ETHICAL REPUTATIONS AND EARNINGS QUALITY: RECENT EVIDENCE FROM THE '100 BEST' CORPORATE CITIZENS

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Abstract

This study investigates whether firms regarded as being ethical are less likely to engage in misleading financial reporting. Our study includes a sample of firms identified by *CRO* magazine as "Best Corporate Citizens" in the U.S. between 2000 and 2008. We find that these firms, when compared to an industry- and size- matched sample, report significantly lower levels of discretionary accounting accruals. Further analysis reveals that these results are driven by lower amounts of *positive* (income-increasing) discretionary accruals in the CRO firms as compared to the matched sample. Our results are consistent with the hypothesis that firms identified as being ethical are less likely to make misleading accounting decisions, but inconsistent with some literature suggesting that ethical rankings are poor indicators of ethical behavior.

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INTRODUCTION

Although ethical norms vary from society to society, a consistent element of those norms is that firms should be complete and truthful in their financial filings. Because of these norms, firms desire to be viewed as being ethical and acting for the public good. This raises the possibility that some firm actions might be driven primarily by public relations motives rather than by the ethical philosophy of the firm. The problem this presents is exacerbated by the nature of studies that seek to identify ethical firms. In these studies, researchers often rely heavily on voluntary disclosure from firms. Thus, firms may be able to manipulate perceptions of ethical behavior by strategically responding to the various surveys put forth by the ranking/rating organizations. Even if voluntary surveys are not used in the ranking process, firms may undertake activities that are designed to influence the rankings yet do not reflect a true underlying ethical philosophy.

To address this question, we analyze the financial reporting practices of firms that are reported to be highly ethical in their practices. Our study is motivated by the notion that some ethical practices and contributions to society are readily observable and quantifiable. For example, a package of Starbucks coffee notes 100% of the coffee is responsibly grown and ethically traded, "helping to create a better future for farmers and a more stable climate for the planet." Indeed, Starbucks highlights several additional activities in its 2010 *Global Responsibility Report*, including that employees and customers contributed 191,224 hours of community service during the year and contributed $14.6 million in loans to help small-scale farmers.

Other forms of society-benefiting behavior, however, are not readily observable to outsiders. Consider, for example, judgment involved in financial reporting decisions. Accrual accounting choices quite often involve judgment on the part of managers. Managers may take advantage of accounting discretion and opportunistically manipulate income in order to, among other reasons, meet performance-based earnings thresholds (Bergstresser and Philippon, 2006), increase stock offering proceeds (Teoh et al.

1998), and avoid reporting earnings decreases and losses (Burgstahler, D. and I. Dichev, 1997). While earnings management tactics that lead to outright financial fraud are often seen by the general public *ex-post* via Securities and Exchange Commission (SEC) actions, earnings restatements, and shareholder lawsuits, more frequently these tactics are subtle and go unnoticed by external monitors and firm stakeholders. The purpose of our study is to decipher whether firms that are publicly identified as being good corporate citizens behave ethically with respect to financial reporting, and thus gain a better understanding of the relationship between ethics rankings and corporate behavior.

Our research agenda represents an important step in understanding what ethics rankings reveal about a firm's ethical philosophy. Some skeptics argue that firms actively market themselves to develop and reinforce reputations, which may allow firms to differentiate themselves from competitors. Accordingly, actions that benefit the environment or society simply represent a byproduct of the firm's profit-generating operations and do not necessarily indicate an inherently ethical business model (Karnani, 2010). Other skeptics point out that the various rankings themselves are flawed because they depend on voluntary disclosure from firms. Firms with poor environmental performance face pressure to mitigate the effects of poor environmental performance (Cho and Patten 2007; Freedman and Patten 2004; Hughes et al. 2001) and, at least in some cases, have been successful at achieving a positive ethical reputation despite evidence that they are poor performers (Cho et al. 2012). Even the pundits have attacked these sorts of rankings with, for example, Marc Gunther (a contributing editor of *Fortune* magazine) referring to the Corporate Responsibility Officer (CRO) rankings (which we consider in this paper) as a "CROck".[1] Despite these sorts of attacks, it is important to examine what information, if any, is contained in ethics rankings. By examining financial accounting

[1]See http://www.marcgunther.com/2010/03/23/100-best-corporate-citizens-what-a-crock/. We thank an anonymous referee for referring us to this article.

choices we are able to distinguish between observable actions, as captured by a firm's ethics rankings, and those actions not readily observable to outsiders, manifest in the form of aggressive earnings management. Results indicating that ethical reputations are associated with reduced earnings management would suggest that ethics rankings do identify firms that behave ethically with respect to accounting choices. Evidence to the contrary would provide additional evidence that firms may act to manipulate the rankings for public relations reasons.

We use the *Corporate Responsibility Officer* (*CRO*), formerly *Business Ethics*, annual list of '100 Best Corporate Citizens' to identify ethical firms during the years 2000 – 2008.[2] Our results indicate that, relative to a matched sample of peer firms, firms on that list had significantly lower levels of discretionary accounting accruals, our proxy for earnings management. These results hold after controlling for other factors that influence discretionary accrual amounts. Further analysis reveals that the initial results are driven by lower amounts of *positive* (income-increasing) discretionary accruals in the CRO firms as compared to the matched sample. The difference in negative (income-decreasing) discretionary accruals between the CRO and matched firms is insignificant. Thus, while the CRO firms are less likely to manipulate accruals to boost income amounts, they are not being overly conservative and accelerating current accrued expenses with the hopes of obtaining future benefits when these accruals reverse. Taken together, our results indicate that the CRO rankings do reflect a firm's overall commitment to ethical practices in financial reporting.

Our study is most directly related to a recent paper by Kim et al. (2011) who use the Kinder, Lydenberg, and Domini (KLD) database to measure levels of corporate social responsibility (CSR) and find that socially responsible firms report higher quality

[2] The list of 100 Best Corporate Citizens was published by *Business Ethics* until 2007, when the magazine merged with *CRO*. In addition, note that *CRO* is now simply referred to as "*CR"* magazine.

earnings. Specifically, Kim et al. (2011) find that socially responsible firms are less likely to manage earnings either through discretionary accruals or real accounting choices. The authors also find that top executives of these firms are less likely to be named in an SEC investigation of fraud, a more specific, but *ex-post*, indicator of earnings quality.

We complement and extend the Kim et al. (2011) paper in two primary ways. First, in using the CRO rankings of '100 Best Citizens', we examine a set of firms that has been identified in the public press as being highly ethical. Accordingly, we test whether the Kim et al. (2011) results generalize to a broader measure of ethical behavior that is widely available to the investing public. Second, we expand the analysis by separating discretionary accruals into income-increasing and decreasing amounts and show that differences in discretionary accruals are driven by the lower levels of income-increasing accruals.

The remainder of the paper is structured as follows. We first discuss related literature and develop the hypothesis. We then present the research design, including the specific hypothesis test. Finally, we analyze the result and offer a summary of the findings.

BACKGROUND AND HYPOTHESES

Ethics and Firm Performance

A firm may benefit from ethical practices in a number of ways, among them: creating product differentiation, avoiding potential legal and regulatory conflicts, mitigating reputation risk, and strengthening the brand name (PricewaterhouseCoopers 2011; Stephenson 2009; Bebbington et al. 2008, Fan 2005, McWilliams and Siegel 2001). The specific financial benefits associated with ethical practices are well documented in academic literature.[3]

[3] Orlitzky et al. (2003) perform a meta-analysis on 52 studies that analyze the effects of CSR on financial performance and conclude that CSR investments appear to pay off in the form of higher accounting-based measures of performance.

Most recently, Harjoto and Ho (2011) use the KLD database to measure CSR and find a positive association between CSR and both operating performance (return-on-assets) and firm value (measured using Tobin's *q*). Similarly, Blazovich and Smith (2010) use the '100 Best Corporate Citizens' list to identify ethical firms and measure their financial performance against industry peers. The authors find that the list firms are more profitable than the median firm in their industry across three measures of profitability: return on sales, return on assets, and return on equity. In addition, the list firms experience higher sales growth and greater operational efficiency as measured by asset turnover figures. The Blazovich and Smith (2010) results offer support for the notion that ethical behavior can lead to financial benefits. This stands somewhat in contrast to the work cited earlier (e.g., Cho et al. 2012) that questions the validity of relying on ethical rankings.

Lev et al. (2010) investigate a specific component of social responsibility, charitable contributions, under the theory that philanthropy may improve the reputation of a company and strengthen customer loyalty. Applying Granger causality tests, the authors show that charitable contributions are significantly associated with future revenue growth, and attribute that relationship to improved customer satisfaction. In addition, there is only marginal evidence of the reverse relationship (i.e. higher sales leading to higher philanthropy), although the authors concede that the possibility of such a simultaneous relation could exist. The overall results of the Lev et al. (2010) study are important because they shed light on the *causality* of the CSR and firm performance relationship. Specific CSR investments appear to lead to increased financial performance through improved customer satisfaction and not vice-versa. This important result extends earlier studies which attribute higher firm values to implementations such as workplace quality (Ballou et al. 2003) and environmental initiatives (Clarkson et al. 2004).

While there is evidence that ethical behavior can lead to financial gains, it is not clear whether managers undertake ethical practices truly for the benefit of society, or simply to build firm

value by carefully crafting an ethical reputation. The idea that managers' should engage in only those practices that benefit shareholders is consistent with economic theory. More directly, Friedman (1970) claims the only "social responsibility" of a firm is to maximize shareholder profits. Indeed, in cases where firm profits and social welfare are misaligned, investing in activities for the social good can be ineffective or even value-destroying for shareholders (Karnani 2010).

Hypothesis

Whether firms build an ethical image as part of a public relations strategy or are truly indicative of the firm's underlying ethical culture is an empirical question. Our goal is to address this question by distinguishing between activities that are readily observable and those that are not readily observable or not observable immediately. Our null hypothesis is that firms undertake activities for public relations reasons, so under that hypothesis we would expect to see no difference among firms with respect to actions that are not readily observable. To capture activities that are readily observable by the general public, we use firms that have been reported by *CRO* magazine to be among the annual top 100 ethical firms in the U.S. To capture actions that are not readily observable by the general public, we examine the extent to which firms manage earnings, as measured by discretionary accounting accruals.

Consistent with the theories developed by Rupp et al. (2006) and Fan (2005), we expect that firms identified as socially responsible implement firm-wide ethical practices and, compared to their peers, are less likely to manage accounting earnings. We use discretionary accounting accruals to measure earnings management behavior and predict that managers at CSR firms report lower levels of positive, or income-increasing, discretionary accruals. We focus on income-increasing accruals because prior research shows that shareholders suffer greater (less) damages through negative stock market reactions when it is revealed that a

firm materially overstated (understated) prior earnings (e.g. Palmrose et al. 2004, Dechow et al. 1996). Further, overstated earnings are likely to trigger additional consequences in the form of SEC actions and shareholder lawsuits (Dechow et al. 1996, Feroz et al. 1991). Thus, in order to preserve benefits gained through their reputations as ethical citizens, we predict that firms on the CRO list will practice less income-increasing earnings management activities, as revealed by discretionary accruals. This leads to the following hypothesis (stated in alternative form):

H_a: Firms identified as ethical report lower discretionary accounting accruals.

Related Research

In addition to the Kim et al. (2011) article described earlier, our study is related to three fairly recent papers investigating financial reporting quality issues. First, in an experimental study on 123 M.B.A. students, Beaudoin et al. (2009) find that managers recommend lower discretionary accruals when the firm has an "expressed commitment" to acting responsibly. Our analysis builds on these findings by studying a larger, publicly available data set from several firms over an extended time horizon. Thus the current study provides a framework to generalize to a broader setting the Beaudoin et al. (2009) results regarding the signal that CSR actions provide about financial reporting quality.

Second, Chih et al. (2007) investigate the earnings management using a sample of 1,653 corporations in 46 countries during the 1993 – 2002 period and find mixed results. Measuring ethical reputations by inclusion on the FTSE4Good global index, the authors find that firms on the index tend to decrease the extent of earnings smoothing and avoid earnings losses/decreases, but *increase* discretionary accounting accrual levels. This stands in contrast to our findings. One potential reason for the mixed results is the confounding effects of different cultures. As Argandona and Hoivik (2009) point out, a firm's behavior is impacted by the

individual country's social, cultural, political, economic, and ideological environment. For example, in the U.S., firms' CSR actions are primarily voluntary while in Europe, specific laws and regulation require firms to behave responsibly. Argandona and Hoivik (2009) contend that even within Europe there are several CSR models based on different cultures and regulatory regimes across the Anglo-Saxon, Central-European, Scandinavian, Mediterranean, Central, and Eastern European regions. Indeed some countries such as the U.K. and Denmark require large companies to supplement their annual financial reports with information on various ethics-related activities and France has mandated specific triple-bottom-line (financial, environmental, and social) reporting by companies since 2001. By studying the relationship between ethics rankings and earnings management behavior using publicly available data from a single country, we will significantly refine the Chih et al. (2007) approach.

Finally, Laksmana and Yang (2009) examine several earnings attributes of firms included in the '100 Best Corporate Citizens' rankings during 2001 and 2002. They find that firms appearing on the list tend to report earnings that are more persistent, more predictable and smoother than other firms. They attribute their results to the effort of good 'citizens' to preserve reputation and the public trust. In addition to focusing on signed discretionary accruals, we extend the Laksmana and Yang (2009) study by evaluating the *CRO* rankings across a significantly longer time horizon. This measurement window is particularly important given the significant changes in the financial reporting environment as a result of the Sarbanes-Oxley Act of 2002.

RESEARCH DESIGN

Identifying Ethical Firms

Ethical firms are identified using *CRO* magazine's annual list of "Best Corporate Citizens" during 2000 – 2008. This list represents a ranking of the '100 Best' citizens headquartered in the U.S. and was used in prior academic research (e.g. Blazovich and

Smith 2010, Filbeck et al. 2009, Laksmana and Yang 2009) to test capital markets-based research questions related to ethical rankings and corporate citizenship. The *CRO* list focuses on large-cap (Russell 1000, S&P 500, and Domini 400) firms and is based on a composite score of eight categories reflecting the firm's ethical commitment to employees, investors, and society at large. Specifically, the eight categories analyze the areas of: climate change, governance, employee relations, environment, financial performance, human rights, lobbying, and philanthropy.[4] A full definition of these categories is provided in the Appendix.

A total of roughly 150 data items are analyzed by IW Financial to calculate a composite score.[5] Companies are then ranked based on their composite scores and the top 100 companies appear on the "Best" corporate citizens list. Validating the list's credibility is an independent team of corporate managers, academics, and business consultants that meet to discuss and debate the best approach to calculating scores. Despite the criticisms discussed earlier in the paper, a ranking on the '100 Best' list places the firm in the top 10% of large-cap publicly traded companies, representing a notable public relations achievement.[6] As such, the list has, "gained national recognition as an indicator of best practices in the area of financial reporting" (*PR Newswire* 2006) and members of the business press are quick to announce the rankings once released. For example, after the 2007 list was revealed, an article in *The Motley Fool* highlighted the "honor" that Green Mountain Coffee achieved by earning the top spot on the list which the author proclaimed is "required reading

[4] These categories are taken from the 2008 rankings. Prior to 2008, the "lobbying" category was not a factor in the rankings and "diversity" and "employee relations" represented two separate categories. While the category names may change slightly over the years, the 100 Best list has consistently included measures of environment, human rights, employee relations, financial performance and governance.

[5] KLD Analytics provided the rankings data and analysis prior to 2008.

[6] The 10% is based on the Russell 1000 index as the starting point for the *CRO* rankings.

for those of us who consider socially progressive ideas as one criteria when researching stocks" (Lomax 2007). That same year Gap, Inc. issued a press release announcing its #25 place on the 2007 *CRO* rankings and stated the list "identifies companies that excel at serving a variety of stakeholders".[7] As further evidence of the amount of interest in the '100 Best' list, a recent search on Google for "100 Best Corporate Citizens" generated 95,300 results.[8] Based on this, we categorize a firm has having an ethical reputation (a 1/0 dichotomous variable) if it is named on the annual list. While doing so, we recognize the research of Cho et al., 2012 and others who argue that these reputations may be based more on carefully-crafted public relations strategies than on actual ethical behavior.

Measuring Discretionary Accruals

Accounting guidelines in the U.S. (GAAP) require a company's net income amount to include a cash component of revenues and expenses and a component related to accrual accounting adjustments. These accrual adjustments affect the timing of revenue and expense items. For example, when an inventory item is acquired it is initially recorded as an asset on the balance sheet. When the item is sold the cost of the asset is expensed in the form of cost of goods sold. As a second example, consider the recording of bad debts. When a firm records revenues from credit sales during a period it also records an expense based on the estimated amount of receivables that won't be collected. In both the cost of goods sold and bad debts cases we see that expenses are matched with the related revenues in the time period revenues are recorded. Thus, during a given time period, the net income produced under accrual accounting reflects a firm's actual

[7] "Gap, Inc. named one of the 100 best corporate citizens", February 14, 2007, press release available on company website.

[8] The Google search was performed on June 4, 2011.

economic performance more appropriately as compared to a purely cash-based accounting system.

Accrual accounting often requires judgment on the part of managers. For instance, in the bad debts example, management must estimate the amount of credit sales that customers will not pay. Firm managers may take advantage of the discretion allowed under accrual accounting rules and opportunistically manipulate earnings. One need only look at last decade's series of fraud cases involving corporate giants Enron, WorldCom, HealthSouth, and Tyco (to name a few) for examples of accounting shenanigans managers employ to manipulate earnings and fool outsiders. It is often the case, however, that discretionary accounting choices made to mask financial performance are subtle ones and do not result in shareholder lawsuits or front page reporting by the financial press.[9] For example, managers might make a slight adjustment to expected warranty claims to avoid falling one or two cents shy of that period's forecasted earnings.

Our proxy for earnings management is the "discretionary" component of total accruals. To measure discretionary accruals (hereafter denoted "DA") we implement a modified version of the Jones (1991) model controlling for firm performance (Francis and Yu 2009; Kothari et al. 2005). This model estimates a firm's expected total accruals as a function of income statement and balance sheet accounts. The difference between expected total accruals and actual accruals represents DA.

We begin the process by defining total accruals (TAC) as the component of earnings not measured by operating cash flows, or:

TAC = income before extraordinary items – cash flows from operations.

[9] Indeed it is possible to manage earnings through accrual choices while remaining within the scope of existing GAAP rules. Thus while the decision to manage earnings may reflect firm ethics, it is not always an act of financial fraud.

We then estimate the following ordinary least-squares (OLS) regression for each year and two-digit industry SIC code combination, using all companies available on COMPUSTAT:

$$TAC = \alpha + \alpha_1 \Delta SALES + \alpha_2 PPE + \alpha_3 EBIT + \varepsilon \qquad (1)$$

where:

TAC = total accruals,
ΔSALES = current year change in sales revenue,
PPE = end-of-year property, plant, and equipment (gross),
EBIT = current year earnings before interest and taxes.

All variables are scaled by lagged total assets. Change in sales and PPE level control for the expected economic determinants of accruals. Kothari et al. (2005) suggest that accruals are affected by firm operating performance. To control for differences in operating performance across firms we include an earnings variable (EBIT), similar to the approach used in Francis and Yu (2009). Equation (1) represents a model for estimated total accruals and the residuals from this equation are used to measure DA. A positive residual (DA) from equation (1) indicates income-increasing discretionary accruals, or *more aggressive* earnings management.

Sample Data

We begin with the sample selection process by identifying firms on the *CRO* annual list of "Corporate Citizens" during the nine year period 2000 – 2008. This list comprises our initial sample of 900 observations of firms, which we label as "CRO firms" for discussion purposes. From this list we drop 1) observations missing the necessary COMPUSTAT financial data for our hypothesis test and 2) companies in the financial services industries (SIC 6000 – 6999) as the unique accounting rules for these firms makes it difficult to estimate discretionary accrual amounts using the standard approach in equation (1). We remove a total of 244 observations (133 with missing data and 111 financial

services firms) leaving a sample of 656 observations. As discussed earlier, we combine the firms with a set of matched peers to complete the final overall sample of 1,312 observations included in our primary analysis.

TABLE 1: Distribution of sample CRO firms (2000 – 2008)

2-digit SIC	*Freq.*	*% of CRO Firms*	*Industry*
35	86	13.1%	Industrial and Commercial Machinery and Computer Equipment
28	80	12.2%	Chemical and Allied Products
36	77	11.7%	Electronic and Other Electrical Equipment and Components, Except Computer
73	57	8.7%	Business Services
49	47	7.2%	Utilities
38	43	6.6%	Measuring, Analyzing and Controlling Instruments
20	34	5.2%	Food and Kindred Products
-	232	35.4%	All Others
	656	100%	TOTAL

This table presents the distribution of the largest industry groups in the study's sample. Companies are identified as ethical firms if they appear on the *Corporate Responsibility Officer* (*CRO*) annual list of "100 Best Corporate Citizens." The distribution is based on the total firm observations, which reflect 268 unique firms. The sample excludes all firms operating in financial industries (SIC 6000 – 6999) and those missing necessary data on COMPUSTAT.

The list of "Best Corporate Citizens" is calculated on an annual basis and, as such, a single firm may appear in multiple rankings. For example, Intel, Cisco and Starbucks made the list every year from 2000 – 2008. A total of 268 unique firms make up

the final sample of 656 CRO firms. Table 1 shows the breakdown of the CRO firms by industry classification (2-digit SIC). The top industry (Industrial and Commercial Machinery and Computer Equipment) represents approximately 13% of the total sample, indicating that our test results are not driven by the effects of a single industry.

Hypothesis Test

We test our hypothesis, H_a, by examining the association between DA and ethical rankings after controlling other factors which may impact total accruals. We identify firms on the *CRO* list and compare their DA amounts to a matched sample of peer firms. The matched sample is selected using (first) two-digit SIC codes, (second) year, and (third) total assets so that the peer group represents similar sized firms operating in the same industry and year. The formal test of our hypothesis examines whether DA for CRO firms are lower relative to their matched peers through the following OLS regression:

$$DA = \alpha + \beta_1 LEV + \beta_2 SIZE + \beta_3 BM + \beta_4 NEWEQ + \beta_5 CRO + \varepsilon \quad (2)$$

where:

DA	= discretionary accruals as calculated in equation (1),
LEV	= total liabilities divided by total assets at the end of the current year,
SIZE	= natural log of total assets at the end of the current year,
BM	= book value of equity divided by market value at the end of the current year,
NEWEQ	= 1 if total equity issuance during the year exceeds 10% of the market value of equity at the beginning of the fiscal year, 0 otherwise,

CRO = 1 if company is named on the list of '100 Best Corporate Citizens', 0 otherwise.

The regression is performed using a sample of CRO firms and the group of matched peers. Our hypothesis predicts a negative coefficient on β_5, our measure of corporate social responsibility. This result indicates that socially responsible firms engage in less income-increasing earnings management activities than their peers.

The model shown in equation (2) includes control variables to capture the effects of debt (LEV), size (SIZE), growth (BM), and new equity issues (NEWEQ) on a firm's propensity to manage earnings. We expect higher levels of DA for firms with greater debt levels (DeFond and Jiambalvo, 1994), firms that issue equity (Teoh et al. 1998) and high-growth firms. In contrast, larger firms, with more developed accounting systems and stronger monitoring environments, are expected to exhibit lower DA amounts.

RESULTS

Descriptive Statistics

Table 2 presents descriptive statistics for CRO firms and the matched-sample firms during the years 2000 – 2008.[10] The CRO firms have lower book-to-market ratios (BM) than the matched sample, which may capture a potential bias in corporate rankings toward including larger firms and those exhibiting stronger prior financial performance (Brown and Perry 1994). There is no significant difference in size between the CRO firms and the matched sample. The mean and median values of the SIZE variable for both samples place these firms in the top 10% of the total COMPUSTAT data set. Thus, the firms included in our analysis represent a group of some of the largest publicly traded companies.

[10] All continuous variables are winsorized at the 1% and 99% levels.

TABLE 2: Sample Descriptive Statistics

Variable		*CRO*	*Matched Firms*
N		656	656
SIZE	mean	8.547	8.417
	median	8.652	8.618
	std. dev.	(1.56)	(1.47)
BM	mean	0.356***	0.505
	median	0.274	0.414
	std. dev.	(0.307)	(0.438)
LEV	mean	0.535***	0.576
	median	0.556	0.592
	std. dev.	(0.211)	(0.216)
NEWEQ	mean	0.020***	0.049
	median	0.000	0.000
	std. dev.	(0.139)	(0.216)
DA	mean	-0.046***	-0.015
	median	-0.025	-0.004
	std. dev.	(0.112)	(0.125)

Firms are included in the CRO sample if they appear in the *CRO* rankings of "Best Corporate Citizens" from 2000 – 2008. The matched-firms are identified using an industry-, year-, and sized-based approach. Variable definitions (all measures are as of the end of the current fiscal year):

BM: Book to market ratio
LEV: Total liabilities-to-total assets ratio
SIZE: Natural log of total assets
NEWEQ: Indicator variable set to 1 if the firm issued new equity during the year and 0 otherwise
DA: Discretionary accruals, equal to the residual from the regression:

$$TAC = a + a_1 \Delta SALES + a_2 PPE + a_3 EBIT + e$$

where TAC is total accruals (income before extraordinary items less cash flows from operations) scaled by lag total assets, ΔSALES is change in sales revenue scaled by lag total assets, PPE is property, plant, and equipment (gross) at the end of the current year scaled by lag total assets, and EBIT is current year earnings before interest and taxes scaled by average total assets.

Tests of differences in means (CRO sample relative to industry-, year-, and size-matched firms) are significant at the following levels: *=10%, **=5%, and ***=1%.

Relative to their matched counterparts, the CRO firms are also less levered, and had fewer equity issuances during the sample period. Significant differences in SIZE, BM, LEV, and NEWEQ between the CRO and matched firms highlight the importance of including these controls in our hypotheses test. Finally, note that DA, our proxy for earnings management, is significantly lower for CRO firms as compared to the matched sample. This result provides evidence at the univariate level that CRO firms practice less income-increasing earnings management activities relative to their peer firms.

TABLE 3: Pearson Correlations for CRO and Matched Firms

	BM	LEV	SIZE	NEWEQ	DA
LEV	-0.058**				
SIZE	-0.040	0.256***			
NEWEQ	0.008	0.012	-0.144***		
DA	0.193***	0.176***	-0.014	0.087***	
CRO	-0.193***	-0.097***	0.043	-0.080***	-0.128***

Correlations are significant at the following levels: *=10%, **=5%, and ***=1%. See Table 2 for variable definitions.

Primary Results

Table 3 presents the Pearson correlation statistics for our test variables. The correlations are calculated using data from the CRO and matched samples (1,312 total observations). Of particular interest, the table indicates that DA is positively correlated with BM, LEV, and NEWEQ. With the exception of BM, these relationships among the control variables are consistent with our expectations and, as with the univariate results in Table 2, the correlation between DA and CRO is consistent with our hypothesis. While the BM relationship with DA is contradictory to previous research, it is somewhat difficult to directly interpret the BM in our sample. For example, in addition to growth, this variable is associated with firm risk. To the extent firms with

greater risk (e.g. earnings variability) are associated with less aggressive accounting choices, the negative coefficient on the BM variable is expected. Firm size (SIZE) is not correlated with DA. This is likely due to the fact that our matching process includes total assets and yields a final sample of large firms with relatively little variation in size.

TABLE 4: OLS Results

Variable	*Expected Sign*	*Coefficient*	*t-statistic*
α	?	-0.076	3.63***
SIZE	-	-0.004	1.55*
BM	-	0.059	5.35***
LEV	+	0.108	5.29***
NEWEQ	+	0.046	1.99**
CRO (H_a)	-	-0.015	2.30**
	N	1,312	
	Adj. R^2	0.083	
	F	24.57***	

Dependent variable is signed discretionary accounting accruals (DA). See Table 2 for variable definitions. White-adjusted t-statistics in parentheses are significant at the following levels using one-tailed (two-tailed) tests when predicted signs are given (not given): *=10%, **=5%, and ***=1%.

Results from estimating equation (2) are reported in Table 4. As expected, the variables LEV and NEWEQ are positively related to DA. The coefficient on BM is negative while the coefficient on SIZE is not significant. Importantly, the CRO variable is negative and significant (p<1%), indicating that, on average, firms identified as socially responsible report lower amounts of discretionary accounting accruals. These results support our hypothesis and indicate that firms listed in the *CRO* rankings are less likely to artificially inflate earnings through discretionary accounting choices.

As discussed in the Research Design section of this paper, we are primarily interested in whether CRO firms are less likely to

overstate earnings through accounting manipulation. Thus, the results in Table 4 are based on signed discretionary accruals. Still, it is possible that our initial results are driven by CRO firms that significantly under-report earnings (e.g. manage earnings downward to take a "big bath"), which would not be consistent with ethical financial reporting practices. To gain a further understanding of what is driving the results in Table 4, we separate the sample into groups of positive (income-increasing) and non-positive (income decreasing) DA amounts and estimate equation (2) across these two groups. A negative coefficient on the CRO term in the *positive* group indicates that our initial results reflect a lower likelihood of aggressive earnings management on the part of managers at these firms. In contrast, a negative coefficient on the CRO term in the *negative* group indicates the results in Table 4 are consistent with the notion that managers at these firms are more likely to significantly underreport current period income and use the built-up accruals to benefit future period earnings.

Table 5 reports the results from estimating equation (2) across the two DA groups and shows a clear difference in the coefficients on the CRO term. The CRO variable is negative and significant ($p<.01$) in the positive DA ($DA>0$) subsample, but insignificant in the non-positive ($DA\leq0$) group. The results in Table 5 show that the lower discretionary accruals reported by the CRO firms are not due to excessively under-reporting earnings. Rather, the relatively lower discretionary accrual amounts for CRO firms stem from *lower positive discretionary accruals*, indicating managers at these firms are less likely to aggressively inflate earnings through accounting choice.

Collectively, our results support our hypothesis and suggest that firms perceived by the public press as "ethical citizens" do not use accounting discretion to mask true economic performance. Thus, these ethical citizens make ethical financial reporting choices, as well, reflecting a consistent philosophy between their observable and relatively unobservable actions.

TABLE 5: OLS regression partitioned into positive/non-positive DA subgroups

		DA≤0		*DA>0*	
Variable	***Expected Sign***	***Coef.***	***t-statistic***	***Coef.***	***t-statistic***
α	?	-0.136	5.60***	0.046	2.50**
SIZE	-	-0.002	0.77	0.002	1.06
BM	-	0.008	0.66	0.042	3.79***
LEV	+	0.117	5.18***	-0.037	2.50**
NEWEQ	+	-0.033	0.94	0.042	2.33**
CRO (H_a)	-	-0.004	0.55	-0.014	2.54***
N		776		536	
Adj. R^2		0.052		0.104	
F		9.43***		13.37***	

Dependent variable is signed discretionary accounting accruals (DA). The sample is separated into positive (DA>0) and non-positive (DA≤0) subgroups. See Table 2 for variable definitions. White-adjusted t-statistics in parentheses are significant at the following levels using one-tailed (two-tailed) tests when predicted signs are given (not given): *=10%, **=5%, and ***=1%.

Robustness Tests

To test the consistency of our results across the sample period observations we run several sensitivity tests. First, the *CRO* rankings are released annually and across our nine-year sample period the same firms may appear in multiple rankings. To remove any potential bias caused by including a single firm multiple times in our hypothesis test we eliminate duplicate rankings. Specifically, we keep observations for the first year that a firm appears on the '100 Best' rankings and remove any future listings of that same firm so that each firm is limited to a single observation in the data set. Results from this reduced sample of 536 firms (268 CRO firms and matched pairs), not reported for brevity, are consistent with the earlier test results. Specifically,

CRO firms report lower overall DA's (Table 4), lower amounts in the income-increasing DA sample (Table 5).

Second, we separately estimate equations (1) and (2) after removing each individual year (2000 – 2008) in the sample. Results from these separate regressions are very similar to the results in Tables 4 and 5. The CRO coefficient remains significant ($p<.05$) in Table 5 in all instances of this sensitivity test and in only one instance, removing the 2002 observations, does the p-value on the CRO coefficient in Table 4 fall below significant amounts at conventional levels.

As a final robustness test we separately estimate equations (1) and (2) after removing each of the three largest industries (i.e. industries identified in Table 1 which represent approximately 10% each of the total sample) represented in the sample. In all instances these separate tests report similar results to those reported in Tables 4 and 5 and the CRO coefficient remains significant ($p<.05$) in each regression. These tests indicate the initial findings are not due to a set of individual year- or industry-groupings.

CONCLUSION

This study investigates whether firms regarded as ethical are less likely to boost financial performance through aggressive accounting measures and disclosure choices. Our study includes a sample of firms identified by *CRO* magazine as "Best Corporate Citizens" in the U.S. between 2000 and 2008. We find that these firms, when compared to a matched sample, report significantly lower levels of discretionary accounting accruals, our proxy for earnings management. These results hold after controlling for a set of variables associated with differences in discretionary accruals across firms. In addition, we find that these results are driven by lower amounts of income-increasing discretionary accruals in the CRO firms, reflecting more conservative accounting choices. We conclude that, as compared to industry peers, companies identified as ethical corporate citizens are less likely to issue financial reports which include artificially inflated earnings. Further, our results provide some degree of validation for the use of *CRO* rankings as a

summary measure of ethical behavior, notwithstanding the criticisms made by other researchers. The rankings signal relatively high earnings quality for the listed firms, thus providing potentially-valuable information to outside investors and analysts.

At a higher level, the results of this study offer insight into the relationship between ethical practices and corporate philosophy. Although evidence of responsible behavior is observable in firm commitments to such activities as environmental protection and human rights through press releases, ethics-related reports, and product labeling, it is less apparent whether these same firms are relatively more ethical in obscure areas such as discretionary accounting choices. Our results show that the firms identified as being ethical tend to behave ethically with respect to financial reporting. Thus, an important take-away from this study is that there is a positive and significant correlation between the CRO rankings and ethical financial reporting. This does not necessarily imply causality, but does offer additional support for the recent findings of Kim et al. (2011) and complements the earlier experimental results of Beaudoin et al. (2009).

The results in our study at first seem to contradict those of Chih et al. (2007), who find that firms thought to be socially responsible tend to report higher amounts of discretionary accruals compared to other firms. In retrospect, we do not believe the results are contradictory but rather that they arise from differences in the scope of the data. In particular, we restrict our study to U.S. firms whereas Chih et al. (2007) examine a sample of firms from several countries. As previously discussed, one key difference among these countries is that the U.S., for the most part, does not mandate the reporting of socially responsible activities, which is not the case in several other countries (e.g. Denmark, France, and the U.K). Although more research is needed to fully understand the implications of this difference, comparing the results of our study with Chih et al. (2007) suggests that the mandate vs. no mandate decision is more complicated than it may first appear. Firms that are *required* to engage socially responsible activities may tend to

only meet the minimum requirements, a sort of "check-the-box" mentality, whereas firms who are not under such a mandate may tend to act more responsibly in their activities.

It is important to note that our study faces limitations in using publicly available data to make inferences about management's ethical behavior. For example, because we rely on media rankings of ethical behavior, our sample is biased towards very large companies with recognizable brand-names. To the extent we have not controlled for this potential bias through the matching process and selected control variables, our results may not generalize across other settings. Still, our work provides evidence that the CRO rankings do act as indicators of more conservative accounting choices.

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APPENDIX
Category Descriptions for Composite *CRO* Rankings[a]

Climate Change: Incorporates climate change disclosure (including to the Carbon Disclosure Project, as well as company websites and sustainability reports) and climate change policies (including offsets and reduction goals). Within these areas, the criteria evaluate 22 distinct attributes.

Governance: This category includes the one standard for inclusion on the Best list: board independence. A majority of the board must be independent and key committees of the board must also be fully independent. In addition, ratings include general board accountability and demographics (board tenure, age of directors, over-commitment of directors to multiple boards, and annual election of all directors). The ratings also include executive compensation in the form of percentage of CEO pay that is incentive based.

Employee Relations: This category incorporates unionization rates, publicly disclosed employee benefits and Equal Employment Opportunity Commission complaints.

Environment: Incorporates an evaluation of environmental disclosure (including sustainability reporting criteria and disclosure within the 10-K), environmental policies (including management systems), and environmental performance (including toxic emissions, waste management, evidence of chemical and oil spills and environmental fines).

Financial: This category evaluates the three-year return on investment in the company stock, based on Morningstar rankings.

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[a] These definitions refer to the 2008 Best Corporate Citizens rankings criteria, obtained from the Corporate Responsibility Officer's website (www.thecro.com/?q=node/616&spesh=printme) on October 7, 2009.

Companies without a three-year return to shareholders were not considered in the ranking.

Human Rights: Incorporates disclosure (including current controversies within the company's oversees operations), policy (including codes of conduct and performance goals), and exposure to 45 countries of concern. Companies with higher levels of exposure need to earn higher scores in disclosure and policy to do well.

Lobbying: Evaluates a size-adjusted, three-year lobbying total at the federal level. Information for this category came from www.opensecrets.org and the Center for Responsive Politics.

Philanthropy: This category in the ratings evaluates giving levels and policies (including employee match programs).