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CORPORATE SOCIAL RESPONSIBILITY REPORTING: EVIDENCE FROM ENVIRONMENTALLY SENSITIVE INDUSTRIES IN THE USA

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Abstract: This study focuses on corporate social responsibility (CSR) and seeks to identify the quality of CSR reported disclosures of US environmentally sensitive industries, including oil and gas extraction, mining (except oil and gas), support activities for mining, utilities, food manufacturing, beverage and tobacco product manufacturing, paper manufacturing, petroleum and coal products manufacturing, chemical manufacturing, and fabricated metal product manufacturing. The study also examines the association between the quality of reported CSR information and the cost of equity. Using a Global Reporting Initiative (GRI)-based scoring index, we have found that companies with a high CSR degree, such as those with main business products carrying harmful or negative attributes for human health or society, with high consumer visibility or with intense competition, are likely to report a higher CSR score. Companies that disclose CSR information of high quality tend to be larger and

to display higher leverage and capital expenditure. It is evidenced that firms in food manufacturing, chemical manufacturing, and oil and gas extraction mostly tend to report CSR information of higher quality. This study also shows that there exists a negative association between the disclosure of CSR information and the cost of equity, providing evidence that companies are likely to disclose high quality CSR information in order to improve investors' perceptions and subsequently reduce the cost of equity. The findings also document that the cost of equity is negatively associated with growth and positively with stock riskiness.

JEL: M41

Keywords: corporate social responsibility, Global Reporting Initiative, accounting disclosure, leverage, cost of equity

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1. Introduction

Over the past years there has been a dramatic increase of the number of companies, which publish corporate social responsibility (CSR) reports on a regular basis. Growing awareness of climate change has led to increased demands from shareholders, which has resulted in companies allocating increased resources to communicating information about their impact on the environment to interested parties (Griffin and Sun, 2012). Although CSR reporting was once seen as fulfilling a moral obligation to society, now it is considered a business imperative (KPMG, 2011). According to the Global Reporting Initiative (GRI) Guidelines G3.1, CSR reporting is defined as 'the practice of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance towards the goal of

sustainable development'. Also, the demand for more useful environmental reporting has been growing alongside the escalating importance of environmental impacts, such as energy costs or GHG emissions.

Investors are requiring comparable environmental data that can be integrated into financial analyses, so that investment decisions can take into account environmental performance and related risks and opportunities (Murray et al, 2006; Environmental Agency, 2011). In 2011, 95% of the 250 largest companies of the world (G250) reported substantial disclosures about their CSR activities. Moreover, CSR and sustainability rating agencies, such as the Dow Jones Sustainability Index, have gained increased popularity (Guthrie et al, 2008). Thus, companies would be inclined to self-regulate and provide voluntary financial and CSR disclosures in order to show that they are socially and environmentally responsible (Chapple et al, 2005). For example, in November 2006 the Council of Better Business Bureaus together with ten leading food and beverage companies launched the Children's Food and Beverage Advertising Initiative, whose mission has been to shift advertising primarily to children ('child-directed advertising') to encourage healthier dietary choices and lifestyles. The implications of reporting effective CSR disclosures would be expected to lead to positive investor perceptions, lower levels of uncertainty and lower cost of equity (Gray et al, 1995). Inefficient disclosers would be likely to attract more attention and scrutiny from market authorities or other market participants.

The underlying theoretical framework behind the motivation of companies to report CSR information is provided by legitimacy theory (see Archel et al, 2009). According to legitimacy theory, a company is deemed legitimate if its values are consistent with those of the society it operates in (Bebbington et al, 2008a). Likewise, legitimacy theory stipulates that, in order for a company to operate in the longer term

and be able to obtain competitive access to resources, it would have to be recognized as being legitimate by society (Wilmshurst and Frost, 1999). Lim et al (2010) highlights three forms of legitimacy: pragmatic legitimacy, moral legitimacy and cognitive legitimacy. According to pragmatic legitimacy, a company would seek to meet the needs of its support groups to ensure legitimacy. According to moral legitimacy, a company would pursue activities and adopt policies that are 'right' or 'legitimate'. According to cognitive legitimacy, a company would need to ensure that its actions are essential for the benefit of stakeholders.

When a company, through its actions or lack of perceived actions, is deemed not to be legitimate, there is a breach of the 'social contract', which links the company to society, and which may in turn jeopardize the going-concern principle of the company (O'Donovan, 2002). This would be the case for a company that is deemed to disregard or neglect society's welfare and acts in favour of its own prosperity. The society would compare the benefits enjoyed by the company with the potential adverse impact for social health or the environment (Deegan, 2002). If that ratio is unfavourable and the 'social contract' is breached, the company might be considered as illegitimate. The response of the society might penalise companies via a decline in stock price or demand for products or services (see Brammer et al, 2006; Ioannou and Serafeim, 2010). Likewise, the response of the government might be to impose certain quality criteria and non-compliance penalties or tax increases.

Subsequently, a gap in legitimacy would weaken the status of legitimacy of a company. It is worthwhile noting that companies may not have the same perception of whether a gap of legitimacy exists or not (Orij, 2010). Thus, managers may decide to simultaneously follow two or more legitimisation strategies even if their perception of legitimacy threat is the same (Deegan, 2002). It stems that effective predictions of managerial behaviour may be difficult to attain (see Agle et al, 1999; Baron, 2001).

CSR reporting practices vary from industry to industry depending on the nature of business activities (McWilliams et al, 2006). Industry sectors are under political and social pressure to resume a good social and environmental role. Certain industries that are considered non-eco friendly, such as the energy and natural resource industry, have been reporting CSR information more intensively in order to provide assurance of good CSR reporting practice (KPMG, 2011). With the increasing public interest regarding CSR reporting, the majority of companies across all industries are now held accountable as to the manner they disclose information that is sensitive to society. The use of certain CSR reporting frameworks, such as the GRI guidelines, makes it easier to assess and compare companies in terms of their CSR performance. As such, companies are encouraged to be more transparent with regard to CSR reporting, which would exert further pressure on those still reluctant to do so.

It has been identified by the World Commission on Environment and Development that, due to the nature of their operations and their implications for the environment, the environmentally sensitive industries are food and beverage, chemicals, utilities, pulp and paper, and mining. This study focuses on US environmentally sensitive industries, including those reported above, and extends the work of Campbell et al (2003) and Guthrie et al (2008) and assesses specific drivers of CSR disclosures. Guthrie et al (2008) focused on the Australian food and beverage industry and found a positive relationship between CSR disclosures and companies' 'CSR profile'. This study uses a content analysis based on a checklist of disclosure items, instead of a count of sentences, which has been used by Guthrie et al (2008). To conduct the study, a GRI-based scoring index has been designed. Further, this study investigates how effective CSR disclosures affect the cost of equity, which would be anticipated to drop following the expected reduction of uncertainty and increase of

quality of reported information.

The findings show that companies with a significant environmental or social exposure, such as these with main business products carrying harmful or negative attributes for human health or society, with high consumer visibility or with intense competition, are likely to disclose CSR information of higher quality. For smaller companies, the disclosure of CSR information is positively associated with growth rates, suggesting that smaller companies may perceive CSR reporting as a way to support their future growth and enhance their long-term sustainability. Likewise, in their effort to provide lenders with assurance of their reporting quality, highly leveraged companies tend to display high CSR disclosure quality. It is evidenced that firms in food manufacturing, chemical manufacturing, and oil and gas extraction mostly tend to report CSR information of higher quality. The study also indicates that there exists a negative association between the disclosure of CSR information and the cost of equity. This association tends to hold mainly for large and highly leveraged companies, implying that the disclosure of CSR information by such companies would satisfy investors' and lenders' information needs and would result in lower uncertainty and cost of equity. However, this is not the case for smaller companies, whose environmental exposure and impact of environmental policies would likely be less material.

The remaining sections of the study are as follows. Section 2 presents the background considerations of the study. Section 3 describes the research methodology. Section 4 discusses the empirical findings, and Section 5 presents the conclusions of the study.

2. Background Considerations

Companies may be motivated to provide CSR information in order to comply

with requirements set forward by their lending institutions as a means of obtaining financing on potentially better terms (McWilliams and Siegel, 2000). To better manage their risk exposure, a growing number of lending institutions would require their clients to provide them with information relating to their social and environmental policies (Wallace et al, 1994). Another motivation for companies disclosing CSR information would be to comply with industry-specific requirements or specific codes of conduct. Via CSR reporting, managers would meet their obligation to disclose crucial information to parties that have the 'right-to-know' certain information concerning social and environmental matters (Ahmed and Courtis, 1999; Stanny and Ely, 2008). Further, companies would be inclined to provide extensive CSR reporting in order to influence the society as a whole, or individual stakeholders that are powerful due to their control over the resources necessary for company survival (see Clarkson, 1995).

Deegan (2002) argues for 'economic rationality' and claims that companies, which do what is deemed to be right by society, may expect to enjoy future economic benefits. Companies may also report on social and environmental matters as a response to negative media attention relating to allegations for lack of concern for health and environmental issues. Lim et al (2010) have found that in such cases companies may be motivated to voluntarily provide significantly larger amounts of social and environmental disclosures in an attempt to restore their pragmatic, moral and cognitive legitimacy.

KPMG (2011) indicates that reputation and brand considerations have become an increasingly important driver for CSR reporting. Bebbington et al (2008a) argue that CSR reporting can be perceived as both an outcome and part of reputation risk management. Deegan (2002) argues that companies' compliance with societal

expectations is vital as it is based on the concept of the social contract. Another motivation for CSR reporting is to attract 'ethical investment funds' or to obtain sustainability reporting awards, which would be expected to positively affect investors' perceptions (Campbell et al, 2003; McLaren, 2004).

The ownership structure of a company has a direct impact on its CSR reporting practices (KPMG, 2011). Publicly held companies tend to display higher quality of CSR reporting and to more vividly highlight the social and environmental aspect of their business than state-owned entities. Shareholders and other market participants would exercise significant pressure on publicly traded companies to issue informative and relevant CSR reports. On the other hand, the disclosure of CSR activity by publicly held companies would be motivated by the expected positive impact on their corporate value and reputation (Jo and Harjoto, 2011).

Roberts (1992) classified sample companies into high and low profile disclosers based on the following criteria: (1) the level of intensity of competition, (2) consumer visibility and regulatory risks, and (3) social responsibility activities. He found that CSR disclosures are significantly linked to stakeholders' power, company economic performance and strategic posture toward social responsibility.

Guthrie et al (2008) designed a disclosure instrument based on the 2002 GRI Sustainability Reporting Guidelines and categorised their sample companies into high, medium and low profile disclosers using the following criteria: (1) possibility that a company's main products are harmful or cause health risk and/or negative social effects, (2) consumer visibility within the marketplace, (3) level of political risk, and (4) concentrated/intense competition between similar companies within the same industry. They found that companies that are considered to have a higher CSR profile and exposure would disclose more CSR information than those that are considered to possess a lower CSR profile.

Iatridis and Alexakis (2012) explored whether there could be a link between voluntary disclosures and certain corporate financial attributes. They indicate that voluntary disclosers exhibit higher profitability and growth, and higher share trading volume. Their findings also show that companies that are large and financially visible tend to disclose more voluntary information, in order to reinforce their financial picture and future financial prospects. Likewise, they argue that firms that are highly leveraged also issue more voluntary reports in order to impress capital providers and potentially obtain better terms of financing.

3. Research Methodology

3.1. Research Hypotheses

3.1.1. CSR Disclosure and CSR Score

As noted above, Guthrie et al (2008) obtained evidence that companies that display a higher CSR profile would disclose more CSR information. However, their method of assessing the amount of CSR disclosures has been based on the examination of the number of sentences relating to CSR items, and has not considered the reporting or non-reporting of certain key CSR items. This study has designed a CSR scoring index based on Clarkson et al (2011) and evaluates CSR disclosures based on the determination of a CSR score. In line with Clarkson et al (2011), the scoring index has included hard disclosure items, e.g. environmental performance indicators on water use and water use efficiency, and soft disclosure items, e.g. statements of corporate environmental policy and environmental principles. The scoring index that has been applied in the study is explained in Section 3.3 and presented in Appendix 1. Here, the study investigates the relationship between the CSR score and the CSR degree of a company. The CSR degree of a company is

determined by the extent to which a) the main business products are harmful or cause negative effects for human health or society; b) consumer visibility is high; c) the level of political risk is high; and d) competition is intense (see Roberts, 1992; Campbell et al, 2003; Guthrie et al, 2008). The hypothesis that is tested and the model that is used are presented below.

H_1 Companies with a high CSR degree are likely to report a higher CSR score.

$$SCORE = \alpha + \beta_1(HRMFL) + \beta_2(VSBL) + \beta_3(PLTRSK) + \beta_4(CNTRD) + \beta_5(GRWT\ CY) + \beta_6(GRWT\ PY) + \beta_7(LEV\ CY) + \beta_8(LEV\ PY) + \beta_9(LIQ\ CY) + \beta_{10}(LIQ\ PY) + \beta_{11}(INV\ CY) + \beta_{12}(INV\ PY) + \beta_{13}(PRFT\ CY) + \beta_{14}(PRFT\ PY) + \beta_{15}(LnMV) + \beta_{16}(IND) + e \quad (1)$$

where:

SCORE is the score obtained from the CSR disclosure scoring index. The values that it may take range from 0% to 100%.

HRMFL is a dummy variable that takes 1 if the main business products are harmful or cause negative effects for human health or society and 0 otherwise.

VSBL is a dummy variable that takes 1 if consumer visibility is high and 0 otherwise.

PLTRSK is a dummy variable that takes 1 if the level of political risk is high and 0 otherwise.

CNTRD is a dummy variable that takes 1 if competition is intense and 0 otherwise.

GRWT CY is the current year growth rate reported for earnings before interest and tax.

GRWT PY is the lagged growth rate reported for earnings before interest and tax.

LEV CY is the natural logarithm of current year debt scaled by equity.

LEV PY is the natural logarithm of lagged debt scaled by equity.

LIQ CY is the natural logarithm of current year current assets scaled by current liabilities.

LIQ PY is the natural logarithm of lagged current assets scaled by current liabilities.

INV CY is the current year capital expenditure scaled by earnings before interest and tax.

INV PY is the lagged capital expenditure scaled by earnings before interest and tax.

PRFT CY is the current year earnings before interest and tax scaled by total assets.

PRFT PY is the lagged earnings before interest and tax scaled by total assets.

LnMV is the current year natural logarithm of market value of equity at year-end.

IND is a dummy variable that accounts for industry classification.

e is the error term.

The model presented above is firstly implemented on the entire sample of companies. To draw more information about the potential differentiation of CSR disclosure scores and company disclosure attitudes, which may be evident for companies with different firm attributes, this study will split the sample companies based on size and leverage and will further apply this model. The categorisations above will be based on the medians of market capitalisation and financial leverage respectively.

3.1.2. CSR Disclosure and Cost of Equity

Iatridis and Alexakis (2012) suggest that the disclosure of voluntary information is driven by the expectation that it will reduce information asymmetry and increase investors' confidence. This would be anticipated to reduce the cost of equity for companies that provide voluntary disclosures (Botosan, 1997; Dhaliwal et al, 2011). Likewise, the motivation for effective CSR reporting would be to favourably affect investors' perceptions and the terms of financing, including the cost of equity (Bassen et al, 2006). The hypothesis that is presented below tests the association between the quality of CSR reporting and the cost of equity.

H_2 *Companies with a high CSR score are likely to display lower cost of equity.*

To test the relationship between CSR disclosures and the cost of equity, the study has used the following model, which is based on Palea (2007), Lai et al (2009) and Iatridis (2012).

$$CE = \alpha + \beta_1(RFR) + \beta_2(MBV) + \beta_3(BETA) + \beta_4(SCORE) + e \quad (2)$$

where:

CE is the cost of equity estimated using the constant growth Gordon model and takes the following final form (see Palea, 2007, p. 17)[6]:

[6] Model 3 is derived from the constant growth Gordon model as presented in Palea (2007, pp. 16-17): $K_e = \{[E(EPS_{t+1})(1-b)]/P_t\} + g$, where K_e is the cost of equity, $E(EPS_{t+1})$ is the expected earnings per share in the next year, b is the retention rate, P_t

$$E\ (EPS_{t+1})/P_t \qquad (3)$$

where:

$E\ (EPS_{t+1})$ is the median of the expected earnings per share given by financial analysts for period *t+1*.

P_t is the share price in period *t* and is computed as an average of prices reported 15 days before and one month after the end of the period (see also Rees and Elgers, 1997).

RFR is the risk-free rate based on the 10 year US Bonds yield as of 30 December 2011.

MBV is market to book value of equity.

BETA is the beta coefficient obtained from Compustat.

SCORE is the score obtained from the CSR disclosure scoring index. The values that it may take range from 0% to 100%.

e is the error term.

Model (2) is firstly applied on the entire set of sample companies. Subsequently, the study will separately implement the model using the categorisations based on size and leverage as explained in Section 3.1.1.

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is the stock price of a firm, and *g* is the expected rate of change in net income per share.

3.2. Datasets

This study has collected CSR data from company annual reports and sustainability reports as well as from company websites. The period of annual report investigation is the accounting year 2011. The analysis covers the period from 2005 to 2011. This study has used the Compustat database from Wharton Research Data Services. The sample consists of 557 US listed companies. Based on the North American Industry Classification System, we identified 85 firms in oil and gas extraction (code 211), 102 firms in mining (except oil and gas) (code 212), 24 firms in support activities for mining (code 213), 96 firms in utilities (code 221), 43 firms in food manufacturing (code 311), 15 firms in beverage and tobacco product manufacturing (code 312), 13 firms in paper manufacturing (code 322), 30 firms in petroleum and coal products manufacturing (code 324), 123 firms in chemical manufacturing (code 325), and 26 firms in fabricated metal product manufacturing (code 332).

3.3. Scoring Index

Prior studies, such as Guthrie et al (2008), have used the sentence count method to capture CSR reporting, including environment, social and product responsibility. This study has designed a GRI-based scoring index in order to compute a CSR score for each sample company. The CSR score that is obtained for each company is not based on the amount of disclosures, in terms of number of sentences (i.e. frequency of occurrences). Instead, it is based on the presence or absence of certain key CSR disclosures.

To evaluate the level of CSR disclosures, this study has used the Global Reporting Initiative (GRI) Guidelines (version G3.1), which includes specific disclosures and performance indicators. The GRI is a non-profit organization, which

provides guidance for sustain9ability reporting. It was formed in 1997 as a common initiative between the US non-profit CERES and the Tellus Institute, and is supported by the United Nations Environment Program. The GRI comprehensive Sustainability Reporting Framework is internationally recognized and widely used around the world. The Framework provides a method, which enables all organisations to measure and report the main areas of sustainability, i.e. economic, environmental, social and governance performance. The GRI guidelines are supported by several principles designed to improve the quality of reporting process, such as materiality, stakeholder inclusiveness, sustainability context, completeness, comparability, accuracy, timeliness, reliability and clarity.

As presented in Appendix 1, the scoring index includes 106 items and is divided into 6 categories: (1) strategy and analysis, profile, report parameters, governance, commitments and engagement, (2) environment, (3) labour practices and decent work, (4) human rights and society, (5) product responsibility, and (6) animal welfare. Each category, except for the first, was divided into 2 sub-categories: profile/initiatives and performance indicator.

If an item was disclosed completely, it received a score of 1. If an item was disclosed partially, it received a score of 0.5. Partial disclosure would be the case where a company presented certain initiatives relating to the reduction of indirect energy consumption without disclosing appropriate quantitative measures of reductions achieved. If no information relating to an item was disclosed, a score of 0 would be attributed. The points obtained were summed and a percentage score was then determined based on the maximum points available for each company. Therefore, the score for all companies ranged between 0% and 100%.

In order to fairly assess the CSR score for each sample company, the scoring

index was reviewed and adjusted for each company based on its sub-industry. For each sub-industry, CSR items have been reviewed and removed if not applicable. For example, the items relating to animal welfare are only applicable to companies in the animal slaughtering / packaged foods sub-industry.

4. Empirical Findings

4.1. Descriptive Statistics

Table 1 presents the descriptive statistics of the main variables used in the empirical analysis. In relation to SCORE, large companies generally display a much higher score than small companies with average respective SCOREs of 46.14 and 14.22. This shows that large companies tend to disclose a lot more CSR information than small companies. Highly leveraged companies also tend to exhibit a higher SCORE than high equity companies, with respective SCOREs of 36.04 and 24.32. This implies that companies that heavily rely on debt to finance their activities are likely to disclose more CSR information than companies that are mainly financed by shareholders' funds. As far as growth is concerned, small and high equity companies generally report higher current year earnings growth (GRWT CY) in comparison to large or highly leveraged companies with respective rates of 41% and 42% as opposed to 11% and 9%. This can be explained by the fact that small companies, which are likely to be in a growth phase, may grow faster than companies that are well-established and which may only focus on maintaining their leadership.

The current year liquidity ratio (LIQ CY) appears to be higher for small and high equity companies, i.e. 95% and 102% respectively. The respective figures for

large and highly leveraged companies amount to 52% and 40%. This implies that small and high equity companies, which display higher growth as shown above, may seek to maintain higher levels of liquidity in order to reinforce their growth potential. Large companies tend to exhibit higher current year profitability (PRFT CY) than small companies with respective figures of 13% and 11%. On average, small companies exhibit a much higher cost of equity (CE) than large companies with respective CE of 7.09% and 3.38%. This indicates that small companies may carry higher risk, which might in turn lead to a higher required rate of return. The assertion presented above is supported by the risk proxy BETA, which is higher for small companies than large companies with respective BETA values of 0.73 and 0.66.

Table 1 Descriptive Statistics

	Large companies		**Small companies**		**Highly leveraged companies**		**High equity companies**	
Variables	Mean	Std deviation	Mean	Std deviation	Mean	Std deviation	Mean	Std deviation
SCORE	46.14	19.56	14.22	19.94	36.04	25.12	24.32	24.79
LnMV	16.54	0.94	14.39	0.84	16.10	1.39	14.84	1.13
GRWT CY	11%	0.34	41%	1.91	9%	0.19	42%	1.92
GRWT PY	13%	0.28	26%	0.96	11%	0.22	27%	0.97
LEV CY	77%	1.59	11%	0.83	95%	1.37	-35%	0.31
LEV PY	79%	1.60	9%	0.76	94%	1.35	-32%	0.41
LIQ CY	52%	0.84	95%	0.99	40%	0.66	102%	0.89
LIQ PY	43%	0.58	98%	1.43	39%	0.63	100%	1.35
INV CY	31%	0.15	26%	0.25	27%	0.09	30%	0.28
INV PY	30%	0.17	35%	0.39	25%	0.08	40%	0.41
PRFT CY	13%	0.05	11%	0.10	12%	0.05	12%	0.10
PRFT PY	13%	0.05	14%	0.10	12%	0.05	14%	0.10
CE	3.38%	0.06	7.09%	0.10	4.73%	0.07	5.74%	0.09
MBV	35%	0.26	48%	0.25	31%	0.17	52%	0.30
BETA	0.66	0.29	0.73	0.39	0.63	0.32	0.75	0.37

Sample Size	N=1,949	N=1,950	N=1,949	N=1,949

SCORE is the score obtained from the CSR disclosure scoring index. LnMV is the year-end natural logarithm of market value of equity. GRWT CY is the current year growth rate reported for earnings before interest and tax. GRWT PY is the lagged growth rate reported for earnings before interest and tax. LEV CY is the natural logarithm of current year debt scaled by equity. LEV PY is the natural logarithm of lagged debt scaled by equity. LIQ CY is the natural logarithm of current year current assets scaled by current liabilities. LIQ PY is the natural logarithm of lagged current assets scaled by current liabilities. INV CY is the current year capital expenditure scaled by earnings before interest and tax. INV PY is the lagged capital expenditure scaled by earnings before interest and tax. PRFT CY is the current year earnings before interest and tax scaled by total assets. PRFT PY is the lagged earnings before interest and tax scaled by total assets. CE is the cost of equity, which has been estimated using the constant growth Gordon model. MBV is market to book value of equity. BETA is the beta coefficient obtained from Compustat.

4.2. CSR Score and CSR Disclosure

4.2.1. Investigation of the Entire Sample

Table 2, Panel A, presents the findings of the study for the entire sample and shows that H_1 holds, implying that companies with a high CSR degree are likely to report a higher CSR score. In line with Guthrie et al (2008), companies with main business products carrying harmful or negative attributes for human health or society (HRMFL), with high consumer visibility (VSBL) and with intense competition (CNTRD) tend to display high CSR disclosure scores.

According to Panel A, company size (lnMV), lagged leverage (LEV PY) and capital expenditure (INV CY) exhibit a significantly positive association with the CSR disclosure score. The positive sign of lnMV indicates that large company size attracts public attention and is therefore likely to motivate companies to improve their disclosures in order to reinforce their reputation and avoid scrutiny and scepticism (see Stanwick and Stanwick, 1998). Likewise, the positive coefficient of LEV PY shows that companies that rely heavily on debt to finance their assets and business activities may be inclined to disclose more in order to satisfy lenders' needs or favourably affect their perceptions about company actions and policies (Deegan, 2002;

Tsoutsoura, 2004). The positive INV CY demonstrates that capital expenditures are positively related to CSR disclosure score. It would reflect the adoption of environmental friendly policies or improvements in the production process, such as for example the instalment of new systems to reduce greenhouse gas (GHG) emissions (see O'Donovan, 2000; Hill et al, 2007; Kempf and Osthoff, 2007). Panel A shows that firms in oil and gas extraction, food manufacturing, chemical manufacturing, and fabricated metal product manufacturing tend to report CSR information of higher quality and display higher SCORE.

Table 2 CSR Disclosure and CSR Score

Panel A		**Panel B**		**Panel C**	
Entire sample investigations		**Small companies**		**Highly leveraged companies**	
Variables	Coefficients	Variables	Coefficients	Variables	Coefficients
HRMFL	0.14776***	HRMFL	0.42981**	HRMFL	0.01492
	(0.04346)		(0.18435)		(0.0178)
PLTRSK	0.11738	PLTRSK	0.306495	PLTRSK	0.10487*
	(0.22615)		(0.5923)		(0.06391)
CNTRD	0.19065***	CNTRD	0.07702	CNTRD	0.00622
	(0.06779)		(2.38161)		(0.05394)
VSBL	0.36723***	VSBL	0.13924	VSBL	0.19762***
	(0.11646)		(0.30749)		(0.06149)
LnMV	0.09374***			LnMV	-0.064
	(0.02604)				(0.69769)
GRWT CY	0.03164	GRWT CY	0.96859***	GRWT CY	-0.03264
	(0.05814)		(0.20879)		(0.02962)
GRWT PY	0.01261	GRWT PY	1.03324***	GRWT PY	0.00028
	(0.00889)		(0.10336)		(0.00019)
LEV CY	-0.74952	LEV CY	-0.42590		
	(2.31939)		(0.59667)		
LEV PY	0.84295**	LEV PY	0.34101		
	(0.39583)		(0.30428)		
LIQ CY	0.32779	LIQ CY	0.01605	LIQ CY	-0.15861*
	(1.02308)		(0.00795)		(0.09027)

LIQ PY	-0.11409	LIQ PY	0.00027	LIQ PY	0.02332***
	(0.18808)		(0.0013)		(0.00611)
INV CY	0.01881*	INV CY	0.01383	INV CY	0.00877***
	(0.01086)		(0.01064)		(0.0022)
INV PY	-0.02023	INV PY	0.854	INV PY	0.43288
	(0.08706)		(2.347)		(0.99525)
PRFT CY	0.05114	PRFT CY	-0.50466*	PRFT CY	0.23969
	(0.0393)		(0.29553)		(1.47544)
PRFT PY	0.00342	PRFT PY	-0.80151	PRFT PY	-0.22979
	(0.25571)		(3.7325)		(1.24564)
Oil & gas	0.2350**			Oil & gas	0.1887**
	(0.1117)				(0.0757)
		Beverage	0.1906***		
			(0.0674)		
Food	1.06689***	Food	0.0585***	Food	0.2458**
	(0.3107)		(0.0220)		(0.1250)
Chemicals	0.014*			Chemicals	0.421**
	(0.0077)				(0.0158)
		Petroleum & coal	0.3377*		
			(0.1946)		
				Mining	0.23***
					(0.0946)
Fabricated metal	0.1087**				
	(0.05731)				
Constant	0.1711	Constant	0.10818	Constant	0.04399
	(0.11785)		(0.32319)		(0.04391)
R^2 adj.	0.423	R^2 adj.	0.768	R^2 adj.	0.686
Sample Size	N=3,899	Sample Size	N=1,950	Sample Size	N=1,949

***, ** and * indicate statistical significance at 1%, 5% and 10% level (two-tailed) respectively. The standard error is in parenthesis. HRMFL is a dummy variable that takes 1 if the main business products of a company are harmful or cause negative effects for human health or society and 0 otherwise. PLTRSK is a dummy variable that takes 1 if the level of political risk is high and 0 otherwise. CNTRD is a dummy variable that takes 1 if competition is intense and 0 otherwise. VSBL is a dummy variable that takes 1 if consumer visibility is high and 0 otherwise. LnMV is the year-end natural logarithm of market value of equity. GRWT CY is the current year growth rate reported for earnings before interest and tax. GRWT PY is the lagged growth rate reported for earnings before interest and tax. LEV CY is

the natural logarithm of current year debt scaled by equity. LEV PY is the natural logarithm of lagged debt scaled by equity. LIQ CY is the natural logarithm of current year current assets scaled by current liabilities. LIQ PY is the natural logarithm of lagged current assets scaled by current liabilities. INV CY is the current year capital expenditure scaled by earnings before interest and tax. INV PY is the lagged capital expenditure scaled by earnings before interest and tax. PRFT CY is the current year earnings before interest and tax scaled by total assets. PRFT PY is the lagged earnings before interest and tax scaled by total assets. To save space, Table 2 presents only the statistically significant results for industry classification (IND).

4.2.2. Size Considerations

This section focuses on size and reports the findings obtained for small companies. Table 2, Panel B, shows that small companies display higher current year and lagged growth ratios (GRWT CY and GRWT PY). It appears that companies of smaller size that are in a growth phase tend to display higher CSR disclosure scores in order to provide capital providers with a means of assurance regarding their long-term vision of sustainability (Cheng et al, 2011). The lower current year profitability (PRFT CY) that is exhibited by small companies may be explained by the fact that companies that seek to finance their growth options are likely to incur costs, which would in turn lead to lower profits. The adverse implications on investor perceptions that would stem from the lower profitability might to some extent be offset by the higher CSR disclosure score, which would be expected to reflect companies' awareness and dedication to sustainability reporting and improve their financial profile and future prospects. Panel B also shows that small companies, whose main business products display harmful or negative attributes for human health or society (HRMFL), exhibit higher disclosure scores. Panel B shows that small firms in beverage and tobacco product manufacturing, food manufacturing, and petroleum and coal products manufacturing report higher SCORE.

4.2.3. Leverage Considerations

This section concentrates on leverage and presents the findings relating to highly leveraged companies. Table 2, Panel C, shows that highly leveraged companies display lower current year liquidity (LIQ CY). Generally, a high liquidity ratio would indicate that a company possesses a higher safety margin to cover short-term financial obligations. The lower liquidity that is shown here is likely to result from the high leverage of the specific set of sample companies. Despite their lower liquidity, they tend to exhibit higher CSR disclosures. The liquidity ratio appears to display a positive coefficient for the year before (LIQ PY). It follows that highly leveraged companies would be inclined to disclose high quality CSR information irrespective of the level of their liquidity, implying that leverage as a monitoring device drives firms to higher levels of disclosure and to a more efficient communication of their CSR attitude. Panel C shows that the investment ratio (INV CY) carries a positive coefficient, suggesting that highly leveraged companies may have borrowed funds to finance their investment plans and/or improve their environmental performance, which may in turn reinforce their CSR profile. Finally, highly leveraged companies exhibit positive coefficients for political risk (PLTRSK) and consumer visibility (VSBL), implying that the higher financial obligations and the accompanying exposure and scrutiny are likely to motivate companies to increase the level and the quality of CSR disclosures. Panel C indicates that highly leveraged firms in oil and gas extraction, food manufacturing, chemical manufacturing, and mining (except oil and gas) display higher SCORE.

4.3. CSR Score and Cost of Equity

4.3.1. Investigation of the Entire Sample

Table 3, Panel A, shows that all three explanatory variables, i.e. SCORE, MBV and

BETA, are significantly related to the cost of equity. The findings indicate that companies with a high CSR score are likely to display lower cost of equity, implying that H_2 holds. In particular, the negative coefficient that SCORE carries signifies that companies, which disclose high quality CSR information, manage to reduce investors' uncertainty and consequently benefit from a lower cost of equity (see Healy and Palepu, 2001). It is evident that satisfying investors' demand for detailed CSR disclosures, such as about energy use or GHG emissions, would reduce the perceived level of risk and the required rate of return (Godfrey et al, 2009; Environmental Agency, 2011).

The negative coefficient of market to book value (MBV) indicates that a higher growth rate would be likely to reduce investors' uncertainty about the future financial prospects of a company, and would subsequently be expected to reduce the cost of equity (Iatridis, 2012). A high market to book ratio is often a sign that a business has promising earnings and cash flow future prospects, which would be anticipated to be positively valued by stock market participants.

The positive coefficient of BETA reflects a higher level of risk, which would make investors more sceptical and suspicious about a company's risk position and ability to manage their risk exposure. This would mirror the risk perceptions and risk evaluation of investors, who would in turn require a higher return for the higher risk that they undertake (Iatridis, 2012).

Table 3 CSR Disclosure and Cost of Equity

Panel A **Entire sample investigations**		**Panel B** **Small companies**		**Panel C** **Highly leveraged companies**	
Variables	Coefficients	Variables	Coefficients	Variables	Coefficients
SCORE	-0.163***	SCORE	0.37061	SCORE	-0.67846*

	(0.035)		(1.11911)		(0.39633)
MBV	-0.41086**	MBV	-0.23201***	MBV	-0.14716
	(0.19179)		(0.06614)		(0.14435)
BETA	0.27933*	BETA	0.11032**	BETA	0.20085***
	(0.15)		(0.05607)		(0.04466)
Constant	0.03666	Constant	0.06177	Constant	0.02444
	(0.09301)		(0.06373)		(0.03545)
R^2 adj.	0.357	R^2 adj.	0.295	R^2 adj.	0.157
Sample Size	N=3,899	Sample Size	N=1,950	Sample Size	N=1,949

***, ** and * indicate statistical significance at 1%, 5% and 10% level (two-tailed) respectively. The standard error is in parenthesis. SCORE is the score obtained from the CSR disclosure scoring index. MBV is market to book value of equity. BETA is the beta coefficient obtained from Compustat.

4.3.2. Size Considerations

In line with Section 4.2.2, Table 3, Panel B, focuses on size considerations and presents the findings obtained for small companies. The negative association between market to book value (MBV) and cost of equity that is reported implies that a higher growth rate especially for small companies would provide a positive signal for a company's future financial prospects. Panel B shows that BETA is positive, signifying that the higher the level of risk for small companies, or the higher the uncertainty relating to the future growth rates of small companies, the higher the cost of equity. However, SCORE is statistically insignificant and therefore does not statistically explain the cost of equity. It stems that for small companies, H_2 does not hold, indicating that small companies, even with a high CSR score, might not necessarily exhibit lower cost of equity.

4.3.3. Leverage Considerations

Similar to Section 4.2.3, Table 3, Panel C, investigates the impact of leverage and presents the findings obtained for highly leveraged companies. Companies with high leverage would tend to provide informative CSR disclosures in order to meet

information-related debt covenants and improve their lenders' and other capital providers' perceptions and expectations, which would in turn be anticipated to reduce the cost of equity (Brammer and Millington, 2008; Sadok et al, 2011). This is evidenced by the negative coefficient of SCORE.

The positive BETA coefficient indicates that a significant risk exposure of a company, which may also come from higher levels of debt and stricter debt covenants, may increase investors' scepticism about the company's future viability and transparency of financial reporting, or may potentially surpass their affordable levels of risk, and thus lead to a higher cost of equity (see Sharfman and Fernando, 2008).

5. Conclusions

This study has focused on US environmentally sensitive industries, including oil and gas extraction, mining (except oil and gas), support activities for mining, utilities, food manufacturing, beverage and tobacco product manufacturing, paper manufacturing, petroleum and coal products manufacturing, chemical manufacturing, and fabricated metal product manufacturing. It has examined the association between the CSR degree of a company and the quality of CSR reported disclosures. This study has also investigated the financial attributes of companies that disclose high quality CSR information and has assessed the relationship between CSR disclosure and cost of equity.

This study has found that companies with a high CSR degree are likely to report a higher CSR score. Evidently, companies with main business products carrying harmful or negative attributes for human health or society, with high consumer visibility and with intense competition tend to display high CSR disclosure score. Companies that disclose CSR information of high quality tend to be larger and

to display higher leverage, suggesting that they would be inclined to provide sufficient CSR disclosures in order to reduce uncertainty and impress investors, financial analysts and capital providers (see McWilliams and Siegel, 2001). They also display higher capital expenditure, which would be likely to be indicative of the adoption of environmental policies, whose quality and impact remain to be examined. This study has also found that firms in oil and gas extraction, food manufacturing, chemical manufacturing, and fabricated metal product manufacturing tend to report CSR information of higher quality.

This study has subsequently split the sample based on size and leverage. Small companies that produce goods with harmful or negative attributes for human health or society tend to exhibit higher CSR disclosure quality. They also display higher growth, which would motivate them to disclose more in order to support their expansion. Small firms in beverage and tobacco product manufacturing, food manufacturing, and petroleum and coal products manufacturing report more CSR information. Highly leveraged companies exhibit high CSR degree and high CSR disclosures. They also demonstrate a higher capital investment ratio despite their lower current year liquidity. Highly leveraged companies may perceive CSR reporting as a way to reduce lenders' potential scepticism. They may subsequently seek to improve the quality of the reported CSR information, even if their liquidity levels appear lower. It stems therefore that the disclosure of CSR information may not be entirely driven by financial measures. Non-financial considerations might as well play a significant role (Bebbington et al, 2008b). Highly leveraged firms in oil and gas extraction, food manufacturing, chemical manufacturing, and mining tend to display CSR disclosures of higher quality.

The findings indicate that companies with a high CSR score are likely to display lower cost of equity. This suggests that the disclosure of high quality

information would improve investors' perceptions and would be expected to lead to a lower cost of equity. This study has also documented a negative association between market to book value and cost of equity. A higher growth rate would reflect favourable future financial prospects and would tend to reduce the cost of equity. The positive relationship between BETA and cost of equity would indicate that a higher level of risk would be associated with higher levels of uncertainty and, thus, with a higher required rate of return.

Small companies present a negative association between market to book value and cost of equity and a positive relationship between BETA and cost of equity. It has been found that small companies with a high CSR score would not necessarily exhibit lower cost of equity. Highly leveraged companies that disclose high quality CSR information display a lower cost of equity. Like small companies, highly leveraged firms exhibit a positive association between BETA and cost of equity, reflecting their higher level of debt burden and riskiness.

This study contributes to the literature by using a GRI-based scoring index, which is based on the disclosure of certain CSR specific information, as opposed to the implementation of sentence counting used by Guthrie et al (2008). This study is also innovative in that it adapts the scoring index to sub-industries based on the applicability of certain criteria. For example, the section on animal welfare is relevant only for animal slaughtering / packaged foods companies. Further, the study has provided evidence that companies may disclose CSR information to give capital providers assurance about the fairness of their sustainability policies and risk management, and eventually to reduce their cost of equity. These findings may be of interest particularly to companies that exhibit high cost of equity and seek ways to reduce it.

Future research should explore the relationship between agency costs and CSR disclosures as well as the relationship between earnings manipulation and CSR disclosures. Future research should investigate whether high CSR disclosers are likely to display lower agency costs or to exhibit a lower scope for earnings manipulation. It would also be fruitful to study the stock market reaction to CSR disclosures based on the quality of the released information and on investors' perceptions and expectations as they vary from country to country or from institutional setting to institutional setting. For example, poor environmental performers would generally be expected to display negative stock market returns particularly in settings with strong investor protection mechanisms. In contrast, in settings with poor stock market mechanisms in place, the market reaction would likely be weaker or slower. Another possible area of future research should be the examination of the association between reputation management and CSR disclosures, especially for large companies, which are likely to attract investors' attention and scrutiny to a larger extent.

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Appendix 1 GRI-based scoring index

Map to GRI G3.1	Items
Strategy & Analysis, Organizational Profile, Report Parameters, Governance, Commitments and Engagement	
N/A 1	Existence of a CSR report (0-1)
N/A 2	Existence of a CSR website and/or special section dedicated to CSR on the website (0-1)
1.1	Statement from the most senior decision maker of the organization about the relevance of sustainability to the organization and its strategy (0-1)
1.2	Description of key impacts, risks, and opportunities (0-1)
2.10	Awards received in the reporting period (0-1)
3.12	Table identifying the location of the GRI Standard disclosures in the report (0-1)
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental and social performance, and the status of their implementation (0-1)
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles (0-1)
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance (0-1)
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses (0-1)
4.13	Memberships (such as industry associations) in associations and/or national/international advocacy organizations in which the organization: Has positions in governance bodies; Participates in projects or committees; or Provides substantive funding beyond routine membership dues (0-1)
N/A 3	Inclusion in a Sustainability Index (0-1)
4.14	List of stakeholder groups engaged by the organization (0-1)
Environment	
	Environmental Profile, Initiatives
1.1, 1.2	A statement of measurable goals in terms of future environmental performance (0-1)
1.1, 1.2	Internal environmental approach/policy, statement about the environmental impact of

	the industry, of how the business operations and/or products and services impact the environment (0-1)
4.11	Existence of response plans in case of environmental accidents (0-1)
	Environmental Performance Indicator (EPI)
EN1	Materials used by weight or volume (0-1)
EN2	Percentage of materials used that are recycled input materials (0-1)
EN3	Direct energy consumption by primary energy source (0-1)
EN4	Indirect energy consumption by primary source (0-1)
EN5	Energy saved due to conservation and efficiency improvements (0-1)
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives (0-1)
EN7	Initiatives to reduce indirect energy consumption and reductions achieved (0-1)
EN8	Total water withdrawal by source (0-1)
EN9	Water sources significantly affected by withdrawal of water (0-1)
EN10	Percentage and total volume of water recycled and reused (0-1)
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas (0-1)
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas (0-1)
EN13	Habitats protected or restored (0-1)
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity (0-1)
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk (0-1)
EN16	Total direct and indirect greenhouse gas emissions by weight (0-1)
EN17	Other relevant indirect greenhouse gas emissions by weight (0-1)
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved (0-1)
EN19	Emissions of ozone-depleting substances by weight (0-1)
EN20	NO, SO, and other significant air emissions by type and weight (0-1)
EN21	Total water discharge by quality and destination (0-1)
EN22	Total weight of waste by type and disposal method (0-1)
EN23	Total number and volume of significant spills (0-1)
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally (0-1)
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and

	runoff (0-1)
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation (0-1)
EN27	Percentage of products sold and their packaging materials that are reclaimed by category (0-1)
EN28	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations (0-1)
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce (0-1)
EN30	Total environmental protection expenditures and investments by type (0-1)
Labor Practices and Decent Work	
	Labor Practices and Decent Work Profile, Initiatives
1.1, 1.2	Internal labor practices and decent work approach/policy (0-1)
	Labor Practices and Decent Work Performance Indicator
LA1	Total workforce by employment type, employment contract, and region, broken down by gender (0-1)
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region (0-1)
LA3	Benefits provided to full-time employees that are not provided to temporary or parttime employees, by significant locations of operation (0-1)
LA4	Percentage of employees covered by collective bargaining agreements (0-1)
LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements (0-1)
LA6	Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs (0-1)
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender (0-1)
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases (0-1)
LA9	Health and safety topics covered in formal agreements with trade unions (0-1)
LA10	Average hours of training per year per employee by gender, and by employee category (0-1)

LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings (0-1)
LA12	Percentage of employees receiving regular performance and career development reviews, by gender (0-1)
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity (0-1)
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation (0-1)
Human Rights and Society	
	Human Rights and Society Profile, Initiatives
1.1, 1.2	Internal human rights and society approach/policy (0-1)
	Human Rights and Society Performance Indicator
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening (0-1)
HR2	Percentage of significant suppliers, contractors, and other business partners that have undergone human rights screening, and actions taken (0-1)
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained (0-1)
HR4	Total number of incidents of discrimination and corrective actions taken (0-1)
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights (0-1)
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor (0-1)
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor (0-1)
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations (0-1)
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken (0-1)
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments (0-1)

HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms (0-1)
SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting (0-1)
FP4	Nature, scope and effectiveness of any programs and practices (in-kind contributions, volunteer initiatives, knowledge transfer, partnerships and product development) that promote healthy lifestyles; the prevention of chronic disease; access to healthy, nutritious and affordable food; and improved welfare for communities in need (0-1)
SO2	Percentage and total number of business units analyzed for risks related to corruption (0-1)
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures (0-1)
SO4	Actions taken in response to incidents of corruption (0-1)
SO5	Public policy positions and participation in public policy development and lobbying (0-1)
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country (0-1)
SO7	Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes (0-1)
SO8	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations (0-1)
SO9	Operations with significant potential or actual negative impacts on local communities (0-1)
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities (0-1)
Product Responsibility	
	Product Responsibility Profile, Initiatives
1.1, 1.2	Internal product responsibility approach/policy (0-1)
	Product Responsibility Performance Indicator
	Customer Health and Safety
FP1	Percentage of purchased volume from suppliers compliant with company's sourcing policy (0-1)
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures (0-1)

PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes (0-1)
FP5	Percentage of production volume manufactured in sites certified by an independent third party according to internationally recognized food safety management system standards (0-1)
FP6	Percentage of total sales volume of consumer products, by product category, that are lowered in saturated fat, trans fats, sodium and added sugars (0-1)
FP7	Percentage of total sales volume of consumer products, by product category sold, that contain increased fiber, vitamins, minerals, phytochemicals or functional food additives (0-1)
	Product and Service Labeling
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements (0-1)
FP8	Policies and practices on communication to consumers about ingredients and nutritional information beyond legal requirements (0-1)
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes (0-1)
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction (0-1)
	Marketing Communications and others
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship (0-1)
N/A 4	Nature, scope and effectiveness of any programs and practices (in-kind contributions, volunteer initiatives, knowledge transfer, partnerships and product development) that raise awareness of potential negative impacts of products (0-1)
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes (0-1)
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data (0-1)
PR9	Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services (0-1)
Animal Welfare	
	Animal Welfare Profile, Initiatives
1.1, 1.2	Animal welfare approach/policy (0-1)
	Animal Welfare Performance Indicator

FP9	Percentage and total of animals raised and/or processed, by species and breed type (0-1)
FP10	Policies and practices, by species and breed type, related to physical alterations and the use of anaesthetic (0-1)
FP11	Percentage and total of animals raised and/or processed, by species and breed type, per housing type (0-1)
FP12	Policies and practices on antibiotic, antiinflammatory, hormone, and/or growth promotion treatments, by species and breed type (0-1)
FP13	Total number of incidents of non-compliance with laws and regulations, and adherence with voluntary standards related to transportation, handling, and slaughter practices for live terrestrial and aquatic animals (0-1)