



Are Socially Responsible Managers Really Ethical? Exploring the Relationship Between Earnings Management and Corporate Social Responsibility

Diego Prior, Jordi Surroca and Josep A. Tribó*

ABSTRACT

Manuscript Type: Empirical

Research Question/Issue: This paper investigates the connection between earnings management and corporate social responsibility (CSR). We argue that earnings management practices damage the collective interests of stakeholders; hence, managers who manipulate earnings can deal with stakeholder activism and vigilance by resorting to CSR practices.

Research Findings/Insights: Using archival data from a multi-national panel sample of 593 firms from 26 countries between 2002 and 2004, we find a positive impact of earnings management practices on CSR; this relationship holds for different robustness checks. Also, we demonstrate that the combination of earnings management and CSR has a negative impact on financial performance.

Theoretical/Academic Implications: This study draws on a generalized agency theory where managers are seen as the agents of all stakeholders and the earnings management literature to highlight that CSR can be used to garner support from stakeholders and, therefore, provides an opportunity for entrenchment to those managers that manipulate earnings. As such, it suggests new avenues of research for both the corporate governance literature, as well as for the stakeholder perspective.

Practitioner/Policy Implications: This study offers insights for policy makers and managers interested in enhancing CSR. For managers, our findings suggest that projecting a socially-friendly image in order to disguise earnings management cannot be sustained over time due to the detrimental effect on financial performance. In addition, this study provides a warning signal to policy makers that certain practices geared toward raising a firm's CSR may simply be a mechanism for hindering other devious practices.

Keywords: Corporate social responsibility, earnings management

INTRODUCTION

Accounting earnings are one of the most frequently cited performance statistics that are of major interest to external capital providers, suppliers, employees, customers, communities, and regulators. Ideally, financial reporting helps the better-performing firms to distinguish themselves from poor performers and facilitates shareholder financial decision making (Healy and Wahlen, 1999). However, managers can exercise some discretion in computing earnings without

violating generally accepted accounting principles, thereby causing reported incomes to appear either greater or less than they are in reality. In fact, Watts and Zimmerman (1978) define earnings management as managers exercising their discretion over the accounting numbers. They further state that this intervention in the external financial reporting process may be intended to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers (Healy and Wahlen, 1999: 368).

In the absence of the potential for private benefits, rational managers would not engage in earnings management. Prior research on earnings management has identified three sets of incentives that spur this practice—capital markets,

*Corresponding author. Universidad Carlos III de Madrid, Department of Business Administration, Calle Madrid 126. Office 7.32b, Getafe (28903) Madrid, Spain. Tel: (34) 91-6249321; Fax: (34) 91-6249607; E-mail: joatribo@emp.uc3m.es

contractual arrangements, and regulatory motivations (Healy and Wahlen, 1999). First, the evidence demonstrates that managers try to influence short-term prices, particularly around the time of certain types of corporate events, like stock issues (DuCharme, Malatesta and Sefcik, 2004). Other authors, however, have suggested that managers may use their discretion to manage earnings in order to send private information to financial markets over future prospects for the firm. In effect, Ronen and Sadan (1981) developed a model in which earnings management is aimed at removing transitory items, allowing investors to better predict the expected earnings and cash flows. Second, other researchers have examined lending and compensation contracts, written in terms of accounting numbers, and have suggested that these contracts create incentives for earnings management with a view to boosting bonus awards (e.g., Holthausen, Larcker and Sloan, 1995), improving job security (e.g., DeAngelo, 1988), and mitigating the potential violation of debt covenants (e.g., DeFond and Jiambalvo, 1994). Finally, there are also regulatory motivations for earnings management. Managers of firms in regulated sectors suffer acute pressure from antitrust authorities regarding price controls and market shares. Such pressure stimulates earnings management practices as a stratagem to appear less profitable (Watts and Zimmerman, 1978). In summary, the earnings management literature suggests that capital markets, contractual arrangements, and regulatory considerations induce managers to manipulate earnings reports.

These deliberate managerial actions, contrived to disguise the real value of a firm's assets, transactions, or financial position, have negative consequences for shareholders, employees, the communities in which firms work, society at large, and managers' reputations, job security, and careers (Zahra, Priem and Rasheed, 2005). One of the most far-reaching consequences of actions like the manipulation of earnings is that the firm loses the support of stakeholders, which may lead to increased activism and vigilance from shareholders and other affected stakeholder groups (Zahra *et al.*, 2005: 818). The consequence is that the manager is under the threat of rogue behavior by employees, misunderstanding from customers, pressure from investors, defection from partners, legal action from regulators, boycotts from activists, illegitimacy from the community, and exposure from the media. Ultimately, these threats may destroy the firm's reputation capital (Fombrun, Gardberg and Barnett, 2000).

As a defence against stakeholder activism and vigilance, which could cost a manager his job and damage the firm's reputation, managers have incentives to compensate stakeholders through corporate social responsibility (CSR) practices. CSR is related to ethical and moral issues concerning corporate decision-making and behavior and, as such, addresses complex issues like environmental protection, human resources management, health and safety at work, local community relations, and relationships with suppliers and customers (Castelo and Lima, 2006). Engaging in socially responsible activities not only improves stakeholder satisfaction, but also has a positive effect on corporate reputation. Disclosure of information about corporate behavior and outcomes regarding social responsibility may help build a positive image among stakeholders (Orlitzky,

Schmidt and Rynes, 2003). This positive image may help firms to establish community ties and build reputation capital; hence improving their ability to negotiate more attractive contracts with suppliers and governments, to charge premium prices for goods and services, and to reduce their cost of capital (Fombrun *et al.*, 2000). Therefore, by resorting to CSR practices, the firm is able to gain support from its various stakeholder groups. Also, by the same token, the firm can obtain more favorable regulatory treatment, endorsements from activist groups, legitimacy from the community, and favorable coverage from the media (Castelo and Lima, 2006), so as to avoid the potentially detrimental impact of government actions.

Our basic conjecture is that an executive who manipulates earnings has an incentive to project a socially-friendly image, given that CSR activities are a powerful tool for obtaining support from stakeholders. With this tactic, the manager will reduce the likelihood of being fired due to pressure from discontented shareholders or other stakeholders whose interests have been damaged by the implementation of earnings management practices. Under such a scheme, CSR is used as an entrenchment mechanism (Cespa and Cestone, 2007) in the context of earnings manipulation.

We provide support for our contention using an international database, composed of 593 firms from 26 nations, for the period 2002 to 2004. This result highlights the perverse effects of combining CSR with earnings management, calling into question some social demands on better-performing firms to devote part of their financial resources to improve their CSR. Accordingly, if these improvements are connected with earnings management practices, they may damage firms' long-term wealth.

The remainder of the article is structured as follows: the second section summarizes the most relevant literature related to the objectives of this work and develops the hypotheses; and third section is methodological, describing the sample, variables, and empirical models to be tested; and the fourth section presents the empirical results obtained. The final section of the article illustrates the main conclusions of this research and a discussion of the significance of the results.

THEORETICAL FRAMEWORK AND HYPOTHESES

Earnings management and CSR

Previous research (e.g., Davidson III, Jiraporn, Kim and Nemec, 2004) has established a relationship between earnings management and agency theory. These studies adopt, as their starting point, the traditional view that the separation of ownership and control in modern corporations, together with the existence of information asymmetries within firms, spawn the possibility of opportunistic actions by the agent (the manager) who may have different objectives from those of the principal (the owner), and thus pursue self-serving goals (the agency problem). In this context, earnings management is considered a type of agency cost because managers look after their own interests by releasing financial reports that do not present an accurate economic picture of

the firm. As a consequence, shareholders could make non-optimal investment decisions (agency cost). Therefore, earnings management is related to agency theory because the former can create or exacerbate agency costs.

However, earnings management not only affects a firm's owners, it also has an impact on other stakeholders, too. Stakeholders are considered a group that "bear some form of risk as a result of having invested some form of capital, human or financial, something of value, in a firm" (Clarkson, 1994: 5). This definition means that managerial actions like earnings management that mislead stakeholders as to the real value of firm's assets, transactions, or financial position, have serious consequences for shareholders, creditors, employees, and society as a whole (Zahra *et al.*, 2005).

When shareholders suspect earnings are being manipulated, a firm immediately loses value on the stock market (Dechow and Sweeney, 1996). Predictably, this firm's credit rating will then fall causing any bonds issued to lose value, which affects bondholders' wealth. Similarly, banks may have lent money based on inflated income forecasts, thus making the recovery of loans problematic (DeFond and Jambalvo, 1994). The employees are another stakeholder group affected by earnings management practices. D'Souza, Jacob and Ramesh (2000) studied the association between earnings management and labor costs and found that managers reduce reported earnings during labor union contract negotiations, in order to reduce labor costs. Finally, any reporting of numbers that do not reflect the true economic condition of a firm can also lead to a general lack of faith in the integrity of managers, and lead to the erosion in confidence in markets and the institutions, which in turn could have serious consequences for society as a whole (Zahra *et al.*, 2005).

As managerial decisions directly impact all stakeholders groups, the manager can be viewed as the stakeholders' agent, and not just a shareholders' agent (Hill and Jones, 1992; Jones, 1995). Adopting this stakeholder-agency perspective, a firm is conceived not as a bilateral relationship between shareholders and managers, but as a multilateral set of relationships amongst stakeholders. Each stakeholder has, in turn, their own interests, which generally are in conflict with those of the other stakeholders'. Certainly, one of the most important conflicts of interest occurs between managers and all other stakeholders, an amplified agency problem (Hill and Jones, 1992), which sometimes prevents stakeholders from maximizing their collective utility. Because managers control the decision-making process in the firm, they may use this power to their own benefit, thereby causing significant losses to the rest of the stakeholders.

A primary response from stakeholders to such a manifestation of management power may be to punish management in an attempt to change this opportunistic behavior (Rowley and Berman, 2000). Boycotts and lobbying are some of the examples of these actions (Baron, 2001; Feddersen and Gilligan, 2001; John and Klein, 2003). By wielding the threat of costly boycotts and media campaigns, stakeholders may enjoy substantial, although indirect, control over a firm. Complementary measures that may hinder managerial discretion are: employee unionization and activism, loss of confidence from customers, legal action from regulators, and

the threat of defection from business partners (Castelo and Lima, 2006). In this context, the media can amplify the effect of such actions, thus, contributing to the reduction in management abuse.

Several studies have shown that the media has been particularly influential in corporate socially responsible responses (e.g., Bansal, 2005). The increased media coverage raises the firm's visibility, causing public attention and scrutiny to be more severe. The threat of negative media publicity has two consequences for managerial practices (Bansal, 2005: 203). First, such publicity generates coercive pressure for firms to commit to sustainable development; threatening to erode the image of a firm that implements practices that the media considers unacceptable (e.g., Starbucks and its relationship with African coffee suppliers). Second, it can incite stakeholders to lobby organizations and governments in order to change business practices (e.g., the climate change lobby). In the specific case related to earnings management, some stakeholders have articulated specific responses. For example, shareholders and other stakeholders proactively seek reparations for the losses they have suffered (Zahra *et al.*, 2005). Further, some companies are starting to develop in-house whistle-blowing programs in which employees can disclose concerns about accounting and operational issues discreetly and anonymously.

In such a context, managers with capital markets, contractual, or regulatory motivations to manage earnings, may work to bolster their own job security by entrenching themselves and staying on in the job even if they are no longer competent or qualified to run the firm. A possible means of protecting their job (and maintaining private benefits) is by engaging in a broad array of activities that are aimed at developing relationships with corporate stakeholders and environmental activists, so-called CSR, so as to gain support from these groups. CSR includes activities such as incorporating social aspects into products and manufacturing processes, adopting progressive human resources practices, achieving improved environmentally-friendly ratings through recycling and pollution abatement, or by advancing the goals of community organizations (McWilliams, Siegel and Wright, 2006).

By means of CSR activities, the manager pursues different objectives to obtain favorable coverage from the media, legitimacy from the community, favorable regulation, and less scrutiny from investors and employees. At the same time, such activity can reduce the likelihood of a firm's products being boycotted, while avoiding lobbying against the company. In essence, a manager believes that by satisfying stakeholders' interests and projecting an image of social and environmental concern and awareness, he can reduce the likelihood of being scrutinized by satisfied stakeholders for his management of earnings.

Such abusive utilization of CSR activities brings into doubt the efficiency of implementing socially-friendly policies as a corporate governance mechanism. This view differs from that provided by traditional stakeholder theory by suggesting that stakeholder participation can be an important way for management to do the following: (1) reinforce the firm's perceived social legitimacy; (2) increase the involvement of the board of directors; and (3) hold top management to a higher standard of performance. All these factors serve

to enhance financial performance (Luoma and Goodstein, 1999). However, our proposal is consistent with some prominent finance scholars who have questioned the positive effect of stakeholder orientation on corporate governance. Notably, Williamson (1993), Tirole (2001), and Jensen (2001) argue that agency problems between owners and managers are aggravated when managers act on behalf of non-shareholder stakeholders, especially since stakeholder orientation implies participation by different groups of constituencies in the decision-making process, as well as a multiplicity of objectives of those who share corporate control. This problem will add significant costs to the decision-making process (e.g., delayed decisions, mutual distrust; Tirole, 2001). Therefore, control concentrated in the hands of just one stakeholder (i.e., shareholders) is preferable to that distributed among different stakeholders.

A second argument that justifies the non-sincere use of CSR by managers who manipulate earnings is connected to the implementation of entrenchment initiatives. From this viewpoint, concessions to social activists and pressure groups are simple self-entrenchment strategies for incumbent CEOs who face pressure from shareholders whose interests will be damaged, in the medium-term, as a result of earnings management practices. Pagano and Volpin (2005) argue that managers may reward stakeholders such as workers with generous social activities as an entrenchment mechanism to avoid possible pressure from financial markets through hostile takeovers. Hence, we hypothesize that, when managers act in pursuit of private benefits by misleading others about the real value of the firm's assets, transactions, or financial position, they may seek the connivance of different stakeholders to validate such practices. Stakeholders can be lured by offers that satisfy their specific interests and policies aimed at improving a firm's CSR.

Therefore, we expect that executives with incentives to manage earnings will be very proactive in boosting their public exposure through CSR activities, particularly in firms with high visibility (i.e., in regulated sectors). Alternatively, firms with low levels of earnings management have fewer incentives to seek public exposure by promoting socially responsible activities. These arguments lead to the following hypothesis:

Hypothesis 1: The extent of earnings management is positively associated with the extent of corporate social responsibility.

Corporate Social Responsibility and Performance: The Moderating Role of Earnings Management

The second aspect that we address in this article refers to the impact of CSR activities on financial performance, triggered by earnings management practices. The instrumental stakeholder theory (Donaldson and Preston, 1995) argues that good management implies positive relationships with key stakeholders, which, in turn, improve financial performance (Freeman, 1984; Waddock and Graves, 1997). The basic assumption behind this theory is that CSR may be an organizational device that leads to more effective use of resources (Orlitzky *et al.*, 2003), which then has a positive impact on corporate financial performance (CFP). Hence, the

strategic management of stakeholder relationships – an intangible asset – can be viewed as a means of improving financial performance by invoking the resource-based theory of the firm (Hillman and Keim, 2001). Berman, Wicks, Kotha and Jones (1999) also find support for the position that good stakeholder relationships have a direct positive effect on financial performance, a notion sometimes called the “Good Management Hypothesis” (Waddock and Graves, 1997).

The positive impact of CSR on CFP, however, has been questioned by various arguments. First, a short-sighted argument that managers, especially those recently-appointed and trying to acquire greater seniority, tend to pursue short-term policies that focus exclusively on financial results at the expense of long-term social issues (Preston and O'Bannon, 1997). Second, the management of relationships among a wide set of stakeholders with conflicting objectives can result in an excessively rigid and resource-consuming organization that may damage a firm's financial performance (Aupperle, Carroll and Hatfield, 1985). Finally, managers may behave opportunistically, to the detriment of financial results, by following entrenchment practices (Jones, 1995) aimed at satisfying stakeholders' interests, as we have detailed in the previous section.

Along this line, we argue that when firms improve their CSR as a consequence of earnings management practices, the positive effect of CSR on CFP should be diminished significantly. This statement relies on the fact that managers who resort to accounting adjustments tend to over-invest in those activities that enhance a firm's CSR as an entrenchment strategy. Social concessions emerging from this strategy are unproductive and, because they are costly, are expected to have a marginal negative impact on financial performance. For example, a manager may over-invest in ongoing, complex projects by employing different stakeholders to satisfy their interests and, at the same time, manage earnings in order to give these stakeholders large concessions. Rowley (1997) emphasizes that high levels of CSR may involve relationships with a wide set of stakeholders with conflicting objectives that could delay the decision-taking process in the organization.

We hypothesize that a manager who engages in earnings management practices would attempt to involve as many stakeholders as possible, as a way to validate their actions and, hence, become indispensable (entrenchment strategy). This action leads to a reduction in the flexibility in the organization and affects its financial results detrimentally. Additionally, some authors remain skeptical about the supposed positive externalities caused by CSR. Friedman (1970) and Jensen (2001) argue that socially responsible initiatives are investments without payoffs and, therefore, against the shareholder's best interest.

The preceding discussion suggests that the level of earnings manipulation weakens the relationship between CSR and profitability. Hence, our second hypothesis reads:

Hypothesis 2: Earnings management will negatively moderate the relationship between corporate social responsibility and corporate financial performance; the greater the level of earnings management, the lesser the positive effect of corporate social responsibility on corporate financial performance.

EMPIRICAL ANALYSIS

Sample and Data

Our sample is composed of 593 industrial firms included in the 2002-2004 SiRi Pro™ database. This database is compiled by the Sustainable Investment Research International Company (SiRi) – the world’s largest company specializing in the analysis of socially responsible investment, and based in Europe, North America, and Australia. SiRi comprises eleven independent research institutions, such as KLD Research & Analytics, Inc., in the USA and Centre Info SA in Switzerland, and provides detailed profiles of the leading international corporations. Companies are analyzed according to their reporting procedures, policies and guidelines, management systems, and key data. This information is extracted from financial accounts, company documentation, international databases, media reports, interviews with key stakeholders, and ongoing contact with management representatives. The profile of each firm contains over 350 data points that cover all major stakeholder issues such as community involvement, environmental impact, customer policies, employment relations, human rights issues, activities in controversial areas (e.g., alcohol), supplier relations, and corporate governance.

We complement these data on corporate responsibility with financial data from the COMPUSTAT Global Vantage database for the year 2000 through 2005. The COMPUSTAT Global Vantage database contains balance sheets, income statements, cash flow statements, and stock data, all of which have been standardized to accommodate the wide variety of financial accounting practices across countries and industries. The final sample is an incomplete panel data of 593 companies from 26 countries. In our sample, information on social issues is available across all three years under analysis (2002 through 2004) for 356 firms from 17 different countries.

Measures

Earnings Management. There are several ways to measure earnings management. Recent empirical studies in accounting and finance have used the approach that divides current accruals into their discretionary and nondiscretionary components. Following Jones (1991) and Dechow, Sloan and Sweeney (1995), we define current accruals as:

$$\text{Accruals} = (\Delta CA - \Delta \text{Cash}) - (\Delta CL - \Delta \text{STD}) - \text{DEP} \quad [1]$$

Where ΔCA is the change in current assets; ΔCash is the change in cash; ΔCL is the change in current liabilities; ΔSTD is the change in debt included in current liabilities; and DEP is the depreciation and amortization.

Thereafter, we compute the expected accruals using an explanatory model (see Appendix 1 for details). The differences between accruals and expected accruals are the unexplained or discretionary accruals (DA); this difference is a proxy for management discretion on reported earnings (*Earnings_management*). In particular, we adopt Kothari, Leone and Wasley (2005) in order to extract the effect of

performance on computing the DA .¹ The use of such an accrual measure enhances the reliability of inferences from earnings management studies with respect to DA , as standard models (Jones and modified-Jones models) might be ill-specified because performance and estimated DA exhibit a mechanical relationship. Such an adjustment for performance eliminates, therefore, the criticism that is made in the earnings management literature, that DA differences rely on differences in performance.

Finally, in order to test the robustness of our results, in some specifications we have used a different variable to detect earnings manipulation. In particular, we study earnings management by focussing on the practice of income smoothing (Fudenberg and Tirole, 1995; Yeo, Tan, Ho and Chen, 2002). Managers smooth earnings, as part of an entrenchment strategy, in order to ensure the stability of cash-flow streams so that they can satisfy the short-term interests of shareholders. The variable used (*Income_smoothing*), is defined as the correlation between changes in accruals and changes in cash flow within a four-year window. As the number of years in our sample is limited, we compute this variable using all available years from the COMPUSTAT Global Vantage database (1995-2004).

Corporate Social Responsibility. CSR was notoriously difficult to operationalize in the past (Waddock and Graves, 1997), because it is a multidimensional construct (Carroll, 1979) that should capture a wide range of items; ideally, one for each relevant stakeholder (Waddock and Graves, 1997). We use SiRi Pro™ data, which includes eight research fields. The first one provides a general overview of a company and the last field reports the level of involvement in so-called controversial business activities. The remaining sections are devoted to measuring the extent of a firm’s responsibilities to its stakeholders: community, corporate governance (shareholders), customers, employees, environment, and vendors and contractors.

In Table 1, we show the items that are used to compute the score for a particular type of stakeholder, the workers. Similar items are used to compute the score for other stakeholders.² The scores for each item are rated by the SiRi analysts on scales ranging from zero (worst) to 100 (best) by taking into consideration four criteria—transparency, principles, management, and operations. Importantly, each information item is weighted according to a methodology which is sector-specific, developed by SiRi. For each sector, SiRi’s analysts determine the firm’s potential negative impact on each stakeholder item and assign weightings in proportion. Firms in the same sector are subjected to the same weighting scheme. Firms in other sectors use different schemes. For example, for energy companies, the items related to “environment” are assigned a heavier weighting than for companies in the financial services industry.

The final score provided by SiRi is the weighted sum of each of the scores by its corresponding weight. In this study, we use that score and we detract the component that corresponds to shareholders. We do not consider such stakeholders in order to preclude the existence of endogeneity problems between our proxy of CSR and some explanatory variables that are closely connected to a firm’s financial performance.

TABLE 1
Description of the Items for Computing the Score of Employees' Satisfaction (Nestle)^a

Items (<i>i</i>)	Score	Weight	Weighted score	Weight	Weighted score	
	S_{ij}	W_{ij}	$S_{ij} \times W_{ij}$	$\frac{W_{ij}}{\sum_i W_{ij}}$	$\frac{W_{ij}}{\sum_i W_{ij}} \times S_{ij}$	
D	Separate employee report	100	0.01	1.02	0.06	6.00
D	Employee information on website	100	0	0.34	0.02	2.00
D	Employee information in annual report	100	0.01	1.02	0.06	6.00
D	Policies/Principles regarding employees	100	0	0.34	0.02	2.00
D	Description of employee benefits programmes	100	0	0.34	0.02	2.00
D	Disclosure of quantitative data	70	0	0.24	0.02	1.40
P	Formal policy statement on health and safety	80	0.01	0.54	0.04	3.20
P	Formal policy on diversity/employment equity	80	0.01	0.54	0.04	3.20
P	Formal policy on freedom of association	80	0.01	0.54	0.04	3.20
P	Formal policy statement on child/forced labor	100	0	0.34	0.02	2.00
P	Formal policy statement on working hours	80	0.01	0.54	0.04	3.20
P	Formal policy statement on wages	80	0	0.27	0.02	1.60
M	Board responsibility for human resources issues	100	0.01	0.51	0.03	3.00
M	Specific health and safety targets	30	0.01	0.16	0.03	0.92
M	Diversity/Equal opportunity programs	40	0.01	0.20	0.03	1.20
M	Work/Life programs	40	0.01	0.20	0.03	1.20
M	Training programs	80	0.01	0.41	0.03	2.40
M	Participative management programs	40	0.01	0.20	0.03	1.20
M	Systems for collective labor negotiations	40	0.01	0.20	0.03	1.20
M	Cash profit sharing programs	0	0	0	0.02	0
M	Ownership programs	40	0	0.10	0.02	0.59
M	Regular employee satisfaction surveys	80	0.01	0.41	0.03	2.40
M	Specific employment related indicators	80	0.01	0.41	0.03	2.40
C	Total workplace time lost	30	0	0.07	0.01	0.41
C	Health and safety fines	50	0	0.12	0.01	0.68
C	Employee satisfaction	40	0.01	0.21	0.03	1.22
C	Supervisory Board (NEDs)	80	0	0.18	0.01	1.08
C	Management (EDs)	0	0	0	0.01	0
C	Quality of industrial relations	60	0.01	0.27	0.03	1.59
C	Subsidiaries with social certification	0	0.01	0	0.03	0.00
C	Major recent lay-offs	50	0.01	0.23	0.03	1.32
C	Health and safety incidents	50	0.01	0.23	0.03	1.32
C	Freedom of association	50	0.01	0.23	0.03	1.32
C	Discrimination	50	0.01	0.23	0.03	1.32
C	Child/Forced Labor	100	0	0	0	0
C	Restructuring	30	0.01	0.14	0.03	0.79
C	Employment conditions	0	0.01	0	0.03	0
EMPLOYEES SCORE						63.37
$SiRi_total_score = \sum_{ij} S_{ij} \times W_{ij}$				71.43		

^aD stands for "Disclosure"; P stands for "Policies and principles"; M stands for "Management procedures," and C stands for "Controversies within the relationship with each stakeholder."

In order to test the moderating effect of earnings management on the relationship between CSR and financial performance (Hypothesis 2), in some specifications, we define the multiplicative variable $DEarnings_management \times CSR$, where $DEarnings_management$ that is equal to 1 when $Earnings_management$

is larger than the mean for the corresponding sector year and country.

Corporate Financial Performance. We use return on assets (ROA), which is the ratio of earnings before interests and

taxes to the total values of assets. We rely on accounting measures because they are more sensitive to managers' manipulations than market measures. As pointed out by Orlitzky *et al.* (2003: 408), "indicators such as ROA and ROE are subject to managers' discretionary allocations of funds to different projects and policy choices, and thus reflect internal decision-making capabilities and managerial performance rather than external market responses to organizational actions."

This variable is used as a dependent one to test Hypothesis 2 and as an explanatory one to test the robustness of Hypothesis 1. In the latter case, we want to ensure that earnings management practices still have a positive influence on CSR after we detract the effect of a firm's financial performance. We are particularly interested in analyzing the link between earnings management and CSR, net of the effect of CFP, because it may well be the case that earnings management determines financial performance and the latter, in turn, affects CSR.³ Under this scheme, the effect of earnings management on CSR would vanish once we incorporate in our estimations a financial performance variable. Thus, according to this view, entrenchment does not take place and CSR is simply the consequence of increases in short-term financial performance due to earnings management.

Control Variables. In order to investigate whether there is an entrenchment motive that justifies the connection between earnings management and socially responsible behavior, in some specifications we define a dummy variable for entrenchment (*Dentrenchment*). In doing so, we follow the specification shown in De Miguel, Pindado and De la Torre (2004) and estimate a variable for performance (ROA) in terms of managerial ownership; both quadratic and cubic terms. As controls, we incorporate size, leverage and investment, as defined below. The results show that the relationship between performance and managerial ownership decreases in the range between 21 per cent and 81 per cent. Hence, we define the aforementioned dummy (*Dentrenchment*) as equal to 1 when managerial ownership is between 21 per cent and 81 per cent and zero otherwise. When the managerial stake lies between these two numbers, a manager has sufficient power to trigger entrenchment initiatives without having to bear 100 per cent of the corresponding costs. Also, we cross this variable with the aforementioned that characterizes earnings management (*Dentrenchment*Earnings_management*) in order to investigate whether the effect of earnings management on the definition of a firm's CSR is more pronounced in those situations when managers are set on entrenchment.

Also, it is important to eliminate the different sources of spurious correlation described in the literature. First, intangible resources generated by R&D investments make a firm's technology more flexible, thereby allowing the incorporation of customer preferences into the design of goods produced. This resource improves customer satisfaction and, consequently, the firm's CSR. At the same time, several studies show that R&D investments favor the management of earnings to achieve certain goals (Baber, Fairfield and Haggard, 1991; Clinch, 1991; Dechow and Sloan, 1991). Thus, we introduce as a control, *R&D_intensity*, which is the ratio of R&D expenditures to total

revenues. Second, an alternative channel that connects earnings management with CSR is ownership structure. Companies owned by large blockholders have both larger levels of CSR and a higher likelihood of managing earnings. For example, Carlson and Bathala (1997) show that earnings management practices are present particularly in those firms with institutional ownership. Concomitantly, Neubaum and Zahra (2006) find that long-term institutional owners, who tend to be controlling blockholders, affect positively a firm's CSR. Hence, we propose two variables of ownership in order to eliminate a possible spurious correlation due to ownership structure. The variable *Ownership_concentration* is the sum of the stakes of the three largest blockholders. We complement this variable with another that captures the presence of institutional blockholders (*Institutional_ownership*), which is the stake in the hands of financial institutions.

The final path that may explain the connection between earnings management and CSR is managerial risk preferences. Managers who are risk averse tend to have smooth earnings. Also, these managers tend to collude with other stakeholders (satisfying their interests) or collude with other firms (Spagnolo, 2005) as a way of diminishing the overall volatility of a firm's structural parameters. In our study, the managers' risk profile is studied indirectly through a variable of a firm's risk, given that managerial risk attitudes are translated into specific policies that determine the firm's overall *Risk* exposure. As a measure of risk we use the betas as reported in COMPUSTAT Global Vantage (e.g., Hillman and Keim, 2001).

The remaining controls are standard for the literature that studies the connection between variables of financial performance and social performance (Waddock and Graves, 1997; Hillman and Keim, 2001): *Size* is approximated using total revenues on a log scale in order to reduce skewness. This variable is widely recognized as a determinant of a firm's financial and social responsibility. For financial structure, we use two variables: *Leverage* which is the ratio of total debt to the total value of assets; and *Financial_resources*, which is calculated as the ratio of cash-flow to total assets.

Methodology

We test our hypotheses making use of two basic specifications—one explains CSR and the other explains CFP. The main independent variable in both cases is the earnings management variable. In both specifications, we consider the same set of control variables in explaining financial performance as well as social responsibility although different independent non-control variables. In particular, in order to explain CSR and test Hypothesis 1, we rely on the following regression:

$$\begin{aligned}
 CSR_{it} = & \lambda_1 + \lambda_2 (Earnings_management)_{it} \\
 & + \lambda_3 (CFP)_{it-1} + \lambda_4 (R\&D_intensity)_{it} \\
 & + \lambda_5 (Ownership_concentration)_{it} \\
 & + \lambda_6 (Institutional_ownership)_{it} \\
 & + \lambda_7 (Risk)_{it-1} + \lambda_8 (Size)_{it} \\
 & + \lambda_9 (Leverage)_{it-1} \\
 & + \lambda_{10} (Financial_resources)_{it} + \eta'_i + \epsilon'_{it} \quad [2]
 \end{aligned}$$

TABLE 2A
Descriptive Statistics

Variable	Number of Observations	Mean Value	Standard Deviation	Minimum Value	Maximum Value
CSR	1,105	47.44	15.00	0.78	80.14
ROA	1,105	4.57	8.86	-114.60	28.14
<i>Earnings_management</i>	1,105	-0.01	0.14	-1.90	1.48
<i>DEarnings_management*CSR</i>	1,105	-1.70	5.20	-26.59	23.39
<i>Dentrenchment</i>	1,105	0.01	0.11	0.00	1.00
<i>Dentrenchment*Earnings_management</i>	1,105	0.00	0.02	-0.41	0.11
<i>Income_smoothing</i>	873	0.10	0.61	-0.99	1.00
<i>R&D_intensity</i>	1,105	41.19	113.08	0.00	896.69
<i>Ownership_concentration</i>	1,105	15.29	6.95	3.13	100
<i>Institutional_ownership</i>	1,105	2.57	6.10	0.00	89.65
<i>Risk</i>	1,105	1.05	0.76	-0.44	5.16
<i>Size</i>	1,105	18,403.81	32,582.88	40.10	30,3756
<i>Leverage</i>	1,105	24.12	15.67	0.00	91.46
<i>Financial_resources</i>	1,105	0.59	0.46	0.07	5.01

Hypothesis 1 is supported when λ_2 is positive and significant. Additionally, in some specifications we add the *Dentrenchment*Earnings_management* as well as the *Dentrenchment* variable, defined before, in order to test the marginal effect of earnings management on CSR in a managerial entrenchment situation. According to our theoretical framework, we would expect a positive sign for the coefficient of such a variable.

The second specification is aimed at explaining financial performance. As mentioned before, we employ the same control variables as in specification [2] and the earnings management variable. Additionally, in accordance with the instrumental stakeholder theory, CSR is treated as a predictor variable. Finally, in order to identify whether or not *DA* moderate the connection between CSR and financial performance, we use the aforementioned inter-action variable (*DEarnings_management*CSR*). Hence, the specification is as follows:

$$\begin{aligned}
 CFP_{it} = & \beta_1 + \beta_2(CSR)_{it-1} \\
 & + \beta_3(Earnings_management)_{it-1} \\
 & + \beta_4(DEarnings_management*CSR)_{it-1} \\
 & + \beta_5(R\&D_intensity)_{it} \\
 & + \beta_6(Ownership_concentration)_{it} \\
 & + \beta_7(Institutional_ownership)_{it} \\
 & + \beta_8(Risk)_{it-1} + \beta_9(Size)_{it} \\
 & + \beta_{10}(Leverage)_{it-1} \\
 & + \beta_{11}(Financial_resources)_{it} + \eta''_i + \varepsilon''_{it} \quad [3]
 \end{aligned}$$

Hypothesis 2 is supported when the coefficient of the interaction term β_4 is negative and significant.

In both specifications [2] and [3], we use fixed-effect estimations in order to prevent endogeneity problems, relying on the eventual correlation between the fixed unobservable component of the error term and some explanatory variables. In particular, we expect the unobserved determinants

of CSR, like a firm's organization, to be perfectly correlated with a firm's CFP. Thus, we have to estimate in differences (fixed-effect estimation).⁴ Additionally, we lag some independent variables by one period to prevent endogeneity problems that are not linked to the constant unobservable heterogeneity. In particular, we lag the variable CFP by one period when estimating CSR (see equation [2]) because instrumental stakeholder theory establishes that the latter variable is a determinant of CFP. Regarding the specification of CFP (see equation [3]) we lag the variable for CSR because, as mentioned in the theoretical section, readily available financial resources may affect a firm's CSR – Slack Resources Hypothesis (Waddock and Graves, 1997). Also, in specification [3] we lag the variable for *Discretionary Accruals*, as well as the interaction term (*DEarnings_management*CSR*) because bad financial results may trigger earnings manipulations. Finally, in both specifications we lag two control variables: *Leverage* and *Risk*, because debt capacity (closely related to risk), as well as overall firm risk are determined by a firm's financial and social results.

RESULTS

Table 2A reports means, standard deviations, and minimum and maximum values. The descriptive analysis shows that the CSR variable shows a mean value of 47.44 per cent on a scale between zero and 100. Among the countries with the largest scores are: Luxembourg (72.64 per cent); Taiwan (62.09 per cent); Finland (60.52 per cent); Denmark (58.84 per cent); Norway (57.91 per cent); Canada (56.58 per cent); Austria (56.23 per cent) and UK (55.63 per cent). The worst performers are Mexico (27.95 per cent); Singapore (27.08 per cent) and Greece (26.64 per cent), with the US (45.18 per cent) slightly below the mean.⁵ By sector, the highest ratings (54.14 per cent) correspond to those with a one-digit SIC equal to 1 (metal mining, oil & gas field exploration services, and

general building contractors) and the worst (37.34 per cent) correspond to those with a one-digit SIC equal to seven (hotel services, recreation services). Within the regulated sectors, water supply, and gas return score much higher than the mean (57.58 per cent), while the score for the telecommunications sector is closer to the mean (48.32 per cent). Also, when we turn our attention to the *Earnings_management* variable, we find that *DA* are larger (0.01) than the overall mean (-0.01), in regulated sectors (water, gas, and electric services -2-digit SIC code = 49). In the following analysis, we show that the connection between earnings management and CSR is more significant in regulated sectors.

The analysis of the correlation matrix (see Table 2B) shows that variations in earnings management show a positive correlation with variations in CSR ($r = .12, p < .05$).⁶ This positive result is also true for the variable that crosses earnings management with entrenchment (*Dentrenchment*Earnings_management*), which indicates that variations in earnings management practices, in a situation of eventual entrenchment, is positively correlated with variations in CSR. This correlation conforms to Hypothesis 1. Also in Table 2B, we observe that variations in *DA* are positively correlated to variations in financial performance ($r = .07, p < .05$). This result is consistent with the idea that managers manipulate earnings in order to boost profits. Finally, we also find a positive correlation between variations in CSR and variations in CFP ($r = .05, n.s.$). Remarkably, this correlation becomes negative ($r = -.09, p < .05$) when the degree of earnings management is high (*DEarnings_management* = 1). This finding is in line with Hypothesis 2.

The analysis of specifications [2] is performed in Table 3A, while some robustness checks are conducted in Tables 3B and 3C respectively. More specifically, in Table 3A, we test the effect of a firm's earnings management practices on CSR (Hypothesis 1). Also, we study the significance of this effect by incorporating CFP as an additional predictor for *DA* (column 3). In column 1 we test the direct effect of *DA* on CSR. Results indicate that the effect of earnings management practices on social responsibility is positive and significant ($t = 2.37, p < .01$), thus providing support for Hypothesis 1. Also, in column 2 we investigate whether this effect is greater in a situation where we expect managerial entrenchment. We find that this is the case when the coefficient of *Dentrenchment*Earnings_management* is positive ($\beta = 0.68$ with $t = 1.96, p < .05$). Hence, earnings management appears to lead to improvements in CSR as a managerial device to avoid stakeholder pressure. Given that such accounting manipulations may not only damage stakeholders' interests but those of shareholders as well, a manager may satisfy stakeholders' interests as an entrenchment mechanism in order to develop alliances with stakeholders as a defence against restive shareholders. This entrenchment motive that spurs improvements in a firm's CSR is supported in our analysis. Finally, we provide supporting evidence of these results by introducing a variable for financial performance (column 3). The inclusion of such a variable is intended to obviate the possibility of establishing a spurious connection between earnings management and CSR through a firm's financial performance. Concerning the rest of variables, as expected, we find that CSR is positively related to size and risk.

TABLE 2B
Bi-variate Correlation Matrix^a

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
CSR	1.00													
CFP	.05	1.00												
<i>Earnings_management</i>	.12*	.07*	1.00											
<i>Dentrenchment*Earnings_</i> <i>management</i>	.09*	.03	-.03	1.00										
<i>DEarnings_management*CSR</i>	.30*	-.09*	-.04	.00	1.00									
<i>Income_smoothing</i>	.01	.03	-.02	.02	.03	1.00								
<i>Dentrenchment</i>	-.00	-.02	.02	-.35*	.05	-.01	1.00							
<i>R&D_intensity</i>	.12*	.02	.03	.03	.00	.01	-.01	1.00						
<i>Ownership_concentration</i>	-.12*	-.01	-.06*	.00	.02	.02	-.02	-.01	1.00					
<i>Institutional_ownership</i>	-.00	.03	-.05	.01	.02	.05	-.05*	.01	.29*	1.00				
<i>Risk</i>	.10	-.04	.07*	.02	.02	-.04	-.05	.00	.04	-.04	1.00			
<i>Size</i>	.19*	.00	.00	.02	.00	.01	-.01	-.02	-.01	-.04	-.06*	1.00		
<i>Leverage</i>	-.03	-.20*	.08*	-.07*	-.02	-.04	.02	.01	.04	.02	.09*	-.05*	1.00	
<i>Financial_resources</i>	-.07	.10*	.02	.04	.00	-.02	.00	-.04	.02	.01	-.04*	-.05*	.04	1.00

^a *Significant at the 5 per cent level.

TABLE 3A
Estimation of CSR on Financial Performance and Discretionary Accruals^a

Table 3A shows the results of estimating CSR in terms of earnings management and other control variables defined in the text. In column 4 the dependent variable is the average value of CSR between period t and $t-1$.

<i>Dependent Variable</i>	CSR	CSR	CSR	Average CSR
<i>CFP (t-1)</i>			.07 [†] (1.72)	.05 (1.52)
<i>Earnings_management</i>	.84** (2.37)	.70* (1.87)	.69* (1.93)	.49 [†] (1.72)
<i>Dentrenchment*Earnings_management</i>		.68* (1.96)	.68* (1.99)	.44 [†] (1.60)
<i>Dentrenchment</i>		5.29 (1.46)	4.97 (1.39)	4.94 [†] (1.71)
<i>R&D_intensity</i>	1.19 (1.17)	1.28 (1.25)	1.18 (1.16)	1.08 (1.32)
<i>Ownership_concentration</i>	-.14 (-.47)	-.19 (-.66)	-.16 (-.56)	-.28 (-1.22)
<i>Institutional_ownership</i>	.07 (1.29)	.08 (1.32)	.07 (1.29)	.07 (1.53)
<i>Risk (t-1)</i>	.94 (1.48)	1.16 [†] (1.75)	1.10 [†] (1.72)	1.00* (1.96)
<i>Size</i>	4.67** (2.76)	4.49** (2.61)	4.51** (2.67)	4.37** (3.22)
<i>Leverage (t-1)</i>	.34 (.35)	.30 (.31)	.65 (.65)	.36 (.44)
<i>Financial_resources</i>	-2.44 (-.22)	-1.56 (-1.14)	-11.58 (-.96)	-5.55 (-5.57)
<i>Constant</i>	-.92* (-2.29)	-.64 (-1.14)	-1.42** (-2.94)	-1.14** (-2.94)
Number of observations	1105	1105	1105	1105
R ²	4.46%	4.52%	4.96%	3.97%
<i>Fitness Test</i>	2.11*	1.87*	2.21**	2.56**
<i>Hausman Test</i>	14.79**	23.54**	19.01*	25.53**

^aStandardized regression coefficients are shown in the table. T-statistics in parentheses.

[†] $p < .10$

* $p < .05$

** $p < .01$

In column 4, we investigate whether a manager starts to increase CSR one period in advance, in anticipation of earnings management. To do so, we consider the mean value of CSR, between period t and $t-1$, as a dependent variable. The result, although less significant, also holds for this specification. Although there is a case for the anticipation argument, it is not very significant.

In Table 3B, we investigate the robustness of our results when we compare regulated (water, gas, electric services, and telecommunications) versus non-regulated sectors (columns 1 and 2). The results show that the positive impact of earnings management on CSR is more significant in regulated sectors. This result is consistent with the idea that these are politically sensitive sectors where stakeholder power is particularly high. Finally, in Columns 3 and 4, we compare

Anglo-Saxon versus non-Anglo-Saxon countries.⁷ We find that the effect is more important in Anglo-Saxon countries, which can be explained by more vigorous stakeholders' activism in such countries.

In Table 3C, we extend our robustness analysis and focus on a particular type of earnings manipulation, income smoothing. Columns 1 and 2 show that this variable has a positive impact on CSR when we take into account the specification for the variable for DA (*Earnings_management* in column 2). Finally, in Columns 3 and 4, we limit our analysis to two particular types of stakeholders, customers and employees. We choose these two types of stakeholders because they are among the most salient. The results are robust for these stakeholders, too. Remarkably, in an unreported estimation, when we focus on other stakeholders that

TABLE 3B
Robustness Tests for Regulatory & Anglo-Saxon Effects^a

Table 3B shows the results of estimating CSR in terms of earnings management and other control variables defined in the text. In column 1, we focus on regulated sectors (water supply, gas supply, electric services, and telecommunication), while in column 2 the results are from the remaining gsectors. Column 3 focuses on Anglo-Saxon countries as defined in La Porta *et al.* (1998) (e.g. Australia, Canada, Hong Kong, Ireland, Singapore, Thailand, UK and the US). Finally in column 4, we focus on non-Anglo-Saxon countries (French, German, Scandinavian-legal origin countries).

Dependent variable	CSR Regulated Sectors	CSR Non-regulated Sectors	CSR Anglo-Saxon Countries	CSR Non-Anglo Countries
CFP (<i>t</i> -1)	.02* (2.10)	.00 (1.31)	.01 [†] (1.65)	.01 (1.29)
Earnings_management	.17* (1.89)	.14 (1.12)	.07** (2.50)	-.00 (-.05)
R&D_intensity	-1.37 (-.41)	.12 [†] (1.62)	-.03 (-.19)	.11** (2.61)
Ownership_concentration	.14* (2.08)	-.03 (-1.25)	-.00 (-.04)	-.01 (-.27)
Institutional_ownership	.03** (2.37)	.02** (4.90)	.01 (.92)	.01* (1.85)
Risk (<i>t</i> -1))	.24** (2.35)	.24** (4.62)	.11* (2.24)	.02 (.32)
Size	1.24** (2.72)	.49** (3.81)	.28** (2.36)	.52** (4.91)
Leverage (<i>t</i> -1)	.14 (.82)	-.01 (-.17)	.09 (1.18)	.18* (2.20)
Financial_resources	-1.58 (-.66)	.24 (.25)	-1.13 (-1.35)	1.65 (.52)
Constant	-.56 (-.53)	-.15** (-3.44)	-.48** (-9.42)	-.31 (-.32)
Number of observations	196	909	819	286
R ²	30.84%	14.16%	30.04%	25.34%
Fitness Test	4.15**	8.36**	17.37**	4.72**
Hausman Test	32.91**	18.79*	28.42**	42.31**

^aStandardized regression coefficients are shown in the table. T-statistics in parentheses.

[†]*p* < .10

**p* < .05

***p* < .01

have less power (e.g., suppliers, the community), the results do not hold. This behavior conforms to the scenario where a manager, who has manipulated earnings, seeks to reinforce relationships with the most important stakeholders.

The results from the estimation of specification [3], to contrast Hypothesis 2, are presented in Table 4. We use the aforementioned variable (*DEarnings_management*CSR*) to test the moderating role of *DA* in the relationship between CSR and financial performance. Using that variable, we focus on the moderating role when the degree of earnings management is high enough. In line with our theory, we expect that the coefficient of such variable to be negative; suggesting that generous social concessions, defrayed through accounting manipulation, reduces the positive effect of CSR on financial performance.

The results in Column 3 of Table 4 show that the coefficient for CSR is positive ($\beta = 0.05$ with $t = 2.76$, $p < .01$) whereas for the interaction term it is negative ($\beta = -0.04$ with $t = -3.34$, $p < .01$). Remarkably, the total effect of CSR on CFP is still positive ($0.05 - 0.04 = 0.01$). These results provide support for Hypothesis 2 concerning the negative moderating effect of earnings management practices in the relationship between CSR and CFP. It is remarkable that the direct effect of the earnings management variable is positive in the contemporaneous specification ($\beta = 0.46$ with $t = 3.17$, $p < .01$; in column 1), given that earnings management practices are aimed at improving financial performance. However, when we lag this variable by one period (Column 2), we find that these practices have a negative impact on financial performance. This finding suggests that earnings

TABLE 3C
Robustness Tests for Income Smoothing & Stakeholder Effects^a

Table 3C shows the results of estimating CSR in terms of earnings management and other control variables defined in the text. In columns 1 and 2, we define the variable for earnings management by a measure of income smoothing computed as the correlation between changes in accruals and changes in cash flow. In column 3 the dependent variable is the score for customer satisfaction, while the score for employees' satisfaction is the dependent variable in column 4.

<i>Dependent variable</i>	CSR	CSR	Customers	Employees
<i>CFP (t-1)</i>	.06 (1.40)	.05 (1.34)	.12* (2.14)	.04 (1.06)
<i>Income_smoothing</i>	.99* (1.86)	.95* (1.80)		
<i>Earnings_management</i>		5.48** (2.45)	4.69* (1.98)	3.81* (2.23)
<i>R&D_intensity</i>	1.70 (1.48)	1.83 (1.59)	-.76 (-.50)	1.16 (1.09)
<i>Ownership_concentration</i>	-.00 (-.01)	-.05 (-.14)	-.68 (-1.59)	.06 (.21)
<i>Institutional_ownership</i>	.04 (.55)	.03 (.54)	.17* (1.86)	-.18** (-3.17)
<i>Risk (t-1)</i>	1.63* (2.06)	1.62* (2.05)	-1.24 (-1.33)	.99 (1.49)
<i>Size</i>	6.56** (3.76)	7.30** (4.15)	3.80 [†] (1.66)	-.56 (-.32)
<i>Leverage (t-1)</i>	.45 (.39)	.48 (.42)	1.08 (.73)	1.83 [†] (1.74)
<i>Financial_resources</i>	-14.93 (-1.16)	-13.70 (-1.07)	-37.55* (-2.07)	-26.90* (-2.13)
<i>Constant</i>	-2.01** (-3.48)	-1.91** (-3.32)	-2.64** (-2.77)	-2.41** (-3.89)
<i>Number of observations</i>	873	873	1105	1105
<i>R²</i>	5.59%	6.78%	2.90%	3.62%
<i>Fitness Test</i>	3.12**	3.44**	1.78*	21.93**
<i>Hausman Test</i>	21.51**	23.95**	22.49**	29.08**

^aStandardized regression coefficients are shown in the table. T-statistics in parentheses.

[†]p < .10

*p < .05

**p < .01

management practices are effective for boosting profits in the short-term but are detrimental in the medium-term (one period ahead), which is may be precisely one of the reasons why managers develop CSR activities. Finally, turning our attention to the rest of variables, we find that financial performance increases with financial resources.

DISCUSSION AND CONCLUSION

In this paper, we investigate the relationship between CSR and earnings management practices. We explore the thesis that managers manipulate earnings in order to obtain private benefits, and through these practices they damage the interests of stakeholders. As stakeholders exert pressure on firm

decisions, managers may internalize the negative impact of their actions and work to compensate these constituencies through CSR activities. Predictably, by colluding with non-shareholder stakeholders, a manager is able to reduce the likelihood of earnings management practices being scrutinized by the firm's stakeholders. Therefore, we hypothesize a positive association between earnings management practices and CSR activities.

To demonstrate our theoretical contention, we make use of an international database provided by the Sustainable Investment Research International Company (SiRi). SiRi scrutinizes firms with respect to their practices toward employees, communities, suppliers, customers, environment, and corporate governance. We complement these data on corporate responsibility with financial data from the

TABLE 4
Moderating Effect of Earnings Management on Corporate Financial Performance (CFP) and Corporate Social Responsibility (CSR) Relationship^a

Table 4 shows the results of estimating CFP in terms of CSR as well as the variable for earnings management and other control variables defined in the text.

Dependent Variable	CFP	CFP	CFP
CSR (<i>t</i> -1)			.05** (2.76)
<i>Earnings_management</i>	.46** (3.17)		
<i>Earnings_management</i> (<i>t</i> -1)		-.27 [†] (-1.72)	-.03* (-2.78)
<i>DEarnings_management</i> *CSR (<i>t</i> -1)			-.04** (-3.34)
<i>R&D_intensity</i>	-.22 (-.43)	-.01 (-.01)	.18 (1.05)
<i>Ownership_concentration</i>	-.08 (-.51)	-.01 (-.04)	-.01 (-.05)
<i>Institutional_ownership</i>	-.05 [†] (-1.62)	-.05 (-1.52)	.01* (2.05)
<i>Risk</i> (<i>t</i> -1)	-.13 (-.50)	-.50 (-1.47)	.23** (5.29)
<i>Size</i>	2.28** (3.51)	7.54** (9.27)	.22 [†] (1.10)
<i>Leverage</i> (<i>t</i> -1)	1.63** (3.87)	1.10** (2.31)	-.03 (-.83)
<i>Financial_resources</i>	85.37** (48.88)	122.17** (24.89)	25.63** (20.89)
<i>Constant</i>	2.54** (17.65)	3.14** (16.13)	.52** (15.65)
<i>Number of observations</i>	1105	1105	743
<i>R</i> ²	65.86%	42.39%	64.55%
<i>Fitness Test</i>	304.84**	78.55**	46.51**
<i>Hausman Test</i>	127.74**	131.94**	303.48**

^aStandardized regression coefficients are shown in the table. T-statistics in parentheses.

[†]p < .10

*p < .05

**p < .01

COMPUSTAT Global Vantage database for the years 2000 through 2005. The final sample is an incomplete panel data of 593 companies from 26 countries.

The empirical results conform to our theoretical contention. In particular, we find a positive impact of earnings management practices on CSR which is particularly clear in those situations where the literature shows that managerial entrenchment is more likely. We explain such a result by the fact that managers who indulge in earnings management practices have two reasons to satisfy stakeholders' interests. First, there is a pre-emptive reason—managers anticipate that stakeholder activism, as a result of earnings manipulation, may damage their position in the firm. A good way of avoiding such activism is to satisfy stakeholders' interests. Second,

an entrenchment reason—managers tend to collude with other stakeholders as a hedging strategy against disciplinary initiatives from shareholders affected detrimentally by these earnings management practices.

The second result is that the connection between earnings management and CSR is robust to the inclusion of variables like financial performance. Our empirical evidence shows that the linkage between earnings management and CSR is not explained by the effect that these practices could have on a firm's CFP. A firm's CSR can be increased, not only by inflated financial results, but also by the set of pre-emptive and entrenchment initiatives aimed at satisfying stakeholders' interests. In addition, we conduct a set of robustness checks and the results hold for different specifications, dif-

ferent measures of earnings manipulation (i.e., income smoothing), as well as for particular types of stakeholders (i.e., workers and customers). Also, consistent with our theory, the results are more significant in those politically-sensitive sectors (i.e., regulated industries) and in common law legal-origin countries, where we expect stakeholder activism to be more pronounced.

A final finding, which is also consistent with this perverse use of CSR, is that generous social concessions, defrayed through accounting manipulation, reduce the positive effect of CSR on financial performance, while reinforcing the negative impact of earnings managements on CFP.

Limitations, Alternative Explanations and Directions for Future Research

Some limitations in our study should be acknowledged and could be helpful to guide future research. Although we use a unique database with a number of strengths such as its international scope, we must recognize some weakness in our empirical application. One such limitation is related to the reduced number of years on which our findings are based. Future work should attempt to expand the sample to include more years, allowing the employment of temporal lags and/or leads in the estimations – particularly in those estimations that are based on measures of income-smoothing, which require computing correlation between variables along time. Additionally, richer panel data would allow the examination of long-term aspects of the connection between earnings management, CSR, and performance.

Second, although the expected direction of causality is from earnings management to CSR, we cannot exclude the reverse relationship, hence we need to look carefully at endogeneity issues. Engaging in socially responsible activities not only enhances corporate reputation, but also reduces activism and vigilance from stakeholder groups (Zahra *et al.*, 2005). Therefore, an executive who has gained support from different stakeholders may in turn engage in earnings management. Note that our basic argument can also explain such an apparent reverse causality – managers, who are set initially on earnings manipulation, anticipate the consequences of such actions on stakeholder interests and, therefore, satisfy them ex-ante some periods before the implementation of earnings management due to the inertia in CSR practices and the difficulties in changing them. We provide some evidence in such direction. However, future research with a long time series could explore, in greater depth, the endogeneity that may emerge from reverse causality between earnings management and CSR by using GMM estimation techniques; these techniques are quite demanding in terms of the required number of periods.

Third, our research model does not consider the possibility that other types of variables could intervene in the relationship between earnings management, CSR, and financial performance. For example, it could be possible for ownership structure, corporate governance, and institutional factors to moderate the causal links among our model variables; we argue that earnings management is related to entrenchment practices like the implementation of CSR policies. Remarkably, the efficacy of such entrenchment

practices in the face of external corporate governance mechanisms is contingent upon internal corporate governance mechanisms such as ownership structures, boards of directors, and board subcommittees (Sundaramurthy, 2000). Thus, we could expect that such internal corporate governance mechanisms, as well as the institutional factors that define the balance between internal and external corporate governance mechanisms, will have a clear impact on the associations between earnings management, CSR, and financial performance. Additionally, when examining the role of corporate governance, researchers could consider differences across countries, because previous research has suggested that managerial cultures (Davis, Schoorman and Donaldson, 1997) and investor protection (Leuz *et al.*, 2003) vary across institutional settings. We have made progress in this direction by comparing the relationship between earnings management and CSR in Anglo-Saxon and non-Anglo-Saxon countries. The results indicate that in the former group of countries the effect is more intense, thereby suggesting a positive moderating effect of investor protection, on the relationship between earnings management and CSR. However, the study of these institutional aspects to a deeper level calls for richer data.

Finally, alternative theoretical arguments may compete with our entrenchment hypothesis. Although agency theory is widely applied to investigation of corporate governance issues, stewardship theory offers an alternative perspective. In describing the underpinnings of stewardship theory, Davis *et al.* (1997) asserts that a steward will engage in pro-organizational, collectivist behaviors, gaining more satisfaction from serving the group than from serving himself. Therefore, the positive relationship between earnings management and CSR could be explained by using the stewardship theory point of view. To benefit all stakeholders, the manager – the steward – influences reported earnings. However, this alternative theory predicts a positive moderating role of CSR in the connection from earnings management to CFP, which is not consistent with our findings.

Despite these limitations, we believe that our paper sheds new light on how a firm's CSR may be used as an integral part of an entrenchment strategy by executives who manipulate earnings. We hope that these considerations may help to put the dark-side aspects of CSR on the research agendas of scholars.

Policy Implications

The recognition of the increasing importance of CSR has fueled a debate of whether corporations under-invest in social activities. Sometimes in this debate, public authorities are accused of not providing enough stimuli to firms to improve CSR. The conclusions derived from this study are important when influencing public policies on this issue. Public authorities should not take for granted that firms with extensive CSR behave fairly. Our results show that these firms may very likely be involved in earnings management practices and that, more importantly, the combination of earnings management and CSR practices causes deterioration in a firm's financial performance. Thus, policies aiming at promoting socially responsible practices, like tax reductions, instead of motivating the desired behavior, may

provide managers with additional incentives to over-invest in (inefficient) CSR. Such a scenario could allow malpractices like earnings management to occur or even stimulate them. A second measure is the harmonization of the financial reporting process (exemplified by the promulgation of the Sarbanes-Oxley Act in US, or the International Financial Reporting Standards in European countries) as well as the harmonization of CSR measurement systems across countries. These initiatives should hinder discretionary choices of management on social issues aimed at manipulating earnings. Another measure is to regulate social issues in order to avoid over-investment in socially responsible actions. Undoubtedly, mandatory accounting practices that reflect these issues on the balance sheet may be a first step in this direction. In addition to these initiatives, public authorities may regulate firms' corporate governance in order to create a board subcommittee responsible for monitoring social investments.

Managerial Implications

The implications for managers are quite straightforward given the negative consequences on financial performance of combining accounting manipulation with improvements in CSR to obtain stakeholder support. Our findings, however, do not advise managers to avoid investments in social activities, because we find that relationships with key stakeholders have a direct, positive impact on financial performance. Therefore, while strategic CSR (i.e., social practices that a company develops in order to expand the set of value-creating relationships with its stakeholders) impacts positively on financial performance, discretionary CSR, reflected in social practices that do not affect the bottom line, have a negative payoff. This negative effect is explained by the fact that the costs of improving CSR exceed any accruing benefits (see McWilliams *et al.*, 2006). The self-serving behavior that a manager adopts, in order to obtain support from corporate stakeholders after managing earnings, belongs to this discretionary approach and, therefore, explains the dark side of CSR found in our study.

The main prescription for managers, if these results are refined and extended, is to avoid using concessions to stakeholders as a device to entrench themselves. The strategy of projecting a socially-friendly image as a front to disguise earnings management practices, although reducing the likelihood of being fired in the short-term given the support from stakeholders, cannot be sustained along time due to the damages on financial performance.

Conclusion

The vast amount of resources that organizations devote to CSR activities prompts the need for a better understanding of the motivations behind socially responsible behavior as well as its implications on financial performance. This study highlights the relevance of distinguishing whether investments in CSR affect the firms' bottom line or, alternatively, is part of a managerial entrenchment strategy to gain support from stakeholders after having employed practices damaging to shareholders' interests like earnings management. We posit that abrupt improvements in a firm's CSR may be

connected to value-destroying practices like earnings management and that these could even reinforce the negative impact of such practices on a firm's returns. The main aim of this paper is to provide such a warning signal.

ENDNOTES

1. In particular, we introduce the variable of ROA as an explanatory variable of the predicted accruals. By including ROA in estimations, we eliminate the effect of performance from the unpredicted accruals (see Appendix 1 for more details).
2. Visit www.centreinfo.ch/doc/doc_site/SP-Novartis-06.pdf for an example of a detailed profile, and visit www.ais.com.es/ingles/productos/derivados.htm#1 for more information on SiRi Pro™.
3. The central argument draws on a stream of stakeholder theory called slack resources hypothesis (Waddock and Graves, 1997) that connects greater CFP to a surplus of resources that gives firms the necessary financial wherewithal to attend to social issues (McGuire, Sundgren and Schneeweis, 1988; Kraft and Hage, 1990; McGuire, Sundgren and Branch, 1990; Preston, Sapienza and Millar, 1991).
4. In order to control for temporal, sectoral, and country effects in fixed-effect estimation, we detract from each dependent variable its mean value for the corresponding year, sector, and country.
5. Our sample is composed of 26 different nations, with the US (31.26 per cent), UK (15.37 per cent), Japan (8.51 per cent), France (7.75 per cent), Switzerland (7.37 per cent), Germany (5.97 per cent), Netherlands (4.96 per cent), Sweden (3.68 per cent), Italy (2.92 per cent), and Canada (1.91 per cent) being most represented.
6. For the sake of consistency with the estimations, we show the correlations of differences in the variables. Note that in fixed-effect estimations, variables are taken as differences between periods.
7. We follow La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998) and separate the countries by those with French, German, Scandinavian, and Anglo-Saxon-legal origin. Australia, Canada, Hong Kong, Ireland, Singapore, Thailand, UK, and US also fall within the latter category.

ACKNOWLEDGEMENTS

The authors wish to thank Carlos Bendito, Managing Director of Analistas Internacionales en Sostenibilidad (AIS™) – a sustainable Investment Research International Company partner firm based in Spain – for their helpful comments and access to the SiRi Pro™ database. We would also like to thank the editor and the referees, as well as participants at the Foro de Finanzas (Castellón de la Plana, 2006), and the seminar participants at Universitat Autònoma of Barcelona for their useful comments on earlier drafts of this paper. We also acknowledge the financial support of the Comunidad de Madrid (Grant # s-0505/tic/000230) and the Ministerio de Educación y Ciencia (Grant #SEC2003-017311, grant #SEC003-04770, and grant # SEJ2006-09401). The usual disclaimers apply.

REFERENCES

- Aupperle, K., Carroll, A. and Hatfield, J. (1985) An empirical examination of the relationship between corporate social responsibility and profitability, *Academy of Management Journal*, 28: 446–63.

- Baber W., Fairfield P. and Haggard, J. (1991) The Effect of concern about reported income on discretionary spending decision: The case of research and development, *The Accounting Review*, 66: 818–29.
- Bansal, P. (2005) Evolving sustainably: A longitudinal study of corporate sustainable development, *Strategic Management Journal*, 26: 197–218.
- Baron, D. P. (2001) Private politics, corporate social responsibility, and integrated strategy, *Journal of Economics and Management Strategy*, 10: 7–45.
- Berman, S., Wicks, A., Kotha, S. and Jones, T. (1999) Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance, *Academy of Management Journal*, 42: 488–506.
- Carlson, S. J. and Bathala, C. T. (1997) Ownership differences and firms' income smoothing behavior, *Journal of Business Finance & Accounting*, 24(2): 179–96.
- Carroll, A. B. (1979) A three-dimensional conceptual model of corporate social performance, *Academy of Management Review*, 4: 497–505.
- Castelo, M. and Lima, L. (2006) Corporate social responsibility and resource-based perspectives, *Journal of Business Ethics*, 69: 111–32.
- Cespa, G. and Cestone, G. (2007) Corporate social responsibility and managerial entrenchment, *Journal of Economics and Management Strategy*, 16(3): 741–71.
- Clarkson, M. (1994) A Risk Based Model of Stakeholder Theory. Proceedings of the Second Toronto Conference on Stakeholder Theory, Centre for Corporate Social Performance and Ethics, University of Toronto. Toronto.
- Clinch, G. (1991) Employee compensation and firms' research and development activity, *Journal of Accounting Research*, 29: 59–78.
- D'Souza, J., Jacob, J. and Ramesh, K. (2000) The use of accounting flexibility to reduce labor renegotiation costs and manage earnings, *Journal of Accounting and Economics*, 30: 187–208.
- Davidson III, W. N., Jiraporn, P., Kim, Y. S. and Nemecek, C. (2004) Earnings management following duality-creating successions: Ethnostatistics, impression management, and agency theory, *Academy of Management Journal*, 47: 267–75.
- Davis J., Schoorman, F. D. and Donaldson, L. (1997) Toward a stewardship theory of management, *Academy of Management Review*, 22: 20–47.
- De Miguel, A., Pindado, J. and De la Torre, C. (2004) Ownership structure and firm value: New evidence from Spain, *Strategic Management Journal*, 25: 1119–207.
- DeAngelo, L. (1988). Managerial competition, information costs and corporate governance: The use of accounting performance measures in proxy contests, *Journal of Accounting and Economics*, 10: 3–36.
- Dechow, P. and Sloan, R. G. (1991) Executive incentive and the horizon problem: An empirical investigation, *Journal of Accounting and Economics*, 14: 51–89.
- Dechow, P., Sloan, R. and Sweeney, A. (1995) Detecting earnings management, *The Accounting Review*, 70: 193–225.
- Dechow, P. and Sweeney, A. (1996) Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC, *Contemporary Accounting Research*, 13: 1–36.
- DeFond, M. L. and Jiambalvo, J. (1994) Debt Covenant violation and manipulation of accruals, *Journal of Accounting and Economics*, 17: 145–76.
- Donaldson, T. L. and Preston, L. E. (1995) The stakeholder theory of the corporation: Concepts, evidence, and implications, *Academy of Management Review*, 20: 65–91.
- DuCharme, L. L., Malatesta, P. H. and Sefcik, S. E. (2004) Earnings management, stock issues, and shareholder lawsuits, *Journal of Financial Economics*, 71: 27–49.
- Fedderson, T. and Gilligan, T. (2001) Saints and markets: Activists and the supply of credence goods, *Journal of Economics and Management Strategy*, 10: 149–71.
- Fombrun C., Gardberg N. and Barnett M. (2000) Opportunity platforms and safety nets: Corporate citizenship and reputational risk. *Business and Society Review*, 105: 85–106.
- Freeman, E. (1984) *Strategic Management: A Stakeholder Approach*, Pitman, Boston, MA.
- Friedman, M. (1970) The social responsibility of business is to increase its profits, *New York Times Magazine*, 13: 32–3.
- Fudenberg, K. and Tirole, J. (1995) A theory of income and dividend smoothing based on incumbency rents, *Journal of Political Economy*, 103: 75–93.
- Han, J. and Wang, S. (1998) Political costs and earnings management of oil companies during the 1990 Persian Gulf crisis, *The Accounting Review*, 73: 103–17.
- Healy, P.M. and Wahlen, J. M. (1999) A review of the earnings management literature and its implications for standard setting, *Accounting Horizons*, 13: 365–83.
- Hill, C. W. and Jones, T. M. (1992) Stakeholder-agency theory, *Journal of Management Studies*, 29: 131–54.
- Hillman, A. J. and Keim, G. D. (2001) Shareholder value, stakeholder management, and social issues: What's the bottom line? *Strategic Management Journal*, 22: 125–39.
- Holthausen, R. W., Larcker, D. F. and Sloan, R. G. (1995) Annual bonus schemes and the manipulation of earnings, *Journal of Accounting and Economics*, 19: 29–74.
- Jensen, M. C. (2001) Value maximization, stakeholder theory, and the corporate objective function, *Journal of Applied Corporate Finance*, 14: 8–21.
- John, A. and Klein, J. (2003) The boycott puzzle: Consumer motivations for purchase sacrifice, *Management Science*, 49: 1196–209.
- Jones, T. M. (1995) Instrumental stakeholder theory: A synthesis of ethics and economics, *Academy of Management Review*, 20: 404–37.
- Jones, J. (1991) Earnings management during import relief investigations, *Journal of Accounting Research*, 29: 193–228.
- Kang, S. H. and Sivaramakrishnan, K. (1995) Issues in testing earnings management and an instrumental variable approach, *Journal of Accounting Research*, 33: 355–67.
- Kothari, S. P., Leone, A. J. and Wasley, C. E. (2005) Performance matched discretionary accrual measures, *Journal of Accounting and Economics*, 39: 163–97.
- Kraft, K. and Hage, J. (1990) Strategy, social responsibility and implementation, *Journal of Business Ethics*, 9: 11–19.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (1998), Law and finance, *Journal of Political Economy* 106: 1113–55.
- Leuz, C., Nanda, D. and Wysocki, P. (2003) Earnings management and investors protection: An international comparison, *Journal of Financial Economics*, 69: 505–27.
- Luoma, P. and Goodstein, J. (1999) Stakeholders and corporate boards: Institutional influences on board composition and structure, *Academy of Management Journal*, 42: 553–63.
- McGuire, J. B., Sundgren, A. and Branch, B. (1990) Perceptions of firm quality: A cause or result of firm performance, *Journal of Management*, 16: 167–80.
- McGuire, J. B., Sundgren, A. and Schneeweis, T. (1988) Corporate social responsibility and firm financial performance, *Academy of Management Journal*, 31: 854–72.
- McWilliams, A., Siegel, D. S. and Wright, P. M. (2006) Corporate social responsibility: Strategic implications, *Journal of Management Studies*, 43: 1–18.
- Neubaum, D. O. and Zahra, S. A. (2006) Institutional ownership and corporate social performance: The moderating effects of investment horizon, activism, and coordination, *Journal of Management*, 32: 108–31.

- Orlitzky, M., Schmidt, F. L. and Rynes, S. L. (2003) Corporate social and financial performance: A meta-analysis, *Organization Studies*, 24:403–41.
- Pagano, M. and Volpin, P. (2005) Managers, workers, and corporate control, *The Journal of Finance*, 60: 841–68.
- Preston, L. and O'Bannon, D. (1997) The Corporate social-financial performance relationship. A typology and analysis, *Business and Society*, 36: 419–29.
- Preston, L., Sapienza, H. and Millar, R. (1991) Stakeholders, stockholders, managers: Who gain what from corporate governance? In: A. Etzioni and P. Lawrence (Eds.), *Socio-economics: Toward a New Synthesis*, 149–66. ME Sharpe, Armonk, London.
- Ronen, J. and Sadan, S. (1981) *Smoothing Income Numbers: Objectives, Means, and Implications*. Addison-Wesley, Reading, MA.
- Rowley, T. (1997) Moving beyond dyadic ties: A network theory of stakeholder influence, *Academy of Management Review*, 22: 887–910.
- Rowley, T. and Berman, S. (2000) A brand new brand of corporate social performance, *Business and Society*, 39: 397–418.
- Spagnolo, G. (2005) Managerial incentives and collusive behavior, *European Economic Review*, 49: 1501–23
- Sundaramurthy, C. (2000) Antitakeover provisions and shareholder value implications: A review and a contingency framework, *Journal of Management*, 26(5): 1005–30.
- Tirole, J. (2001), Corporate governance, *Econometrica*, 69: 1–35.
- Waddock, S. A. and Graves, S. B. (1997) The corporate social performance-financial performance link, *Strategic Management Journal*, 18: 303–19.
- Watts, R. L. and Zimmerman, J. L. (1978) Towards a positive theory of the determination of accounting standards, *The Accounting Review*, 53: 112–34.
- Williamson, O. E. (1993) Calculativeness, trust, and economic organization, *Journal of Law and Economics*, 36: 453–86.
- Yeo, G. H. H., Tan, P. M. S., Ho, K. W. and Chen, S. (2002) Corporate ownership structure and the informativeness of earnings, *Journal of Business Finance & Accounting*, 29: 1023–46.
- Zahra, S. A., Priem, R. L. and Rasheed, A. A. (2005) The antecedents and consequences of top management fraud, *Journal of Management*, 31: 803–28.

Dr. Diego Prior is Professor of Accounting in the Department of Business Administration at the Universitat Autònoma de Barcelona. He holds a Ph.D. in Business Administration from Universitat Autònoma de Barcelona. His research interests are efficiency and productivity analysis, financial accounting, and management in the public sector. He has published in *European Economic Review*, *Journal of Banking and Finance*, *European Journal of Operational Research*, and *Applied Economics*.

Dr. Jordi Surroca is an Associate Professor of Management in the Department of Business Administration at the Universidad Carlos III de Madrid. He holds a Ph.D. in Business Administration from Universitat Autònoma de Barcelona. His research interests are stakeholder management, firm strategy, innovation, and corporate governance. He has published in *Journal of Business Finance and Accounting*, *Corporate Governance: An International Review*, *European Journal of Operational Research*, and *Journal of Business Ethics*.

Dr. Josep A. Tribó is an Associate Professor of Finance in the Department of Business Administration at the Universidad Carlos III de Madrid. He has a Ph.D. in Economic Analysis from the Universitat Autònoma de Barcelona. His research interests are corporate finance, corporate social responsibility,

and the financing of R&D. His work has been published in journals such as *Journal of Business Finance and Accounting*, *Corporate Governance: An International Review*, *Omega*, *Applied Economics*, *International Journal of Production Economics*, and *Journal of Business Ethics*.

APPENDIX 1

Measurement of Earnings Management

The estimation of earnings management is made through discretionary accruals (*DA*). These are computed by deducting the expected or non-discretionary accruals (*NDA*) from the total accruals (*TA*). We use the Kothari *et al.* (2005) model to estimate *DA* and *NDA*. This model departs from the modified Jones model introduced by Dechow *et al.* (1995), and incorporates a non-deflated constant term as well as a term that captures performance (*ROA*). In particular, in the modified Jones model total accruals are estimated in terms of changes in sales minus receivables ($\Delta(\text{Sales-} \text{Receivables})$) and property, plant, and equipment (*PPE*). All these variables including the constant are deflated by lagged total assets ($A_{i,t-1}$). We estimate each year cross-sectionally and by considering a 1-digit SIC code. Moreover, as we make use of an international database, it is normal to find large differences in the level of earnings management across countries (Leuz, Nanda, and Wysocki, 2003). Unfortunately, we do not have enough observations for each country and we cannot separate the analysis country by country. We employ a solution that includes in its specifications a set of country dummy variables. This estimation strategy has been used in several papers (Kang and Sivaramakrishnan, 1995; Han and Wang, 1998). Due to all these reasons, and considering the number of sectors (10) and countries (26) in our data, we propose the following specification for estimating *NDA* for firm *i* in sector *s* and year *t*:

$$\begin{aligned} \frac{\text{Accruals}_{i,st}}{A_{i,st-1}} = & \alpha_{0,st} + \alpha_{1,st} \left(\frac{1}{A_{i,st-1}} \right) \\ & + \alpha_{2,st} \left(\frac{\Delta(\text{Sales-} \text{Receivables})_{i,st}}{A_{i,st-1}} \right) \\ & + \alpha_{3,st} \left(\frac{\text{PPE}_{i,st}}{A_{i,st-1}} \right) + \alpha_{4,st} \left(\frac{\text{ROA}_{i,st}}{A_{i,st-1}} \right) \\ & + \sum_{j=5}^{30} \alpha_{j,st} (\text{Country}_{i,st}) + \varepsilon_{i,st} \end{aligned} \quad [\text{A.1}]$$

Country sets are dichotomous variables that capture country effects. The expected portion of total accruals, the non-discretionary component, is calculated using the regression coefficients from equation [A.1]:

$$\begin{aligned} \text{NDA}_{i,st} = & \hat{\alpha}_{0,st} + \hat{\alpha}_{1,st} \left(\frac{1}{A_{i,st-1}} \right) \\ & + \hat{\alpha}_{2,st} \left(\frac{\Delta(\text{Sales-} \text{Receivables})_{i,st}}{A_{i,st-1}} \right) \\ & + \hat{\alpha}_{3,st} \left(\frac{\text{PPE}_{i,st}}{A_{i,st-1}} \right) + \hat{\alpha}_{4,st} \text{ROA}_{i,st} \\ & + \sum_{j=5}^{30} \hat{\alpha}_{j,st} (\text{Country}_{i,st}) \end{aligned} \quad [\text{A.2}]$$

From the non-discretionary accruals, NDA , we compute the discretionary accruals, DA , as follows:

$$DA_{i,st} = \left(\frac{Accruals_{i,st}}{A_{i,st-1}} \right) - NDA_{i,st} \quad [A.3]$$

In this model, the change in sales minus receivables is used to control for firm growth since working capital is

closely related to sales, while PPE is used to control for depreciation expenses contained in accruals. Finally, the variable of ROA detracts the effect of performance in explaining differences in accruals. As a result, NDA are the expected accruals given the firm's growth, performance and fixed assets, while DA represents the unexpected accruals, which is our proxy for *Earnings_management*.