

Singapore Management University

## Institutional Knowledge at Singapore Management University

---

Research Collection Lee Kong Chian School Of  
Business

Lee Kong Chian School of Business

---

2-2014

### Reading Between the Lines: Financial Reporting, Implied Corporate Social Responsibility and Corporate Financial Performance

C. Ferreira

David K. DING

Singapore Management University, [davidding@smu.edu.sg](mailto:davidding@smu.edu.sg)

U. Wongchoti

Follow this and additional works at: [https://ink.library.smu.edu.sg/lkcsb\\_research](https://ink.library.smu.edu.sg/lkcsb_research)



Part of the [Business Commons](#)

---

#### Citation

Ferreira, C.; DING, David K.; and Wongchoti, U.. Reading Between the Lines: Financial Reporting, Implied Corporate Social Responsibility and Corporate Financial Performance. (2014). *New Zealand Finance Colloquium*.

Available at: [https://ink.library.smu.edu.sg/lkcsb\\_research/4441](https://ink.library.smu.edu.sg/lkcsb_research/4441)

This Conference Paper is brought to you for free and open access by the Lee Kong Chian School of Business at Institutional Knowledge at Singapore Management University. It has been accepted for inclusion in Research Collection Lee Kong Chian School Of Business by an authorized administrator of Institutional Knowledge at Singapore Management University. For more information, please email [cherylds@smu.edu.sg](mailto:cherylds@smu.edu.sg).

**Reading Between the Lines:  
Financial Reporting, Implied Corporate Social Responsibility and Corporate Financial  
Performance.**

Christo Ferreira, David K. Ding, and Udomsak Wongchoti\*

**ABSTRACT**

We provide one of the first analyses of corporate social responsibility (CSR) and firm performance using only annual financial reports. We document a link between corporate financial performance (CFP) and CSR, although this is not always positive. Specifically, we investigate whether CSR performance can be implied from financial reporting and provide evidence that CSR information implied by financial reports have a significant association with CFP. Furthermore, we provide the first comprehensive study of CSR reporting and link it with CFP in New Zealand.

JEL Classification: G10, G32

Keywords: Corporate Social Responsibility, CSR, Corporate Governance, Corporate Financial Performance, CFP, Stakeholder, Environmental

---

\* Christo Ferreira, David K. Ding and Udomsak Wongchoti are from the School of Economics and Finance at Massey University. Please address all correspondence to Christo Ferreira at the School of Economics and Finance, Massey University, Albany Highway, Albany, 0632, New Zealand, +64-9-414-0800. Email: c.s.ferreira@massey.ac.nz

## **Reading Between the Lines:**

### **Financial Reporting, Implied Corporate Social Responsibility and Corporate Financial Performance**

A key shortcoming of Corporate Social Responsibility (CSR) information is the lack of mandatory assured disclosure on standardized measures that investors can turn to for information. In turn investors and stakeholders are faced with high information costs when/if they base decisions on CSR issues. CSR has become more important over the last decade as it has taken a foothold within the corporate paradigm both internationally and in New Zealand. In fact, many corporations devote significant attention to CSR: dedicating segments of their annual reports and websites, incorporating CSR into their marketing strategy, perhaps even considering CSR when setting strategic goals. Given the increasingly pervasive nature of CSR, do such activities enhance firm performance, or do they satisfy stakeholders at the expense of long-term wealth creation? Internationally the academic community seems divided on the topic (see Orlitzky, Schmidt, and Rynes (2003) and Margolis, Elfenbein, and Walsh (2009)) although a positive link between CSR and corporate firm performance (CFP) or value receives more support.

Unfortunately, investors are at an information disadvantage with respect to CSR (Kempf & Osthoff, 2007; Statman & Glushkov, 2009) as they are unable to gauge the true quality of a firm's CSR. Academic studies highlight the importance of providing investors with information that helps resolve investor uncertainty regarding the quality of a firm's relationships with its primary stakeholders (Ramchander, Schwebach, & Staking, 2012). Although proprietary CSR ratings exist, access is restricted to only those investors with the financial means to afford the required premium. Regardless, research suggest that these ratings do not always reflect the true quality of firm level CSR nor do they optimally use publicly available data (Chatterji, Levine, &

Toffel, 2009). Surprisingly, even investment funds employ arbitrary CSR screens based on a best/worst in class criteria, contrary to the ex-ante expectation of in depth CSR analysis (Kempf & Osthoff, 2007; Statman & Glushkov, 2009). Relatedly, recent work investigating information asymmetry and CSR performance finds that informed investors may exploit their CSR information advantage for financial gain. Overall, the literature suggest that CSR disclosure reduces information asymmetry and that regulatory action may be appropriate to mitigate the adverse selection problem faced by less-informed investors (Cho, Lee, & Pfeiffer Jr, 2013).

Studies focusing on New Zealand have documented that the growth in awareness of CSR has added to the criticisms of the use of profit as an all-inclusive measure of corporate performance (Hackston & Milne, 1996). These early studies have shown that New Zealand firms disclose less voluntary information in relation to Australia or the UK. Size is noted as the driving force behind disclosure, with New Zealand firms generally smaller (Hackston & Milne, 1996). We document a similar size effect within our study. When considering the motivation of CSR disclosure organisations across Australasia seem to draw on local reporting initiatives when disclosing CSR as well as the demands of internal stakeholders (Farneti & Guthrie, 2009). We draw on this and posit that annual reports with greater consideration for CSR, should be associated with firms that share a stronger alignment with their stakeholders. Our results show that evaluating a firm's CSR profile based on the imperfect information contained in the annual report does provide a good indication of the performance impact of CSR

Thus far, CSR has been shown to enhance the reputation of the firm (Carroll & Shabana, 2010; Servaes & Tamayo, 2013), reduce idiosyncratic risk (Bassen, Meyer, & Schlange, 2006; Lee & Faff, 2009; McWilliams & Siegel, 2001), proxy for competent management (Renneboog, Ter Horst, & Zhang, 2008a, 2008b), and enhance revenue (Flammer, 2012). Much of these benefits are in part attributable to stakeholder management (Carroll & Shabana, 2010), which in

turn imparts value to firms (Jiao, 2010). However, these benefits<sup>1</sup> depend in some respect on the visibility of their prosocial behavior to stakeholders (Cho et al., 2013; Servaes & Tamayo, 2013). Reducing the asymmetric nature of CSR information is the key in extracting benefits from CSR. However, a firm's ability to promote its prosocial behavior is restricted as stakeholders discount any behavior they perceive as "reputation-buying." Instead, they value altruism (Benabou & Tirole, 2010; Bénabou & Tirole, 2006; Glazer & Konrad, 1996). Simply put, the value impact of CSR depends heavily on stakeholder welfare/perception and the markets' ability to price it.<sup>2</sup>

Recently, Jiao (2010), El Ghouli, Guedhami, Kwok, and Mishra (2011), and Flammer (2012) have shown strong support for a positive relationship between CSR and firm value while Servaes and Tamayo (2013) have cautioned this positive relationship. We add to the debate by evaluating whether CSR information implied in corporate annual financial reports (as opposed to ratings by proprietary services) conforms to the literatures' generalized positive expectation with regard to CSR and firm performance. We find that some aspects of CSR are associated with improved CFP, while others could possibly reduce CFP. Secondly, we also document the New Zealand case of CSR and provide one of the first insights on the link between CSR and CFP in New Zealand.

---

<sup>1</sup> For example: employee, customer, community, and supplier loyalty; See discussion Carroll and Shabana (2010)

<sup>2</sup> Whether investors can price CSR is debatable, see Renneboog et al. (2008b)

## I. DATA AND METHODOLOGY

### A. DATA

We focus on the audited financial reports of NZX50 constituent firms. Due to information quality concerns and the qualitative nature of CSR (Chatterji et al., 2009; Cho et al., 2013; Servaes & Tamayo, 2013), we contend that using the audited year-end financial reports, would provide the most dependable source of information. Unlike media distributions of CSR information, information in the annual reports are required to be assured, ensuring that any CSR information contained, should in practice, present the most verifiable measure of CSR quality. Furthermore, the annual financial reports are the most easily accessible standardized source of information relating to firms available to investors, unsophisticated ones especially. Prudent preparers of the annual report would address any stakeholder relationships as they relate to the firm's financial position<sup>3</sup>. We posit that firms (managers) with a quality CSR would have a greater awareness of key stakeholder issues as they relate to the operation of the business. As such, CSR focused firms are likely to be more mindful of the role stakeholders play with regards to the firm's business operations. It is likely a greater penetration of salient CSR information would be present in the annual reports of these CSR firms. Furthermore, managers could structure the annual reports to showcase the relationship between firm and stakeholders in an attempt to placate stakeholders and improve the firm's reputation and position. Alternatively, firms with poor CSR would inevitably be sublet to activism, litigation, and regulatory/consent issues. Again, prudent reporting would require firms to address these issues

Although the approach might appear relatively simple, we believe this methodology would provide the best initial assessment of standardized replicable CSR data. More importantly,

---

<sup>3</sup> Annual reports document the financial position of a firm as at a certain date, in addition the annual report should also highlight any going concern issues as a the date.

our methodology reduces the opportunity for firms to ‘green wash’, as our measures saliently assess the CSR penetration within the management, as the nature of the document limits a firm’s ability to overstate its CSR performance.

Moreover, similar word count approaches have been shown to correlate highly with actual CSR (Luo, Meier, & Oberholzer-Gee, 2012) while similar methodologies, focusing on phrases, were conducted in New Zealand and Australia (Guthrie & Parker, 1990; Hackston & Milne, 1996). Specifically, for each firm  $i$  the annual financial statements associated with each calendar year-end  $t$  from 2002 to 2012 are analyzed if firm  $i$  is a constituent of the NZX50. We exclude dual listed firms headquartered outside New Zealand. Only the annual report pages leading up to the financial statements are included in our analysis, we exclude the financial statements and all the notes to the financial statements.

We construct seven variables that measure the penetration of CSR within the annual report. *Sustainability*, *Responsibility*, *Social*, *Environment*, *Diversity*, *Employee* and *Community* represent the word counts of the words: sustainability, responsibility, social, environment, diversity, employee, community and any associated derivatives respectively. We control for the amount of information contained in any one report with *Report page count* which is the number of annual report pages analyzed of for each firm  $i$  in year-end  $t$ . Several other measures are also collected as an alternative to the word counts. *CEO/Director mention CSR* is a dummy variable taking the value of one if the Chief Executive Officer/Director explicitly mentions CSR in their opening letter to shareholders, zero otherwise. *CSR award mentioned* is a dummy variable taking the value of one if the annual report mentions receipt of any awards for CSR, zero otherwise. *Charitable activity mentioned* is a dummy variable taking the value of one if the annual report mentions charitable activity or engagement, zero otherwise. *Separate CSR report* is a dummy

variable taking the value of one if the annual report is accompanied with a separate assured CSR report, zero otherwise.

Furthermore we gather firm level market financial data from DataStream for calendar each calendar year end  $t$  from 2002 through 2012. We average volume (volume), adjusted price (price), and adjusted shares outstanding (shares outstanding) for each calendar yearend  $t$ . Furthermore, income statement and balance sheet items are also obtained from DataStream. Firm size is calculated as the natural logarithm of total assets, leverage is calculated as total liabilities over total assets, and turnover is calculated as the average monthly volume over market value of equity at the end of each year  $t$ . Return on assets (ROA) is calculated as earnings before interest and tax (EBIT) to total assets. Return on assets (ROE) is calculated as earnings before interest and tax (EBIT) to book equity. Capital expenditure (CAPEX) is CAPEX over total assets. Finally m/b is market value of equity to book value of equity at the end of each year  $t$ .

## B. DESCRIPTIVE STATISTICS

Table I presents the number of NZX50 firms assessed for each year that could be matched with DataStream. As expected our sample size increases over time as financial data from DataStream becomes available combined with the inherent survivorship bias in our sample selection. Table II shows the descriptive statistics of the CSR word counts and annual financial report analysis. On average we analyze 28 pages of a firm's annual financial report, with the word employee, in its various forms, mentioned 9 times on average. The words social, responsibility, and diversity are barely mentioned once on average and are the least most mentioned words (12, 13, and 24 times in a single report, respectively). Community is mentioned the most in a single report with 88 mentions, followed by employee with 59. Assuming our word counts proxy for CSR, these descriptions support our earlier assertion that CSR firms would



disseminate more information relating to key stakeholders (like employees and the local community) who have tangible impacts on the performance of the firm. For nearly 20 percent of the pooled financial statements analyzed the CEO/Director mentions CSR in their opening address, although this is confined to only 19 firms in our sample. Approximately 22 percent of annual reports mention a firm's charitable activity, while 2 percent of annual reports mention some type of CSR award, similarly only 2.5 percent of annual reports are accompanied by a separate assured CSR reports. Table III shows the financial characteristics of the firms.

## II. RESULTS

We start by examining the impact of CSR penetration in annual reports on corporate financial performance. We employ a pooled ordinary least squares (OLS) regression where we regress corporate performance (ROA or ROE) on CSR penetration. We include control variables (size, leverage, M/B, turnover, and CAPEX) and year fixed effects. Column one of Table IV report the regression results with ROA as the dependent variable. Starting with *Employee*, the most mentioned word in our sample, the results would indicate that firms focused on employees tend to experience higher levels of CFP. Our results suggest mentioning employee ten times in the annual report is associated with an ROA increase of 1 percent (at 5 percent significance level). Similarly, community mentions are associated with an increase in CFP to the same degree (at 1 percent significance level). Our results advocate that corporate awareness of people, whether employed or members of the firm's community, is key to CFP. It is logical that firms with healthier, happier, and loyal employees would be able to extract increased efficiency, productivity, and innovation from their work-force. Similarly, a content community would allow the firm to operate unabated by activism or regulatory concerns like resource consents.

Conversely, our results indicate that firms overly concerned with issues around sustainability might face a reduction in CFP. We argue that the costs associated with sustainability are not met with an increase in profitability. Specifically, mentioning sustainability ten times in the annual reports is associated with a ROA reduction of 4 percent (1 percent significance level). Firms overly concerned with adapting to a sustainable business might be restricted from profitable opportunities, or low cost inputs. Similarly, mentioning social ten times is associated with an 8 percent reduction (5 percent significance level). We posit that *Social* is particularly vague in a business context. Mentions of social might indicate corporate behavior that is not focused on key business operations, or a CSR strategy that is not well defined or targeted to a key stakeholder group. As such, corporate attention and resources expended on these activities or issues are wasted without any reciprocal financial benefit.

Next, the financial benefits associated with CSR might not accrue to the firm instantly upon taking a certain CSR position; especially if those benefits depend on stakeholders adjusting their behavior toward the firm. Therefore, a significant lag between implementing CSR and accruing tangible financial benefits could exist. In Table IV, column two, we include a *t-1* lag of the CSR mentions to capture the potential performance lag associated with CSR. The results for *Employee* and *Community* remain consistent when lagged indicating that concern for the local community and employees might improve CFP over several periods. However, *Sustainability* becomes insignificant when lagged, indicating that the measure might be inconsistent, or that corporate attentiveness with regard to sustainability might be strongly related to the costs incurred in the name of sustainability. On the other hand, our results indicate a social focus appears to impact CFP over multiple periods. Ten social mentions in the previous year's annual report are associated with a 9 percent reduction (5 percent significance level) in CFP the current year.

### III. ROBUSTNESS CHECKS

For robustness, we proxy for CFP with ROE. Column three and four, of Table IV, present the regression results with ROE as the dependent variable. The results for ROE are less significant in general, with the coefficient of *Employee* maintaining its size and significance. Conversely, when the CSR mentions are lagged, column four, *Employee* becomes insignificant, while *Social* and *Community* become significant again. Our results indicate that CSR awareness in annual financial reports do impact CFP performance, although the results are more consistent with respect to ROA, as opposed to ROE. Whether the variables of CSR are responsible for the difference between ROE and ROA is debatable, as the construction of CFP measure might be sensitive to certain CSR inputs.

Arguably, our word count methodology could be criticized for being too arbitrary or vague. It is possible that the CSR word counts do not truly reflect the CSR profile of a firm, or objectively measure the magnitude of CSR. As an alternative to our word count methodology, we document several other annual report characteristics that could possibly indicate the possible CSR profile of a firm. Unlike the word counts, these measures are more stringent, and some rely on external endorsement. The *CEO/Director mention CSR* variable is a dummy variable taking the value of one, zero otherwise, if the opening address of the annual report explicitly mentions a CSR related issue. Similarly *CSR award mentioned* variable is a dummy variable taking the value of one, zero otherwise, if the annual report explicitly mentions the firm receiving a CSR related award. *Charitable activity mentioned* is a dummy variable taking the value of one, zero otherwise, if the annual report explicitly mentions the firm's charitable activities. We also create a dummy variable taking the value of one, zero otherwise if a firm's annual report is accompanied by a separate CSR report that is assured. Table V presents the regression results

with our alternative CSR measures. Again column one and two presents the results with ROA as the dependent variable, while column three and four present the results with ROE as the dependent variable. We lag the CSR variables in column two and four.

By far the most consistently significant coefficient is associated with charitable behavior. Our results indicate that firms that engage charities and contribute to their welfare experience an increased level of CFP. Mentioning the firm's engagement with charities is associated with an ROA that is 2 percentage points larger and a ROE that is 4 percentage points larger (at the 10 and 1 percent significance levels, respectively). The results are even greater when the coefficient is lagged. We posit that firms only mention charitable engagement and behavior when the firm is a significant donor and actively involved with the charity. Arguably corporate philanthropy could be a mechanism through which a firm is able to placate stakeholders and legitimize its position in the community (Butler & McChesney, 1999; Porter & Kramer, 2002). Alternatively we suspect the strong correlation between CFP and charitable behavior is an artifact of endogeneity. It is expected that corporate philanthropy would be highly correlated with a firm's excess cash flow. Firms are likely to only make donations significant enough to warrant a feature in the annual reports in periods of exceptional financial performance.

Conversely, reporting on CSR awards is related to a lagged decrease in CFP. Firms receiving CSR awards tend to be associated with a lagged reduction in ROA of 6 percent and a reduction in ROE of 23 percent, at 1% and 10% significance levels respectively. The oddly large ROE coefficient may be troubling, but we suspect the costs and sacrifices necessary to outperform the market in CSR terms leads to a significant reduction in future financial performance. Again, the magnitude and significance of CSR's impact on ROE vs. ROA would suggest the link between ROE and CSR might be sensitive to the measurement and construction of both variables. Lastly, our results indicate that firms that place a great deal of importance on

CSR (as proxied by *CEO/Director mention CSR*) are associated with increased levels of ROE (of 3 percentage points at a 10% significance level). This result is not significant across all our dependent variables, but does present some room to conjecture that CSR should be considered from a top-down approach, and not just executed on an ad-hoc basis at lower levels of the corporate hierarchy.

#### IV. DISCUSSION AND CONCLUSION

Our results provide one of the first analyses linking corporate social responsibility (CSR) and corporate financial performance (CFP), using only annual financial reports. We document a link between CFP and CSR. We find that firms which indicate greater awareness of their community and employees tend to also experience higher levels of CFP, with regard to ROA and ROE. However, we show that the penetration of CSR in a firm could hinder firm performance. Firms that are unable to focus their attention on key internal stakeholders and instead waste managerial capital on vague social policies and activities with little regard to the key business processes might suffer financially. We present limited evidence that an overt focus on sustainability could restrict CFP. We posit that the process of shifting a firm's operation to a sustainable model presents a significant shift in its costs structure and could simultaneously restrict potential opportunities. It is important to note that our CSR measure only captures the penetration of CSR awareness within the text of the annual report. It is likely that the different relationship between CFP and specific words stem from a specificity issue. Management with a sound understanding of CSR are likely to focus on key stakeholders that present opportunities for shared values. As such, these firms are more likely to report on specific relationships, activities, or events that relate to the key stakeholders in their annual report (seeing an increase in words relating to employees and the community). Furthermore, these firms might indeed have a

sustainable, environmental or diversity focus, but only communicate these as they relate to key tangible stakeholders. Alternatively, we suspect that the negative CFP association with the words such as “social” and “sustainability” might be indicative of a management team with a desire to incorporate CSR with little regard to creating shared value with key stakeholders associated with the business’s operations.

We document that corporate philanthropy tends to be associate with higher levels of CFP, although the link is likely endogenous. We suspect that philanthropy is driven by CFP and those firms may increase philanthropy at times of increased CFP. Additionally, we present evidence to suggest that firms competing for CSR recognition sacrifice CFP for a gain in reputation. Firms’ receiving CSR rewards suffer a reduction in CFP. Lastly, our results suggest that CSR performance could potentially be implied from financial reporting as we provide evidence that CSR information implied by financial reports have a significant association with CFP. Further research is necessary to substantiate whether CSR word penetration in annual reports correlates to the actual CSR profile of the firms in our sample, however previous work has documented a strong correlation.

Our study, at the minimum, presents evidence that firms are aware of CSR and have a desire to report on their CSR activities, but may not have the appropriate avenue to disseminate this information. As such, mandatory “assure-able” standardized reporting standards should be considered by regulators to reduce information asymmetry and allow managers and investors to gauge the impact of the firm’s CSR. Failure to regulate appropriate CSR standards will only continue the dissemination of mis-information, the impact of which could be significantly negative for firms and society at large. The lack of standardized assured data inhibits an in-depth analysis of controversial or unexpected CSR-CFP results. Conflicting or convoluted reports of the CSR-CFP relationship may skew or hinder CSR activity, leading to a loss of potential value

shared between society and firms or, more seriously, reduced CFP and negative social externalities.

**TABLE I**

**Sample Size by Year**

Table I shows the number of firms included in the study for which CSR mentions and financial data could be matched for each calendar year from 1991 through to 2009.

Year	Number of Firms
2003	29
2004	33
2005	34
2006	34
2007	36
2008	37
2009	37
2010	40
2011	40
2012	41



**TABLE II****CSR variables descriptive statistics.**

Table II shows the descriptive statistics of the CSR word counts and dummy variables constructed from annual financial report analysis. Specifically, for each firm  $i$  the annual financial statements associated with each calendar year-end  $t$  from 2002 to 2012 are analysed if firm  $i$  is a constituent of the NZX50. Only annual report pages leading up to the financial statements are included in our analysis, we exclude the financial statements and all the notes to the financial statements. *Sustainability*, *Responsibility*, *Social*, *Environment*, *Diversity*, *Employee* and *Community* represent the word counts of the words: sustainability, responsibility, social, environment, diversity, employee, community and associated derivatives respectively. *Report page count* is the number of annual report pages analysed of for each firm  $i$  in year-end  $t$ . *CEO/Director mention CSR* is a dummy variable taking the value of one if the Chief Executive Officer/Director explicitly mentions CSR in their opening letter to shareholders, zero otherwise. *CSR award mentioned* is a dummy variable taking the value of one if the annual report mentions receipt of any awards for CSR, zero otherwise. *Charitable activity mentioned* is a dummy variable taking the value of one if the annual report mentions charitable activity or engagement, zero otherwise. *Separate CSR report* is a dummy variable taking the value of one if the annual report is accompanied with a separate assured CSR report, zero otherwise.

Variable	Obs.	Mean	Std. Dev.	Min	Max
Sustainability word count	361	1.8199	4.4363	0	44
Responsibility word count	361	0.8975	1.7521	0	13
Social word count	361	0.5872	1.3879	0	12
Environmental word count	361	5.1911	7.6691	0	38
Diversity word count	361	0.7119	2.7819	0	24
Employee word count	361	8.9916	11.4623	0	59
Community word count	361	6.3795	12.0684	0	80
Report page count	361	28.8005	14.9301	0	76
CEO/Director mention CSR	361	0.1939	0.3959	0	1
CSR award mentioned	361	0.0193	0.1380	0	1
Charitable activity mentioned	361	0.2216	0.4159	0	1
Separate CSR report	361	0.0249	0.1561	0	1

**TABLE III****Financial Descriptive Statistics**

Table III reports the descriptive statistics for the pooled sample spanning calendar years 2002 through 2012. ('000) indicate figures presented in thousands and (%) indicate figures in a percentage or ratio. *EBIT* is earnings before interest and tax, *M/B* is market value of equity over book value of equity, *ROA* is EBIT over total assets *ROE* is EBIT over total assets, *Leverage* is total liabilities over total assets, *Turnover* is volume of shares traded to the market value of equity.

Variable	Obs.	Mean	Std. Dev.	Min	Max
Market Capitalization ('000)	369	\$1,151.10	\$1,568.90	\$11.00	\$11,980.00
Total Assets ('000)	369	\$1,459,538.00	\$1,865,361.00	\$808.00	\$7,765,000.00
Total Liabilities ('000)	378	\$779,020.90	\$1,185,468.00	\$230.00	\$5,988,000.00
Sales Revenue ('000)	368	\$834,025.30	\$1,410,150.00	-\$2,564.00	\$8,744,000.00
EBIT ('000)	368	\$122,556.80	\$207,121.30	-\$239,346.00	\$1,658,000.00
Market to Book	360	1.66	9.37	-137.00	24.00
ROE %	361	10.16	30.61	-425.00	110.00
ROA %	368	5.00	50.00	-8.44	55.00
Leverage	368	0.48	0.56	0.02	10.43
Turnover	345	775.94	2067.15	1.00	21602.00
Capital Expenditure ('000)	378	\$85,254.69	\$168,697.00	\$-	\$1,277,000.00

**TABLE IV****Relationship between CSR and Firm Value**

Table IV reports the pooled OLS regression coefficients of the relationship between CFP and CSR over calendar years 2002 through 2012. Columns one and two model the relationship with ROA as the dependant variable, while column three and four employ ROE as the dependant variable. For column two and four the CSR measures are lagged by one period in the regression,  $t-1$  as opposed to  $t$ . We control for year fixed effects. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	ROA	ROA (lag)	ROE	ROE (lag)
Size	-0.200 (1.010)	-0.240 (1.150)	-2.954*** (1.134)	-2.22* (1.231)
Leverage	-27.21*** (1.900)	-27.35*** (1.790)	17.01** (7.907)	14.60* (8.483)
M/B	0.500*** (0.120)	0.490*** (0.160)	0.821*** (0.160)	1.35** (0.648)
Turnover	0.001** (0.001)	0.000 (0.000)	0.002 (0.001)	0.002 (0.001)
CAPEX	6.26 (11.16)	17.09 (12.68)	7.08 (13.56)	16.06 (15.53)
Sustainability	-0.390*** (0.150)	-0.240 (0.160)	-0.157 (0.213)	0.071 (0.281)
Responsibility	0.460 (0.350)	0.410 (0.380)	-0.255 (0.668)	0.693 (0.794)
Social	-0.770** (0.390)	-0.890** (0.430)	-0.496 (0.513)	-1.85** (0.753)
Environmental	0.000 (0.070)	-0.050 (0.080)	0.089 (0.126)	-0.095 (0.151)
Diversity	0.140 (0.150)	0.120 (0.170)	0.253 (0.205)	0.325 (0.363)
Employee	0.090** (0.040)	0.100** (0.040)	0.129** (0.065)	0.107 (0.071)
Community	0.090*** (0.040)	0.090** (0.040)	0.134 (0.083)	0.166* (0.085)
Report page count	0.060 (0.040)	0.050 (0.050)	-0.066 (0.088)	-0.037 (0.078)
Intercept	24.93* (13.86)	23.63 (15.59)	43.90*** (12.78)	35.73*** (13.15)
Year effects	Yes	Yes	Yes	Yes
adj. $R^2$	0.660	0.680	0.205	0.199
$N$	330	298	326	294

**TABLE V**

**Relationship between CSR and Firm Value**

Table V reports the pooled OLS regression coefficients of the relationship between CFP and CSR over calendar years 2002 through 2012. Columns one and two model the relationship with ROA as the dependant variable, while column three and four employ ROE as the dependant variable. For column two and four the CSR measures are lagged by one period in the regression,  $t-1$  as opposed to  $t$ . We control for year fixed effects. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

	ROA	ROA (lag)	ROE	ROE (lag)
Size	-0.350 (0.950)	-0.430 (1.070)	-3.085*** (1.11)	-2.826** (1.183)
Leverage	-26.91*** (2.070)	-27.17*** (1.920)	19.26** (7.940)	17.10** (8.453)
M/B	0.500*** (0.120)	0.490*** (0.160)	0.812*** (0.160)	1.25* (0.663)
Turnover	0.001** (0.000)	0.001* (0.000)	0.002 (0.001)	0.002 (0.001)
CAPEX	7.590 (11.510)	18.46 (13.120)	6.71 (13.15)	17.98 (14.90)
CEO/Director mention CSR	1.920 (1.180)	1.260 (1.170)	3.137* (1.718)	2.160 (1.760)
CSR award mentioned	5.55 (4.290)	-0.0630*** (1.630)	3.910 (4.510)	-23.10* (12.50)
Charitable activity mentioned	2.070* (1.170)	2.280** (1.110)	4.511*** (1.658)	7.057*** (1.879)
Separate CSR report	-0.460 (2.820)	-0.680 (2.840)	0.493 (2.861)	-0.171 (2.642)
Report page count	0.080* (0.040)	0.070* (0.040)	-0.020 (0.078)	0.015 (0.071)
Intercept	25.94** (13.15)	21.82 (15.42)	43.47*** (12.40)	33.08** (15.05)
Year effects	Yes	Yes	Yes	Yes
adj. $R^2$	0.66	0.68	0.22	0.24
$N$	330	298	326	294

## REFERENCES

- Bassen, A., Meyer, K., & Schlange, J. (2006). The Influence of Corporate Responsibility on the Cost of Capital. *SSRN eLibrary*.
- Benabou, R., & Tirole, J. (2010). Individual and Corporate Social Responsibility. *Economica*, 77(305), 1-19. doi: 10.1111/j.1468-0335.2009.00843.x
- Bénabou, R., & Tirole, J. (2006). Incentives and Prosocial Behavior. *American Economic Review*, 96(5), 1652-1678. doi: doi: 10.1257/aer.96.5.1652
- Butler, H. N., & McChesney, F. S. (1999). Why they give at the office: Shareholder welfare and corporate philanthropy in the contractual theory of the corporation. *Cornell Law Review*, 84(5), 1195-1226.
- Carroll, A. B., & Shabana, K. M. (2010). The Business Case for Corporate Social Responsibility: A Review of Concepts, Research and Practice. *International Journal of Management Reviews*, 12(1), 85-105. doi: 10.1111/j.1468-2370.2009.00275.x
- Chatterji, A. K., Levine, D. I., & Toffel, M. W. (2009). How Well Do Social Ratings Actually Measure Corporate Social Responsibility? *Journal of Economics & Management Strategy*, 18(1), 125-169. doi: 10.1111/j.1530-9134.2009.00210.x
- Cho, S. Y., Lee, C., & Pfeiffer Jr, R. J. (2013). Corporate social responsibility performance and information asymmetry. *Journal of Accounting and Public Policy*, 32(1), 71-83. doi: <http://dx.doi.org/10.1016/j.jaccpubpol.2012.10.005>
- El Ghoul, S., Guedhami, O., Kwok, C. C. Y., & Mishra, D. R. (2011). Does corporate social responsibility affect the cost of capital? *Journal of Banking & Finance*, 35(9), 2388-2406. doi: <http://dx.doi.org/10.1016/j.jbankfin.2011.02.007>
- Farneti, F., & Guthrie, J. (2009). Sustainability reporting by Australian public sector organisations: Why they report. *Accounting Forum*, 33(2), 89-98. doi: <http://dx.doi.org/10.1016/j.accfor.2009.04.002>
- Flammer, C. (2012). Does Corporate Social Responsibility Lead to Superior Financial Performance? A Regression Discontinuity Approach. *SSRN eLibrary*.
- Glazer, A., & Konrad, K. A. (1996). A Signaling Explanation for Charity. *The American Economic Review*, 86(4), 1019-1028.
- Guthrie, J., & Parker, L. D. (1990). Corporate social disclosure practice: a comparative international analysis. *Advances in public interest accounting*, 3(2), 159-176.
- Hackston, D., & Milne, M. J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing & Accountability Journal*, 9(1), 77-108. doi: 10.1108/09513579610109987
- Jiao, Y. (2010). Stakeholder welfare and firm value. *Journal of Banking & Finance*, 34(10), 2549-2561. doi: <http://dx.doi.org/10.1016/j.jbankfin.2010.04.013>
- Kempf, A., & Osthoff, P. (2007). The Effect of Socially Responsible Investing on Portfolio Performance. *European Financial Management*, 13(5), 908-922. doi: 10.1111/j.1468-036X.2007.00402.x
- Lee, D. D., & Faff, R. W. (2009). Corporate Sustainability Performance and Idiosyncratic Risk: A Global Perspective. *Financial Review*, 44(2), 213-237. doi: 10.1111/j.1540-6288.2009.00216.x
- Luo, J., Meier, S., & Oberholzer-Gee, F. (2012). No news is good news: CSR strategy and newspaper coverage of negative firm events. *Harvard Business School Working Paper 12-091*, 12(091).
- Margolis, J., Elfenbein, H., & Walsh, J. (2009). Does it Pay to Be Good... And Does it Matter? A Meta-Analysis of the Relationship Between Corporate Social Responsibility and Financial Performance. Available at SSRN. doi: <http://dx.doi.org/10.2139/ssrn.1866371>
- McWilliams, A., & Siegel, D. (2001). Corporate Social Responsibility: A Theory of the Firm Perspective. *Academy of Management Review*, 26(1), 117-127.
- Orlitzky, M., Schmidt, F., & Rynes, S. (2003). Corporate Social and Financial Performance: A Meta-Analysis. *Organization Studies* 24, 403-441. doi: 10.1177/0170840603024003910
- Porter, M. E., & Kramer, M. R. (2002). The Competitive Advantage of Corporate Philanthropy. *Harvard Business Review*, 80(12), 56-69.
- Ramchander, S., Schwebach, R. G., & Staking, K. I. M. (2012). The informational relevance of corporate social responsibility: evidence from DS400 index reconstitutions. *Strategic Management Journal*, 33(3), 303-314. doi: 10.1002/smj.952

- Renneboog, L., Ter Horst, J., & Zhang, C. (2008a). The price of ethics and stakeholder governance: The performance of socially responsible mutual funds. *Journal of Corporate Finance*, 14(3), 302-322. doi: 10.1016/j.jcorpfin.2008.03.009
- Renneboog, L., Ter Horst, J., & Zhang, C. (2008b). Socially responsible investments: Institutional aspects, performance, and investor behavior. *Journal of Banking & Finance*, 32(9), 1723-1742. doi: 10.1016/j.jbankfin.2007.12.039
- Servaes, H., & Tamayo, A. (2013). The Impact of Corporate Social Responsibility on Firm Value: The Role of Customer Awareness. *Management Science*, 59(5), 1045-1061. doi: 10.1287/mnsc.1120.1630
- Statman, M., & Glushkov, D. (2009). The Wages of Social Responsibility. *Financial Analysts Journal*, 65(4), 33-46.