Corporate Social Responsibility Reporting and Earnings Management: The Role of Political Costs

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Abstract

Recently, Francis, Nanda and Olsson (2008) proposed that earnings quality influence firms' disclosure decisions. We examine whether Corporate Social Responsibility (CSR) disclosure is related to earnings management and if the relationship is mitigated by political cost considerations or by the firm's ethical predisposition. We argue that the relationship between CSR reporting and earnings management is context-specific and we consider one particular context, the political environment. We test our hypotheses by regressing earnings management on CSR disclosure while controlling for other factors that may affect the level of earnings management. We find a significant relationship between CSR reporting and earnings management, and more specifically, we find evidence of a negative (complementary) relationship in the oil and gas industry while we find evidence of a positive (substitutive) relationship in the food industry. The evidence supports the view that the relationship between CSR reporting and earnings management is affected by the political environment and not by ethical considerations.

Key Words: Corporate social responsibility (CSR), earnings management, relationship between CSR and earnings management.

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Introduction

Issues such as global warming, emission trading schemes and carbon taxes have pushed environmental issues into the mainstream. Conditions of employment and the treatment of employees by multinationals in developing and other countries have also focussed attention on social issues. Increasing concern about the sustainability of the world's resources has contributed to the rising importance of corporate social responsibility (CSR). With labels such as corporate citizenship, the triple bottom line, and more recently sustainability, the concept of CSR extends the accountability of firms beyond financial accountability to their shareholders and to other stakeholders.

However, maximising financial performance and firm value remain key objectives for all publicly traded companies. In fact, given that earnings are an important indicator of financial performance, managers can find themselves under pressure to use the flexibility afforded under generally accepted accounting practices (GAAP) to manage earnings to meet certain expectations or targets.[3] For example, DeGeorge, Patel and Zeckhauser (1999) find that managers manage earnings upward to meet or beat analysts' earnings forecasts (see also Ghosh & Olsen 2009).

In this study, we examine the relationship between CSR reporting and earnings management. We consider two separate explanations. First, the ethics literature acknowledges that firms can, and should be, ethically responsible. For example, Hoffman (1986, p. 234) suggests that "although it may be tricky both conceptually and practically, corporations and other collectives can, must in fact, stand up to the demands of moral responsibility, even though their actions are carried out by individuals acting on their behalf". Furthermore, according to Chun (2005), ethical organisations will display integrity by being honest, sincere, socially-responsible, and trustworthy. Firms may demonstrate ethical commitment through philanthropic contributions and through using its resources and expertise to benefit society, e.g. reducing waste, employing minorities, and caring for the environment (Hoffman 1986). Thus, under an ethical perspective, firms that are socially responsible and make CSR disclosures would be less inclined to manage earnings (i.e., reporting earnings honestly and sincerely).

Second, Francis et al. (2008) propose that earnings quality – which is the inverse of earnings management – influences firms' disclosure decisions. They use voluntary disclosures to test this proposition, but their definition for voluntary disclosures excludes CSR disclosures. Francis et al. (2008) propose that the relationship between earnings quality and voluntary disclosure could be complementary or substitutive.[4] We extend their proposition to CSR reporting in order to determine if CSR disclosure decisions are associated with the extent of a firms' earnings management. We propose that whether the relationship is substitutive or complementary could be context-specific, and we consider one particular context, the political environment. Specifically, the political cost hypothesis predicts that firms that have greater visibility in the political arena – and, therefore, are attractive targets for government-imposed wealth transfers (e.g. taxation, regulation) – have incentives to make more voluntary disclosures in an effort to minimise political costs (e.g. Watts & Zimmerman 1986). Thus, under a political cost perspective, the relationship between (voluntary) CSR disclosures and earnings management would vary depending on the political environment of the firm.

We test our hypotheses using data from two U.S. industries, the oil and gas industry and the food industry. The oil and gas industry in the U.S. has received on-going political scrutiny since the 1973 Arab oil crisis. On the other hand, the food industry has received much less political attention. Consistent with the accounting literature, we use the absolute value of discretionary accruals estimated using the Jones (1991) model to measure earnings management.

[3] Our sample is based on U.S. firms that report using U.S. GAAP.

[4] A complementary relationship would imply that firms with more voluntary disclosures have higher earnings quality, i.e. the two concepts complement each other, while a substitutive relationship implies that firms with lower earnings quality would make more voluntary disclosures, as substitute for the lower earnings quality.

Our results are consistent with our hypotheses. We find a significant relationship between CSR reporting and earnings management, and more specifically, we find evidence of a negative (complementary) relationship in the oil and gas industry while we find evidence of a positive (substitutive) relationship in the food industry. This evidence (i.e., the different relationships in the two industries) supports the view that the relationship between CSR reporting and earnings management is driven more by the political environment than by ethical considerations.

Investigating this relationship is important for a number of reasons. First, as already indicated, CSR and CSR reporting are becoming more important issues in society and there is evidence that CSR reporting is increasing among big firms around the world (KPMG 2008 – based on the Global Fortune top 250 companies). Understanding the relationship between these disclosures and earnings quality is therefore important. Second, our study extends the Francis et al. (2008) study to a different voluntary disclosure and a different context. Finally, we combine research from the areas of corporate social responsibility and earnings management. Although there is a large quantity of research literature in each of these areas, there appears to be a gap in the literature combining these areas.

The paper is structured as follows: The next part reviews the literature and then the hypotheses are formulated based on theoretical expectations. This is followed by the research design and a discussion of the results. The conclusions of the study follow.

Literature Review

Corporate Social Responsibility

CSR holds organisations accountable under three dimensions – their social and environmental performance as well as the traditional financial perspective (Adams & Zutshi 2004). This concept is wider than just meeting legal responsibility (Rose 2007) and incorporates the ideas of making morally acceptable decisions (Branco & Rodrigues 2006) while engaging in business which is not harmful to stakeholders as well as meeting the demands of these different parties (Bansal & Kandola 2004).

Providing disclosures on CSR activities is a way for firms to communicate to their stakeholders how they are responding to these issues. Over the years, there has been an increasing trend in the number of companies publishing corporate social information. In 2008, 83% of the Global Fortune top 250 companies published corporate responsibility information with 79% publishing a separate report, compared with 52% in 2005, 45% in 2002 and 35% in 1999 (KPMG, 2008). Although some of these disclosures are mandatory, firms also engage increasingly in discretionary (voluntary) disclosures in this area.

CSR disclosure affects the perceptions of stakeholders. Stakeholders perceive the information disclosed by CSR reporting to be useful (Dierkes & Antal 1985; Gray, Kouhy & Lavers 1995). Al-Tuwaijri, Christensen and Hughes II (2004) and Clarkson, Richardson and Vasvari (2008) find a significant positive correlation between environmental reporting and environmental performance, suggesting that environmental disclosures reflect environmental performance, and Gelb and Strawser (2001) find that good CSR performance and good disclosure are positively related. These studies suggest that CSR reports published by firms reflect their true social actions, or what is known as CSR performance.

Some of the earlier studies in the literature studying the relationship between CSR performance and CSR disclosure were inconclusive or found weak relationships.[5] Patten (2002) suggested a number of reasons for this, mainly that the samples were too small and that the studies did not control for extraneous variables that could influence the relationship. Patten (2002) found a negative relationship using a bigger sample (131 firms) and controlling for firm size and industry. The more recent studies in the area have taken Patten's concerns into account, and Clarkson et al.

[5] See Patten (2002) for a review of the early literature.

(2008), Van Staden and Hooks (2007) and Al-Tuwariji et al. (2004) find significant positive correlations between environmental performance and disclosure, while Cho and Patten (2007) still find a negative correlation. So while earlier studies suggest that the relationship between CSR performance and disclosure is weak or negative, the later studies, having taken into account Patten's (2002) suggestions, tend to find a positive relationship.

Earnings Management and CSR

Earnings management is described as management actions which reduce the quality of the financial statements (Kinney Jnr, Palmrose & Scholz 2004). As Fields, Lys and Vincent (2001) explain, earnings management occurs when the manager exercises discretion over the accounting numbers. Further, managers will only engage in earnings management if they believe that users of accounting information cannot completely adjust the accounting numbers to remove the effect of earnings management. As earnings management leads to lower earnings quality, it reduces the predictive ability of future earnings and cash flows (Lev 2003). To the extent that earnings are managed to mislead investors, earnings management is generally considered to be unethical (Kaplan 2001).[6]

Earnings management is possible because GAAP identifies the bounds for appropriate accounting rather than prescribing every accounting method and every accounting estimate that must be used by the firm. Also, besides the use of compounding variables and estimates, there are principles such as matching which give rise to arbitrary accounting items through accruals. As an example, in accounting for a non-current asset, the firm will choose the method of depreciation as well as the useful life of asset. These choices are reflected in the firm's accruals which are the difference between the firm's net income and cash flows. Since GAAP requires that the firm must depreciate this asset, depreciation can be decomposed into a normal component and abnormal component.

We found no studies investigating the link between CSR disclosure and earnings management. However, Francis et al. (2008) examine whether the association between voluntary financial (i.e., non-CSR) disclosure and earnings quality is complementary or substitutive.[7] They used a self-constructed voluntary disclosure index and a sample of 677 US firms. They found evidence of a significant complementary relationship between earnings quality and voluntary financial (i.e., non-CSR) disclosure, e.g. firms with more voluntary disclosures have higher earnings quality – or, alternatively, lower earnings management. Our study is similar in spirit to Francis et al. (2008) except we focus on CSR disclosures and we examine whether the relationship between CSR disclosure and earnings quality is context-specific. Specifically, we consider one particular context, the political environment. We use two industries, the oil and gas and food industries, to study the effect of the political environment.

Additionally, a few studies have examined the link between CSR performance and earnings management. As Chih, Shen and Kang (2008) explain, earnings management could be negatively, positively, or not related to CSR performance. If high CSR firms want to maintain financial transparency, they should engage in less earnings management, implying a negative relationship. On the other hand, if high CSR firms try to meet the demands of multiple stakeholders, financial performance could suffer, leading these firms to manage reported earnings upwards to obscure the weaker than expected results. They refer to this as the multiple objectives hypothesis. Finally, they note that there could be no relationship between CSR performance and earnings management if earnings management is driven by institutional factors unrelated to CSR. Chih et al. (2008) find that three measures of earnings management – earnings aggressiveness, loss avoidance, and avoidance of earnings decreases – are higher among high CSR firms, supporting their multiple objectives

[6] For a general review of the earnings management literature, see Fields et al. (2001).

[7] Earnings quality is the inverse of earnings management. Firms with good earnings quality will therefore have low earnings management and vice versa.

hypothesis.[8] Riahi-Belkaoui (2004) finds that firms with a high level of CSR performance had more discretionary accruals, also in line with the multiple objectives argument of Chih et al. (2008).

In our study, we focus on CSR disclosures rather than CSR performance because CSR disclosures, like earnings, are easily observed. On the other hand, as prior studies suggest, measuring CSR performance is problematic. That is, given that CSR performance is complex and multi-faceted, reducing it to a single measure would result in an excessively noisy proxy at best, and misleading results at worst.

Theoretical Perspectives and Hypotheses

Research explaining firms' tendency to make CSR disclosures often rely on legitimacy theory (De Villiers & Van Staden 2006; Deegan 2002; Dowling & Pfeffer 1975). Legitimacy theory is based on the premise that firms should be operating within the norms and expectations of the society within which they operate. Various strategies can be used to obtain legitimacy (Dowling & Pfeffer 1975; Lindblom 1993). These strategies vary from changing goals, methods and outputs to changing perceptions about the firm's goals, methods and outputs.

Watts and Zimmerman (1978) consider the actions taken by firms to avoid the adverse political attention that high profits draw. According to the political cost hypothesis, large firms are more likely to use accounting choices that reduce reported profits and/or make other disclosures to reduce political costs. For example, these companies may choose to use accounting methods that reduce reported income or undertake "social responsibility campaigns in the media" in order to reduce the likelihood that they will be targeted by adverse political actions. This is done in order to prevent wealth transfers away from the firm and is therefore in the interest of both management and shareholders.

There is a substantial body of research that provides support for the political cost hypothesis. For example, Cahan (1992) finds that U.S. firms reduce their discretionary accruals while they are being investigated for antitrust violations. Hall (1993) and Hall and Stammerjohan (1997) provide evidence that petroleum and gas firms reduce reported earnings to avoid political and litigation costs. Key (1997) finds that firms that were most likely affected by proposed regulation of the cable television industry had lower discretionary accruals, and similarly, Cahan, Chavis and Elmendorf (1997) find chemical firms most affected by the chemical clean-up fund, the Superfund, had lower discretionary accruals while that legislation was being debated in the U.S. Congress. While an ethical perspective suggests that ethical firms will minimise earnings management, the political cost argument offers another reason for lower accruals and earnings management.

We examine whether CSR disclosure is related to earnings management and if the relationship is mitigated by political cost considerations or by the firm's ethical predisposition. Although Francis et al. (2008) find a significant complementary relationship between voluntary disclosure and earnings quality (which implies an ethical stance, as firms with better earnings quality make more disclosures), they did not explore whether this relationship is context specific, i.e. that the relationship could be mitigated by the political environment in which the firm operates, that is the political costs faced by the firm. We examine whether the relationship between earnings management and CSR disclosure is driven more by political cost considerations than by the firm's ethical predisposition. If the latter dominates, we would expect a negative relationship between CSR disclosure and earnings management, regardless of the political environment in which the firm operates (i.e. the political costs faced by the firm). If political cost considerations dominate, we would expect a negative (positive) relationship between CSR disclosure and earnings management when political costs are high (low).[9]

[8] Chih et al. (2008) do not use a measure of discretionary accruals, but focus on total accruals instead.

[9] Our measure for earnings quality is earnings management, which is the inverse of earnings quality (i.e. higher earnings management results in lower earnings quality and vice versa). Specifically, for an ethical predisposition we expect CSR disclosure to be negatively related to earnings management (i.e. positively related to earnings quality). If political cost considerations dominate we expect CSR disclosure to be positively related to earnings management (i.e. negatively

Our study concentrates on two industries – the food industry and oil and gas refining industry, rather than generalising across all industries. We choose the oil and gas industry since it is arguably the most politically scrutinised industry in the U.S. Also, as mentioned above, Hall (1993) and Hall and Stammerjohan (1997) find that the political cost hypothesis is supported in the oil and gas industry. We choose the food industry as an industry that has historically had much lower political visibility relative to the oil and gas industry.[10]

Of course, it should be reasonable to assume firms within the same industry can have different levels of political costs and ethical behaviour. Our analyses identify statistical trends for the industry, but that does not imply every firm in the industry behaves identically. Thus, we examine the following joint hypotheses:

H1A *CSR disclosure is negatively related to earnings management regardless of the level of political costs (ethical perspective) (i.e., firms with less earnings management – or high quality earnings – will be more likely to have CSR disclosure)*

H1B *CSR disclosure is negatively (positively) related to earnings management when political costs are high (low) (political cost perspective).*

Research Design

Sample Selection

The sample is composed of publicly listed firms in the US from the food and oil and gas industries. We define the food industry as firms having four-digit Standard Industrial Classification (SIC) codes from 2000-2099. The food industry includes firms involved in meat packaging, dairy, bakery, canned foods, and beverages. We define the oil and gas industry as firms having four-digit SIC codes from 2900-2999. This includes oil and gas firms with significant petroleum refining operations, which are likely to have a significant environmental impact. We also require that our sample firms have the requisite data available from Compustat. Our final sample consists of 80 firms from the food industry and 30 firms from the oil and gas industry.

DISCLOSURES ANALYSED

Since we are interested in the firm's decision to voluntary disclose CSR information, we take care not to include mandatory information in our analysis. According to Hughes, Sander and Reier (2000), the financial statements and the notes as well as the management's discussion and analysis (MD&A) can be regarded as mandatory disclosures. It was decided that only obvious disclosures of a non-mandatory nature would be considered as over 70% of US firms make mandatory CSR disclosures (Holland & Foo 2003).

As firms use various media to make CSR disclosures (Van Staden & Hooks 2007), we use three measures of CSR disclosure. First, we search the websites for each firm in our sample to identify disclosing firms which have issued CSR reports. These are taken to be firms which provide access to their corporate CSR reports through their website as a stand-alone document for the 2006 year. Firms were considered as non-disclosing if there was no CSR report on their website. This variable is labelled *RPT* and is coded as 1 for disclosing firms and 0 for non-disclosing firms. This is regarded as discretionary as firms have the choice to make these disclosures or not.

Second, a broader definition of CSR disclosure is also considered. Companies may decide to disclose CSR information as a separate section on their website as a substitute to issuing a report due to cost savings and easier stakeholder access. Firms were considered as providing disclosure on

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related to earnings quality) when political costs are low and negatively related to earnings management (i.e. positively related to earnings quality) when political costs are high.

[10] To support our contention that the food industry is less politically visible, we searched Factiva. Using the key words 'oil and gas industry' and 'U.S. Congress', we find 791 articles in 2006, the period of our study. In contrast, using the key words 'food industry' and 'U.S. Congress', we find only 374 articles.

their website if there was a separate webpage (or webpages) on CSR between August and September 2007. This variable is labelled *WEB* and is coded as 1 for disclosing firms and 0 for non-disclosing firms.This is regarded as discretionary as firms have the choice to make these disclosures or not.

Third, we also use a comprehensive measure that captures CSR disclosure in a separate report, on the website, or in the annual report. We label this variable as *ANY_DISC* variable and code it as 1 for firms disclosing CSR information through any of these avenues (i.e., stand-alone reports on websites, separate sections on websites, disclosures in annual reports).

Discretionary Accruals

Consistent with the accounting literature, we estimate discretionary accruals using the cross-sectional Jones (1991) model. The Jones model regresses total accruals of the change in sales and plant, property, and equipment (PPE). The rationale is that the change in sales and PPE control for the non-discretionary part of accruals since working capital (short-term) accruals fluctuate with sales and depreciation expense fluctuates with PPE. We also control for ROA following Kothari et al. (2005). We estimate the Jones model for each of our industries separately and use the absolute value of the residual for each firm as an estimate of its discretionary accruals. More formally, we estimate the following model: $TA = \beta_0 + \beta_1 \Delta SALES + \beta_2 PPE + \beta_3 ROA + \varepsilon$ (1)
where:

TA = total accruals calculated as income before extraordinary items less cash flows from operations plus discontinued operations deflated by total assets,
ΔSales = sales in year t minus sales in year t-1deflated by total assets,
PPE = plant, property and equipment deflated by total assets,
ROA = return on assets which is total operating income divided by total assets.

We use the absolute value, rather than signed value, of the residual as our measure of discretionary accruals because the absolute value reflects the reversal of accruals over time. That is, because accruals merely shift revenues or expenses from one period to another, an income-increasing accrual taken will lead to an income-decreasing accrual in another period. Thus, the size of the accrual is more important than the direction of the accrual. We label the absolute value of the residual as *EM*.

Model

We test our hypotheses by regressing earnings management on CSR disclosure (either *RPT*, *WEB* or *ANY_DISC*) while controlling for other factors that may affect the level of earnings management.

We control for size to control for political costs related to size, since size is often used to proxy for political costs (e.g. Watts & Zimmerman 1986). We control for size-related political cost factors because we are interested in political costs associated with industries rather than the firms themselves. We control for leverage since prior research indicates that managers increase earnings to avoid violating debt covenants (e.g. Press & Weintrop 1990). Also, we control for firm performance (return on assets) since Dechow, Sloan and Sweeney (1995) show that discretionary accruals are correlated with performance, and we control for sales growth, measured by the percentage change in sales from year t-1 to year t, since growth firms have more incentives to meet earnings targets (e.g. Skinner & Sloan 2002).

Thus, we estimate the following model to test H1A and H1B:

$EM = \beta_0 + \beta_1 CSR\_DISC + \beta_2 LN\_SIZE + \beta_3 LEV + \beta_4 ROA + \beta_5 GROWTH + \varepsilon$ (2)

where:

CSR_DISC = *RPT*, *WEB*, or *ANY_DISC*,
LN_SIZE = natural log of total assets,
LEV = long-term debt divided by total assets,
ROA = return on assets which is total operating income divided by total assets,
GROWTH = change in sales from 2005 to 2006.

Results

Descriptive Statistics and Bivariate Analysis

Table 1 provides descriptive statistics for the food industry (panel A) and for the oil and gas industry (panel B). For the control variables, the oil and gas firms are larger, have lower leverage, higher profits, and higher growth than the food firms. Further, based on a t-test (untabulated), the differences in size and leverage are significant; based on a Mann-Whitney test (also untabulated), the differences in size, ROA, and growth are significant. These findings suggest that it is important to control for these dimensions in our latter multivariate tests. Table 1 also provides the reporting frequencies for CSR disclosures. For the food industry, 36.3% of firms provide some type of CSR disclosures. The most common method of disclosure is through the website with 33.8% of firms providing disclosure through this medium while 12.5% provide a stand-alone report. It is important to note that *RPT* and *WEB* are not mutually exclusive since some firms provide both types of disclosure.

Table 1
Descriptive statistics

Panel A. Food industry

Variables	N	Mean	Median	Std Dev	Q1	Q3
EM	80	0.074	0.026	0.145	0.013	0.073
LN_SIZE	80	6.611	6.343	2.687	4.638	8.843
LEV	80	0.205	0.180	0.177	0.068	0.300
ROA	80	0.023	0.045	0.411	0.017	0.093
GROWTH	80	0.145	0.081	0.539	0.028	0.166

	N	No Rep 0	CSR Rep 1	CSR Rep %
ANY_DISC	80	51	29	36.3%
WEB	80	53	27	33.8%
RPT	80	70	10	12.5%

Panel B. Oil and gas industry

Variables	N	Mean	Median	Std Dev	Q1	Q3
EM	30	0.032	0.019	0.031	0.008	0.049
LN_SIZE	30	9.246	9.790	2.661	7.359	11.693
LEV	30	0.150	0.118	0.128	0.049	0.233
ROA	30	0.076	0.111	0.224	0.086	0.161
GROWTH	30	0.313	0.137	0.109	0.050	0.239

	N	No Rep 0	CSR Rep 1	CSR Rep %
ANY_DISC	30	7	23	76.7%
WEB	30	7	23	76.7%
RPT	30	16	14	46.7%

This table provides descriptive statistics for the variables used in the study. Panel A provides the descriptive statistics for 80 firms in the food industry. Panel B provides the descriptive statistics for 30 firms in the oil industry. The variables are defined as follows: *EM* = absolute value of discretionary accruals from the Jones (1991) model; *LN_SIZE* = natural log of total assets; *LEV* = long-term debt divided by total assets; *ROA* = return on assets which is total operating income divided by total assets; *GROWTH* = change in sales from 2005 to 2006; *ANY_DISC* = 1 if a firm provided CSR disclosure in a stand-alone report on its website, or in a separate section on its website, or in its annual report, 0 otherwise; *WEB* = 1 if a firm provided CSR disclosure through its website; *RPT* = 1 if a firm provided CSR disclosure in a stand-alone report on its website.

For the oil and gas industry, 76.7% of firms provide some type of CSR disclosure. The most common form of disclosure is through the firm's website with 76.7% using this method. In fact, *ANY_DISC* and *WEB* are identical for the oil and gas firms, indicating that all firms that provided some disclosure did so through their website. However, since firms can provide disclosure through more than one method, this does not mean that no firms provided disclosure through separate reports or through the annual report. 46.7% of the firms (or 60.9% of the firms where *ANY_DISC* is equal to 1) provide a separate CSR report. While the descriptive evidence on disclosure frequency suggests a higher frequency of disclosure for oil and gas firms in all categories, we provide formal tests of H1A and H1B in Tables 4 and 5.

Table 2 provides the Spearman correlations for the disclosure measures and for the control variables. Table 2, panel A shows that the three disclosure measures are highly correlated for the food firms, ranging from 0.501 for the correlation between *ANY_DISC* and *RPT* to 0.947 for the correlation between *ANY_DISC* and *WEB*. We also find *ANY_DISC* is highly correlated with *LN_SIZE* (r = 0.657), suggesting that large firms are more likely to disclose CSR information. There is also some evidence that high leverage firms are more likely to provide CSR disclosure. Table 2, panel B shows for the oil and gas firms that, as discussed above, *ANY_DISC* and *WEB* are perfectly correlated. *RPT* is also highly correlated with *ANY_DISC* and *WEB* (r = 0.516). As with the food sample, we find that large firms and more levered firms are more likely to provide CSR disclosure.

Before testing our hypotheses, we examine the relative reporting frequency between the food and oil and gas industries. We use 2x2 contingency tables. Table 3, panel A provides the results for *ANY_DISC*. The table shows both the actual and expected frequencies. For example, it is expected that 42.2 firms would provide no CSR disclosure, but the actual frequency is 51 firms. Therefore, 8.8 more food firms (or 11% of the food sample) than expected do not provide disclosure. On the other hand, 8.8 more oil and gas firms (29.3% of the oil and gas sample) than expected provided at least some CSR disclosure. The difference in actual and expected frequencies is highly significant based on a chi-square test ($p < 0.01$) which provides support for the notion that oil and gas firms are under more pressure to make these disclosures.

Table 3, panel B reports the results based on website disclosure. Again, the number of food industry firms providing no disclosure is greater than expected while the number of oil and gas firms providing some disclosure is greater than expected. The chi-square test is also significant for panel B, providing further support for our expectations. Table 3, panel C gives a similar result for reporting frequencies based on disclosure of separate reports. Overall, these results suggest that oil and gas firms are more likely to provide voluntary CSR disclosures. However, these analyses do not consider earnings management.

Table 2
Spearman correlations

Panel A. Food industry (N=80)

	ANY_DISC	*WEB*	*RPT*	*LN_SIZE*	*LEV*	*ROA*	*GROWTH*
ANY_DISC	1.000						
WEB	0.947**	1.000					
RPT	0.501**	0.530**	1.000				
LN_SIZE	0.657**	0.607	0.465**	1.000			
LEV	0.263*	0.255*	0.118	0.036**	1.000		
ROA	0.056	0.274*	0.267*	0.442**	-0.101	1.000	
GROWTH	0.056	0.066	0.119	-0.031	0.068	0.129	1.000

Panel B. Oil and gas industry (N=30)

	ANY_DISC	*WEB*	*RPT*	*LN_SIZE*	*LEV*	*ROA*	*GROWTH*
ANY_DISC	1.000						
WEB	1.000**	1.000					
RPT	0.516**	0.516**	1.000				
LN_SIZE	0.660**	0.660**	0.749**	1.000			
LEV	0.105*	0.105*	-0.124	-0.273	1.000		
ROA	0.023	0.023	0.023	0.279	-0.558**	1.000	
GROWTH	-0.132	-0.132	0.069	-0.122	0.140	0.135	1.000

This table provides Spearman correlations for the independent variables used to estimate equation (2). Panel A provides the correlations for 80 firms in the food industry. Panel B provides the correlations for 30 firms in the oil industry. The variables have been defined in Table 1.
* and ** indicate significance at the 0.05 and 0.01 levels, respectively, based on two-tailed tests.

Table 3
Likelihood of environmental reporting (expected frequencies in parentheses)

Panel A. Any disclosure

	No disclosure (*ANY_DISC* = 0)	**Disclosure** (*ANY_DISC* =1)
Food industry	51 (42.2)	29 (37.8)
Oil and gas industry	7 (15.8)	23 (14.2)

$\chi^2 = 14.299$, $p < 0.01$

Panel B. Web disclosure

	No disclosure (*WEB* = 0)	**Disclosure** (*WEB* =1)
Food industry	53 (43.6)	27 (36.4)
Oil and gas industry	7 (16.4)	23 (16.6)

$\chi^2 = 16.208$, $p < 0.01$

Panel C. Report disclosure

	No disclosure (*RPT* = 0)	**Disclosure** (*RPT* =1)
Food industry	70 (62.5)	10 (17.5)
Oil and gas industry	16 (23.5)	14 (6.5)

$\chi^2 = 14.931$, $p < 0.01$

This table provides the results of χ^2-tests based on disclosure and industry membership. The sample consists of 80 firms from the food industry and 30 firms from the oil industry. Disclosure variables are defined as follows: *ANY_DISC* = 1 if a firm provided CSR disclosure in a stand-alone report on its website, or in a separate section on its website, or in its annual report, 0 otherwise; *WEB* = 1 if a firm provided CSR disclosure through its website; *RPT* = 1 if a firm provided CSR disclosure in a stand-alone report on its website.

Multivariate Analysis

We now turn our attention to H1A and H1B which examine whether CSR disclosures are positively related or negatively related to earnings management in the food and oil and gas industries. Table 4 provides the estimation results for the regression of *EM* on CSR disclosure and the control variables using the food industry sample. As before, we use three different measures for CSR disclosure.

Table 4, column (1) contains the results where *ANY_DISC* is used to capture CSR disclosure. *ANY_DISC* is positive and significant, indicating that firms with poor earnings quality are making CSR disclosures. Table 4, columns 2 and 3 provide the results for *WEB* and *RPT*, respectively. In each of the models, the CSR disclosure measure is positive and significant, indicating greater earnings management (and poorer earnings quality) for disclosing firms. This finding is contrary to the ethical perspective which predicts a negative relationship between CSR disclosure and earnings management.

For the control variables, we find that firm size is negatively related to earnings management, suggesting that large firms manage earnings less. Also, we find a significant and negative relationship between *EM* and *ROA*, indicating earnings management is a decreasing

function of profitability. These results are consistent across the three models. Further, all three models have good explanatory power with adjusted R^2's ranging from 48.5% to 48.8%.

Table 4
Results for food industry

Variables	Predicted Sign		(1)	(2)	(3)
	H1A	*H1B*			
Intercept			0.219	0.214	0.214
			5.767***	5.741***	5.847***
ANY_DISC	-	+	0.049		
			1.456*		
WEB	-	+		0.042	
				1.311*	
REPT	-	+			0.062
					1.502*
LN_SIZE			-0.025	-0.024	-0.023
			-3.887***	-3.872***	-4.104***
LEV			0.027	0.026	0.033
			0.358	0.341	0.435
ROA			-0.178	-0.179	-0.178
			-5.607***	-5.641***	-5.632***
GROWTH			-0.016	-0.017	-0.019
			-0.768	-0.801	-0.886
N			80	80	80
F-statistic			16.030***	15.868***	16.085***
Adjusted R^2			0.488	0.485	0.488

This table shows the results for equation (2) where the dependent variable is *EM* which is the absolute value of discretionary accruals from the Jones (1991) model. Equation (2) is estimated using 80 firms from the food industry. The independent variables have been defined in Table 1. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels, respectively. Tests are one-tailed where a sign is predicted.

Table 5 presents the results for the oil and gas industry. We find a strong negative relationship between *EM* and *ANY_DISC*. While a negative relationship could be consistent with an ethical response, in conjunction with the results from the food industry, the results are consistent with H1B, i.e., political costs appear to be driving the relationship between CSR disclosure and earnings management.

Recall that *ANY_DISC* and *WEB* are identical since all oil and gas firms that provided some disclosure did so through their websites. Thus, the results for Web are identical to the results for *ANY_DISC*. For *RPT*, we find no relationship between CSR disclosure and earnings management. This is not surprising since the website disclosure dominates all other forms of reporting. That is, perhaps because of reach and visibility, oil and gas firms that want to provide CSR disclosures will do so through the web. Thus, the separate CSR report is not seen as a primary mechanism for disseminating this information to the outside for oil and gas firms. For the models in Table 5, the adjusted R^2's range from 53.5% to 63.3% indicating that the models have good explanatory power. In contrast to the food industry, we find some evidence *LEV* and *GROWTH* are important control variables, although *LNSIZE* is significant in model (3).

Table 5
Results for oil and gas industry

Variables	Predicted Sign		(1)	(2)	(3)
	H1A	*H1B*			
Intercept			0.041	0.041	0.068
			2.316**	2.316*	3.059***
ANY_DISC	-	-	-0.032		
			-2.766***		
WEB	-	-		-0.032	
				-2.766***	
REPT	-	-			0.011
					0.983
LN_SIZE			0.000	0.000	-0.006
			-0.143	-0.143	-2.320**
LEV			0.075	0.075	0.038
			1.893**	1.893**	0.903
ROA			0.017	0.017	0.024
			0.947	0.947	1.168
GROWTH			0.011	0.011	0.012
			3.426***	3.426***	3.423***
N			30	30	30
F-statistic			11.013***	11.013***	7.674***
Adjusted R^2			0.633	0.633	0.535

This table shows the results for equation (2) where the dependent variable is *EM* which is the absolute value of discretionary accruals from the Jones (1991) model. Equation (2) is estimated using 30 firms from the oil industry. The independent variables have been defined in Table 1. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels, respectively. Tests are one-tailed where a sign is predicted.

Overall, taking into account the results for the food industry (Table 4) in conjunction with the oil and gas industry (Table 5), our results shows no support for hypothesis 1A (which suggests a negative relationship between earnings management and CSR disclosure for both industries) and support for hypothesis 1B (which suggests different relationships between earnings management and CSR disclosure depending on political costs). We therefore find support for the political cost perspective. Thus, while firms may be involved in ethical activities (as discussed in the CSR reports), ethical considerations do not appear to influence CSR reporting decisions.[11] Instead, firms choose to do CSR reporting in order to minimise their political exposure.

Sensitivity test

One concern about the previous analysis is that our results might be affected by differences in the variability of pre-managed earnings between the food and oil and gas firms. In other words, if pre-managed earnings are more volatile, discretionary accruals might be a less precise measure of earnings management. The variability of pre-managed earnings could exhibit an industry component since oil and gas producing firms operate in highly volatile regions of the world. On the

[11] We argue that if ethical considerations were the dominant influence, we would expect to find a significant negative relationship between earnings management and CSR disclosure regardless of political costs. Since we find different relationships (i.e. positive and negative) in different industries facing different political costs, we posit that this shows that political costs are driving the relationship.

other hand, the food industry is more stable with raw material inputs coming mainly from domestic sources or from more stable regions of the world. If earnings variability is related to industry membership, earnings variability rather than political costs may be driving the results.

To address this concern, we estimate equation (2) separately for firms with high and low variability in sales. We use variability in sales as a measure of pre-managed earnings volatility instead of variability in earnings, since the latter could be affected by earnings management. Thus, the change in sales is a better proxy for the change in pre-managed earnings. Table 6 provides the results for this analysis using ANY_DISC as the measure of CSR disclosure. In both models, ANY_DISC is insignificant. This indicates that the results from our previous analysis (in Tables 4 & 5) are not due to pre-managed earnings variability but rather reflect an industry (political cost) effect.

Table 6
Results for high and low sales volatility

Variables	High Sales Volatility	Low Sales Volatility
Intercept	0.221	0.116
	4.229***	3.692***
ANY_DISC	0.046	0.000
	0.985	0.005
LN_SIZE	-0.024	-0.008
	-2.924***	-1.710**
LEV	0.066	-0.030
	0.473	-0.591
ROA	-0.209	-0.148
	-3.414***	-6.557***
GROWTH	-0.011	0.114
	-0.674	0.514
N	55	55
F-statistic	8.112***	15.650***
Adjusted R^2	0.397	0.576

This table shows the results for equation (2) where the sample is partitioned based on sales volatility and the dependent variable is *EM*. The independent variables have been defined in Table 1. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels, respectively.

Conclusion

Francis et al. (2008) find a significant complementary relationship where firms with better earnings quality (i.e., less earnings management) have provided more voluntary disclosures. We extend Francis et al. (2008) to CSR disclosures in order to investigate whether the relationship between earnings management and CSR disclosure decisions are affected by ethical considerations. If they are, we expect a negative relationship between CSR disclosure and earnings management. However, a competing explanation is that the relationship between earnings management and CSR disclosure decisions are driven by other factors, including political costs. Thus, we examine the relationship between CSR disclosures and earnings management in two US industries, one with high political visibility and one with low political visibility. We use the oil and gas industry because it has regularly been scrutinised and targeted by politicians. We use the food industry since it has attracted much less political attention relative to the oil and gas industry.

Using discretionary accruals to measure earnings management, we find that CSR and earnings management are negatively related in the oil and gas industry, but positively related in the food industry. These findings suggest a complementary relationship between earnings quality and CSR disclosure in the oil and gas industry, and a substitutive relationship between earnings quality and CSR disclosure in the food industry. The different results for the two industries are important because they support the view that political considerations have a greater influence on the relationship between earnings management and CSR disclosure decisions than ethical considerations. Thus, our results add to understanding the contextual nature of earnings management and CSR disclosure.

While CSR is therefore becoming increasingly important in the current business environment, CSR reporting decisions appear to be driven by more traditional concerns such as avoiding political scrutiny and the costs that may arise from that scrutiny. As an avenue for future research, researchers could extend our analysis to examine whether other agency/contracting based costs – such as those related to compensation and debt contracts – also dominate ethical considerations in financial reporting decisions.

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