017; Chahine et al., 2020), by way of conducting a quasi-natural experiment based on the Energy Policy Act 2005, and using a firm fixed effects specification.

Taken together, our study suggests that a firm's CSR-related matters, strengths as well as concerns, increase the complexity of financial statement audit and result in higher audit fees. Importantly, we find that the higher audit fees required for firms that are involved in adverse CSR activities are not solely due to higher assessed risk as documented in the extant literature, but also increased audit complexity arising from accounting issues. These findings are relevant to international audit regulators and policymakers as the findings suggest the production of audits is influenced by firms' CSR activities. In particular, the increased level of audit complexity needs to be recognized at a time when there are increasing expectations for firms to be involved in CSR related activities. Additionally, while prior studies document benefits associated with positive CSR activities (e.g., El Ghoul et al., 2011; Ge & Liu, 2015), our evidence suggests that increased financial reporting complexity and audit fees represent additional cost from firms' investment in positive CSR activities. As such, our study could be

of interest to managers and CEOs who are interested in pursuing CSR-related initiatives in their organizations.

Our findings contribute to the literature in several ways. First, while risk and complexity have been agreed upon as the two important drivers of audit fees, measures of audit complexity have mainly been regarded as control variables rather than the variable of interest (Pong & Whittington, 1994). Although there is a general consensus among researchers that a more complex client is more time-consuming to audit (Hay, Knechel, & Wong, 2006; Simunic, 1980), there is a lack of focus on where audit complexity actually derives from. Thus, we extend the audit fee literature by identifying that a firm's CSR activities are a source of audit complexity[1].

Second, we contribute to the literature examining the relation between CSR performance and audit fees by documenting audit complexity as a channel through which CSR performance increases audit fees. Prior research that examines CSR performance and audit fees concludes that the higher level of audit fees for firms involved in adverse CSR activities is a result of heightened auditor business risk (Koh & Tong, 2013). Our study extends this stream of literature and suggests that CSR activities also increase audit fees via another channel, namely, audit complexity arising from increased accounting reporting complexity and operating complexity.

Third, our study contributes to the CSR performance literature. Prior studies acknowledge that the actions of businesses impact a wide variety of stakeholders, such as shareholders, employees, customers, the government, and society in general (Grant Thornton,

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[1] In an unpublished Masters thesis, Sevrikozi and Tzika (2017) examine the impact of CSR performance on audit fees in a European setting and find a significantly positive relationship. They interpret this finding as auditing becoming more time consuming, since the auditor must provide both financial and sustainability assurance. However, this interpretation is questionable, as the assurance of CSR disclosures is voluntary, and the firm may choose a different assurance provider to its financial statement auditor.

2008), and these impacts are well investigated in the CSR performance literature. Our study contributes to this line of research by examining how a firm's CSR performance affects auditors. Additionally, while it is common practice to use a composite net measure of a firm's CSR performance (e.g., Cahan et al., 2015; Di Giuli & Kostovetsky, 2014; Jo & Na, 2012; Kim et al., 2012), our findings show that an aggregated CSR performance measure is more appropriate when considering the influence of CSR performance on aspects of auditing. This corroborates Mattingly and Berman's (2006) argument that CSR strengths and concerns are conceptually and empirically different.

The rest of the paper is organized as follows. Section 2 provides the background and literature review, with the hypotheses development in Section 3. Section 4 describes the research design. Section 5, 6 and 7 discuss the main empirical results, robustness tests, and additional tests, respectively. Finally, Section 8 concludes.

2. BACKGROUND AND LITERATURE REVIEW
2.1. Audit Fees

The extensive literature on audit fees reinforces that it is an important area of research. Not only is the audit fee literature an interesting area of research to scholars and academics, but also to regulators and practitioners (Hay et al., 2006). Following Simunic's (1980) seminal work, it has been established that certain determinants are associated with the level of audit fees (Hay et al., 2006). Simunic (1980) theorised the audit process as a function of price and quantity where certain determinants cause the auditor to increase (or decrease) the amount of audit work, resulting in a variation of audit fees. In addition to client size, risk and complexity are two of the most important drivers commonly tested across audit fee research (Hay, 2013; Hay et al., 2006; Pong & Whittington, 1994; Simunic, 1980). Both risk and complexity are broad concepts, and therefore, measures of these concepts can take a number of forms (Hay, 2013; Hay et al., 2006; Pong & Whittington, 1994).

2.1.1. Risk

The general expectation is that the riskier the audit engagement, the greater the audit fees (Hay, 2013; Hay et al., 2006; Simunic, 1980). It is commonly accepted in audit fee research that in any audit engagement, there are two forms of risk that auditors take into consideration (Jubb, Houghton, & Butterworth, 1996). The first is audit risk, which is the likelihood that the auditor renders an inappropriate opinion on a client's financial statements (Houston, Peters, & Pratt, 1999; Jubb et al., 1996; Warren, 1979). The second is business risk, which is the likelihood of loss or injury to the audit firm arising from its engagement with the client (Colbert, 1991; Houston et al., 1999; Jubb et al., 1996; Pratt & Stice, 1994). Such loss or injury can take many forms, such as litigation against the auditor, damages in reputation, and loss of clients and often arises from client failure (Colbert, 1991; Houston et al., 1999; Jubb et al., 1996; Pong & Whittington, 1994). Thus, business risks comprise of client-specific factors that could lead to client failure such as management integrity or a firm facing a decline in demand (Morgan & Stocken, 1998).

In comparison to audit risk, business risk encompasses a wider concept as it can arise even when auditors comply with auditing standards and render the correct audit opinion (Houston et al., 1999; Palmrose, 1988; Pratt & Stice, 1994; Simunic, 1980). While the two forms of risk are conceptually different, it is often the case that the recognition of business risks can lead to the detection of audit risks (Colbert, 1991). For example, if a client firm's management is more prone to opportunistic behaviours, auditors may perceive this as a source of business risk. Subsequently, the auditor is more likely to render the wrong audit opinion if this behaviour extends to fraudulent financial reporting behaviours.

2.1.2. Business Risk

Prior research suggests that business risk is an important component in the planning stages of the audit and the pricing of their services (Brumfield, Elliott, & Jacobson, 1983;

Colbert, 1991; Houston et al., 1999; Pratt & Stice, 1994). Consequently, when an audit engagement involves a firm with perceived high business risk, auditors may respond by increasing the number of audit hours (Bell, Landsman, & Shackelford, 2001) and/or by charging a premium above the amount explained by the audit evidence collected (Pratt & Stice, 1994). Prior literature that examines the association between business risk and audit fees primarily focuses on the risk of litigation against the firm. This is because litigation can signal poor audit quality service, even if the correct audit opinion is rendered, which can harm the audit firm's reputation (Houston et al., 1999; Palmrose, 1988; Pratt & Stice, 1994; Simunic, 1980).

Although research on non-litigation business risk is not explored to the same extent, Houston, Peters, and Pratt (2005) find that non-litigation risk is also an important source of business risk. Houston et al. (2005) classify non-litigation risk as general business risks and/or opportunities that could relate to (1) the future collectability of audit and non-audit revenues and (2) the potential damage to an audit firm's reputation from its association with a client. The latter suggests that the mere fact of being associated with a certain client could impact the audit firm's reputation. Consistent with this notion, Lyon and Maher (2005) examine the relation between alleged corporate misconduct in the form of clients' payment of bribes to government officials and audit fees. They find that higher payments of bribes are associated with higher audit fees, suggesting that auditors view alleged misconduct as risky client behaviour, even if it is not related to the financial statement disclosures or explicitly part of the auditors' duties. Moreover, they state that while the relation between audit fees and litigation risk as a source of business risk has been largely explored, their findings suggest that other types of risky behaviour create an opportunity for future research.

2.1.3. Audit Complexity

Another general expectation is that the more complex the client, the greater the level of audit fees (Hay, 2013; Hay et al., 2006; Simunic, 1980). While prior research has provided convincing evidence of this, the measure of complexity has varied notably across studies (Hay et al., 2006). For example, in the meta-analysis on the determinants of audit fees carried out by Hay et al. (2006), they identify 33 different metrics that have been used to proxy for complexity across 147 papers. The most common measurements identified include the client's number of subsidiaries, foreign subsidiaries, industries it pertains to, and business segments. The commonality between these measures is the underlying variation in the client's environment in which it operates. As part of the audit process, the auditor is required to have a sound understanding of a client's internal and external environment in order to identify and process the information necessary for the verification of audit assertions (Einhorn, 1976; Simnett & Trotman, 1989). According to Bonner (1994), audit complexity stems from the tasks involved in the audit, where more complex tasks require greater levels of information processing. This increases the demands made on an auditor's cognitive capacity, which could impact their judgements and ability to perform an audit adequately (Bonner, 1994; Hay et al., 2006; Prawitt, 1995). As a result, greater audit resources and hours are needed to ensure the audit is carried out adequately and thus, increasing the level of audit fees (Beattie et al., 2001).

For example, Mohd-Sanusi and Mohd-Iskandar (2007) examine auditors' judgement performances across different levels of task complexity by carrying out an experimental study. The low task complexity required subjects to list compliance tests to determine whether a client's controls on payables were effective, while the high task complexity required subjects to assess possible errors arising from control weaknesses in the client's accounts payable system. The differentiating element between the two levels was that the low task complexity did not require the auditor to examine the importance of the information at hand, while the high

task complexity required auditors to understand the client's business and examine various informational cues. While it is expected that auditors would carry out both types of tasks, it is the amount and clarity of such informational cues that play a significant role in increasing (or decreasing) the complexity of the task at hand (Bonner, 1994). Such informational cues that the auditor must use pertain to the client firm itself. Hence, Pirson and Turnbull (2018) define complexity relating to (1) the variety of firm objectives which encompass both financial and social objectives, (2) the variety of external and internal information that can be used to assess firm risks and opportunities, and (3) the variety of relationships arising from a firm's objectives and its operating environment. This points to the need to understand the specific type of activities and operations that the client is engaged in. For example, Beattie et al. (2001) find that fund-raising charities have more complex operations compared to grant-making charities, leading to higher audit fees.

2.2. Corporate Social Responsibility Performance

CSR can be defined as "actions that appear to further some social good, beyond the interests of the firm and that which is required by law" (McWilliams & Siegel, 2001, p. 117). Given the recent demands for firms to be socially responsible, there has been growing attention on the CSR performance literature over the past few years. The actions of businesses can impact a wide variety of parties such as shareholders, employees, customers, the government, and society in general (Grant Thornton, 2008), and this is well documented in the CSR performance literature. For example, several studies have examined the relationship between CSR performance and financial performance (e.g., Orlitzky, Schmidt, & Rynes, 2003; Van Beurden & Gössling, 2008), customer satisfaction and loyalty (e.g., Galbreath & Shum, 2012; Martínez & Rodríguez del Bosque, 2013), the media (e.g., Cahan et al., 2015) and its ability to help the firm maintain its social contract (e.g., Sacconi, 2007). However, there appears to be a paucity of research examining the implications for auditors, a party that is inevitably concerned about

the behaviours of their client. As it is part of a financial auditor's duty to obtain a sufficient understanding of the client firm and its environment (AICPA, 2006), the CSR performance is likely to have an impact on an auditor's assessment of a firm and therefore, the pricing of the audit service. Therefore, we investigate whether CSR performance of a client firm is associated with the level of audit fees charged.

2.2.1. Measurement of CSR performance

To evaluate a firm's CSR performance, prior research has commonly used the KLD dataset. Such research often subtracts the KLD CSR concerns from its CSR strengths to derive a net measure of a firm's CSR performance where a greater score indicates a more socially responsible firm (e.g., Di Giuli & Kostovetsky, 2014; Jo & Na, 2012; Kim et al., 2012). By examining CSR performance in this manner, these studies assume that the CSR strengths and CSR concerns measure opposite directions of the same underlying construct (Mattingly & Berman, 2006). Mattingly and Berman (2006) reject this prevalent assumption and find that the KLD measures of strengths and concerns are conceptually and empirically different. Therefore, the conclusions drawn from prior research that use this composite net measure lack the ability to distinguish the effects related to CSR strengths from those related to CSR concerns (Mattingly & Berman, 2006). Strike, Gao, and Bansal (2006) provide an analogous example that lends credence to the idea that a firm's CSR strengths are not simply the reverse of its CSR concerns. They state that "violence against employees is irresponsible, but the absence of violence is not necessarily responsible; it should be the *status quo*" (Strike et al., 2006, p. 851).

Prior literature that examines CSR strengths and concerns separately provides further evidence that these constructs have different implications and, thus, should be considered separately. For example, Bird et al. (2007) examine what type of CSR activities are rewarded by the market and find that a firm with CSR strengths is rewarded in the market place while a

firm with CSR concerns is punished. Hoi, Wu, and Zhang(2013) find that firms with CSR concerns are more likely to engage in tax avoidance activities. Related to our study, Koh and Tong (2013) find that firms involved in adverse CSR activities pay higher audit fees. They interpret this finding as a result of auditors' higher assessed business risk for clients with CSR controversies. We extend the findings in Koh and Tong (2013) and suggest that firms' CSR activities also affect audit fees through an audit complexity channel. Further, we posit that CSR strengths and CSR concerns are not opposite in terms of their effect on the audit process, and thus audit fees.

3. HYPOTHESES DEVELOPMENT

3.1. Overall CSR Performance and Audit Fees

As discussed in the background and literature review, prior literature using the KLD data often measures a firm's overall CSR performance as the net of its CSR strengths less CSR concerns (e.g., Di Giuli & Kostovetsky, 2014; Jo & Na, 2012; Kim et al., 2012; Brooks, 2012). From an auditor's perspective, this would suggest that a firm with five CSR strengths and five CSR concerns is assessed the same as a firm with zero CSR strengths and zero CSR concerns as both firms would have ended up with a net CSR performance score of zero. We posit that this is not a logical assumption for the following reasons.

First, Godfrey (2005) argues that when a firm engages in readily salient examples of unacceptable behaviour, benevolent moral behaviour is unlikely to change the composite view. Therefore, if a firm deviates from socially accepted norms but also makes additional investments in CSR activities, it may not be enough to provide compelling evidence of good character to discount any CSR concerns (Godfrey, 2005). This is even more likely to be the case for auditors as auditing standards and regulators, such as the PCAOB, have emphasized the importance of professional scepticism in all aspects of the audit process (Kathy Hurtt et al., 2013). Moreover, as both CSR concerns and CSR strengths are argued to be conceptually and

empirically different (Mattingly & Berman, 2006), matters that give rise to both measures could impact the audit process in their own ways. Thus, when a firm is involved in CSR related matters, the auditor must comprehend more informational cues regarding the client firm, increasing the complexity of the audit. This leads to the hypothesis:

H1: *CSR strengths plus CSR concerns, as a measure of a firm's overall involvement in CSR related matters, is associated with higher audit fees*

In the next two sections, we disaggregate this measure to provide greater insight into how the CSR concerns and CSR strengths of a firm could impact audit fees in their own ways.

3.2. CSR Concerns and Audit Fees

Social custom and conformity theories (e.g., Akerlof, 1980; Bernheim, 1994) suggest that social norms play an important role in a firm's ability to survive, as deviations from such norms could result in penalties even when the deviations are relatively minor. With the shift in societal values and concerns for social and environmental issues, CSR can be regarded as a social norm. Hence, when a firm deviates from these socially accepted norms, as reflected by CSR concerns, they are likely to be punished by stakeholders which may negatively impact a firm's financial performance (Godfrey, Merrill, & Hansen, 2009). The link between CSR performance and financial performance has been widely examined. Although the findings remain generally mixed across studies, meta-analyses carried out by Orlitzky et al. (2003) and Van Beurden and Gössling (2008) both show that results predominantly suggest that greater CSR performance leads to higher financial performance. Thus, a firm that falls short of its social responsibilities is likely to exhibit lower levels of financial performance. Matters that give rise to CSR concerns may lead to significant fines and penalties, reducing a firm's cash flows (Perrini et al., 2011). For example, BP was required to pay an environmental fine of $18.7 billion over the 2010 Gulf of Mexico oil spill (Rushe, 2015). Firms that fall short of their

social responsibilities may also experience levels of financial distress beyond the direct impact of any fines if stakeholders react in ways that could impair intangible assets, such as the firm's reputation, which in turn, may lead to negative media attention, a greater propensity for litigation and even consumer boycotts (Al-Hadi et al., 2019; Godfrey et al., 2009; Leventis, Hasan, & Dedoulis, 2013). Consequently, capital providers are likely to incur losses and in an attempt to assign responsibility, may give rise to litigation against the audit firm (Pratt & Stice, 1994). To the extent that management has greater incentives to manipulate earnings as a result of adverse financial performance, CSR related concerns are likely to increase auditors' assessed business risk for such clients, leading to higher audit fees.

Stakeholder theories (e.g., Carroll, 1979; Freeman, 1994; Jones, 1995; Phillips, Freeman, & Wicks, 2003) suggest that ethics and economics should be intertwined, whereby firms should give attention to the interests and expectations of all their stakeholders. Such theories suggest that firms have an incentive to demonstrate ethical behaviour in their business processes to develop and maintain relationships with its stakeholders, which is imperative to firm survival and success (McWilliams & Siegel, 2001). In line with such theories is the possibility that the deviation from socially accepted norms can cast doubt of management's integrity. A firm's additional investment in CSR activities creates a signal of ethical behaviour and also a signal of non-self-serving intentions (Godfrey et al., 2009; Linthicum, Reitenga, & Sanchez, 2010). Thus, when a firm falls short of its social responsibilities, it can send a signal of self-serving behaviours as opposed to serving the needs of others (Godfrey et al., 2009). Consequently, this could put the firm and its management's fundamental integrity in question, which could be reflected in other aspects of the business, such as the financial reporting process (Godfrey et al., 2009). For example, Hoi et al. (2013) find that firms with greater CSR concern scores are more likely to engage in aggressive tax avoidance activities. In a similar vein, Kim et al. (2012) find that a firm with greater CSR concerns is more likely to make opportunistic

accounting choices through accrual-based earnings management. Client characteristics, such as management's attitude towards operational and accounting matters, can influence an auditor's perception of their client and their associated risk (Brumfield et al., 1983; Leventis, Dedoulis, & Abdelsalam 2018). Therefore, if the deviation from socially accepted norms sends a signal that management appears to be more prone to misbehaviour in the financial reporting process, the auditor is likely to perceive the client as riskier. That is, auditor assessed business risk is likely higher for firms involved in negative CSR activities due to higher perceived risk of financial misstatement, which leads to higher audit fees.

In a similar vein, Leventis et al. (2013) find that sin industries (i.e., alcohol, firearms, gambling, military, nuclear, and tobacco industries) are charged with significantly higher audit fees. They suggest that a firm's adverse behaviour related to broader social conditions is integral to the client's business risk profile, leading to a higher level of audit fees. We extend this study by examining 'non-sin' industries, as all firms can fall short of their expected responsibilities that are related to broader social conditions, irrespective of industry. Thus, any firm that deviates from CSR norms is likely to experience adverse effects that could increase the assessed auditor business risk, resulting in higher audit fees.

Another reason to expect that firms involved in CSR concerns to be charged with higher audit fees stems from the relation between negative CSR activities and audit complexity. Audit complexity could increase as a result of controversies in CSR-related matters. Prior research finds that audit complexity arises from accounting reporting complexity. Hoitash and Hoitash (2018) find that accounting reporting complexity, as measured by the number of accounting items disclosed in the eXtensible Business Reporting Language (XBRL) 10-K filings, is associated with higher audit fees. Adverse CSR activities could lead to an increased amount and diversity of accounting information that firms have to report in their financial statements, which increases audit complexity. For example, controversies related to toxic emissions or

spills, an area of CSR concerns, are often accompanied by litigations, which will likely result in remediation costs. Such events will increase complexity in the preparation of financial reports as contingent liabilities, as well as provisions of any remediation costs will need to be disclosed, the estimation of which often requires legal as well as technical advice from engineering experts. Indeed, audit firms identify environmental liability reporting as an area that is 'highly judgmental', and inherently complex and challenging (e.g., PwC, 2016). As such, certain CSR concerns will likely increase audit fees through increased audit complexity arising from environmental liability reporting.

Taken together, we expect firms involved in negative CSR activities to be charged with higher audit fees due to higher auditor business risk and increased audit complexity. This leads to the hypothesis:

H2: *CSR concerns are associated with higher audit fees.*

3.3. CSR Strengths and Audit Fees

A priori, it is unclear whether a firm's CSR strengths will lead to higher or lower audit fees. Based on the literature discussed earlier, one possibility is that, from an auditor's perspective, a firm that goes above and beyond their social responsibilities by making additional investments in CSR activities, as reflected by CSR strengths, is less risky. From a risk-management perspective, additional investments that give rise to CSR strengths can be used to enhance a firm's reputation, which could protect a firm from the risk of adverse social sanctions and penalties (Hoi et al., 2013; Weber, 2008). Moreover, it can create a signal of ethical behaviour and non-self-serving intentions (Godfrey et al., 2009; Linthicum et al., 2010). The benefits accruing from such investments can be both monetary (e.g., revenue increases and cost decreases) and non-monetary (e.g., securing the licence to operate and increased reputation) (Weber, 2008). In addition, managers of firms with strong CSR performance tend

to refrain from earnings management due to ethical concerns and produce higher quality financial statements (Kim et al., 2012). Thus, auditors may assess firms with strong CSR performance as having a low risk of financial misstatement due to greater transparency and lower risk of agency conflict. This suggests that auditors may charge lower audit fees to firms with strong CSR performance due to lower assessed business risk as well as audit risk.

On the other hand, it is possible that audit complexity will increase as a result of firms' investment in CSR activities, which could increase audit fees. Prior literature suggests that audit complexity can arise from accounting-based complexity (Hoitash & Hoitash, 2018; Filzen & Peterson, 2015) as well as firms' operating complexity (Hay et al., 2006). Positive CSR performance is achieved through investments in CSR activities (e.g., McWilliams & Siegel, 2001; Tsoutsora, 2014), which could give rise to complex financial reporting issues or additional accounting disclosure. For example, Bosch invests 50% of its research and development (R&D) budget in environmentally friendly technologies (Vilas, 2017). Datta et al. (2020) find that auditors perceive intangible assets, such as expenses on R&D, to be a source of audit complexity, and that firms with a greater proportion of intangible assets pay higher audit fees. To the extent that investments in CSR activities may give rise to complex economic activities that result in increased volume and diversity of accounting information to be processed and reported in the financial statements, audit complexity increases with firms' involvement in positive CSR activities (Campbell, 1988). Based on this argument, auditors could require higher audit fees for firms with CSR strengths.

In addition, a firm's investment in positive CSR initiatives will likely result in greater complexity in the firm's operating environment. Investments in CSR activities affect operating procedures, as well as documentation, programs, and systems (Perrini et al., 2011). A firm's stakeholders are immersed directly and indirectly in a network of interconnected relationships that influence a firm's day to day operations (Bingham et al., 2011). According to Gray and

Manson (2007), auditors are required to understand the client's external environment as it is a significant driver of how they operate as a business. A more complex environment will negatively impact an auditor's information processing abilities (Einhorn, 1976). A significant contributor to a firm's environmental complexity is the variation and number of commercial and financial relationships it has, including those with its competitors, customers, and suppliers (Gray & Manson, 2007). The adoption of CSR policies is likely to increase the number of actors the firm has a relationship with and consequently, this will increase the variety and amount of information the auditor must process (Perrini et al., 2011; Pirson & Turnbull, 2018). Similarly, Heugens and Dentchev (2007) argue that firms can be thought of as a *coalition* that involves many disparate interested parties and subsequently, when a firm makes additional investments in CSR activities, it broadens their coalition. As a result, operating complexity for firms involved in CSR initiatives is higher, which increases audit complexity.

Based on these arguments, the effect on audit fees from firms' positive CSR activities is an empirical issue. This leads to the following non-directional hypothesis:

H3: *CSR strengths are associated with audit fees.*

4. RESEARCH DESIGN

4.1. Data and Sample Selection

We use the KLD database to obtain data on firms' CSR strengths and CSR concerns. KLD provides environmental, social, and governance performance indicators for more than 3,000 publicly listed US firms (MSCI, 2015). Its ratings are considered as one of the oldest and most persuasive, and hence it is the most widely used CSR rating by academics (Chatterji, Levine, & Toffel, 2009). KLD evaluates firms across seven CSR dimensions that relate to corporate governance, community, diversity, employee relations, environment, human rights, and product. Each dimension consists of several strength and concern items, and under each, each firm is given a binary score to indicate whether the firm has or does not have that strength

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or concern in that year. The KLD database provides us with an initial sample of 53,159 firm-year observations (1991-2016).

We then use Audit Analytics to obtain data on audit fees and other audit-related control variables. We merge the KLD data with the Audit Analytics data and remove any observations with missing audit fee data, resulting in 24,819 firm-year observations. We obtain financial statement and operating control variables from Compustat (North America) and merge this, removing observations with missing control variable data, resulting in 14,907 firm-year observations. Following prior research (e.g., Casterella et al., 2004), we remove any observations with a 4-digit SIC code greater than or equal to 6000, as financial institutions and non-industrials have unique financial statement reporting formats. This yields in a final sample of 14,018 firm-year observations for the period 2000–2016.[2]

4.2. Regression Model

To test the hypotheses, we estimate the following regression model:

$$LN\_AUDITFEES_{it} = \beta_0 + \beta_1\,CSR_{it} + \beta_2\,LN\_ASSETS_{it} + \beta_3\,BUS\_SEG_{it} + \beta_4\,FOR\_SEG_{it} +$$

$$\beta_5\,REC\_INV_{it} + \beta_6\,ROA_{it} + \beta_7\,LOSS_{it} + \beta_8\,CURRENT_{it} + \beta_9\,CGOV_{it} +$$

$$\beta_{10}\,BIGN_{it} + \beta_{11}\,SPECIALIST_{it} + \beta_{12}\,CHANGE_{it} + \beta_{13}\,GC_{it} +$$

$$\beta_{14}\,LN\_NAF_{it} + \beta_{15}\,BUSY_{it} + \beta_{16}\,YEARFIXED_{it} + \beta_{17}\,INDUSTRYFIXED_{it}$$

$$+ \varepsilon_{it} \tag{1}$$

where *CSR* is measured by *CSR_SUM*, *CSR_CON* or *CSR_STR*. All variables are defined in Appendix A.

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[2] Our sample starts from 2000 because the audit data is available from 2000, and ends in 2016 because the KLD database is not being updated any longer after 2016.

4.3 Measurement of Variables

4.3.1. Independent and Dependent Variables

CSR performance. To construct variables for overall CSR concerns (*CSR_CON*) and CSR strengths (*CSR_STR),* we separately sum all the strength items and concern items across all the CSR dimensions except the corporate governance dimension, respectively.[3] Following prior research (e.g., Jo & Na, 2012; Kim et al., 2012), we include the corporate governance score as a control variable by taking the net of the total corporate governance strengths and concerns. One potential issue with the aggregation of the total strengths and concerns is that it places equal weight on each CSR item; however, this may not be the case as some items have been added or removed between years within each category (Kotchen & Moon, 2012). To correct for this variation, we standardize the CSR concerns and CSR strengths by dividing the total number of concerns and strengths in each year, respectively (e.g., Kotchen and Moon, 2012). To create the measure for a firm's general involvement in CSR related matters (*CSR_SUM*), we add the total standardized CSR concerns and CSR strengths to make one aggregate measure.

Audit Fees. To measure the level of audit fees charged, we take the natural log of audit fees (*LN_AUDITFEES*).

4.3.2. Control variables

Following prior research (e.g., Desir et al., 2014; Hay, 2013; Hay et al., 2006; Kealey et al., 2007; Simunic, 1980), we include control variables that have been commonly used in audit fee research. These control variables can be classified into three categories; client attributes, auditor attributes, and engagement attributes (Hay, 2013).

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[3] In Appendix B, we provide detailed definitions to CSR strength indicators under the environment and diversity categories. Appendix C provides a list of indicators on CSR concerns under the community, diversity, employee, environment, human rights, and product categories provided by the KLD dataset. Appendix D provides a list of indicators on CSR strengths on community, employee, human rights and product.

Client Attributes. We control for firm size (*LN_ASSETS*) and organizational complexity (*BUS_SEG*) and geographical complexity (*FOR_SEG*) using the number of business segments and foreign segments listed on the Compustat segments database, respectively (Desir, Casterella, & Kokina, 2014; Hay, 2013; Hay et al., 2006). To control for inherent risk, we follow Desir et al. (2014) and Kealey, Lee, and Stein (2007) and use the ratio of a firm's receivables and inventories to its total assets (*REC_INV*). We also control for a firm's profitability using its return on assets (*ROA*) and a dummy variable indicating whether a firm incurred a bottom-line loss in its fiscal year (*LOSS*). To control for leverage and liquidity, we use a firm's current ratio (*CURRENT*). We expect *LN_ASSETS, BUS_SEG, FOR_SEG, REC_INV*, and *LOSS* to have positive relationships with audit fees, while we expect *ROA* and *CURRENT* to have a negative relationship.

A firm's internal control strength, often proxied by the presence of an internal audit function (IAF) (e.g., Desir et al., 2014; Goodwin-Stewait & Kent, 2006). While the results are mainly mixed, Hay (2013)'s meta-analysis finds that overall, the presence of an IAF is associated with higher audit fees, supporting the argument that firms that engage in greater internal monitoring also demand higher quality external auditing (Goodwin-Stewait & Kent, 2006). Due to data availability, we are not able to gather data on firms' IAF. Instead, to control for the internal audit, we use the net corporate governance score (*CGOV*) issued by KLD as prior research suggests that corporate governance is closely linked to a firm's internal control environment (e.g., Hay, Knechel, & Ling, 2008). We expect a positive relationship between *CGOV* and audit fees (Goodwin-Stewait & Kent, 2006).

Auditor Attributes. We control for whether a client firm had an auditor change during the sample period (*CHANGE)* and expect a negative relationship with audit fees, as prior literature suggests that auditors low-ball in new audit engagements (e.g., Desir et al., 2014). We also control for whether an auditor is from a Big N firm (*BIGN)* or is an industry specialist

(*SPECIALIST)* and expect a positive relationship with audit fees (Craswell et al., 1995; Hay et al., 2006). Following Casterella et al. (2004) and Craswell, Francis, and Taylor (1995), we define an auditor as an industry specialist if it has 20 percent or more clients in an industry where industry is defined as two-digit SIC classifications. Following Craswell et al. (1995), we require a minimum of 30 firms per industry in order to be considered a potential industry to specialise in.

Engagement Attributes. We control for whether a client firm's audit report is modified for a going concern opinion (*GC),* the natural logarithm of the amount of non-audit fees (*LN_NAF)* and whether the audit engagement is during the busy season (i.e., client firms with a December 31 fiscal year-end) (*BUSY)*. All three engagement attributes are expected to have a positive relationship with audit fees (Hay, 2013; Hay et al., 2006).

We also include year fixed effects (*YEARFIXED*) by creating dummy variables for each year in the sample period to control for any time-invariant factors which could affect audit fees. Additionally, we include industry year effects (*INDUSTRYFIXED*) by creating dummy variables for each industry in the sample to control for any possible inter-industry variations that could impact audit fees.

5. EMPIRICAL RESULTS
5.1. Descriptive Statistics

Table 1 displays the descriptive statistics. Panel A reports the summary statistics for all firm-year observations included in the sample. On average, there are more CSR concerns (mean = 0.221) than CSR strengths (mean = 0.148) in the full sample. In panel B, we partition the full sample into groups where firms have: (1) only CSR concerns, (2) only CSR strengths, (3) both CSR concerns and strengths, and (4) no CSR strengths or CSR concerns. On average, firms that have no CSR related matters have lower audit fees compared to those that do, whether it be in the form of a concern or a strength. Firms with both CSR concerns and CSR strengths,

on average, have higher audit fees than firms that only have CSR strengths and firms that only have CSR concerns. This provides preliminary evidence for *H1, H2,* and *H3*. That is, the CSR concerns and CSR strengths both increase audit fees as from the auditor's perspective, CSR concerns and CSR strengths are associated with different implications for the audit process.

Table 2 displays the correlation matrix. As expected, the size of the client firm (*LN_ASSETS)* is highly correlated with audit fees (0.722), as it has been well documented that size is a significant driver of the variation in audit fees (e.g., Hay et al., 2006; Simunic, 1980). However, after checking the variance inflation factor and tolerance value, all variables are well below ten and well above 0.1, respectively. This suggests that multicollinearity may not be an issue.

5.2. Multivariate Results

Table 3 displays the multivariate regression result from estimating Eq. (1). Columns (1) and (2) report the main results using *CSR_SUM* as the main variable of interest. The results show that the coefficient on *CSR_SUM* is significant and positive at the 1% level, which suggests that a firm's general involvement in CSR related matters is associated with higher audit fees, providing evidence for *H1*. In terms of economic magnitude, an increase of one standard deviation in *CSR_SUM* is associated with an increase of 0.059 (0.395 x 0.194 / 1.308) of a standard deviation in *LN_AUDITFEES*.

Columns (3) and (4) report the main results using *CSR_CON* and *CSR_STR* as the main variables of interest. The results show that the coefficient on *CSR_CON* is significant and positive at the 1% level, which suggests that firms that are involved in negative CSR performance pay higher audit fees, supporting *H2*. In terms of economic magnitude, an increase of one standard deviation in *CSR_CON* is associated with an increase of 0.033 (0.250 x 0.176 /1.308) of a standard deviation in *LN_AUDITFEES*. While this finding is consistent with Koh

and Tong (2013), who find that audit firms charge higher audit fees to firms involved in controversial activities, the higher level of audit fees for firms with CSR concerns could be the result of a higher level of assessed business risk as suggested in Koh and Tong (2013), as well as an increase in audit complexity arising from having to deal with more accounting reporting issues as a result of CSR controversies. We conduct further analyses to examine if CSR concerns also affect audit fees through increased audit complexity, and report our findings in section 7.3 of the paper.

Regarding *H3*, we find that the coefficient on *CSR_STR* is significant and positive at the 1% level, which suggests that firms that go above and beyond what is legally required by making additional investments in CSR activities pay higher audit fees. In terms of economic magnitude, an increase of one standard deviation in *CSR_STR* is associated with an increase of 0.040 (0.217 x 0.239 / 1.308) of a standard deviation in *LN_AUDITFEES*. While a firm's investment in positive CSR activities could lower the perceived risk of misstatement, which would reduce audit fees, the positive relation between CSR strengths and audit fees suggests that additional investments in CSR increase the complexity of a client's operating environment as well as the complexity of accounting reporting, which leads to a higher level of audit fees overall.

The majority of the control variables have the expected sign in both regressions. The results show that audit fees increase with client size (*LN_ASSETS)*, complexity measured by the number of business (*BUS_SEG)* and foreign segments (*FOR_SEG)*, and inherent risk (*REC_INV).* A client in poor financial condition (*LOSS*) is also associated with higher audit fees. The coefficient on *ROA* is significantly positive in both regressions, which is inconsistent with expectations. A possible explanation for this is that firms with a higher return on assets have the ability to pay for higher audit fees (Casterella et al., 2004). The results also show that audit fees decrease with a firm's liquidity (*CURRENT*). Turning to the auditor attributes, audit

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fees are higher when the auditor is from a *BIGN* audit firm. Consistent with the view that auditors low-ball for new clients (e.g., Desir et al., 2014), there is a reduction in audit fees when the client changes its auditor (*CHANGE*). Looking at the engagement attributes, audit fees increase with non-audit fees (*LN_NAF*) and when the audit is carried out during the busy season (*BUSY*).

6. ROBUSTNESS TESTS

We acknowledge that the extent to which a firm decides to engage in CSR related matters is voluntary. Therefore, there may be endogeneity issues, particularly omitted variables and reverse causality (e.g., audit fees influence a firm's CSR performance). We carry out several robustness tests to address these concerns.

6.1. Quasi-natural Experiment

Here, we address endogeneity concerns relating to the main finding that CSR concerns are associated with higher audit fees. To do so, we conduct a quasi-natural experiment based on the Energy Policy Act 2005 (EpAct05). On August 8th 2005, EPAct05 was enacted, which contained many new provisions, policies, and programs for energy conservation and efficiency that mainly impacted firms in the utilities industry (Dixon et al., 2010). For example, EPAct05 increased the amount of renewable fuels that has to be mixed with gasoline sold in the US (Dixon et al., 2010). Moreover, it included policies that increased the levels of renewable and clean energy sources that had to be used in the generation of electricity (Dixon et al., 2010)

We expect that the EPAct05, which forced firms in the utilities industry to mandatorily reduce the number of CSR concerns primarily related to the environment, would decrease the auditor's perception of client business risk. On the other hand, this Act would have had no direct impact on the level of fees for the affected firms. Hypothetically, EPAct05 could increase

the number of CSR strengths; however, we posit that the CSR strengths would remain unaffected. This is because firms affected by this Act would be primarily focussed on reducing their CSR concerns first before being able to make any additional investments in CSR that go above and beyond what is legally required.

Using a difference-in-difference research design, we test whether the level of audit fees for firms affected by EPAct05 decreases. We restrict the sample to 2003-2006 to mitigate the possibility of capturing other year-wide events, leaving a sample of 2,939 firm-year observations. We estimate the following regression model:

$$LN\_AUDITFEES_{it} = \beta_0 + \beta_1\ TREATMENT\ x\ POST_{it} + \beta_2\ TREATMENT_{it} + \beta_3 POST_{it} +$$

$$\beta_4 LN\_ASSETS_{it} + \beta_5\ BUS\_SEG_{it} + \beta_6\ FOR\_SEG_{it} + \beta_7\ REC\_INV_{it} +$$

$$\beta_8\ ROA_{it} + \beta_9 LOSS_{it} + \beta_{10}\ CURRENT_{it} + \beta_{11}\ CGOV_{it} + \beta_{12}\ BIGN_{it} +$$

$$\beta_{13}\ SPECIALIST_{it} + \beta_{14}\ CHANGE_{it} + \beta_{15}\ GC_{it} + \beta_{16}\ LN\_NAF_{it} +$$

$$\beta_{17}\ BUSY_{it} + \beta_{18} YEARFIXED_{it} + \beta_{19} INDUSTRYFIXED_{it} + \varepsilon \qquad (2)$$

TREATMENT equals to 1 if the client firm is in the utilities industry (SIC 4000-4999) and 0 otherwise. *POST* equals to 1 if the year is 2005 or 2006 and 0 otherwise. The variable of interest is the interaction between *TREATMENT* and *POST*.

Table 4 reports the results of the estimation of Eq. (2). The results show that the interaction term is significant and negative at the 1% level. This suggests that the treatment firms, which were forced to reduce their CSR concerns after 2005, were charged lower audit fees compared to the control group in the post period. This supports the main findings for *H2*. Additionally, the coefficient on *TREATMENT* is significantly positive, indicating that firms in the utilities industry on average, are associated with greater audit fees compared to other industries. Also, the coefficient on *POST* is significantly positive, suggesting that the control firms' level of audit fees was higher after 2005.

6.2. Entropy Balancing

Following recent literature (e.g., Wilde, 2017; Glendening, Mauldin, & Shaw, 2019; Chahine et al., 2020), we address potential endogeneity issues arising from omitted variables and selection issues using a multivariate matching technique, entropy balancing. This method enables balanced covariate distributions for the treatment group and the control group by reweighting units in the control group (Hainmueller, 2012; Hainmueller & Xu, 2013). Achieving covariate balance means that treatment and control groups are similar along the matched observables, so that any difference in the outcome variable can be plausibly attributed to variations in the treatment variable. This method helps to mitigate biases in observational studies when evaluating treatment effects (Armstrong, Jagolinzer, & Larcker, 2010; Zhao & Percival, 2016).[4]

To perform entropy balancing, we create a binary treatment variable, *TREAT_STR*, which is equal to 1 if a firm reports a positive CSR strength score (*CSR_STR*) in a year, and zero otherwise. We require the treatment group (i.e., firms with positive CSR strength scores, *TREAT_STR* = 1) and the control group (i.e., firms with zero CSR strength score, *TREAT_STR* = 0) to be balanced on the control variables specified in Equation (1). As shown in panel A of Table 5, after applying the entropy balancing weights, the distributions of the covariates for the control group become near identical to that for the treatment group. In panel B of Table 5, we report the regression results from estimating the entropy balanced sample. We continue to find that firms pay higher audit fees when they have more positive CSR activities, as shown by the significant and positive coefficient on *CSR_STR*. When we include *CSR_CON* in the

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[4] Although matching approach does not explicitly control for the effects from unobservable omitted variables, to the extent that the unobservables are correlated with the observable covariates that are matched on, entropy balancing should effectively reduce endogeneity biases. In untabulated additional checks, we use a fixed effects model to control for any effects from time-invariant unobservable factors. Our findings reported in Table 3 with respect to the variables of interest (*CSR_SUM*, *CSR_CON*, and *CSR_STR*) remain qualitatively unchanged when we further control for firm-fixed effects in the model (untabulated).

regression, we continue to find that firms pay higher audit fees when they have a greater number of CSR concerns, as shown in column (3).

In untabulated tests, we also perform entropy balancing based on the treatment effect from CSR concerns. We create a binary treatment variable, *TREAT_CON,* which is equal to 1 if a firm reports a positive CSR concern score, and 0 otherwise. After entropy balancing, the treatment firms (those that report CSR concerns) and control firms (those that report zero CSR concerns) exhibit covariate balance along the control variables. Our findings are qualitatively similar to those reported earlier in Table 3 and Table 5 from estimating this weighted sample (untabulated).

7. ADDITIONAL TESTS
7.1. CSR Performance by Category

To provide further evidence on which CSR activities drive audit fees, we examine the effect on audit fees from different dimensions of CSR performance by decomposing the total CSR performance scores into strength and concern scores for each performance category (i.e. community, diversity, employee relations, environment, human rights, and product). Table 6 reports the correlation matrix of the aggregated CSR performance scores by category. None of the results are greater than 0.5, indicating that multicollinearity may not be an issue. Moreover, the variance inflation factors and tolerance values for the variables are well below ten and well above 0.1, respectively.

We first examine the effect of the six separate categories of CSR performance on audit fees. As shown in Table 7, panel A, results suggest that strengths in the area of diversity (*DIV_STR*) and environment (*ENV_STR*) are associated with higher audit fees. Concerns in the area of employee relations (*EMP_CON*), environment (*ENV_CON*), and human rights (*HUM_CON*) are associated with higher audit fees. Surprisingly, strengths in the area of

employee relations (*EMP_STR*) is associated with lower audit fees, which is inconsistent with expectations. However, it is only marginally significant at the 10% level (*p*-value = 0.088).

7.2. CSR Strength and Audit Complexity

In developing our hypothesis 3, we posit that good CSR activities increase audit fees as a result of increased audit complexity arising from positive CSR initiatives. To establish the link between audit complexity and positive CSR performance, we first examine how individual positive performance indicators under the environmental and diversity categories affect audit fees. The KLD database provides a total of 17 measures that capture positive environmental performance and nine measures on positive diversity performance. Appendix B provides a list of definitions to the strength indicators that have variations in our sample (15 indicators on environmental strength, and 9 indicators on diversity). If increased audit complexity represents a channel through which CSR performance strength affects audit fees, the criteria for scoring the strength indicators that are positively associated with audit fees should require activities that lead to more complex accounting issues and/or operating complexity.

In panel B of Table 7, we report the regression results to the effect of individual indicators under the environmental strength category (columns 1 and 2), and the diversity strength category (columns 3 and 4) on audit fees. Of the 15 strength indicators under the environmental category, *ENVA, ENVB*, and *ENVK* are significantly and positively associated with audit fees. An inspection of the definition to these performance indicators suggest that activities specified in the criteria for *ENVA*, *ENVB*, and *ENVK* have complex accounting reporting implications. For example, investment and innovation in clean technologies (*ENVA* and *ENVB*) requires additional spending on research and development, the accounting treatment for which is inherently complex and vulnerable to manipulation (Datta et al., 2020). *ENVK* indicates the presence of better risk management systems related to environmental

issues, suggesting the need to audit the more complex management systems.[5] As such, the positive association between strong environmental performance and audit fees is likely driven by increased audit complexity associated with auditing intangible assets to some extent.

Also reported in panel B of Table 7, there is a significant and positive association between two of the strength indicators under the diversity category, *DIVC* and *DIVE*, and audit fees.[6] Prior studies suggest that female presence on the board is positively associated with the demand for high audit quality and greater audit effort by the auditors (e.g., Gul, Srinidhi, & Tsui, 2009; Aldamen, Hollindale, & Ziegelmayer, 2018). The literature also suggests that board gender diversity improves financial reporting transparency through increased voluntary public disclosure (e.g. Gul, Srinidhi, & Ng, 2011). Drawing on such evidence, the higher audit fees for firms with strong diversity performance as indicated by *DIVC* could be explained by increased audit complexity through additional voluntary disclosure as a result of female participation on the board. There is also a significant and positive coefficient on *DIVE*, which suggests audit fees are higher when firms have a proportion of contracting with women and/or minority-owned businesses. It is likely that contracting with a diverse stakeholder group increases operating complexity, which increases audit complexity. Overall, the detailed description of positive CSR activities in Appendix B and the results in panel B of Table 5 provide context to how positive environmental and diversity activities could affect audit fees.

We further investigate the relation between positive CSR performance and audit complexity using multivariate regressions to triangulate our results. We use two measures of audit complexity. First, we use the ratio of research and development expense over total assets (*R&D*) (Datta et al., 2020). Second, we use the accounting reporting complexity measure, *ARC,*

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[5] Note that the *ENVK* result was based on one firm-year observation where *ENVK*=1, suggesting that this result may be an outlier. By contrast, the number of firm-years for *ENVA*=1 and *ENVB*=1 were 692 and 566, respectively.

[6] The number of firm-years for *DIVC*=1 and *DIVE*=1 were 1,086 and 739, respectively.

following Hoitash and Hoitash (2018). Hoitash and Hoitash (2018) document that the count of accounting items disclosed in eXtensible Business Reporting Language (XBRL) 10K filing, *ARC*, captures accounting reporting complexity as well as operating complexity. Thus, *ARC* is a good measure of audit complexity as both accounting complexity as well as firms' operating complexity are sources of audit complexity. We estimate the following regression:

$$R\&D_{it} \text{ or } ARC_{it} = \beta_0 + \beta_1 \, CSR\_STR_{it} + \beta_2 \, LN\_ASSETS_{it} + \beta_3 \, BUS\_SEG_{it} + \beta_4 \, FOR\_SEG_{it} + \beta_5$$

$$REC\_INV_{it} + \beta_6 \, ROA_{it} + \beta_7 \, LOSS_{it} + \beta_8 \, CURRENT_{it} + \beta_9 \, YEARFIXED_{it} + \beta_{10}$$

$$INDUSTRYFIXED_{it} + \varepsilon_{it} \tag{3}$$

We expect the CSR performance strength score, *CSR_STR,* to be positively related to the level of R&D expenditure (*R&D*) and the number of accounting items (XBRL tags) disclosed in 10-K filings (*ARC*). We report the results in panel C of Table 7. Consistent with our view that audit complexity increases with the level of good CSR activities, we find a significant and positive coefficient on *CSR_STR* in both models at 1%.[7] In untabulated additional tests, we find that positive CSR activities in the environment category (*ENV_STR*) and the diversity category (*DIV_STR*) are significantly associated with the level of R&D expenditure and the number of accounting items disclosed in the 10-K filings. These results are consistent with increased audit complexity from firms' engagement in positive CSR activities. Overall, the results reported in Table 7 corroborate our main findings and suggest that good CSR performance leads to higher audit fees by increasing audit complexity.

7.3. CSR Concerns and Audit Complexity

Prior research provides evidence that adverse CSR activities increase audit fees due to increased auditor business risk as a result of higher assessed risk financial misstatements (Koh & Tong, 2013). We further examine the relations between CSR concerns and audit complexity

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[7] Our sample size is reduced for the *ARC* model because data on *ARC* is available from 2009 onwards (SEC, 2009).

to explore whether audit complexity is also a channel through which adverse CSR activities affect audit fees, in addition to assessed auditor business risk, as discussed in developing H2. In untabulated tests, we find that CSR concerns in the environmental category (*ENV_CON*) are significantly and positively associated with *ARC* when we estimate Equation (3). Further analysis suggests that higher accounting reporting complexity (*ARC*) is associated with firms involved in controversies related to accidental spills as well as the environmental impacts of operational non-GHG emissions or releases to land, air, and/or water (*ENV_CON_D*), which is also associated with higher audit fees. Together with the results presented in panel A of Table 7, the findings suggest that adverse environmental-related CSR activities are associated with higher audit fees as a result of increased audit complexity. In contrast, we do not find a significant and positive association between CSR concerns in the human rights category (*HUM_CON*) and accounting reporting complexity (untabulated). This suggests that the higher level of audit fees associated with firms involved in controversial human rights related activities reported in panel A is attributable to higher assessed auditor business risk. Overall, our evidence suggests that audit complexity represents a channel through which CSR activities increase audit fees, in addition to assessed auditor business risk.

7.4. Alternative Explanation

One alternative explanation for the positive relationship between CSR strengths and audit fees is that an auditor views the additional investments in CSR activities as attempts to cover up opportunistic behaviour (Kim et al., 2012; Sevrikozi & Tzika, 2017). Subsequently, the increase in audit fees could be related to an increase in perceived business risk. If this is the case, the positive relationship between CSR strengths and audit fees is not due to complexity, as argued in *H3*.

We posit that this alternative explanation is unlikely due to the findings of prior literature. For example, Jo and Na (2012) examine the relation between CSR performance and

firm risk in controversial industry sectors and put forth two hypotheses. The window-dressing hypothesis suggests that firms use investments in CSR to legitimize questionable business, but once investors find out their true intentions, they will be penalized in the stock market. The second is the risk-reduction hypothesis, where firms make additional investments in CSR activities to accomplish long-term CSR strategies that can reduce firm risk. Their findings provide evidence of the latter and not the former. Similarly, Cai, Jo, and Pan (2012) examine the relation between CSR performance and firm value in sinful industries and put forth alternative hypotheses, including the window-dressing hypothesis. They find evidence for their posited value-enhancement hypothesis which suggests that managers morally make investments in CSR activities as a means to improve their strategies, philanthropy and ultimately enhance firm value. Moreover, Jha and Chen (2015) find that the self-interest of managers does not explain all of a firm's decision to invest in CSR, but rather, altruistic inclinations may play a role.

Nonetheless, we carry out an additional test to test this alternative explanation. Specifically, we examine whether firms who have shown opportunistic behaviour and have CSR strengths, are associated with higher audit fees. Following Ali and Hirshleifer (2017), we use restatements as a proxy for firm-level opportunism. Using Audit Analytics, we identify whether a firm in the main sample had a restatement during the sample period, resulting in 13,842 firm-year observations as some firms did not have available restatement data. We posit that if a firm has indications of opportunistic behaviour and also makes additional investments in CSR activities, an auditor is likely to perceive these investments as attempts to conceal other opportunistic behaviours. Therefore, auditors would perceive the business risks to be higher and would charge higher audit fees. We use the following model to test this:

$LN\_AUDITFEES_{it} = \beta_0 + \beta_1\ CSR\_STR\ x\ RESTATE_{it} + \beta_2\ CSR\_STR_{it} + \beta_3 RESTATE_{it} +$

$\beta_4 CSR\_CON + \beta_5 LN\_ASSETS_{it} + \beta_6 BUS\_SEG_{it} + \beta_7\ FOR\_SEG_{it} +$

$$\beta_8\,REC\_INV_{it} + \beta_9\,ROA_{it} + \beta_{10}LOSS_{it} + \beta_{11}\,CURRENT_{it} + \beta_{12}CGOV_{it} +$$

$$\beta_{13}\,BIGN_{it} + \beta_{14}\,SPECIALIST_{it} + \beta_{15}\,CHANGE_{it} + \beta_{16}\,GC_{it} +$$

$$\beta_{17}LN\_NAF_{it} + \beta_{18}\,BUSY_{it} + \beta_{19}\,YEARFIXED_{it} + \beta_{20}\,INDUSTRYFIXED_{it}$$

$$+ \; \varepsilon_{it} \tag{4}$$

RESTATE is equal to 1 if the firm had a restatement in year *t* and 0 otherwise. All other variables are defined in Appendix A. The main variable of interest is the interaction term between *CSR_STR* and *RESTATE*. The results are reported in table 8. The coefficient on the interaction term is insignificant, indicating that the relationship between *CSR_STR* and audit fees is no different to firms who have restatements. This suggests that auditors do not view additional investments in CSR activities as attempts to cover up opportunistic behaviour, thus corroborating the idea that the increase in audit fees is due to complexity instead of an increase in perceived business risk.

7.5. Alternative Measure of CSR Performance

In this study, we go beyond the common practice in the CSR performance literature that uses the net of CSR strengths and CSR concerns (e.g., Cahan et al., 2015; Di Giuli & Kostovetsky, 2014; Jo & Na, 2012; Kim et al., 2012). We argue that using the net figure is not appropriate in our audit fee setting. From the auditor's perspective, a firm's additional investments in CSR activities add to audit complexity and therefore to audit fees. To provide further evidence in support of these arguments, we re-estimate the main regression using the net of CSR strengths and concerns. Table 9 reports the results. The coefficient on *CSR_NET* is insignificant, reinforcing the idea that from an auditor's perspective, a firm's CSR strengths have different implications for its CSR concerns. This finding enhances the idea that from the perspective of an auditor, a firm with zero strengths and zero concerns, for example, is less complex to audit than a firm with five strengths and five concerns. This corroborates with the

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suggestions made by Mattingly and Berman (2006) that the KLD measures of strengths and concerns are conceptually and empirically different.

8. CONCLUSION

In this paper, we hypothesise and find that a firm's CSR performance, both positive and negative, are associated with higher audit fees as a result of higher audit complexity. We use data from KLD to measure firms' CSR performance. In contrast to prior studies on CSR performance, which typically use the net of the KLD CSR strengths less KLD CSR concerns to measure a firm's overall CSR performance, we aggregate CSR strengths and CSR concerns into one CSR performance score, as we posit that from the auditor's perspective, a firm with five strengths and five concerns is not assessed the same as a firm with zero strengths and zero concerns. Using this measure, we find that a greater score is associated with higher audit fees, suggesting that the production of audits is affected by a firm's overall CSR performance, encompassing both positive and negative CSR activities. In an additional analysis, we find that the net CSR score typically used in prior studies is unrelated to audit fees. For researchers, these findings suggest that an aggregated CSR performance score is more relevant in the assessment of CSR performance on aspects of auditing than a net score, as it captures the variations in CSR activities that impact the production of audits.

Further, we find that a firm's deviation from socially accepted norms, reflected by CSR concerns, is associated with higher audit fees. In addition, we find that a firm's additional investments in CSR activities, reflected by CSR strengths, are associated with higher audit fees. These findings are robust to tests designed to address potential endogeneity concerns, i.e., an entropy balancing matching method and a quasi-natural experimental approach. Further analyses suggest that a firm's CSR controversies (i.e., concerns) and initiatives (i.e., strengths) both increase audit fees through increased audit complexity as measured by *ARC* following

Hoitash and Hoitash (2018). This finding adds to the existing body of evidence which considers the risk aspect of CSR performance in its effect on audit fees.

Taken together, our paper contributes to the literature on CSR performance and audit fees by documenting that both positive and negative CSR activities lead to higher audit fees through increased audit complexity. In addition, we show that a firm's positive and negative CSR activities should be assessed as a whole rather than as a net when evaluating their effect on aspects of auditing. Such evidence is important as it furthers our understanding of how firms' different CSR-related activities affect attributes of financial audits, which is relevant to international audit regulators who are interested in improving audit quality. An implication from our study is that policymakers should recognize the increasing trend in audit complexity arising from the increasing expectations on firms' CSR performance in developing policies that aim to promote better audit quality. Our findings impy that managers who pursue positive CSR activities should be aware of the possibility that such activities may increase audit complexity and therefore audit fees.

Although we employ several robustness and additional tests, there are some limitations in our study which should be taken into consideration when interpreting the results. First, the KLD CSR performance data may not be fully representative of firms' actual involvement in CSR related matters. Second, we acknowledge that although we employ several methods to mitigate concerns around observable and unobservable omitted variables, we cannot completely rule all other explanations for our results. Third, although we posit that assessed business risk represents one channel through which CSR concerns affect audit fees in developing *H2*, we do not provide direct evidence on this channel in our paper, as this has been documented in Koh and Tong (2013). Future research could address these limitations and ommissions, e.g., by using different CSR performance databases, employing additional tests, and assessing the effect of CSR concerns on business risk, as well as shed further light

on the contribution of different CSR components and their implications on audits and audit fees. In addition, future research could examine the effect of audit tenure on the association between CSR activities and audit complexity.

REFERENCES

AICPA (2006). Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement. SAS No. 109.

Akerlof, G.A. (1980). A Theory of Social Custom, of Which Unemployment May be One Consequence. The Quarterly Journal of Economics. https://doi.org/10.2307/1885667

Aldamen, H., Hollindale, J., & Ziegelmayer, J. L. (2018). Female audit committee members and their influence on audit fees. Accounting & Finance, 58(1), 57-89.

Al-Hadi, A., Chatterjee, B., Yaftian, A., Taylor, G., & Monzur Hasan, M. (2019). Corporate social responsibility performance, financial distress and firm life cycle: evidence from Australia. Accounting and Finance. https://doi.org/10.1111/acfi.12277

Ali, U., & Hirshleifer, D. (2017). Opportunism as a firm and managerial trait: Predicting insider trading profits and misconduct. Journal of Financial Economics. https://doi.org/10.1016/j.jfineco.2017.09.002

Armstrong, C. S., Jagolinzer, A. D., & Larcker, D. F. (2010). Chief executive officer equity incentives and accounting irregularities. *Journal of Accounting Research*, *48*(2), 225-271.

Beattie, V., Goodacre, A., Pratt, K., & Stevenson, J. (2001). The determinants of audit fees - Evidence from the voluntary sector. Accounting and Business Research. https://doi.org/10.1080/00014788.2001.9729619

Bell, T.B., Landsman, W.R., & Shackelford, D.A. (2001). Auditors' perceived business risk and audit fees: Analysis and evidence. Journal of Accounting Research. https://doi.org/10.1111/1475-679X.00002

Bernheim, B.D. (1994). A Theory of Conformity. Journal of Political Economy. https://doi.org/10.1086/261957

Bingham, J.B., Dyer, W.G., Smith, I., & Adams, G.L. (2011). A Stakeholder Identity Orientation Approach to Corporate Social Performance in Family Firms. Journal of Business Ethics. https://doi.org/10.1007/s10551-010-0669-9

Bird, R., Hall, A.D., Momentè, F., & Reggiani, F. (2007). What corporate social responsibility activities are valued by the market? Journal of Business Ethics. https://doi.org/10.1007/s10551-006-9268-1

Bonner, S.E. (1994). A model of the effects of audit task complexity. Accounting, Organizations and Society. https://doi.org/10.1016/0361-3682(94)90033-7

Brooks, L. (2012). Is Corporate Social Responsibility Priced? Evidence from Audit Pricing? Available at SSRN: http://dx.doi.org/10.2139/ssrn.2200220

Brumfield, C.A., Elliott, R.K., & Jacobson, P.D. (1983). Business Risk and the Audit Process. Journal of Accountancy.

Cahan, S.F., Chen, C., Chen, L., & Nguyen, N.H. (2015). Corporate social responsibility and media coverage. Journal of Banking and Finance. https://doi.org/10.1016/j.jbankfin.2015.07.004

Cai, Y., Jo, H., & Pan, C. (2012). Doing Well While Doing Bad? CSR in Controversial Industry Sectors. Journal of Business Ethics. https://doi.org/10.1007/s10551-011-1103-7

Campbell, D. J. (1988). Task complexity: A review and analysis. Academy of Management Review, 13(1), 40-52.

Carroll, A.B. (1979). A Three-Dimensional Conceptual Model of Corporate Performance. Academy of Management Review. https://doi.org/10.5465/amr.1979.4498296

Casterella, J.R., Francis, J.R., Lewis, B.L., & Walker, P.L. (2004). Auditor industry specialization, client bargaining power, and audit pricing. Auditing. https://doi.org/10.2308/aud.2004.23.1.123

Chahine, S., Colak, G., Hasan, I., & Mazboudi, M. (2020). Investor relations and IPO performance. Review of Accounting Studies, 25(2), 474-512.

Chan, P., Ezzamel, M., & Gwilliam, D. (1993). DETERMINANTS OF AUDIT FEES FOR QUOTED UK COMPANIES. Journal of Business Finance & Accounting. https://doi.org/10.1111/j.1468-5957.1993.tb00292.x

Chatterji, A.K., Levine, D.I., & Toffel, M.W. (2009). How well do social ratings actually measure corporate social responsibility? Journal of Economics and Management Strategy. https://doi.org/10.1111/j.1530-9134.2009.00210.x

Colbert, J.L. (1991). Understanding the relationship between business risk and inherent risk. Managerial Auditing Journal 6, 4–7. https://doi.org/10.1108/02686909110006543

Cone Communications (2017. CSR Study.

Craswell, A.T., Francis, J.R., & Taylor, S.L. (1995). Auditor brand name reputations and industry specializations. Journal of Accounting and Economics. https://doi.org/10.1016/0165-4101(95)00403-3

Datta, S., Jha, A., & Kulchania, M. (2020). On accounting's twenty-first century challenge: evidence on the relation between intangible assets and audit fees. Review of Quantitative Finance and Accounting, 55(1), 123-162.

Desir, R., Casterella, J.R., & Kokina, J. (2014). A reexamination of audit fees for initial audit engagements in the post-SOX period. Auditing. https://doi.org/10.2308/ajpt-50670

Di Giuli, A., & Kostovetsky, L. (2014). Are red or blue companies more likely to go green? Politics and corporate social responsibility. Journal of Financial Economics. https://doi.org/10.1016/j.jfineco.2013.10.002

Dixon, R.K., McGowan, E., Onysko, G., & Scheer, R.M. (2010). US energy conservation and efficiency policies: Challenges and opportunities. Energy Policy. https://doi.org/10.1016/j.enpol.2010.01.038

El Ghoul, S., Guedhami, O., Kwok, C. C., & Mishra, D. R. (2011). Does corporate social responsibility affect the cost of capital? *Journal of Banking & Finance*, *35*(9), 2388-2406.

Einhorn, H.J. (1976). A Synthesis: Accounting and Behavioral Science. Journal of Accounting Research 14, 196–206.

Epstein-Reeves, J. (2010). Consumers Overwhelmingly Want CSR [WWW Document]. Forbes. URL https://www.forbes.com/sites/csr/2010/12/15/new-study-consumers-demand-companies-implement-csr-programs/#621d76b165c7

Filzen, J. J., & Peterson, K. (2015). Financial statement complexity and meeting analysts' expectations. Contemporary Accounting Research, 32(4), 1560-1594.

Freeman, R.E. (1994). The Politics of Stakeholder Theory: Some Future Directions. Business Ethics Quarterly. https://doi.org/10.2307/3857340

Galbreath, J., & Shum, P. (2012). Do customer satisfaction and reputation mediate the CSR-FP link? Evidence from Australia. Australian Journal of Management. https://doi.org/10.1177/0312896211432941

Ge, W., & Liu, M. (2015). Corporate social responsibility and the cost of corporate bonds. *Journal of Accounting and Public Policy*, *34*(6), 597-624.

Glendening, M., Mauldin, E. G., & Shaw, K. W. (2019). Determinants and consequences of quantitative critical accounting estimate disclosures. The Accounting Review, 94(5), 189-218.

Godfrey, P.C. (2005). The relationship between corporate philanthropy and shareholder wealth: A risk management perspective. Academy of Management Review. https://doi.org/10.5465/AMR.2005.18378878

Godfrey, P.C., Merrill, C.B., & Hansen, J.M. (2009). The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. Strategic Management Journal. https://doi.org/10.1002/smj.750

Goodwin-Stewait, J., & Kent, P. (2006). Relation between external audit fees, audit committee characteristics and internal audit. Accounting and Finance. https://doi.org/10.1111/j.1467-629X.2006.00174.x

Grant Thornton (2008). Corporate Social Responsibility: a necessity not a choice. International Business Report.

Gray, L., & Manson, S. (2007). The Audit Process: Principles, Practice and Cases, 4th ed. Patrick Bond.The Audit Process: Principles, Practice and Cases, 4th ed. Patrick Bond.

Gul, F. A., Srinidhi, B., & Ng, A. C. (2011). Does board gender diversity improve the informativeness of stock prices?. Journal of Accounting and Economics, 51(3), 314-338.

Gul, F. A., Srinidhi, B., & Tsui, J. S. (2008). Board diversity and the demand for higher audit effort. Available at SSRN 1359450.

Hainmueller, J. (2012). Entropy balancing for causal effects: A multivariate reweighting method to produce balanced samples in observational studies. Political Analysis 20 (1): 25-46.

Hainmueller, J., & Xu, Y. (2013). Ebalance: A Stata package for entropy balancing. Journal of Statistical Software 54 (7).

Hay, D. (2013). Further Evidence from Meta-Analysis of Audit Fee Research. International Journal of Auditing. https://doi.org/10.1111/j.1099-1123.2012.00462.x

Hay, D., Knechel, W.R., & Ling, H. (2008). Evidence on the Impact of Internal Control and Corporate Governance on Audit Fees. International Journal of Auditing. https://doi.org/10.1111/j.1099-1123.2008.00367.x

Hay, D.C., Knechel, W.R., & Wong, N. (2006). Audit fees: A meta-analysis of the effect of supply and demand attributes. Contemporary Accounting Research. https://doi.org/10.1111/j.1524-4733.2006.00093.x

Heugens, P., & Dentchev, N. (2007). Taming Trojan horses: Identifying and mitigating corporate social responsibility risks. Journal of Business Ethics. https://doi.org/10.1007/s10551-006-9242-y

Hoi, C.K., Wu, Q., & Zhang, H. (2013). Is corporate social responsibility (CSR) associated with tax avoidance? Evidence from irresponsible CSR activities. Accounting Review. https://doi.org/10.2308/accr-50544

Hoitash, R., & Hoitash, U. (2018). Measuring accounting reporting complexity with XBRL. The Accounting Review, 93(1), 259-287.

Houston, R.W., Peters, M.F., & Pratt, J.H. (1999). The audit risk model, business risk and audit-planning decisions. Accounting Review. https://doi.org/10.2308/accr.1999.74.3.281

Houston, R.W., Peters, M.F., & Pratt, J.H. (2005). Nonlitigation risk and pricing audit services. Auditing. https://doi.org/10.2308/aud.2005.24.1.37

Jha, A., & Chen, Y. (2015). Audit fees and social capital. Accounting Review. https://doi.org/10.2308/accr-50878

Jo, H., & Na, H. (2012). Does CSR Reduce Firm Risk? Evidence from Controversial Industry Sectors. Journal of Business Ethics. https://doi.org/10.1007/s10551-012-1492-2

Jones, T.M. (1995). INSTRUMENTAL STAKEHOLDER THEORY: A SYNTHESIS OF ETHICS AND ECONOMICS. Academy of Management Review. https://doi.org/10.5465/amr.1995.9507312924

Jubb, C.A., Houghton, K.A., & Butterworth, S. (1996). Audit fee determinants: The plural nature of risk. Managerial Auditing Journal. https://doi.org/10.1108/02686909610115222

Kathy Hurtt, R., Brown-Liburd, H., Earley, C.E., & Krishnamoorthy, G. (2013). Research on auditor professional skepticism: Literature synthesis and opportunities for future research. Auditing. https://doi.org/10.2308/ajpt-50361

Kealey, B.T., Lee, H.Y., & Stein, M.T. (2007). The association between audit-firm tenure and audit fees paid to successor auditors: Evidence from arthur Andersen. Auditing. https://doi.org/10.2308/aud.2007.26.2.95

Kim, Y., Park, M.S., & Wier, B. (2012). Is earnings quality associated with corporate social responsibility? Accounting Review. https://doi.org/10.2308/accr-10209

Koh, K., & Tong, Y.H. (2013). The effects of clients' controversial activities on audit pricing. Auditing. https://doi.org/10.2308/ajpt-50348

Kotchen, M., & Moon, J.J. (2012). Corporate social responsibility for irresponsibility. B.E. Journal of Economic Analysis and Policy. https://doi.org/10.1515/1935-1682.3308

Leventis, S., Dedoulis, E., & Abdelsalam, O. (2018). The Impact of Religiosity on Audit Pricing. Journal of Business Ethics. https://doi.org/10.1007/s10551-015-3001-x

Leventis, S., Hasan, I., & Dedoulis, E. (2013). The cost of sin: The effect of social norms on audit pricing. International Review of Financial Analysis. https://doi.org/10.1016/j.irfa.2013.03.006

Linthicum, C., Reitenga, A.L., & Sanchez, J.M. (2010). Social responsibility and corporate reputation: The case of the Arthur Andersen Enron audit failure. Journal of Accounting and Public Policy. https://doi.org/10.1016/j.jaccpubpol.2009.10.007

Lyon, J.D., & Maher, M.W. (2005). The importance of business risk in setting audit fees: Evidence from cases of client misconduct. Journal of Accounting Research. https://doi.org/10.1111/j.1475-679x.2005.00165.x

Martínez, P., & Rodríguez del Bosque, I. (2013). CSR and customer loyalty: The roles of trust, customer identification with the company and satisfaction. International Journal of Hospitality Management. https://doi.org/10.1016/j.ijhm.2013.05.009

Mattingly, J.E., & Berman, S.L. (2006). Measurement of corporate social action: Discovering taxonomy in the Kinder Lydenburg Domini Ratings Data. Business and Society. https://doi.org/10.1177/0007650305281939

McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. Academy of Management Review. https://doi.org/10.5465/AMR.2001.4011987

Mohd-Sanusi, Z., & Mohd-Iskandar, T. (2007). Audit judgment performance: Assessing the effect of performance incentives, effort and task complexity. Managerial Auditing Journal. https://doi.org/10.1108/02686900710715639

Morgan, J., & Stocken, P. (1998). The effects of business risk on audit pricing. Review of Accounting Studies. https://doi.org/10.1023/A:1009687101871

MSCI (2015). Msci Esg Kld Stats : 1991-2014. MSCI ESG Reaseach Inc. 1–73.

Orlitzky, M., Schmidt, F.L., & Rynes, S.L. (2003). Corporate social and financial performance: A meta-analysis. Organization Studies. https://doi.org/10.1177/0170840603024003910

Palmrose, Z.-V. (1988). An Analysis of Auditor Litigation and Audit Service Quality. The Accounting Review. https://doi.org/10.2307/247679

Perrini, F., Russo, A., Tencati, A., & Vurro, C. (2011). Deconstructing the Relationship Between Corporate Social and Financial Performance. Journal of Business Ethics. https://doi.org/10.1007/s10551-011-1194-1

Phillips, R., Freeman, R.E., & Wicks, A.C. (2003). What Stakeholder Theory is Not. Business Ethics Quarterly. https://doi.org/10.5840/beq200313434

Pirson, M., & Turnbull, S. (2018). Decentralized Governance Structures Are Able to Handle CSR-Induced Complexity Better. Business and Society. https://doi.org/10.1177/0007650316634039

Pong, C.M., & Whittington, G. (1994). THE DETERMINANTS OF AUDIT FEES: SOME EMPIRICAL MODELS. Journal of Business Finance & Accounting. https://doi.org/10.1111/j.1468-5957.1994.tb00365.x

Pratt, J., & Stice, J.D. (1994). The Effects of Client Characteristics on Auditor Litigation Risk Judgments, Required Audit Evidence, and Recommended Audit Fees. The Accounting Review 69, 639–656. https://doi.org/10.2307/248435

Prawitt, D.F. (1995). Staffing Assignments for Judgment- Oriented Audit Tasks: The Effects of Structured Audit Technology and Environment. The Accounting Review. https://doi.org/10.2307/248533

PwC. (2016). Evaluating environmental liabilities and their impacts on future earnings. Available at https://www.pwc.com/us/en/deals/publications/assets/pwc-environmental-liabilities-impact.pdf

Rushe, D. (2015). BP set to pay largest environmental fine in US history for Gulf oil spill [WWW Document]. The Guardian. URL https://www.theguardian.com/environment/2015/jul/02/bp-will-pay-largest-environmental-fine-in-us-history-for-gulf-oil-spill

Sacconi, L. (2007). A social contract account for CSR as an extended model of corporate governance (II): Compliance, reputation and reciprocity. Journal of Business Ethics. https://doi.org/10.1007/s10551-006-9239-6

Securities and Exchange Commission (SEC). 2009. *Interactive Data to Improve Financial Reporting*. Available at https://www.sec.gov/rules/final/2009/33-9002.pdf

Sevrikozi, A., & Tzika, V. (2017). The link between CSR and Audit Fees. Are Audit Fees associated with CSR? Masters thesis, International Hellenic University, Thessaloniki, Greece.

Simnett, R., & Trotman, K. (1989). Auditor versus model: information choice and information processing. The Accounting Review.

Simunic, D.A. (1980). The Pricing of Audit Services: Theory and Evidence. Journal of Accounting Research. https://doi.org/10.2307/2490397

Strike, V.M., Gao, J., & Bansal, P. (2006). Being good while being bad: Social responsibility and the international diversification of US firms. Journal of International Business Studies. https://doi.org/10.1057/palgrave.jibs.8400226

Tsoutsora, M. (2014). Corporate Social Responsibility and Financial Performance. Berkeley.

Van Beurden, P., & Gössling, T. (2008). The worth of values - A literature review on the relation between corporate social and financial performance. Journal of Business Ethics. https://doi.org/10.1007/s10551-008-9894-x

Vilas, N. (2017). Top 20 Corporate Social Responsibility Initiatives for 2017 [WWW Document]. Smart Recruiters. URL https://www.smartrecruiters.com/blog/top-20-corporate-social-responsibility-initiatives-for-2017/

Warren, C.S. (1979). Audit Risk. Journal of Accountancy.

Weber, M. (2008). The business case for corporate social responsibility: A company-level measurement approach for CSR. European Management Journal. https://doi.org/10.1016/j.emj.2008.01.006

Wilde, J. H. (2017). The deterrent effect of employee whistleblowing on firms' financial misreporting and tax aggressiveness. The Accounting Review, 92(5), 247-280.

Zhao, Q., & Percival, D. (2016). Entropy balancing is doubly robust. Journal of Causal Inference, 5(1).

APPENDIX A – VARIABLE DEFINITIONS

Variable	Definition
LN_AUDITFEES	The natural logarithm of audit fees for firm *i* in year *t*.
CSR_SUM	Total CSR score for firm *i* in year *t*, calculated by aggregating the sum scores (strengths plus concerns) for the community, diversity, employee relations, environment, human rights and product categories in KLD.
CSR_STR	Total CSR strengths for firm *i* in year *t*, calculated by aggregating the strength scores for the community, diversity, employee relations, environment, human rights and product categories in KLD.
CSR_CON	Total CSR concerns for firm *i* in year *t*, calculated by aggregating the strength scores (strengths plus concerns) for the community, diversity, employee relations, environment, human rights and product categories in KLD.
CSR_NET	Net CSR score for firm *i* in year *t*, calculated by aggregating the net scores (total strengths less concerns) for the community, diversity, employee relations, environment, human rights and product categories in KLD.
COM_STR	Total CSR strengths for firm *i* in year *t* for the community category in KLD.
COM_CON	Total CSR concerns for firm *i* in year *t* for the community category in KLD.
DIV_STR	Total CSR strengths for firm *i* in year *t* for the diversity category in KLD.
DIV_CON	Total CSR concerns for firm *i* in year *t* for the diversity category in KLD.
EMP_STR	Total CSR strengths for firm *i* in year *t* for the employee relations category in KLD.
EMP_CON	Total CSR concerns for firm *i* in year *t* for the employee relations category in KLD.
ENV_STR	Total CSR strengths for firm *i* in year *t* for the environment category in KLD.
ENV_CON	Total CSR concerns firm *i* in year *t* for the environment category in KLD.
HUM_STR	Total CSR strengths for firm *i* in year *t* for the human rights category in KLD.
HUM_CON	Total CSR concerns for firm *i* in year *t* for the human rights category in KLD.
PRO_STR	Total CSR strengths for firm *i* in year *t* for the product category in KLD.
PRO_CON	Total CSR concerns for firm *i* in year *t* for the product category in KLD.
LN_ASSETS	The natural logarithm of total assets for firm *i* at the end of year *t*.
BUS_SEG	The number of business segments reported on Compustat for firm *i* in year *t*.
FOR_SEG	The number of foreign segments reported on Compustat for firm *i* in year *t*.
REC_INV	Total receivables and inventories for firm *i* in year *t* divided by the total assets at the end of year *t*.
ROA	Return on assets calculated as net income (loss) divided by the total assets for firm *i* at the end of year *t*.
LOSS	1 if firm *i* reports a bottom-line loss in year *t* and 0 otherwise.
CURRENT	Current ratio calculated as current assets divided by current liabilities for firm *i* in year *t*.
CGOV	Corporate Governance score for firm *i* at the end of year *t*, calculated by the net score (total strengths minus concerns) for the corporate governance in KLD.
BIGN	1 if the audit firm is a Big N and 0 otherwise in year *t*.
SPECIALIST	1 if the audit firm has 20 percent or more market share in an industry and 0 otherwise in year *t*. Industry is defined as two-digit SIC classifications. Market share is calculated as the auditor's sum of individual clients in an industry, divided by the sum of clients for all companies in the industry.
CHANGE	1 if firm *i* changed its auditor in year *t* and 0 otherwise.
GC	1 if the audit report for firm *i* is modified for going concern in year *t* and 0 otherwise.
LN_NAF	The natural logarithm of non-audit fees for firm *i* in year *t*.
BUSY	1 if firm *i* has a December 31 fiscal-year end and 0 otherwise.
TREATMENT	1 if firm *i* in year *t* is in the utilities industry (SIC 4000-4999) and 0 otherwise.
POST	1 if the firm-year observation is in 2005 or 2006 and 0 otherwise.
TREAT_STR	1 if firm *i* reports a positive CSR strength score (*CSR_STR*) in year *t*, and 0 otherwise.
ARC	The count of accounting items (XBRL tags) disclosed in 10-K filings following Hoitash and Hoitash (2018).
R&D	Research and development expense over total assets.
RESTATE	1 if firm *i* has a restatement in year *t* and 0 otherwise.

APPENDIX B - DEFINITIONS TO ENVIRONMENTAL AND DIVERSITY STRENGTH INDICATORS

Variable	Definition
ENVA	Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-A in the KLD database, and 0 otherwise. 'This indicator evaluates how companies are taking advantages of opportunities in the market for environmental technologies, and/or to develop or refurbish buildings with green building characteristics including lower embodied energy, recycled materials, lower energy and water use, waste reduction, and healthier and more productive working environments. Companies that proactively invest in product and services addressing issues of resource conservation and climate change, and/or develop or refurbish buildings to achieve green building certifications score higher. Companies lacking strategies and investments targeting these areas, or that ignore opportunities in green buildings, score lower.'
ENVB	Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-B in the KLD database, and 0 otherwise. 'This indicator measures a firm's method of mitigating non-carbon air emissions, water discharges, and solid waste from its operations. Factors affecting this evaluation include, but are not limited to, initiatives to reduce a firm's non-carbon air emissions from its operations; to reduce the release of raw sewage, industrial chemicals, and other regulated substances; to reduce hazardous and non-hazardous waste; and programs to reduce the use of packaging materials, to support recycling; and to recycle old products such as televisions and other consumer electronics. Companies that have a well-defined strategy, ambitious programs and targets to reduce toxic emissions, and disclosed performance metrics score higher.'
ENVC	Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-C in the KLD database, and 0 otherwise. 'This indicator measures a firm's use of recycled materials in its products/services. Factors affecting this evaluation include, but are not limited to: assessment of the volume and recycled content of products made with recycled input materials, including paper, metal, plastic; and any certification of its practices by a third party, such as the Forest Stewardship Council for timber product companies. Companies that proactively reduce the environmental impact of their packaging, including use of recycled content material and establishment of take-back and recycling programs, score higher.'
ENVD	Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-D in the KLD database, and 0 otherwise. 'This indicator is designed to assess how companies manage the risks of increased costs linked to carbon pricing or regulatory caps. Scores are based on carbon reduction targets and mitigation programs; and carbon intensity over time and vs. peers. Management metrics include efforts to reduce exposure through comprehensive carbon policies and implementation mechanisms, including carbon reduction targets, production process improvements, installation emissions capture equipment, and/or switching to cleaner energy sources.'
ENVG	Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-G in the KLD database, and 0 otherwise. 'This indicator measures whether a firm has an environmental management system (EMS) in place, and whether it is certified to a third-party standard, such as ISO 14001.'
ENVH	Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-H in the KLD database, and 0 otherwise. 'This indicator is designed to evaluate the extent to which companies may face water shortages affecting their ability to operate, lost access to markets due to stakeholder water conflicts, or higher water costs. Scores are based on water management strategy and targets; water use over time and vs. peers.'

ENVI   Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-I in the KLD database, and 0 otherwise. 'This indicator is designed to assess how companies manage the risks of losing access to markets, or incurring litigation, liability, or reclamation costs due to operations that damage fragile ecosystems. Companies that have policies and programs designed to protect biodiversity and address community concerns on land use score higher.'

ENVJ   Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-J in the KLD database, and 0 otherwise. 'This indicator is designed to assess how companies manage the risks of damaging their brand value by sourcing raw materials with high environmental impact. Companies that have policies and procedures to source materials with lower environmental impact and participate in initiatives to reduce environmental impact of raw materials production score higher.'

ENVK   Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-K in the KLD database, and 0 otherwise. 'This indicator is designed to assess management efforts to mitigate credit risk (where firms received credit based on environmental criteria) through integration of ESG risk management policies into company's overall financing and risk management structures.'

ENVL   Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-L in the KLD database, and 0 otherwise. 'This indicator is designed to evaluate the extent to which companies are taking advantage of opportunities to develop or refurbish buildings with leading environmental design features, including lower embodied energy, recycled materials, lower energy and water use, waste reduction, and healthier and more productive working environments. Companies that proactively develop or refurbish buildings to achieve green building certifications score higher.'

ENVM   Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-M in the KLD database, and 0 otherwise. 'This indicator is designed to evaluate the extent to which companies take advantages of opportunities linked to the development of renewable power production. Scores are based on exposure to renewable power subsidies and preferential policies; strategic investments in renewable power generation and related services; and renewable capacity as % of total and trend. Management metrics include efforts to develop renewable power generation capacity and/or proactively complement the development of renewable power through electrical network expansion, equipment commercialization, and 'green power' offerings to its customers'

ENVN   Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-N in the KLD database, and 0 otherwise. 'This indicator is designed to assess how electronic product producers and retailers manage the risks associated with recycling and/or disposal of end-of-life electronic products. Companies that proactively address electronic waste concerns by establishing comprehensive and well-managed product recovery and recycling programs score higher.'

ENVO   Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-O in the KLD database, and 0 otherwise. 'This indicator is designed to assess how companies manage the risks of increased or volatile energy costs across their operations. Companies that take proactive steps to manage and improve the energy efficiency of their operations score higher.'

ENVP	Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-P in the KLD database, and 0 otherwise. 'This indicator is designed to assess how companies manage the risks of higher input or production costs for their carbon-intense products due to increased energy costs. Companies that measure and reduce the carbon emissions associated with their products, and implement programs with their suppliers to reduce carbon footprint, score higher. Key management metrics include, efforts to reduce exposure through measurement and reduction of carbon emissions associated with raw materials production, product manufacturing, distribution, and retail.'
ENVX	Dummy variable equal to 1 if a firm-year receives 1 for ENV-STR-X in the KLD database, and 0 otherwise. 'This indicator assesses a firm's environmental management policies, programs and initiatives that are not covered by any other MSCI ESG Research positive environmental indicators.'
DIVA	Dummy variable equal to 1 if a firm-year receives 1 for DIV-STR-A in the KLD database, and 0 otherwise. 'The company's chief executive officer is a woman or a member of a minority group.'
DIVB	Dummy variable equal to 1 if a firm-year receives 1 for DIV-STR-B in the KLD database, and 0 otherwise. 'The company has made notable progress in the promotion of women and minorities, particularly to line positions with profit-and-loss responsibilities in the corporation.'
DIVC	Dummy variable equal to 1 if a firm-year receives 1 for DIV-STR-C in the KLD database, and 0 otherwise. 'This indicator identifies companies with strong gender diversity on their board of directors.'
DIVD	Dummy variable equal to 1 if a firm-year receives 1 for DIV-STR-D in the KLD database, and 0 otherwise. 'The company has outstanding employee benefits or other programs addressing work/life concerns, e.g., childcare, elder care, or flextime.'
DIVE	Dummy variable equal to 1 if a firm-year receives 1 for DIV-STR-E in the KLD database, and 0 otherwise. 'The company does at least 5% of its subcontracting, or otherwise has a demonstrably strong record on purchasing or contracting, with women- and/or minority-owned businesses.'
DIVF	Dummy variable equal to 1 if a firm-year receives 1 for DIV-STR-F in the KLD database, and 0 otherwise. 'The company has implemented innovative hiring programs; other innovative human resource programs for the disabled, or otherwise has a superior reputation as an employer of the disabled.'
DIVG	Dummy variable equal to 1 if a firm-year receives 1 for DIV-STR-G in the KLD database, and 0 otherwise. 'The company has implemented notably progressive policies toward its gay and lesbian employees. In particular, it provides benefits to the domestic partners of its employees.'
DIVH	Dummy variable equal to 1 if a firm-year receives 1 for DIV-STR-H in the KLD database, and 0 otherwise. 'This indicator is designed to assess a firm's efforts to promote diversity in its workforce. Factors affecting this evaluation include, but are not limited to, its effort to recruit women and minorities, and its participation in multi-stakeholder diversity initiatives.'
DIVX	Dummy variable equal to 1 if a firm-year receives 1 for DIV-STR-X in the KLD database, and 0 otherwise. 'The company has made a notable commitment to diversity that is not covered by other MSCI ratings.'

Note: Definition provided by the KLD methodology guideline for each strength indicator are in quotation marks.

APPENDIX C - INDICATORS OF CSR CONCERN BY CATEGORY

COMMUNITY

COM_CON_A	Investment Controversies
COM_CON_B	Community Impact
COM_CON_D	Tax Disputes
COM_CON_X	Other Concerns

DIVERSITY

DIV_CON_A	Workforce Diversity
DIV_CON_B	Non-Representation
DIV_CON_C	Board of Directors - Gender
DIV_CON_D	Board of Directors - Minorities
DIV_CON_X	Other Concerns

EMPLOYEE

EMP_CON_A	Union Relations
EMP_CON_B	Employee Health & Safety
EMP_CON_C	Workforce Reductions
EMP_CON_D	Retirement Benefits Concern
EMP_CON_F	Supply Chain
EMP_CON_G	Child Labor
EMP_CON_H	Labor-Management Relations
EMP_CON_X	Labor-Management Relations

ENVIRONMENT

ENV_CON_A	Hazardous Waste
ENV_CON_B	Regulatory Compliance
ENV_CON_C	Ozone Depleting Chemicals
ENV_CON_D	Toxic Spills & Releases
ENV_CON_E	Agriculture Chemicals
ENV_CON_F	Climate Change
ENV_CON_G	Impact of Products & Services
ENV_CON_H	Biodiversity & Land Use
ENV_CON_I	Operational Waste
ENV_CON_J	Supply Chain Management
ENV_CON_K	Water Management
ENV_CON_X	Other Concerns

HUMAN RIGHTS

HUM_CON_A	South Africa
HUM_CON_B	Northern Ireland
HUM_CON_C	Support for Controversial Regimes
HUM_CON_D	Mexico
HUM_CON_F	Labor Rights Concern
HUM_CON_G	Indigenous Peoples Relations Concern
HUM_CON_H	Operations in Sudan
HUM_CON_J	Freedom of Expression & Censorship
HUM_CON_K	Human Rights Violations
HUM_CON_X	Other Concerns

PRODUCT

PRO_CON_A	Product Quality & Safety
PRO_CON_D	Marketing & Advertising
PRO_CON_E	Anticompetitive Practices
PRO_CON_F	Customer Relations
PRO_CON_G	Privacy & Data Security
PRO_CON_X	Other Concerns

APPENDIX D INDICATORS OF CSR STRENGTH BY CATEGORY

COMMUNITY	
COM_STR_A	Charitable Giving
COM_STR_B	Innovative Giving
COM_STR_C	Support for Housing
COM_STR_D	Support for Education
COM_STR_F	Non-US Charitable Giving
COM_STR_G	Volunteer Programs
COM_STR_H	Community Engagement
COM_STR_X	Other Strengths

HUMAN RIGHTS	
HUM_STR_A	Positive Record in S. Africa
HUM_STR_D	Indigenous Peoples Relations Strength
HUM_STR_G	Labor Rights Strength
HUM_STR_X	Human Rights Policies & Initiatives

EMPLOYEE	
EMP_STR_A	Union Relations
EMP_STR_B	No-Layoff Policy
EMP_STR_C	Cash Profit Sharing
EMP_STR_D	Employee Involvement
EMP_STR_F	Retirement Benefits Strength
EMP_STR_G	Employee Health and Safety
EMP_STR_H	Supply Chain Labor Standards
EMP_STR_I	Compensation & Benefits
EMP_STR_J	Employee Relations
EMP_STR_K	Professional Development
EMP_STR_L	Human Capital Management
EMP_STR_M	Labor Management
EMP_STR_N	Controversial Sourcing
EMP_STR_X	Emp. Relations Other Strength

PRODUCT	
PRO_STR_A	Quality
PRO_STR_B	R&D, Innovation
PRO_STR_C	Social Opportunities
PRO_STR_D	Access to Finance
PRO_STR_E	Social Opportunities - Access to Communications
PRO_STR_F	Social Opportunities - Opportunities in Nutrition and Health
PRO_STR_G	Product Safety - Chemical Safety
PRO_STR_H	Product Safety - Financial Product Safety
PRO_STR_I	Product Safety - Privacy and Data Security
PRO_STR_J	Product Safety - Responsible Investment
PRO_STR_K	Product Safety - Insuring Health and Demographic Risk
PRO_STR_X	Other Strengths

TABLE 1
Descriptive Statistics

Panel A

Full Sample
$N = 14{,}018$

Variable	Mean	Q1	Median	Q3	Std. dev.
AUDIT_FEES ($000s)	3162.609	745.000	1530.790	3494.000	4782.611
CSR_SUM	0.369	0.111	0.267	0.458	0.395
CSR_CON	0.221	0.000	0.200	0.325	0.249
CSR_STR	0.148	0.000	0.059	0.189	0.239
TOTAL_ASSETS ($ MM)	8652.659	515.407	1642.179	5782.000	24639.070
BUS_SEG	2.348	1.000	1.000	4.000	1.920
FOR_SEG	2.045	0.000	1.000	3.000	2.663
REC_INV	0.244	0.105	0.228	0.344	0.166
ROA	0.005	0.013	0.049	0.087	1.296
LOSS	0.202	0.000	0.000	0.000	0.402
CURRENT	2.798	1.346	2.019	3.103	3.288
CGOV	-0.010	-0.056	0.000	0.000	0.036
BIGN	0.901	1.000	1.000	1.000	0.298
SPECIALIST	0.558	0.000	1.000	1.000	0.497
CHANGE	0.041	0.000	0.000	0.000	0.199
GC	0.007	0.000	0.000	0.000	0.081
NONAUDIT_FEES ($000s)	1095.887	65.000	262.692	884.000	3204.376
BUSY	0.641	0.000	1.000	1.000	0.480

Panel B

CSR Concerns Only
$N = 4{,}271$

Variable	Mean	Q1	Median	Q3	Std. dev.
AUDIT_FEES ($000s)	1519.549	552.042	1022.360	1821.300	1810.382
TOTAL_ASSETS ($ MM)	2040.543	309.145	751.396	1881.566	7174.077
BUS_SEG	2.283	1.000	1.000	4.000	1.780
FOR_SEG	1.842	0.000	1.000	3.000	2.547
REC_INV	0.264	0.118	0.248	0.376	0.177
ROA	-0.039	0.006	0.047	0.082	2.331
LOSS	0.228	0.000	0.000	0.000	0.420
CURRENT	3.227	1.567	2.309	3.543	4.170
CGOV	-0.011	-0.056	0.000	0.000	0.035
BIGN	0.834	1.000	1.000	1.000	0.372
SPECIALIST	0.518	0.000	1.000	1.000	0.500
CHANGE	0.051	0.000	0.000	0.000	0.219
GC	0.010	0.000	0.000	0.000	0.098
NONAUDIT_FEES ($000s)	418.158	36.000	137.518	398.789	1044.274
BUSY	0.656	0.000	1.000	1.000	0.475

CSR Strengths Only

N = 2,529

Variable	Mean	Q1	Median	Q3	Std. dev.
AUDIT_FEES ($000)	3011.804	906.744	1781.000	3703.000	3909.726
TOTAL_ASSETS ($ MM)	6285.946	682.635	1943.290	5680.000	18450.050
BUS_SEG	2.261	1.000	1.000	4.000	1.796
FOR_SEG	2.255	0.000	1.000	3.000	2.764
REC_INV	0.239	0.102	0.226	0.332	0.165
ROA	0.017	0.013	0.050	0.090	0.175
LOSS	0.208	0.000	0.000	0.000	0.406
CURRENT	2.933	1.437	2.090	3.274	3.353
CGOV	-0.005	0.000	0.000	0.000	0.028
BIGN	0.934	1.000	1.000	1.000	0.248
SPECIALIST	0.614	0.000	1.000	1.000	0.487
CHANGE	0.038	0.000	0.000	0.000	0.192
GC	0.004	0.000	0.000	0.000	0.063
NONAUDIT_FEES ($000)	980.620	83.527	314.900	977.000	2552.149
BUSY	0.612	0.000	1.000	1.000	0.487

Both CSR Concerns and CSR Strengths

N = 4,926

Variable	Mean	Q1	Median	Q3	Std. dev.
AUDIT_FEES ($000)	5439.940	1287.100	3059.000	6731.890	6654.889
TOTAL_ASSETS ($ MM)	18774.620	1632.291	5864.091	21695.000	36537.730
BUS_SEG	2.503	1.000	2.000	4.000	2.157
FOR_SEG	2.265	0.000	1.000	3.000	2.753
REC_INV	0.220	0.094	0.205	0.309	0.146
ROA	0.036	0.021	0.052	0.091	0.151
LOSS	0.165	0.000	0.000	0.000	0.371
CURRENT	2.144	1.137	1.627	2.448	1.898
CGOV	-0.016	-0.056	0.000	0.000	0.043
BIGN	0.955	1.000	1.000	1.000	0.207
SPECIALIST	0.603	0.000	1.000	1.000	0.489
CHANGE	0.028	0.000	0.000	0.000	0.166
GC	0.007	0.000	0.000	0.000	0.085
NONAUDIT_FEES ($000)	2043.014	166.000	589.427	1900.000	4793.849
BUSY	0.668	0.000	1.000	1.000	0.471

CSR Neutral

N = 2,292

Variable	Mean	Q1	Median	Q3	Std. dev.
AUDIT_FEES ($000s)	1496.274	542.550	1035.270	1888.000	1666.527
TOTAL_ASSETS ($ MM)	1831.089	360.985	859.444	2021.757	4283.847
BUS_SEG	2.234	1.000	1.000	3.000	1.736
FOR_SEG	1.719	0.000	1.000	3.000	2.495
REC_INV	0.267	0.112	0.257	0.383	0.179
ROA	0.005	0.007	0.045	0.081	0.232
LOSS	0.227	0.000	0.000	0.000	0.419
CURRENT	3.255	1.628	2.321	3.523	3.479
CGOV	-0.000	0.000	0.000	0.000	0.021
BIGN	0.874	1.000	1.000	1.000	0.332
SPECIALIST	0.476	0.000	0.000	1.000	0.500
CHANGE	0.055	0.000	0.000	0.000	0.227
GC	0.002	0.000	0.000	0.000	0.047
NONAUDIT_FEES ($000s)	450.399	35.000	151.470	473.500	991.856
BUSY	0.591	0.000	1.000	1.000	0.492

This table reports summary descriptive statistics. Panel A reports the summary statistics for all firm-year observations included in the sample. Sample size is 14,018. All variables are defined in Appendix A, except for *AUDIT_FEES* (in $000s), *NONAUDIT_FEES* (in $000s) and *TOTAL_ASSETS* (in millions). The natural log of these variables is utilized in regression analysis. Panel B shows the summary descriptive statistics by groups. CSR Concerns Only consists of firm-year observations that only have CSR concerns and no CSR strengths. CSR Strengths Only consists of firm-year observations that only have CSR strengths and no CSR concerns. Both CSR Concerns and Strengths consists of firm-year observations that have both CSR strengths and CSR concerns. CSR Neutral consists of firm-year observations that have no CSR concerns and no CSR strengths.

TABLE 2
Correlation Matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. *LN_AUDITFEES*																
2. *CSR_STR*	**0.457**															
3. *CSR_CON*	**0.270**	**0.310**														
4. *LN_ASSETS*	**0.722**	**0.567**	**0.357**													
5. *BUS_SEG*	**0.206**	**0.042**	**0.043**	**0.202**												
6. *FOR_SEG*	**0.266**	**0.105**	**0.043**	**0.158**	**0.117**											
7. *REC_INV*	-0.001	**-0.137**	**-0.099**	**-0.148**	**0.057**	**0.103**										
8. *ROA*	**0.067**	**0.021**	-0.001	**0.087**	**0.021**	**0.022**	**0.045**									
9. *LOSS*	**-0.137**	**-0.098**	**-0.058**	**-0.258**	**-0.102**	**-0.054**	**-0.191**	**-0.108**								
10. *CURRENT*	**-0.268**	**-0.147**	**-0.112**	**-0.351**	**-0.129**	-0.022	**-0.104**	-0.008	**0.195**							
11. *CGOV*	**-0.124**	-0.013	**-0.236**	**-0.146**	**-0.031**	-0.018	-0.008	0.003	0.021	**0.057**						
12. *BIGN*	**0.314**	**0.149**	**0.041**	**0.309**	**0.075**	**0.082**	**-0.036**	**0.042**	**-0.054**	**-0.090**	**-0.057**					
13. *SPECIALIST*	**0.170**	**0.107**	**0.028**	**0.093**	**0.069**	**0.175**	**-0.272**	-0.001	**0.107**	**0.082**	-0.010	**0.290**				
14. *CHANGE*	**-0.141**	**-0.056**	**-0.018**	**-0.087**	-0.014	-0.018	0.006	**-0.036**	**0.043**	0.020	**0.021**	**-0.173**	**-0.057**			
15. *GC*	**-0.037**	-0.009	**0.036**	**-0.075**	-0.025	-0.019	-0.042	**-0.180**	**0.131**	-0.019	-0.009	**-0.038**	0.001	**0.032**		
16. *LN_NAF*	**0.401**	**0.279**	**0.145**	**0.465**	**0.131**	**0.165**	0.018	0.030	**-0.141**	**-0.171**	**-0.097**	**0.289**	**0.099**	**-0.116**	**-0.060**	
17. *BUSY*	**0.088**	-0.002	**0.101**	**0.073**	**0.042**	**0.041**	**-0.228**	-0.003	**0.127**	0.003	**0.041**	**-0.020**	**0.138**	0.007	**0.042**	-0.008

This table reports Pearson correlations for variables utilized in regression analysis. All variables are defined in Appendix A. Bold text indicates significance at the 5% level.

TABLE 3
OLS Regression of Audit Fees and CSR Performance

Variables	(1) Coeff.	(2) Std. err	(3) Coeff.	(4) Std. err
Intercept	8.657***	(0.178)	8.646***	(0.174)
CSR_SUM	0.194***	(0.033)		
CSR_CON			0.176***	(0.046)
CSR_STR			0.217***	(0.049)
LN_ASSETS	0.498***	(0.012)	0.499***	(0.012)
BUS_SEG	0.011*	(0.006)	0.011*	(0.006)
FOR_SEG	0.027***	(0.005)	0.027***	(0.005)
REC_INV	0.847***	(0.119)	0.848***	(0.119)
ROA	0.007*	(0.004)	0.007*	(0.004)
LOSS	0.185***	(0.025)	0.185***	(0.025)
CURRENT	-0.014***	(0.003)	-0.014***	(0.003)
CGOV	-0.387	(0.237)	-0.357	(0.230)
BIGN	0.362***	(0.104)	0.362***	(0.104)
SPECIALIST	0.052	(0.101)	0.052	(0.101)
CHANGE	-0.295***	(0.052)	-0.295***	(0.052)
GC	0.257	(0.174)	0.257	(0.174)
LN_NAF	0.016***	(0.003)	0.016***	(0.003)
BUSY	0.123***	(0.033)	0.122***	(0.033)
Year fixed effects	Yes		Yes	
Industry fixed effects	Yes		Yes	
Cluster by firm	Yes		Yes	
N	14,018		14,018	
Adj-R^2	0.703		0.703	

This table reports the regression results for the effect of CSR performance on audit fees for Eq. (1). Columns (1) and (2) report the results using *CSR_SUM* and column (3) and (4) report the results using *CSR_STR* and *CSR_CON*. All variables are defined in Appendix A. Year fixed effects and industry fixed effects are included in the model. Robust standard errors clustered at the firm level are used to compute *t*-statistics. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

TABLE 4
Quasi-natural Experiment Based on The Energy Policy Act 2005

Variables	(1) Coeff.	(2) Std. err.
Intercept	7.990***	(0.374)
TREATMENT x POST	-0.246***	(0.084)
TREATMENT	0.865**	(0.372)
POST	0.817***	(0.058)
LN_ASSETS	0.602***	(0.023)
BUS_SEG	0.006	(0.011)
FOR_SEG	0.013	(0.016)
REC_INV	1.022***	(0.203)
ROA	-0.467***	(0.154)
LOSS	0.192***	(0.052)
CURRENT	-0.009	(0.008)
CGOV	0.212	(0.516)
BIGN	0.244	(0.168)
SPECIALIST	0.071	(0.206)
CHANGE	-0.316***	(0.110)
GC	0.244	(0.217)
LN_NAF	0.018*	(0.009)
BUSY	0.164***	(0.042)
Year fixed effects	Yes	
Industry fixed effects	Yes	
Cluster by firm	Yes	
N	2,939	
Adj-R^2	0.708	

This tables reports the regression results for the effect of The Energy Policy Act 2005 on the treatment firms' level of audit fees. See Eq. (2). All variables are defined in Appendix A. Year fixed effects and industry fixed effects are included in the model. Robust standard errors clustered at the firm level are used to compute t-statistics. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

TABLE 5
CSR Strength and Audit Fees: Entropy Balancing Analysis

Panel A: Sample Descriptive Before and After Entropy Balancing

| | Before Entropy Balancing | | | | After Entropy Balancing | | | |
| | *TREAT_STR=1* | | *TREAT_STR=0* | | *TREAT_STR=1* | | *TREAT_STR=0* | |
	Mean	Variance	Mean	Variance	Mean	Variance	Mean	Variance
LN_ASSETS	8.237	3.116	6.679	1.730	8.237	3.116	8.236	2.176
BUS_SEG	2.421	4.181	2.266	3.115	2.421	4.181	2.420	4.001
FOR_SEG	2.262	7.599	1.799	6.398	2.262	7.599	2.261	8.026
REC_INV	0.226	0.023	0.265	0.032	0.226	0.023	0.226	0.027
ROA	0.030	0.026	-0.024	3.556	0.030	0.026	0.029	0.622
LOSS	0.180	0.147	0.228	0.176	0.180	0.147	0.180	0.147
CURRENT	2.412	6.334	3.237	15.540	2.412	6.334	2.413	28.240
CGOV	-0.012	0.002	-0.007	0.001	-0.012	0.002	-0.012	0.001
BIGN	0.948	0.049	0.848	0.129	0.948	0.049	0.948	0.050
SPECIALIST	0.607	0.239	0.503	0.250	0.607	0.239	0.607	0.239
CHANGE	0.032	0.031	0.052	0.049	0.032	0.031	0.032	0.031
GC	0.006	0.006	0.007	0.007	0.006	0.006	0.006	0.006
LN_NAF	12.510	9.815	10.800	14.840	12.510	9.815	12.500	9.078
BUSY	0.649	0.228	0.633	0.232	0.649	0.228	0.649	0.228

Panel B: Regressions Using Entropy Balanced Sample

	(1)	(2)	(3)	(4)
Variables	**Coeff.**	**Std. err**	**Coeff.**	**Std. err**
Intercept	8.519***	(0.185)	8.511***	(0.181)
CSR_STR	0.131***	(0.049)	0.112**	(0.049)
CSR_CON			0.151***	(0.043)
LN_ASSETS	0.544***	(0.013)	0.536***	(0.012)
BUS_SEG	0.011*	(0.006)	0.012*	(0.006)
FOR_SEG	0.025***	(0.005)	0.024***	(0.005)
REC_INV	1.051***	(0.127)	1.052***	(0.127)
ROA	-0.003	(0.012)	-0.002	(0.012)
LOSS	0.184***	(0.025)	0.183***	(0.025)
CURRENT	-0.008***	(0.003)	-0.009***	(0.003)
CGOV	-0.336	(0.243)	-0.224	(0.243)
BIGN	0.328***	(0.092)	0.338***	(0.092)
SPECIALIST	0.030	(0.106)	0.026	(0.106)
CHANGE	-0.176***	(0.055)	-0.173***	(0.055)
GC	0.365***	(0.096)	0.336***	(0.101)
LN_NAF	0.022***	(0.004)	0.022***	(0.004)
BUSY	0.080**	(0.031)	0.075**	(0.031)
Year fixed effects		Yes		Yes
Industry fixed effects		Yes		Yes
Cluster by firm		Yes		Yes
N		14,018		14,018
Adj-R2		0.752		0.753

This table reports the regression results for the effect of CSR strength on audit fees using entropy balancing. Panel A reports the mean and variance for each control variable before and after entropy balancing. Panel B reports the regression outputs, where columns (1) and (2) report the results using *CSR_STR* and column (3) and (4) report the results using *CSR_STR* and *CSR_CON*. All variables are defined in Appendix A. Year fixed effects and industry fixed effects are included in the model. Robust standard errors clustered at the firm level are used to compute *t*-statistics. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

TABLE 6
Correlation Matrix for Separate Components of CSR Performance

	1	2	3	4	5	6	7	8	9	10	11	12
1. *LN_AUDITFEES*												
2. *COM_STR*	**0.293**											
3. *COM_CON*	**0.228**	**0.228**										
4. *DIV_STR*	**0.312**	**0.554**	**0.224**									
5. *DIV_CON*	**-0.169**	**-0.071**	**-0.029**	**-0.142**								
6. *EMP_STR*	**0.314**	**0.246**	**0.143**	**0.244**	**-0.151**							
7. *EMP_CON*	**0.236**	**0.226**	**0.222**	**0.291**	-0.014	**0.114**						
8. *ENV_STR*	**0.418**	**0.317**	**0.146**	**0.289**	**-0.141**	**0.448**	**0.160**					
9. *ENV_CON*	**0.299**	**0.221**	**0.476**	**0.191**	**-0.074**	**0.177**	**0.299**	**0.220**				
10. *HUM_STR*	**0.128**	**0.170**	**0.115**	**0.042**	**-0.051**	**0.109**	**0.048**	**0.157**	**0.149**			
11. *HUM_CON*	**0.189**	**0.230**	**0.240**	**0.213**	**-0.028**	**0.085**	**0.213**	**0.087**	**0.309**	**0.111**		
12. *PRO_STR*	**0.196**	**0.213**	**0.019**	**0.230**	**-0.080**	**0.262**	**0.105**	**0.296**	**0.044**	**0.003**	**0.013**	
13. *PRO_CON*	**0.327**	**0.318**	**0.265**	**0.361**	**-0.061**	**0.171**	**0.289**	**0.243**	**0.287**	**0.016**	**0.218**	**0.190**

This table reports Pearson correlations for variables utilized in the regression analysis of the separate components of CSR. All variables are defined in Appendix A. Bold text indicates significance at the 5% level.

TABLE 7
OLS Regression of Audit Fees and Separate Components of CSR Performance

Panel A: Audit Fees and CSR Performance Categories

Variables	(1) Coeff.	(2) Std. err.
Intercept	8.720***	(0.179)
COM_STR	0.184	(0.163)
COM_CON	-0.039	(0.119)
DIV_STR	0.349***	(0.107)
DIV_CON	0.040	(0.085)
EMP_STR	-0.182*	(0.107)
EMP_CON	0.188*	(0.114)
ENV_STR	0.573***	(0.159)
ENV_CON	0.735***	(0.163)
HUM_STR	-0.088	(0.094)
HUM_CON	0.857**	(0.381)
PRO_STR	0.353	(0.293)
PRO_CON	0.101	(0.116)
Control variables	Included	
Year fixed effects	Yes	
Industry fixed effects	Yes	
Cluster by firm	Yes	
N	14,018	
Adj-R²	0.705	

This table reports the regression results for the effect of the separate categories of CSR performance on audit fees. All variables are defined in Appendix A. Control variables are not shown for brevity. Year fixed effects and industry fixed effects are included in the model. Robust standard errors clustered at the firm level are used to compute t-statistics. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

Panel B: Regressions of Audit Fees and Separate Indicators of Environmental and Diversity Strength

Variables	(1) Coeff.	(2) Std. err.	(3) Coeff.	(4) Std. err.
Intercept	8.607***	(0.177)	8.608***	(0.177)
ENVA	0.089***	(0.033)		
ENVB	0.097**	(0.038)		
ENVC	-0.036	(0.095)		
ENVD	0.036	(0.029)		
ENVG	0.039	(0.025)		
ENVH	-0.016	(0.037)		
ENVI	0.076	(0.078)		
ENVJ	0.103	(0.067)		
ENVK	0.773***	(0.134)		
ENVL	0.321	(0.267)		
ENVM	-0.086	(0.089)		
ENVN	-0.237	(0.355)		
ENVO	0.050	(0.061)		
ENVP	0.064	(0.076)		
ENVX	-0.004	(0.029)		
DIVA			-0.055	(0.078)
DIVB			0.040	(0.027)
DIVC			0.093***	(0.030)
DIVD			0.077	(0.049)
DIVE			0.207***	(0.045)
DIVF			0.030	(0.073)
DIVG			-0.027	(0.029)
DIVH			-0.041	(0.036)
DIVX			0.073	(0.047)
Control variables	Included		Included	
Year fixed effects	Yes		Yes	
Industry fixed effects	Yes		Yes	
Cluster by firm	Yes		Yes	
N	14,018		14,018	
Adj. R	0.696		0.697	

This panel reports the regression results for the effect of the indicators of environmental and diversity strengths on audit fees. All variables are defined in Appendix B. Control variables are not shown for brevity. Year fixed effects and industry fixed effects are included in the model. Robust standard errors clustered at the firm level are used to compute *t*-statistics. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

Panel C: CSR Strengths and Audit Complexity

Variables	R&D		ARC	
	(1) Coeff.	**(2)** Std. err.	**(3)** Coeff.	**(4)** Std. err.
Intercept	0.129***	(0.019)	-319.278***	(20.574)
CSR_STR	0.031***	(0.006)	31.825***	(10.824)
LN_ASSETS	-0.015***	(0.002)	43.002***	(2.192)
BUS_SEG	-0.001*	(0.000)	4.444***	(1.707)
FOR_SEG	-0.001	(0.001)	5.046***	(1.245)
REC_INV	-0.070***	(0.015)	-34.033*	(19.099)
ROA	-0.001	(0.004)	-16.458**	(7.577)
LOSS	0.039***	(0.004)	19.784***	(4.633)
CURRENT	-0.004***	(0.001)	-3.692***	(0.660)
Year fixed effects	Yes		Yes	
Industry fixed effects	Yes		Yes	
Cluster by firm	Yes		Yes	
N	14,018		6,311	
Adj-R^2	0.50		0.646	

This panel reports the regression results for the effect of positive CSR activities on audit complexity. See Eq. (3) All variables are defined in Appendix A. Year fixed effects and industry fixed effects are included in the model. Robust standard errors clustered at the firm level are used to compute t-statistics. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

TABLE 8
OLS Regression of the Effect of Restatements and CSR Strengths on Audit Fees

Variables	(1) Coeff.	(2) Std. err.
Intercept	8.655***	(0.179)
CSR_STR x RESTATE	0.092	(0.082)
CSR_STR	0.187***	(0.048)
RESTATE	-0.010	(0.025)
CSR_CON	0.180***	(0.047)
LN_ASSETS	0.498***	(0.012)
BUS_SEG	0.011*	(0.006)
FOR_SEG	0.028***	(0.005)
REC_INV	0.836***	(0.121)
ROA	0.007*	(0.004)
LOSS	0.184***	(0.026)
CURRENT	-0.014***	(0.003)
CGOV	-0.380	(0.242)
BIGN	0.371***	(0.109)
SPECIALIST	0.049	(0.104)
CHANGE	-0.298***	(0.053)
GC	0.251	(0.179)
LN_NAF	0.016***	(0.003)
BUSY	0.121***	(0.033)
Year fixed effects	Yes	
Industry fixed effects	Yes	
Cluster by firm	Yes	
N	13,842	
Adj-R²	0.702	

This table reports the regression results for the effect of restatements and *CSR_STR* on audit fees. See Eq. (4) All variables are defined in Appendix A. Year fixed effects and industry fixed effects are included in the model. Robust standard errors clustered at the firm level are used to compute *t*-statistics. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.

TABLE 9
OLS Regression of Audit Fees and CSR Performance using the Net of CSR Performance as an Alternative Measure

Variables	(1) Coeff.	(2) Std. err.
Intercept	8.525***	(0.175)
CSR_NET	-0.000	(0.035)
LN_ASSETS	0.529***	(0.011)
BUS_SEG	0.009	(0.006)
FOR_SEG	0.028***	(0.005)
REC_INV	0.857***	(0.120)
ROA	0.006	(0.004)
LOSS	0.191***	(0.025)
CURRENT	-0.014***	(0.003)
CGOV	-0.302	(0.237)
BIGN	0.344***	(0.103)
SPECIALIST	0.052	(0.101)
CHANGE	-0.297***	(0.052)
GC	0.294*	(0.174)
LN_NAF	0.016***	(0.003)
BUSY	0.124***	(0.033)
Year fixed effects	Yes	
Industry fixed effects	Yes	
Cluster by firm	Yes	
N	14,018	
Adj-R²	0.702	

This table reports the regression results for the effect of CSR performance on audit fees using *CSR_NET* as an alternative measure. All variables are defined in Appendix A. Year fixed effects and industry fixed effects are included in the model. Robust standard errors clustered at the firm level are used to compute *t*-statistics. *, ** and *** denote significance at the 10%, 5% and 1% levels, respectively.