Journal of Business Ethics (2008) 79:179–198
DOI 10.1007/s10551-007-9383-7

Corporate Social Responsibility, Investor Protection, and Earnings Management: Some International Evidence

Hsiang-Lin Chih
Chung-Hua Shen
Feng-Ching Kang

ABSTRACT. To many, recent allegations of accounting fraud (or earnings management; EM) at Enron, coupled with similar ones at many other corporations, are a strong indication of a serious decay in business ethics. In academics, this raises the concern between EM and corporate social responsibility (CSR). Since it has neither been documented, nor globally tested whether CSR mitigates or increases the extent of EM, three kinds of EM are studied: earnings smoothing, earnings aggressiveness, and earnings losses and decreases avoidance. The extents to which financial characteristics and institutional variables have an impact on the extent to which companies conduct EM are also tested. Our study investigates whether the CSR-related features of 1,653 corporations in 46 countries had a positive or negative effect on the quality of their publicly released financial information during the 1993–2002 period. There is no question that with a greater commitment to CSR, the extent of earnings smoothing is mitigated, that of earnings losses and decreases avoidance is reduced, but the extent of earnings aggressiveness is increased.

JEL CLASSIFICATION: G21, G34, G38, M41

KEY WORDS: corporate governance, corporate social responsibility (CSR), earnings management, earnings opacity, investor protection

Introduction

In light of recent allegations of accounting fraud at Enron and, in close succession, similar allegations at Tyco, BMY, WorldCom, Xerox, and Merck, among others and so on, it seems to many that insiders have been increasingly using their discretion to mislead outsiders through their financial reporting. A great deal of commentary has attributed such accounting

Hsiang-Lin Chih is an Associate Professor of Department of Cooperative Economics , and Director of Center for Cooperative Economics and Non-Profit Organizations at National Taipei University, Taiwan. His current research focuses on corporate social responsibility, corporate governance, and nonprofit financial management. His writings have appeared in Journal of Banking and Finance, Academia Economic Papers *and in other journals. He received his Ph.D. from the National Taiwan University in 1998.*

Chung-Hua Shen is a Professor of Department of Money and Banking at National Chengchi University, Taiwan. He teaches financial market and financial institutions, global financial systems and corporate governance. He was the Fulbirght scholar in 2000 and Eisenhower Fellower in 2006. He publishes paper in Journal of Banking and Finance, Journal of Money, Banking and Credit, Journal of Econometrics, Journal of International Money and Finance, International Journal of Economics and Finance, Review of Quantitative Finance & Accounting, Southern Economic Journal, Journal of Policy Modeling, Eastern Economic Journal, Journal of Macroeconomics, Pacific Basin Finance Journal, Journal of Business & Economics, International Economic Journal, Applied Economics, Applied Financial Economics, International Journal of Forecasting *etc. He received his bachelor and master degree from National Taiwan Universtiy and Ph. D from Washington University in the US.*

Feng-Ching Kang is a graduate student for Ph. D degree of the Department of Social Welfare at National Chung Cheng University, Taiwan. Her research focuses on nonprofit governance, social economy, cooperative economics, organization theory and business ethics. She received a MBA from the Department of Cooperative Economics, College of Business National Taipei University, Taiwan

scandals to decaying business morality (New York Times, 2002[1]) or to crumbling corporate social responsibility (CSR hereafter). This explains why leaders in public opinion, and commerce, consumers, and investors have been advocating that businesses should not merely be geared toward profit at the expenses of fulfilling their responsibilities to employees, the society, the environment, and so on.[2] In fact, financial transparency and accountability – both as vital to shareholders as they are to employees, customers, communities, and leaders at all levels of society – are fast becoming principles of CSR that could reduce the extent to which insiders abuse their information advantage over outsiders.

Given that financial transparency and accountability are vital to CSR, a closer examination of issues concerning earnings management (hereafter EM) is required. EM is the altering of the reported economic performance of a firm by insiders to either ''mislead some stakeholders'' or ''influence contractual outcomes'' (Healey and Wahlen, 1999; Schipper, 1989). Insiders, for instance, can use their discretion in financial reporting to overstate the true level of earnings and understate any real unfavorable earnings (e.g., earnings losses or earnings decreases) that would prompt outsiders to take action against them. When there is extensive EM, financial reports inaccurately reflect a firm's performance, and, consequently, this weakens outsiders' ability to govern that firm (Leuz et al., 2003). Bhattacharya et al. (2003) identify three commonly used methods that contribute to earnings opacity: earnings aggressiveness, loss avoidance, and earnings smoothing. These three practices undeniably weaken the link between accounting performance and the true economic performance of a firm.

While research on CSR has been voluminous, studies have typically focused on the relationship between CSR and financial performance (Coombs and Gilley, 2005; Griffin and Mahon, 1997; Hillman and Keim, 2001; McWilliams and Siegel, 2000, 2001; Pava and Krausz, 1996; Roberts and Dowling, 2002; Simpson and Kohers, 2002; Waddock and Graves, 1997).[3] To the best of the present authors' knowledge, empirical studies that have directly examined whether CSR and EM are related or not have been few. Gelb and Strawser's (2001) study is somewhat similar to the present in that they examine the relationship between CSR and financial disclosure, but they do not, however, explore the relationship between CSR and EM. The aim of this article is to empirically investigate the relationship between CSR and EM. This article is also unique as it offers a new understanding and greater insights into whether the relationship is affected by financial and institutional variables.

To enhance the reliability of this study, we employ cross-country data to investigate the relationship between CSR and EM. Our data differ from those of Gelb and Strawser (2001), who employ the rankings provided by the Council on Economic Priorities (CEP), but those data are restricted to the U.S. only. McWilliams and Siegel (2000) use the data for corporate social performance, which is provided by the firm Kinder, Lydenberg, and Domini (KLD), but they find no relationship between CSR and financial performance. Again, those data are limited to the U.S. only. Therefore, in order to measure CSR across firms and countries, our CSR companies are constituents in the FTSE4Good Indexes, which was first compiled in July 2001 by the FTSE Group. The FTSE Group, a joint venture between the Financial Times and the London Stock Exchange, is an independent company whose sole business is to compile and manage such Indexes and associated data services. Companies in the FTSE All-World Developed Index (Global)[4] are included in the FTSE4Good Indexes provided that they meet globally recognized social responsible criteria requirements in three areas designated by the FTSE Group. These are environmental requirements (working towards environmental sustainability), social and stakeholder requirements (developing positive relationships with stakeholders), and human rights requirements (up-holding and supporting universal human rights). Once we obtain CSR companies, we collect Non-CSR companies if they are included in the FTSE All-World Developed Index (Global) but not included in the FTSE4Good Indexes.

This rest of this article is organized as follows. Sections ''Corporate social responsibility and earnings management'' and ''Measures of earnings management'' explain four different hypotheses about CSR and EM and explain how we measure CSR and EM. Section ''Econometric model'' provides a discussion on the different empirical models we use. Section ''Descriptive statistics'' summarizes the data and the descriptive statistics. Section ''Empirical results'' discusses the empirical results,

while Section ''Conclusions'' presents the conclusions we draw.

Corporate social responsibility and earnings management

Corporate social responsibility

The FTSE4Good Index Series contains five benchmark Indexes: the FTSE4Good Global, FTSE4Good Europe, FTSE4Good U.S., FTSE4Good U.K., and the FTSE4Good Japan, representing the index of CSR companies in the global, European, U.S., U.K., and Japanese markets, respectively. As the aim of this paper is to test the relationship between CSR and EM on a global scale, we select the FTSE4Good Global as our benchmark and not the remaining four FTSE4Good Indexes. The FTSE4Good Global Index has the broadest portfolio universe, covering as many as 46 different countries, which is obviously a larger number of countries more than that covered by the other four Indexes. In this article, we deem sample companies as socially responsible if they are constituents in the FTSE4Good Global Index. To qualify for inclusion in the FTSE4Good Index Series, companies must first be in the FTSE All-World Developed Index (Global). Then, as mentioned above, these companies must also meet the three requirements, i.e., the environmental, social, and stakeholders and the human rights requirements. Eligible companies that have been identified as having a business interest in certain specified industries are excluded from the FTSE4Good Index Series.[5] The key objectives of compiling the FTSE4Good Index Series is to provide a tool for asset managers and socially responsible investors a tool with which to they can identify companies that are committed to meeting CSR standards. By virtue of their commitment to CSR behavior, they contribute to the development of responsible business practices around the world (FTSE Group, 2003).

One caveat is that CSR may very well just be a rhetorical term that some use to cover up irresponsible corporate activity that actually leaves a community worse off. This means that companies included in the FTSE4Good Indexes could, in fact, be socially irresponsible. To illustrate this, in 2004, Christian Aid, a non-profit organization, published a report it claimed revealed the true face of so-called CSR. Therein, it says that Shell, for example, attests to being a good neighbor but leaves oil spills unattended to. Another case, it goes on, involves British American Tobacco (BAT), which claims to give farmers training and protective clothing, yet contract farmers in Kenya and Brazil say otherwise. The report concludes that BAT's community-development projects are ''frequently ineffective.'' Coca-Cola, the third case, allegedly promises to use natural resources responsibly, but the report accuses an Indian subsidiary of depleting village wells. These stories have also been cited by The Economist (2004). Thus, should the Christian Aid's (2004) report be correct, that is, if some companies are merely paying lip service to CSR to mask their socially irresponsible behavior, and if the FTSE4-Good screening system cannot screen out such companies, our empirical results might have to be considered misleading. As mentioned above, McWilliams and Siegel (2000) use the KLD data of corporate social performance to test the relationship between CSR and financial performance. But, it should be noted that they also state that their empirical results might be biased due to the lack of an adequate measure of CSR.

Four different hypotheses regarding CSR and EM

Four types of relationships between CSR and EM are possible. First, a company with good CSR does not undertake EM, which is a definitive sign of a negative relation between the two. The reason underlying this, as is mentioned above, is that a firm that is socially responsible does not hide unfavorable earnings realizations and, therefore, conducts no EM. In this regard, Shleifer (2004) interprets that earnings manipulation, which many people find ethically objectionable, occurs less often in corporations with a strong commitment to social responsibility. To be sure, CSR augments transparency and reduces the number of opportunities to manage earnings. Similarly, Gelb and Strawser (2001) find that a limited sample of U.S. firms that engage in socially responsive activities provides more informative and/or extensive disclosures compared with companies that are less focused on advancing social goals. By equal measure, Shen and Chih (2005) find that greater transparency in accounting disclosure in

the banking industry can reduce banks' incentive to manage earnings. As these CSR-minded companies are focused not only on increasing current profits but also on nurturing future relationships with stakeholders, we refer to this behavior associated with the negative relationship between CSR and EM as the *myopia avoidance hypothesis*.

While support for the negative relationship seems to have gained momentum recently, there are those who take the opposite view. Some scholars maintain that a firm committed to CSR, which wants to reduce the advantage they have *vis-à-vis* information for insiders over that of uninformed investors, may opt to conduct EM. To explain, managers may choose to smooth earnings to lower earnings volatility and, in so doing, convey more valuable, more relevant information to uninformed investors (Fukui, 2000; Goel and Thakor, 2003). In this case, the relationship between CSR and EM, at least for earnings smoothing, is probably a positive one. From this viewpoint, firms with a high degree of CSR may tend to smooth earnings to ensure that reported earnings are more predictable. This is referred to as the *predictable earnings hypothesis* because a CSR-minded firm is inclined to smooth earnings.

The soundest reasoning to such a positive relationship discussed above is based on Jensen's (2001) multiple objectives argument, which contends that multiple objectives means no objective. If managers try to serve ''many masters,'' i.e., they attempt to serve all stakeholders in a firm (including financial claimants, employees, customers, communities, and governmental officials, and so on), instead of pursuing the single objective of value maximization, managers and directors are left unaccountable for the stewardship of the firm's resources. In the absence of clear criteria on which to base their performance, managers cannot be evaluated in any principled way. Thus, managers are allowed to divert the firm's resources to pursue their own interests, while sacrificing the interest of other financial claimants and society at large. According to Leuz et al. (2003), these kinds of diversion activities ultimately show up in the firms' accounting earnings and expose insiders to the risk of stiff legal and other disciplinary actions by outside investors. Consequently, this could be a catalyst for rent-seeking insiders to hide the firm's true economic performance, i.e., manage the level and the variability of earnings reported to outsiders, thereby diminishing the likelihood of outsider interference. Therefore, according to Jensen (2001) and Leuz et al. (2003), CSR may aggravate agency problems, giving insiders more impetus to conduct EM to mask their rent-seeking activities from outsiders, i.e., firms with high CSR may tend to manage earnings. since this such diverting activities result from having multiple objectives, we refer to this conjectured positive relationship as the *multiple objectives hypothesis*.

Finally, CSR may be unrelated to EM. Coffee (2003) objects to approaches, which proceed from observations of an increase in accounting scandals and which then conclude that there must have been a decline in business ethics. In this regard, Coffee (2003) advocates that it is 'perverse' incentives, not a decline in ethics, cause scandals. Such incentives include increased auditor acquiescence, growth in equity-based compensation, and the herding behavior of fund managers, none of which are related to business ethics. Under this situation, lacking CSR may be a product of institutional factors and may be unrelated to EM. We refer to this as the *institutional hypothesis*.

To sum up, we have discussed the *myopia avoidance hypothesis*, *predictable earnings hypothesis*, *multiple objective hypothesis*, and the *institutional hypothesis*. Each has different predictive contents on the relationship between EM and CSR.

Measures of earnings management

In accordance with Bhattacharya et al. (2003) and Leuz et al. (2003), we use earnings smoothing, earnings aggressiveness, and loss avoidance to capture the ways in which and the extent to which firms manage earnings. With regard to the third EM, i.e., loss avoidance, we employ ''earnings losses avoidance'' suggested by Bhattacharya et al. (2003) and ''earnings decreases avoidance,'' introduced by Burgstahler and Dichev (1997).

Earnings smoothing

As Leuz et al. (2003) explains, insiders may use their discretion to report accounting accruals that offset economic shocks to a firm's operating cash flow that

would otherwise affect its reported earnings. That is, depending on the specific circumstances of the firm, either a positive or a negative cash flow shock can be viewed as undesirable by insiders wishing to conceal that firm's actual performance. A large-scale use of discretionary accounting accruals to buffer ''undesirable'' cash flow shocks results in a large negative correlation between accruals and operating cash flow. The magnitude of this negative correlation is, therefore, likely to indicate opportunistic smoothing of reported earnings, which does not reflect the firm's true underlying economic performance.

Thus, we have the first measure of EM, earnings smoothing (EM1 in our notation below), which is equal to one minus the contemporaneous correlation between the change in accounting accruals and the change in operating cash flow. Both are scaled by lagged total assets (TA_{it-1}), such that a higher (lower) extent of EM1 represents a higher (lower) extent of earnings smoothing for firm i:

$$\mathrm{EM1}i = 1 - \mathrm{Spearman}\ (\rho\mathrm{Accruals}_{it}/TA_{it-1}, \Delta\mathrm{OCF}_{it}/TA_{it-1}),$$

where Spearman is the Spearman correlation coefficient, ρAccruals is the change in accounting accruals, and ρOCF is the change in operating cash flow. We follow Dechow et al. (1995) and Leuz et al. (2003) to compute the accrual components of earnings:

$$\mathrm{Accruals}_{it} = (\rho\,\mathrm{CA}_{it} - \rho\mathrm{Cash}_{it}) - (\rho\mathrm{CL}_{it} - \rho\mathrm{STD}_{it} - \rho\mathrm{TP}_{it}) - \mathrm{Dep}_{it},$$

where $\rho\mathrm{CA}_{it}$ is the change in total current assets of firm i at time t; $\rho\mathrm{Cash}_{it}$ is the change in cash/cash equivalents; $\rho\mathrm{CL}_{it}$ is the change in total current liabilities; $\rho\mathrm{STD}_{it}$ is the change in short-term debt included in current liabilities; $\rho\mathrm{TP}_{it}$ is the change in income tax payable; and Dep_{it} is depreciation and amortization expenses.

Once we obtain the accruals are obtained, we can calculate OCF:

$$\mathrm{OCF}_{it} = \mathrm{Operating\ Income}_{it} - \mathrm{Accruals}_{it}.$$

Earnings aggressiveness

In line with Bhattacharya et al. (2003), we measure earnings aggressiveness (EM2 in our notation below) of firm i at time t of Accruals divided by lagged total assets:

$$\mathrm{EM2}_{it} = \mathrm{Accruals}_{it}/\mathrm{TA}_{it-1}$$

According to Bhattacharya et al. (2003), earnings aggressiveness is the tendency to delay the recognition of losses and accelerate the recognition of gains. This implies that if cash flow realizations are held constant, then Accruals are expected to increase as earnings aggressiveness increases. Accordingly, the higher greater (lower) the extent of EM2 is, the higher greater (lower) is the extent of earnings aggressiveness.

Earnings losses and decreases avoidance

Burgstahler and Dichev (1997) demonstrate a relatively smoothed single-peaked, bell-shaped distribution except in the area of zero earnings. That is, earnings slightly less than zero occur much less frequently than would be expected given the smoothness of the remainder of the distribution; conversely, earnings slightly greater than zero occur much more frequently than would be expected. This suggests that firms might manage reported earnings so as to avoid reporting losses in earnings when losses are small. That is, although non-financial firms can hide small losses, they cannot hide large ones. Burgstahler and Dichev (1997) also find that managers of U.S. firms use their accounting discretion to avoid reporting decreases in small earnings. Therefore, we measure the extent to which firms manage earnings to avoid reporting earnings losses and earnings decreases, i.e., the extent to which firms manage earnings to exceed two thresholds: zero earnings and changes in zero earnings.

To detect whether EM takes place as a result of avoiding earnings losses (i.e., using zero earnings as the threshold) and avoiding earnings decreases (i.e., using zero changes in earnings as the threshold), in the first step, we plot the histograms to decide the

intervals in earnings and those in changes in earnings, which are both scaled by lagged total assets. Following the suggestion of Silverman (1986) and Scott (1992), we calculate the interval widths of twice the interquartile range of earnings (and changes in earnings) and multiply them by the negative cube root of the sample size.[6] Once we determine the intervals, we follow the method of Burgstahler and Dichev (1997) to calculate the statistic z which is the difference between the actual and expected number of observations for the interval immediately to the right of zero earnings (and zero changes in earnings).

$$z(\text{EM3A and EM3B}) = \frac{\text{AQ}i - \text{EQ}i}{\text{SD}i},$$

where AQ_i and EQ_i are respectively the actual and expected number of observations for interval i and where the interval is immediately to the right of zero; and SD_i is the estimated standard deviation of the difference between the actual and expected number of observations around interval i. More specifically, $\text{EQ}_i = (\text{AQ}_{i-1} + \text{AQ}_{i+1})/2$.[7]

Based on the measures above, we name the z value EM3A or EM3B, respectively, depending on whether we use earnings or changes in earnings, respectively. The higher EM3A (EM3B) is, the greater is the extent to which firms conduct earnings losses (earnings decreases) avoidance.

Econometric model

Does CSR impact earnings smoothing and earnings aggressiveness?

In this section, we test if CSR has an impact on the extent to which firms conduct earnings smoothing and earnings aggressiveness. First, we classify companies included in the FTSE All-World Developed Index into two groups: (1) the CSR Group, in which companies are included in the FTSE4Good Global Index, and (2) the Non-CSR Group, in which companies are not included in the FTSE4Good Global Index. Second, Equation (1) tests the relationship between CSR and EM. It is:

$$\begin{aligned}\text{EM}_{i,j} =& a_0 + a_1\text{Total Asset}_{i,j} + a_2\text{Market-to-Book}_{i,j} + a_3\text{Debt-to-Equity}_{i,j} \\ &+ b_0\text{Antidirector Rights}_i + b_1\text{Legal Enforcement}_i + b_2\text{Auditor}_{i,j} \\ &+ b_3\text{GDP Per-Capita}_i + d_0\text{CSR}_{i,j} + d_1\text{CSR}_{i,j} \times \text{Antidirector Rights}_i \\ &+ d_2\text{CSR}_{i,j} \times \text{Legal Enforcement}_i + d_3\text{CSR}_{i,j} \times \text{GDP Per-Capita}_i + e_{i,j}\end{aligned}$$

where, for sample firm j of country i, the Total $\text{Asset}_{i,j}$, the Market-to-$\text{Book}_{i,j}$, and the Debt-to-$\text{Equity}_{i,j}$ are respectively the simple average of the Total Assets, Market-to-Book ratio, and the Debt-to-Equity ratio in the sample period. $\text{Auditor}_{i,j}$ is the average, in the sample period, of a dummy valuable in the sample period. It takes a value equal to 1 when the sample firm is audited by the Big Five auditors, and 0 when the firm is not. $\text{CSR}_{i,j}$, as mentioned earlier, is a dummy valuable which takes a value equal to 1 when the company belongs to the CSR Group, and 0 when the company belongs to the Non-CSR Group. $\text{Antidirector Rights}_i$ is the Antidirector Rights Index for country i, which is taken from La Porta et al. (1998; LLSV hereafter). It is an aggregate measure of (minority) shareholder rights and ranges from 0 to 6, with higher scores for higher shareholder rights. $\text{Legal Enforcement}_i$ which is measured as the mean score across three legal variables for country i is also used by LLSV (1998): (a) the efficiency of the judicial system; (b) an assessment of the rule of law; and (c) the corruption index. All three variables range from 0 to 10, with higher scores for better legal enforcement. Per-Capita GDP_i is the average per-capita real GDP of country i in the sample period.

As mentioned earlier in Section ''Introduction,'' the impact of CSR on EM could be positive, negative, or zero. As for the other variables, we explain their impact on EM below.

We consider three kinds of financial variables. First, the relation between firm size, measured by Total Assets, and EM is controversial. One view is that capital market pressures are greater for larger

firms because their performance is the focus of the analyst community, which spurs those firms to adopt aggressive accounting policies. In other words, larger firms have a greater incentive to manage earnings (Richardson et al., 2002). The opposite view is that firm size can be used as a proxy for information asymmetry. Larger firms which are often subject to closer scrutiny by outsiders and are required to disclose their information, and hence, there is a lower probability that they manage earnings. Insiders of small firms, on the other hand, are able to withhold their private information more easily than are their counterparts of large firms (Lee and Choi, 2002). This means the coefficient of firm size is uncertain.

Second, we consider the Market-to-Book ratio to measure the sample countries' market's perception with regard to future growth. Skinner and Sloan (2002) suggest that growth stocks are particularly sensitive to stock price, and Barth et al. (1999) find that the market reacts negatively to firms that break their string of consecutive earnings increases. With this in mind, we expect that firms trading at substantial multiples of their book value are under the greatest pressure to adopt aggressive accounting policies to report increased earnings, suggesting that the coefficient of the Market-to-Book ratio is positive.

Third, to capture the impact of debt contracting on EM, we use the Debt-to-Equity ratio to measure firms' leverage. Two opposing empirical findings emerge regarding the relationship between the leverage and EM emerge. One is that high leverage firms tend to manage earnings aggressively, as suggested by Sweeney (1994) and Press and Weintrop (1990). They report that firms respond to debt contracting by strategically reporting discretionary accruals (see also Becker et al., 1998; Richardson et al., 2002). On the other side of the coin, high leverage may also imply less EM, as suggested by Dechow and Skinner (2000). They report that firms with high leverage are less likely to report small increases in earnings. Ke (2001) also finds that the probability of reporting a small increase in earnings rather than a small decrease in earnings is higher for firms with low financial leverage. Chung and Kallapur (2003) do not find evidence of a statistically significant association between abnormal accruals and leverage. As a result, the relationship between the Debt-to-Equity ratio and EM is uncertain.

We use the investor protection variable as the proxy for governmental governance, and the reason is simple. As Jensen and Meckling (1976) point out, unlike outsiders, insiders have the incentive to use a firm's resources in a way that benefits them, but not outsiders. If outsiders detect these diversions, there is a risk that they will take legal or other disciplinary actions against insiders. Consequently, insiders have the motives to extensively manage earnings extensively to hide a firm's true economic performance and weaken outsiders' ability to govern the firm (Leuz et al., 2003). In response to the insiders' incentive to acquire private control benefits and to conceal their actions, corporate outsiders are motivated to design contracts and rely on the legal system to enforce those contracts (LLSV, 1998) that confer to them the rights to discipline insiders (e.g., to replace managers). Therefore, legal protection is highlighted as the key factor affecting the quality of earnings reported to outsiders across countries (Leuz et al., 2003).

Leuz et al. (2003) present two competing hypotheses to test whether investor protection discourages or encourages EM. First, strong investor protection can discourage EM because in such cases, insiders enjoy fewer private control benefits and, hence, have less of an incentive to obfuscate a firm's performance. Against this, holding private control benefits constant, strong investor protection potentially encourages EM because insiders have more of an incentive to hide their control benefits when faced with the possibility of stiffer penalties.[8]

Following Leuz et al. (2003), to measure the extent of investor protection across countries, we use two Indexes from LLSV (1998), Antidirector Rights and Legal Enforcement, to measure the extent of investor protection across countries. As for other institutional variables, we consider Auditor Quality. DeAngelo (1981) finds that auditors with a higher number of clients have ''more to lose'' by failing to report a discovered breach in a particular client's records. This collateral aspect increases the quality of the auditing done by larger auditing firms (see also Dye, 1993; Lennox, 1999a, b). Consequently, if a firm is audited by the Big Five auditors, it is harder for insiders to extensively manage earnings extensively. In order to measure the Auditor Quality, we use a dummy variable, which takes a value equal to 1 when the sample firm is audited by the Big Five

TABLE I

Descriptive statistics of CSR, EM, and institutional variables across 46 countries

Country		Number of FTSE global companies	Number of CSR = 1	CSR ratio (%)	GDP per-capita (constant 1995 U.S.$) (1993–2002 Average)	Earnings smoothing	Earnings aggressiveness	Legal enforcement	Antidirector rights
1	Argentina	9	0	0.00	7,883.21	1.1953	−0.0223	5.790	4
2	Australia	45	9	20.00	22,165.41	1.2269	−0.0049	9.507	4
3	Austria	17	3	17.65	30,921.40	1.0823	−0.0012	9.357	2
4	Belgium	12	5	41.67	28,913.97	1.3790	−0.0062	9.440	0
5	Brazil	24	0	0.00	4,499.85	NA	0.0102	6.130	3
6	Canada	72	31	43.06	21,144.48	1.0996	0.0457	9.750	5
7	Chile	13	0	0.00	4,989.48	1.2640	0.0056	6.523	5
8	China	50	0	0.00	704.24	1.3613	−0.0078	4.777	3
9	Czech Republic	3	0	0.00	5,192.82	0.7868	0.0010	NA	NA
10	Denmark	16	9	56.25	36,345.87	0.9747	0.0196	10.000	2
11	Egypt	3	0	0.00	1,120.86	1.2576	0.0460	4.847	2
12	Finland	7	4	57.14	28,435.83	1.2581	−0.0211	10.000	3
13	France	33	13	39.39	28,243.39	1.1664	0.0019	8.677	3
14	Germany	28	14	50.00	31,134.28	0.9275	0.0146	9.053	1
15	Greece	44	5	11.36	12,175.55	1.7300	0.1076	6.817	2
16	Hong Kong	31	3	9.68	23,118.14	0.9409	0.1947	8.913	5
17	Hungary	4	0	0.00	4,866.80	1.2331	0.0187	NA	NA
18	India	36	0	0.00	421.61	1.2825	0.0296	5.583	5
19	Indonesia	12	0	0.00	1,038.33	1.1768	0.0153	2.877	2
20	Ireland	6	1	16.67	22,882.69	0.9672	0.0719	8.357	4
21	Israel	19	0	0.00	16,301.35	1.1454	0.0296	7.717	3
22	Italy	18	9	50.00	19,895.79	0.8599	0.0132	7.070	1
23	Japan	280	48	17.14	43,535.19	1.2134	−0.0111	9.167	4
24	Malaysia	48	0	0.00	4,528.00	1.2387	0.0180	7.720	4
25	Mexico	14	0	0.00	3,491.05	1.1901	−0.0179	5.373	1
26	Morocco	2	0	0.00	1,361.08	NA	−0.0245	NA	NA
27	Netherlands	10	4	40.00	28,930.97	1.0601	0.0234	10.000	2
28	New Zealand	21	2	9.52	17,195.36	0.9916	0.0101	10.000	4
29	Norway	18	6	33.33	36,082.93	1.1313	−0.0074	10.000	4
30	Pakistan	15	0	0.00	503.48	1.3037	−0.0093	3.670	5
31	Peru	3	0	0.00	2,284.69	0.8487	−0.0091	4.650	3
32	Philippines	14	0	0.00	1,123.85	1.3711	−0.0092	3.467	3
33	Poland	7	0	0.00	3,248.34	1.0549	0.0389	NA	NA
34	Portugal	7	0	0.00	11,825.83	1.0424	0.0691	7.187	3
35	Russian Federation	4	0	0.00	2,829.99	0.4574	0.0796	NA	NA
36	Singapore	32	1	3.13	25,320.70	1.4034	0.0032	8.930	4
37	South Africa	28	0	0.00	3,949.74	1.1039	−0.0076	6.447	5
38	South Korea	31	0	0.00	11,786.70	1.3605	−0.0042	5.550	2
39	Spain	13	3	23.08	16,049.78	1.9125	0.0224	7.143	4
40	Sweden	24	10	41.67	28,910.47	1.0211	0.0045	10.000	3

TABLE I

continued

	Country	Number of FTSE global companies	Number of CSR = 1	CSR ratio (%)	GDP per-capita (constant 1995 U.S.$) (1993–2002 Average)	Earnings smoothing	Earnings aggressiveness	Legal enforcement	Antidirector rights
41	Switzerland	15	6	40.00	44,977.58	1.2423	0.0165	10.000	2
42	Taiwan	71	0	0.00	12,347.00	1.5317	0.0437	7.373	3
43	Thailand	28	0	0.00	2,811.60	1.2712	0.0119	4.893	2
44	Turkey	16	0	0.00	2,958.31	1.0671	0.0932	4.787	2
45	United Kingdom	98	68	69.39	20,847.61	0.8876	0.0179	9.223	5
46	United States	352	146	41.48	29,641.98	1.0132	0.0841	9.543	5
	Total	1,653	400						
	Average			15.90	15,411.69	1.160	0.022	7.471	3.146

auditors, and 0 when the firm is not audited by the Big Five auditors.

Does CSR impact earnings losses avoidance and earnings decreases avoidance?

In this section, we test if CSR has an impact on the extent to which firms avoid earnings losses and decreases. Following Burgstahler and Dichev (1997), we plot the respective histograms of the ''earnings'' of the two groups and calculate the statistic z (i.e., EM3A) to see in which group firms exhibit a higher tendency to avoid earnings losses – that is, to see if ''earnings'' slightly less than zero occur much less frequently than would be expected given the smoothness of the remainder of the distribution, and ''earnings'' slightly greater than zero occur much more frequently than would be expected. Similarly, we plot the histograms of the ''changes in earnings'' of the two groups, and calculate the statistic z (i.e., EM3B), to see in which group firms show a higher tendency to avoid earnings decreases – that is, to see if ''changes in earnings'' slightly less than zero occur much less frequently than would be expected given the smoothness of the remainder of the distribution and to see ''changes in earnings'' slightly greater than zero occur much more frequently than would be expected.

We use before-tax income including and excluding extraordinary items to examine the robustness, both scaled by lagged total assets, to measure ''earnings,'' while ''changes in earnings'' are simply current earnings minus earnings of the previous year.[9]

It is worth noting that in order to have sufficient adequate data to plot the histograms, we combine all sample firms across years and countries, classify them into two groups, the CSR group and the Non-CSR group, and then to calculate the EM3A and EM3B of the two groups. Therefore, no regression analysis, as described in Section ''Earnings aggressiveness,'' is undertaken when EM is proxied by EM3A and EM3B, since we do not have statistics of EM3A and EM3B for every country.

Data and descriptive statistics

Data resources

We first search for the names of the sample countries constituents in the FTSE All-World Developed Index (Global) and in the FTSE4Good Global Index. The former is provided by the FTSE Group, while the latter is provided by the FTSE4Good.[10] The constituents in the FTSE4Good are classified as CSR companies, whereas the constituents in the FTSE All-World Developed Index but not in the FTSE4Good Index are referred to as Non-CSR companies. We then screen the Compustat Global Vantage database for CSR and Non-CSR firms to

fetch the required financial data from January 1993 to December 2002. The data we screen use covers 46 countries and 1,653 companies, as shown in Table I.[11]

Descriptive statistics

Corporate social responsibility

As shown in Table I, the number of CSR and Non-CSR companies in our sample is 400 and 1,253, respectively. The first column shows the name of the 46 sample countries in this study, and the second column reports the number of sample firms included in the FTSE All-World Developed Index (Global) for each country. The countries with the highest number of firms in the Index are the U.S. (352), Japan (280), and the U.K. (98), while those with the lowest number of firms are Morocco (2), Peru (3), the Czech Republic (3), and Egypt (3). The third and fourth columns show the number of CSR firms and the CSR ratios, respectively, where the latter are equal to the proportion of CSR firms to total firms for each country. The five countries with the highest CSR ratios are the U.K. (69.39%), Finland (57.14%), Denmark (56.25%), Germany (50%), and Italy (50%), and it should be noted that the CSR ratios for most of the emerging markets are zero, implying that CSR companies are concentrated in developed countries. This may reflect the fact that developed countries care more about CSR, but it may also be due to the fact that companies in developed countries are better known to FTSE analysts. About 24 countries have no firms in the FTSE4Good Global Index, and therefore, the CSR ratios are equal to zero.[12] For example, although Taiwan has as many as 76 firms in the FTSE All-World Developed Index (Global), not one of them is included in the FTSE4Good Global Index.

Earnings management and investor protection

As concerns the measurement of EM, the sixth column of Table I presents the extent of earnings smoothing by country, which is the simple average value across firms. Recall that a higher score represents a higher extent of earnings smoothing. The five countries with the highest scores are Spain (1.9125), Greece (1.7300), Taiwan (1.5317), Singapore (1.4034), and Belgium (1.3790). By contrast, the Russian Federation (0.4574), the Czech Republic (0.7868), Peru (0.8487), Italy (0.8599), and the U.K. (0.8876) are the five countries with the lowest scores. The seventh column of Table I presents the scores for earnings aggressiveness. The countries showing the highest extent of earnings aggressiveness are Hong Kong (0.1947), Greece (0.1076), Turkey (0.0932), the U.S. (0.0841), and the Russian Federation (0.0796); the countries showing the lowest extent of earnings aggressiveness are Morocco (−0.0245), Argentina (−0.0223), Finland (−0.0211), Mexico (−0.0179), and Japan (−0.0111).

Following Leuz et al. (2003), our data for investor protection are collected from LLSV (1998) and include (1) Antidirector Rights and (2) Legal Enforcement. As shown in Table I, the two Scandinavian countries of Norway and Denmark along with Switzerland clearly have the highest scores on investor protection among all countries, followed by other European countries, namely the U.K., Germany, France, and the Netherlands as well as the North-American countries, such as the U.S. and Canada. By contrast, Latin American and Asian countries have weaker scores for investor protection.

Financial variables

Table II presents the average value of the financial variables across years and sample companies by country. First, the countries with the highest average value of (the natural logarithm of) Total Assets of firms are France, Germany, Italy, the Russian Federation, and Spain, and while those with the lowest average are Morocco, Egypt, Greece, Poland, and Pakistan. It appears that companies in large countries have relatively larger assets. Second, the countries with the highest average values of the Debt-to-Equity ratio are Indonesia, Japan, Ireland, Thailand, and Sweden, whereas the those countries with the lowest average values are Peru, the Russian Federation, Poland, South Africa, and Hong Kong. Three countries in the former group could perhaps have been slightly affected by the 1997 Asian financial crisis. Third, on the question of the average value of the Market-to-Book ratio, Brazil, Argentina, India, the Netherlands, and Denmark are the five countries with the highest scores, and the five transition countries,

TABLE II

Descriptive statistics of firm-specific financial variables across 46 countries (1993–2002)

Country		Number of firms	Total assets	Debt-to-Equity ratio (%)	Auditor	Market-to-Book ratio (%)
1	Argentina	9	6.7333	30.3578	0.3582	26.6947
2	Australia	45	7.6977	59.2932	0.7007	3.3807
3	Austria	17	7.2183	74.3111	0.5351	2.6450
4	Belgium	12	7.8668	39.7099	0.5880	2.5284
5	Brazil	24	8.3810	34.2828	0.6681	32.8861
6	Canada	72	7.9260	72.3784	0.7465	3.6303
7	Chile	13	7.0817	73.3993	0.6282	1.7702
8	China	50	6.9480	28.1616	0.4995	1.1276
9	Czech Republic	3	8.2337	31.6752	0.7063	0.7137
10	Denmark	16	7.0942	48.3390	0.6104	6.5991
11	Egypt	3	5.5508	76.1630	0.1111	2.4855
12	Finland	7	8.4219	59.9690	0.3980	3.9243
13	France	33	9.6228	109.8506	0.5941	4.3926
14	Germany	28	9.5706	46.8010	0.5587	2.6728
15	Greece	44	5.9254	46.6424	0.2806	5.8545
16	Hong Kong	31	8.5043	28.0552	0.5316	2.9162
17	Hungary	4	6.9602	32.9825	0.6548	2.1025
18	India	36	6.3778	36.7863	0.0373	8.2954
19	Indonesia	12	6.7342	151.6913	0.6133	3.9631
20	Ireland	6	7.5342	133.8890	0.7407	4.7511
21	Israel	19	6.7926	60.5114	0.4094	2.8246
22	Italy	18	8.9951	75.4509	0.8284	3.7086
23	Japan	280	8.6841	137.2788	0.0000	3.3560
24	Malaysia	48	6.7430	58.9501	0.5567	3.2147
25	Mexico	14	8.2480	65.1524	0.5541	1.5618
26	Morocco	2	4.9716	NA	0.7083	3.2260
27	Netherlands	10	8.8211	78.4765	0.7867	7.6361
28	New Zealand	21	6.3354	86.7289	0.6329	3.3281
29	Norway	18	7.0978	82.9702	0.8772	5.6936
30	Pakistan	15	6.1094	67.3968	0.0074	1.8242
31	Peru	3	6.4064	14.4495	0.7222	0.9500
32	Philippines	14	6.8344	43.9736	0.2591	2.0125
33	Poland	7	6.0583	20.2005	0.6810	2.9744
34	Portugal	7	8.2996	105.5232	0.4535	3.4471
35	Russian Federation	4	8.9061	19.6674	0.3929	1.3992
36	Singapore	32	7.2925	45.0997	0.6705	2.9282
37	South Africa	28	6.9693	27.6790	0.7385	2.6879
38	South Korea	31	8.3631	74.9218	0.0828	2.5565
39	Spain	13	8.8867	64.1358	0.7333	2.0964
40	Sweden	24	8.4394	122.6012	0.5296	1.7666
41	Switzerland	15	8.8607	46.1182	0.5602	2.8633
42	Taiwan	71	7.0594	35.5996	0.5849	2.7731
43	Thailand	28	6.5482	127.4963	0.2799	3.2561
44	Turkey	16	6.3467	45.9377	0.3041	6.6945
45	United Kingdom	98	8.4898	55.7141	0.5807	6.6213
46	United States	352	8.7157	77.8813	0.7512	10.4622
	Average		7.514	63.437	0.527	4.678

TABLE III

Relation among EM, CSR, investor protection and firm-specific financial variables across firms of in 46 countries

	Legal enforcement	Antidirector rights	Per-capita GDP	Total assets	Debt-to-Equity ratio	Auditor	Market-to-Book ratio	Earnings smoothing	Earnings aggressiveness
CSR	0.314***	0.145***	0.195***	0.270***	−0.031	0.140***	0.042*	−0.074***	0.080***
Legal enforcement		0.397***	0.767***	0.381***	0.038	0.180***	0.004	−0.121***	0.031
Antidirector rights			0.171***	0.137***	0.005	0.132***	0.039	−0.091***	0.064**
Per-capita GDP				0.447***	0.101***	−0.159***	−0.013	−0.054**	−0.026
Total assets					0.144***	0.061**	−0.049*	−0.074***	−0.109***
Debt-to equity ratio						−0.043*	0.023	0.018	−0.048*
Auditor							−0.002	−0.098***	0.041
Market-to-Book ratio								−0.043	0.604***
Earnings smoothing									−0.079***

***, **, and * represent the level of significance at 0.01, 0.05, and 0.10, respectively.

i.e., the Czech Republic, Peru, China, the Russian Federation, and Mexico are the countries with the lowest scores. Finally, as for the number of companies that are audited by the Big Five auditors,[13] Norway, Italy, the Netherlands, Canada, and Ireland have the highest scores, and at the other end of the scale, with the lowest scores are Japan, Pakistan, India, South Korea, and Egypt.

Table III shows the Spearman correlation coefficients, and uses firm level data for CSR, EM, financial variables, Auditor, and institutional variables across 1,653 sample companies. The correlation coefficient of CSR with Legal Enforcement, Anitdirector, GDP per-capita, Total Assets, Auditor and the Market-to-Book ratio are all significantly positive. It is surprising to find that CSR is negatively correlated to earnings smoothing (−0.121) but positively correlated to earnings aggressiveness (0.080), and both are significant. Therefore, evidently, a firm, which is committed to CSR, evidently tends not to smooth earnings but does seems to undertake more earnings aggressiveness. Thus, when earnings smoothing is employed as a proxy for EM, the evidence is against the *predictable earnings hypothesis*, but it is in favor of the *myopia avoidance hypothesis*. However, when earnings aggressiveness is used as a proxy, it is against the *myopia avoidance hypothesis* and supports the *multiple objectives hypothesis*.

Empirical results

Tables IV and V present the estimated determinants of earnings smoothing (EM1) and earnings aggressiveness (EM2), respectively. As mentioned earlier, a higher EM1 is an indicator of there being a greater incentive to smooth earnings, while a higher EM2 is a sign of there being a greater extent of earnings aggressiveness.

Of particular interest here are the coefficients of CSR. There are eight specifications in each table, with each having a different combination of the control variables. The first four specifications do not consider the interactions among the variables, whereas the latter do take such interaction variables into account.

TABLE IV

Determinants of earnings smoothing (EM1)

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Total assets			−0.028**			−0.027**		−0.017
			(−2.354)			(−2.222)		(−1.268)
Market-to-Book			−0.001			−0.001		−0.001
ratio			(−1.424)			(−1.472)		(−1.463)
Debt-to-Equity			0.0001			0.0001		0.0001
ratio			(1.014)			(1.072)		(1.069)
Auditor			−0.117***			−0.098**		−0.076*
			(−3.096)			(−2.543)		(−1.940)
Antidirector				−0.028*			−0.052***	−0.057***
rights				(−1.955)			(−2.935)	(−3.212)
Legal				−0.035***			−0.035***	−0.025*
enforcement				(−3.059)			(−2.916)	(−1.890)
Per-capita GDP		−0.037***						
		(−2.325)						
CSR	−0.103***	−0.077**	−0.034	−0.051	−3.988***	−3.539**	−4.476***	−3.973***
	(−2.960)	(−2.099)	(−0.919)	(−1.351)	(−2.759)	(−2.346)	(−3.090)	(−2.627)
Antidirector					0.026	0.033	0.078**	0.089***
rights × CSR					(1.002)	(1.231)	(2.464)	(2.771)
Legal enforcement					0.040	0.048	0.075	0.076
× CSR					(0.530)	(0.619)	(0.976)	(0.966)
Per-capita GDP					0.332**	0.284**	0.332**	0.281**
× CSR					(2.434)	(2.018)	(2.434)	(1.991)
Constant	1.171***	1.526***	1.441***	1.568***	1.166***	1.422***	1.655***	1.757***
	(61.652)	(9.858)	(14.635)	(16.412)	(59.673)	(13.916)	(16.970)	(14.360)
R^2	0.005	0.009	0.016	0.019	0.011	0.019	0.030	0.034
Adj-R^2	0.005	0.008	0.012	0.016	0.008	0.013	0.026	0.027
Number of Obs.	1,444	1,387	1,387	1,387	1,387	1,331	1,387	1,331

***, **, and * represent the level of significance at 0.01, 0.05, and 0.10, respectively.

CSR and EM1

Table IV shows that the coefficients of CSR are overwhelmingly negative and significant except for specifications (C) and (D). Since (C) and (D) are nested in (F) and (G), respectively, we employ a *F*-test to examine which specifications are preferable. With *F*-values are of 5.900 and 5.217, respectively, we reject (C) and (D) in favor of (F) and (G). Hence, it can be concluded that companies with greater CSR conduct less earnings smoothing, which strongly supports the *myopia avoidance hypothesis* but rejects the *predictable earnings hypothesis*. This is consistent with the evidence from the simple correlation coefficients.

The results for the other control variables are also interesting. First, Total Assets, in Table IV, Total Assets is found to be significantly negative, which implies that larger firms are required to disclose their information more often, and thus, they show less tendency to manage earnings, a finding that is similar to that of Lee and Choi (2002). Neither of the coefficients for the Market-to-Book ratio nor the Debt-to-Equity ratio are significant, suggesting that these two ratios do not affect firms' decision to smooth earnings. By contrast, the coefficients of Auditor are overwhelmingly significantly negative, signifying that companies which have been audited by the Big 5 auditors are less likely to smooth earnings. Just as equally interesting is that the coefficients of Anti-director Rights and Legal Enforcement are all significantly negative, which reveals that companies in countries that foster good government governance show considerably less tendency to smooth earnings. These results closely echo those of Leuz et al. (2003) who argue that when countries have better investor protection, they can improve the financial transparency of companies. Finally, the significantly negative coefficients of GDP per-capita suggest that companies in richer countries are generally less likely to smooth earnings.

Some important findings emerge after we take the interaction variables into account. Since the coefficients of GDP per-capita × CSR are significantly positive but the values are less than those of CSR, it is evident that the negative effects of CSR on EM1 diminish as GDP per-capita increases. That is, while we have found that firms with a higher degree of CSR conduct less earnings smoothing, but it is more likely that this effect is mitigated in a rich country than in a poor one. In other words, the *myopia avoidance hypothesis* is more likely to hold true in a poor country.

CSR and EM2

In Table V, the coefficients of CSR are significantly positive for the first 4 specifications, significantly negative for specification (F) but insignificant for the remaining three specifications. Since specifications (A), (C), and (D) are nested in (E), (F), and (G), respectively, we again conduct an *F*-test to examine which specifications are preferable. We cannot reject (A), (C), or (D) because the *F*-values are 1.519, 1.831, and 2.539, respectively. It is clearly apparent that a firm with a higher degree of CSR generally tends to conduct more earnings aggressiveness. This fully supports the *multiple objectives hypothesis*.

The coefficients of the control variables are also worth discussing. The coefficients of Total Assets and the Debt-to-Equity ratios are overwhelmingly significantly negative unlike those coefficients of the Market-to-Book ratio, which are overwhelmingly significantly positive. This implies that larger and higher leveraged firms have less of a tendency to undertake less earnings aggressiveness, whereas high growth firms have more of a tendency to undertake earnings aggressiveness. Important too, the coefficients of Auditor are not significant in (C), a finding, which makes us to conclude that whether or not companies are audited by the Big 5 auditors does not evidently affect their tendency to smooth earnings. The coefficient of Antidirector Rights is 0.009 in (D), and that of Legal Enforcement is 0.008 in (H). These results are different from those of Leuz et al. (2003) and suggest that insiders have a greater tendency to hide their control benefits when faced with potentially stiffer penalties. The coefficient of Legal Enforcement × CSR is −0.013 in (H), which represents the *multiple objectives hypothesis* is, however, less supported in a country with strong legal enforcement. Besides this, in that the coefficients of GDP per-capita × CSR are significantly positive with specifications (F) and (H), there is more concrete evidence in favor of the *multiple objectives hypothesis* in richer than in poorer countries.

TABLE V

Determinants of earnings aggressiveness (EM2)

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Total assets			−0.012***			−0.014***		−0.016***
			(−4.995)			(−5.089)		(−4.930)
Market-to-Book			0.004***			0.004***		0.004***
ratio			(3.868)			(3.843)		(3.860)
Debt-to-Equity ratio			−0.00003***			−0.00003**		−0.00003***
			(−2.544)			(−2.524)		(−2.609)
Auditor			0.012			0.014*		0.012
			(1.523)			(1.722)		(1.368)
Antidirector rights				0.009***			0.002	−0.001
				(2.825)			(0.665)	(−0.447)
Legal enforcement				−0.002			−0.00001	0.008***
				(−1.129)			(−0.004)	(3.180)
Per-capita GDP		−0.002						
		(−0.817)						
CSR	0.036**	0.036**	0.027**	0.034*	0.029	−0.343*	0.036	−0.302
	(2.022)	(2.010)	(2.355)	(1.880)	(0.086)	(−1.758)	(0.105)	(−1.561)
Antidirector					0.028***	0.014***	0.027**	0.015***
rights × CSR					(2.584)	(2.894)	(2.367)	(2.868)
Legal enforcement					−0.011	−0.005	−0.011	−0.013*
× CSR					(−0.629)	(−0.687)	(−0.627)	(−1.764)
Per-capita					−0.001	0.284**	−0.001	0.037**
GDP × CSR					(−0.037)	(2.018)	(−0.037)	(1.983)
Constant	0.022***	0.039**	0.096***	0.002	0.023***	0.105***	0.016	0.069***
	(7.256)	(1.985)	(4.439)	(0.119)	(7.246)	(4.532)	(1.015)	(3.702)
R^2	0.006	0.006	0.474	0.009	0.014	0.479	0.014	0.483
Adj-R^2	0.006	0.005	0.473	0.007	0.011	0.476	0.010	0.479
Number of Obs.	1,574	1,509	1,512	1,509	1,509	1,448	1,509	1,448

***, **, and * represent the level of significance at 0.01, 0.05, and 0.10, respectively.

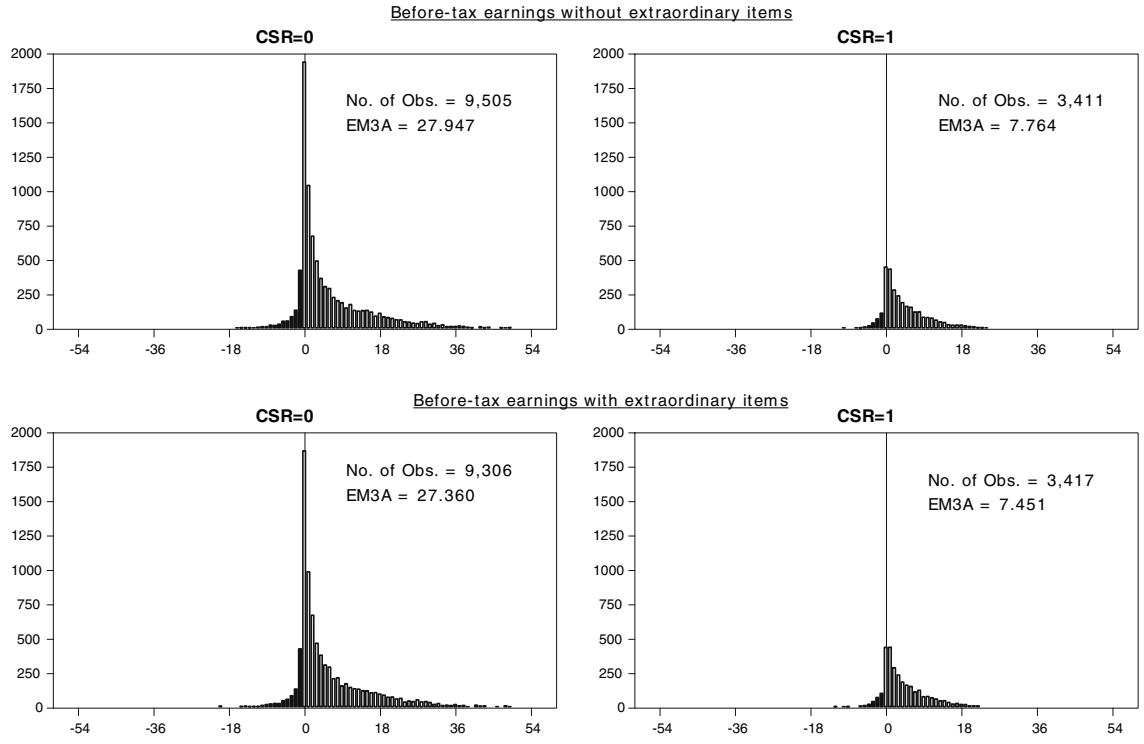

Figure 1 CSR and earnings losses avoidance (EM3A).

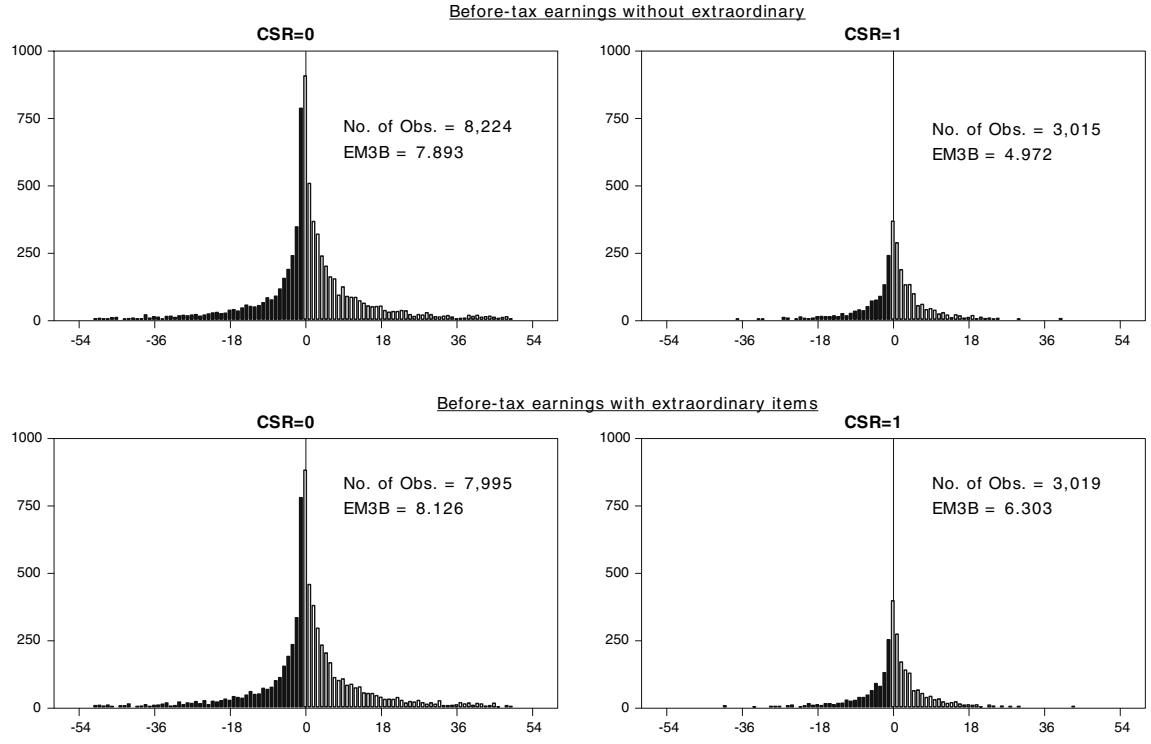

Figure 2 CSR and earnings decreases avoidance (EM3B).

CSR and EM3A and EM3B

Here, we explore whether CSR affects earnings losses avoidance (EM3A) by using level of earnings and earnings decreases avoidance (EM3B) by using changes in earnings. We classify all sample firms across years and countries into two groups, i.e., the CSR group (CSR = 1) and the Non-CSR group (CSR = 0). Then, following the method of Burgstahler and Dichev (1997), we plot the histograms of the earnings (and change in earnings) of the two groups to calculate EM3A (and EM3B) and then examine which group of firms is most inclined to avoid earnings losses and earnings decreases.

The top left and bottom left panels of Figure 1 show the frequency of the level of earnings of the Non-CSR group (CSR = 0) with and without the extraordinary items, respectively. Note that the frequency at the interval immediately to the right to of 0 (which is appeared at interval 0 in the figure) is substantially higher than that at other intervals, i.e., earnings slightly greater than zero occur much more frequently than would be expected. This is in sharp contrast to the frequency at the interval −1 (the interval immediately to the left to interval 0), which is abnormally low, i.e., earnings slightly less than zero occur much less frequently than would be expected. Also, EM3A are equal to 27.947 and 27.360, respectively, and clearly reject the null of normal distribution. Taking these two findings together, there is no question that companies in the Non-CSR group have a strong incentive to avoid earnings losses.

The top right and bottom right panels of Figure 1 show the frequency of the level of earnings of the CSR group (CSR = 1) with and without the extraordinary items, respectively. Given that the frequencies gaps in the frequencies between the interval 0 and −1 are less obvious than those when CSR = 0, companies in the CSR group (CSR = 1) appear to have less tendency to avoid earnings losses and earnings decreases. The estimated values of EM3A are 7.764 and 7.451 are significantly less than those when CSR = 0. These results strongly support the *myopia avoidance hypothesis*; that is, companies with a higher degree of CSR are less inclined to avoid earnings losses.

Figure 2 visually presents similar histograms but uses changes in earnings. The sharp contrast in the frequencies between the interval 0 and −1 noted in Figure 1 disappears here. When the Non-CSR group (CSR = 0) is considered, the EM3B is equal to 7.893 and 8.126 when earnings exclude and include extraordinary items, respectively, whereas they are 4.972 and 6.303 when the CSR group (CSR = 1) is considered. It can be interpreted from these results that companies in the Non-CSR group have higher incentives to avoid decreases in earnings, the *myopia avoidance hypothesis* still gains support.

Conclusions

The article examines the relationships between CSR and EM across 1,653 companies in 46 countries. Four hypotheses are investigated. The *myopia avoidance hypothesis* postulates that CSR and EM are negatively related. The *multiple objective hypothesis* postulates that they are positively related. The *institutional hypothesis*, however, postulates that there is no relationship. Last, like the *multiple objectives hypothesis*, the *predictable earnings hypothesis* postulates that they are also positively related.

The sample companies are classified into two groups: the CSR group, with these companies included in both the FTSE All-World Developed Index (Global) and the FTSE4Good Global Index, and the Non-CSR group, with these companies included in the FTSE All-World Developed Index (Global) but not included in the FTSE4Good Global Index. Three kinds of EM are also investigated here, i.e., earnings smoothing, earnings aggressiveness and earnings losses and earning decreases avoidance.

We find that the type of relationship between CSR and EM depends on which EM we consider. When EM is proxied by earnings smoothing, an increases in CSR mitigates earnings smoothing, which supports the *myopia avoidance hypothesis* but clearly rejects the *predictable earnings hypothesis*. When EM is proxied by earnings aggressiveness, an increase in CSR increases earnings aggressiveness, which supports the *multiple objectives hypothesis*. When EM is proxied by earnings losses avoidance, an increase in CSR mitigates earnings losses (and earnings decreases) avoidance, which again supports the *myopia avoidance hypothesis*.

In sum, a firm with CSR in mind tends not to smooth earnings, and displays less interest in

avoiding earnings losses and decreases. It is, however, prone to engage in more earnings aggressiveness, but this tendency can be mitigated in a country with strong legal enforcement.

Notes

[1] See Norris, 'The Market: Market Place: Yes, He Can Top That,' *New York Times*, July 17, 2002, at A-1.

[2] A formal definition that emerged from an international meeting of the World Business Council for Sustainable Development (WBCSD) organized with 60 opinion leaders from inside and outside business is: "CSR is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large (WBCSD Stakeholder Dialog on CSR, The Netherlands, September 6–8, 1998)."

[3] McWilliams et al. (2006) develop an excellent framework for consideration of the strategic implications of CSR, and propose an agenda for additional theoretical and empirical research on CSR.

[4] The FTSE All-World Index covers 48 different countries and more than 2,700 stocks and captures 90–95% of total invested market capitalization. The Index is designed to provide investors with the opportunity to develop their own portfolio universe.

[5] These industries include tobacco producers, companies manufacturing either parts for, or whole nuclear weapons systems, companies manufacturing whole weapons systems, owners or operators of nuclear power stations and companies involved in the extraction or processing of uranium.

[6] The interval width is $2(\mathrm{IQR})N^{1/3}$, where IQR is the difference between the third quartile and the first quartile (Q_3-Q_1) of earnings and changes in earnings, both scaled by lagged total assets, and N is the number of observations.

[7] $\mathrm{SD}_i = [Np_i(1-p_i)+\frac{1}{4}N(p_{i-1}+p_{i+1})(1-p_{i-1}-p_{i+1})]^{1/2}$, where N represents the number of firm-years of each country; p_i is the proportion of the actual number of observations for interval i to the number of firm-years, AQ_i/N; and p_{i-1} and p_{i+1} are equal to AQ_{i-1}/N and AQ_{i+1}/N, respectively.

[8] Based on financial accounting data from 1990 to 1999 for more than 8,000 firms in 31 countries, Leuz et al. (2003) suggest that EM is dominated by international differences in private control benefits, and thus, a negative relation exists between investor protection and EM.

[9] The empirical results based on after-tax income is are qualitatively the same as those based on before-tax income; thus, we just show the results based on before-tax income.

[10] Please see the website: http://www.ftse4good.com/ftse4good/data.jsp.

[11] Following Leuz et al. (2003), financial institutions are not included in this article.

[12] The countries with zero CSR ratios are Argentina, Brazil, Chile, China, the Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Malaysia, Mexico, Morocco, Pakistan, Peru, the Philippines, Poland, Portugal, the Russian Federation, South Africa, South Korea, Taiwan, Thailand, and Turkey.

[13] The Big Five auditors are Arthur Andersen, Coopers & Lybrand (merged with Price Waterhouse on July 1, 1998), Ernst & Young, Deloitte & Touche, KPMG, and PricewaterhouseCoopers (Price Waterhouse prior to July 1, 1998 but merged with Coopers & Lybrand).

Acknowledgements

We gratefully acknowledge the comments and suggestions of Prof. A. C. Michalos, Prof. Y. H. Yeh, Dr. F. L. Hong, Prof. R. S. Snell, Prof. R. O'Brien, and participants at the 2006 World Business Ethics Forum (WBEF). We also gratefully acknowledge the financial support from the National Science Council (NSC).

References

Barth, M. E., J. A. Elliot and M. W. Finn: 1999, 'Market Rewards Associated with Patterns of Increasing Earnings', *Journal of Accounting Research* **37**, 387–413.

Becker, C. L., M. L. DeFond, J. J. Jiambalvo and K. R. Subramanyam: 1998, 'The Effect of Audit Quality on Earnings Management', *Contemporary Accounting Research* **15**, 1–24.

Bhattacharya, U., H. Daouk and M. Welker: 2003, 'The World Price of Earnings Opacity', *The Accounting Review* **78**, 641–678.

Burgstahler, D. and I. Dichev: 1997, 'Earnings Management to Avoid Earnings Decreases and Losses', *Journal of Accounting and Economics* **24**, 99–126.

Christian Aid: 2004, 'Behind the Mask: The Real Face of Corporate Social Responsibility,' http://www.christianaid.org.uk/indepth/0401csr/index.htm.

Chung, H. and S. Kallapur: 2003, 'Client Importance, Non-audit Fees, and Abnormal Accruals', *The Accounting Review* **78**(4), 931–955.

Coffee, J. C., Jr.: 2003, 'What Caused Enron?: A Capsule Social and Economic History of the 1990's,' Working Paper, 214, Center for Law and Economic Studies, Columbia Law School.

Coombs, J. E. and K. M. Gilley: 2005, 'Stakeholder Management as a Predictor of CEO Compensation: Main Effects and Interactions with Financial Performance', *Strategic Management Journal* **26**(9), 827–841.

DeAngelo, L. E.: 1981, 'Auditor Size and Auditor Quality', *Journal of Accounting and Economics* **3**, 183–199.

Dechow, P., R. Sloan and A. Sweeney: 1995, 'Detecting Earnings Management', *The Accounting Review* **70**, 193–225.

Dechow, P. and D. Skinner: 2000, 'Earnings Management: Reconciling the Views of Accounting Academics, Practitioners, and Regulators', *Accounting Horizon* **14**, 235–250.

Dye, R. A.: 1993, 'Auditing Standards, Legal Liability, and Auditor Wealth', *Journal of Political Economy* **101**(5), 887–914.

FTSE Group: 2003, 'FTSE4Good Index Series: Inclusion Criteria.', FTSE International Limited.

Fukui, Y.: 2000, 'Earnings Management with the Help of Historical Cost Accounting: Not for Managers but for Investors,' Working Paper, Tohoku University.

Gelb, D. S. and J. A. Strawser: 2001, 'Corporate Social Responsibility and Financial Disclosure: An Alternative Explanation for Increased Disclosure', *Journal of Business Ethics* **33**, 1–13.

Goel, A. M. and A. V. Thakor: 2003, 'Why Do Firms Smooth Earnings?', *Journal of Business* **76**(1), 151–192.

Griffin, J. J. and J. F. Mahon: 1997, 'The Corporate Social Performance and Corporate Financial Performance Debate: Twenty-Five Years of Incomparable Research', *Business and Society* **36**, 5–31.

Healey, P. and J. Wahlen: 1999, 'A Review of the Earnings Management Literature and Its Implications for Standard Setting', *Accounting Horizons* **13**, 365–383.

Hillman, A. J. and G. D. Keim: 2001, 'Shareholder Value, Stakeholder Management, and Social Issues: What's the Bottom Line?', *Strategic Management Journal* **22**(2), 125–139.

Jensen, M. C. and W. Meckling: 1976, 'Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure', *Journal of Financial Economics* **3**, 305–360.

Jensen, M. C.: 2001, 'Value Maximization, Stakeholder Theory, and the Corporate Objective Function', *Journal of Applied Corporate Finance* **14**(3), 8–21.

Ke, B.: 2001, 'Why Do CEOs of Publicly Traded Firms Prefer Reporting Small Increases in Earnings and Long Strings of Consecutive Earnings Increases?,' Working Paper, Department of Accounting, Pennsylvania State University.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. Vishny: 1998, 'Law and Finance', *Journal of Political Economy* **106**, 1113–1155.

Lee, B. B. and B. Choi: 2002, 'Company Size, Auditor Type, and Earnings Management', *Journal of Forensic Accounting* **3**, 27–50.

Lennox, C.: 1999a, 'Are Large Auditors More Accurate than Small Auditors?', *Accounting & Business Research* **29**(3), 217–227.

Lennox, C.: 1999b, 'Audit Quality and Auditor Size: An Evaluation of Reputation and Deep Pockets Hypotheses', *Journal of Business Finance & Accounting* **26**(7/8), 779–805.

Leuz, C., D. Nanda and P. D. Wysocki: 2003, 'Investor Protection and Earnings Management: An International Comparison', *Journal of Financial Economics* **69**(3), 505–527.

McWilliams, A. and D. Siegel: 2000, 'Corporate Social Responsibility and Financial Performance: Correlation or Misspecification?', *Strategic Management Journal* **21**(5), 603–609.

McWilliams, A. and D. Siegel: 2001, 'Corporate Social Responsibility: A Theory of the Firm Perspective', *Academy of Management Review* **26**(1), 117–127.

McWilliams, A., D. Siegel and P. Wright: 2006, 'Corporate Social Responsibility: Strategic Implications', *Journal of Management Studies* **43**(1), 1–18.

Norris, F.: 2002, 'The Market: Market Place: Yes, He Can Top That,' *New York Times*, July 17, at A-1.

Pava, M. L. and J. Krausz: 1996, 'The Association Between Corporate Social-Responsibility and Financial Performance: The Paradox of Social Cost', *Journal of Business Ethics* **15**, 321–357.

Press, E. G. and J. B. Weintrop: 1990, 'Accounting-Based Constraints in Public and Private Debt Agreements: Their Association with Leverage and Impact on Accounting Choice', *Journal of Accounting and Economics* **12**, 65–95January.

Richardson, R., I. Tuna and M. Wu: 2002, 'Predicting Earnings Management: The Case of Earnings Restatements,' Working Paper, University of Michigan Business School.

Roberts, P. W. and G. R. Dowling: 2002, 'Corporate Reputation and Sustained Superior Financial Performance', *Strategic Management Journal* **23**, 1077–1093.

Schipper, K.: 1989, 'Commentary on Earnings Management', *Accounting Horizons* **3**(4), 91–102.
Scott, D. W.: 1992, *Multivariate Density Estimation: Theory, Practice, and Visualization* (Wiley, New York).
Shen, C.-H. and H.-L. Chih: 2005, 'Investor Protection, Prospect Theory, and Earnings Management: An International Comparison of the Banking Industry', *Journal of Banking and Finance* **29**, 2675–2697.
Shleifer, A.: 2004, 'Does Competition Destroy Ethical Behavior?,' Working Paper, Harvard University.
Silverman, B. W.: 1986, *Density Estimation for Statistics and Data Analysis* (Chapman & Hall, London).
Simpson, W. and T. Kohers: 2002, 'The Link Between Social and Financial Performance: Evidence from the Banking Industry', *Journal of Business Ethics* **35**, 97–109.
Skinner, D. and R. Sloan: 2002, 'Earnings Surprises, Growth Expectations and Stock Returns', *Review of Accounting Studies* **7**(2), 289–312.
Sweeney, A. P.: 1994, 'Debt-Covenant Violations and Managers' Accounting Responses', *Journal of Accounting and Economics* **17**, 281–308.
The Economist: 2004, 'Two-Faced Capitalism,' *The Economist Print Edition* (Jan 22nd 2004).
Waddock, S. A. and S. B. Graves: 1997, 'The Corporate Social Performance – Financial Performance Link', *Strategic Management Journal* **18**(4), 303–319.

Hsiang-Lin Chih
Department of Cooperative Economics,
Commerce College, National Taipei University,
151, University Road, Sansia, Taipei, 273, Taiwan
E-mail: hlchih@mail.ntpu.edu.tw

Chung-Hua Shen
Department of Money and Banking,
Commerce College, National Chengchi University,
Taipei, 116, Taiwan
E-mail: chshen@nccu.edu.tw

Feng-Ching Kang
Department of Social Welfare,
National Chung Cheng University,
Chiayi, Taiwan
E-mail: amykang@sw.ccu.edu.tw