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ANALYSIS

The revisited contribution of environmental reporting to investors' valuation of a firm's earnings: An international perspective

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A B S T R A C T

This paper investigates the impact of environmental reporting on the relationship between a firm's earnings and its stock market value. Our measure of environmental reporting comprises only information that is voluntarily disclosed by firms and which meaning implies specific initiatives or events. To assess how country-specific contexts may affect the impact of environmental reporting, we focus on firms from Canada, France and Germany; three countries that employ different reporting and governance regimes. Our design relies on simultaneous equations to control for the endogeneity between environmental reporting and firm attributes such as size, age of assets, industry membership and public media exposure. Results suggest that decisions to report environmental information have a moderating impact on the stock market valuation of a German firm's earnings. In contrast, environmental reporting does not significantly influence the stock market valuation of Canadian and French firms earnings. Overall, results indicate that in assessing how information released by a firm affects the stock market valuation of its earnings, it is important to control for the endogeneity between a firm's decision to disclose information, its exposure to media and its stock market value.

1. Introduction

While securities market regulators focus primarily on financial information reporting, investors will assess a firm's financials using regulated and non-regulated disclosure. For instance, Amir and Lev (1996) as well as Botosan and Plumlee (2002) provide evidence showing that investors rely on a firm's non-financial disclosure (e.g. number of new subscribers for wireless firms) to assess how its earnings are to be valued. The value relevance of such non-financial disclosure is consistent with firms often revealing much more about their activities than is required by law. Many executives recognize that a firm's disclosure policies are strategic tools that provide benefits when managed properly (Botosan, 1997; Lev, 1992; Skinner, 1994; Lang and Lundholm, 1993); the emergence of systematic and proactive investor communications programs are but an

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illustration of that trend. Prior findings suggest that economic benefits/costs considerations can drive managerial disclosure decisions (e.g., Scott, 1994).

Key non-financial information relates to a firm's environmental management activities. Many stakeholders such as employees, customers, governments, regulators and various pressure groups concern themselves with the quality and implications of a firm's environmental management. Perceived negligence or irresponsibility in a firm's interactions with the environment is likely to result in regulatory interventions, a negative reputation with customers and suppliers, lower attractiveness for employee recruitment, etc. Such implicit costs will directly affect a firm's stock market value. However, any information that stockholders and potential investors obtain in that regard should be useful in their appreciation of firm value. Hence, a firm's management has to weigh the benefits to stockholders of disclosing additional environmental information against potential costs (such as pressure for increased environmental regulation) incurred should other stakeholders seize upon the information in an act against the firm's financial interest (Blacconiere and Patten, 1994; Cormier and Magnan, 1997). Despite potential drawbacks from disclosing proprietary information, many firms provide environmental information well beyond what is required by law and regulation (Cormier and Magnan, 1999, 2003). The emergence of ethical investing over the past 10 years may have contributed to this trend.

The purpose of this paper is to assess whether or not voluntary environmental reporting affects the stock market valuation of a firm's earnings, i.e., implicitly its cost of equity. While prior indications show environmental performance to affect a firm's stock market value, market participants often rely on rough and imprecise approximations (Barth and McNichols, 1994). By shedding additional light on environmental performance, environmental reporting will likely be used by investors to better assess a firm's earnings prospects and reduce implied uncertainty. On one hand, the disclosure of potential environmental obligations (i.e., liabilities) and commitments allows investors to revise their appreciation of a firm's financial and operating risks; such increased uncertainty may lead investors to lower the valuation multiple they assign to reported earnings, thus implying a higher cost of capital for the firm. On the other hand, by enhancing their transparency, environmental reporting increases the credibility of a firm's financial statements and, potentially, reduces an investor's risk apprehensions. This course of action may lead investors to upwardly revise the valuation multiple they assign to a firm's reported earnings, consequently reducing its implied cost of capital (e.g., Botosan and Plumlee, 2002; Clarkson et al., 2004). Prior research indicates that the cost of equity can be inferred from the relationship between a firm's earnings and its stock market value, i.e., its earnings valuation multiple (Kothari and Zimmerman, 1995).

We investigate the moderating impact of corporate environmental reporting on the relationship between earnings and share price (i.e., earnings value relevance) from two perspectives: the North American financial reporting context, as exemplified by Canada, and the continental European financial reporting context, as exemplified by France and Germany. These countries differ in terms of their corporate financial reporting model (shareholder vs. stakeholder-oriented), environmental socio-political context (common law vs. civil law) and corporate environmental reporting regulations (Ball et al., 2000; Cormier et al., 2001). These inter-country differences provide a unique opportunity to assess if the incremental value relevance of environmental reporting is context-specific.

We posit that a firm's specific attributes (size, age of fixed assets, exposure to media, industry) affect environmental reporting. Then, we suggest that market participants rely on such environmental reporting, as well as on other firm attributes, to assess the stock market value of a firm's reported earnings. In light of the endogeneity between environmental reporting and firm-specific attributes, we use a three-stage least square regression approach.

Our findings contribute to the literature in the following ways: First, the paper extends prior literature on the impact of voluntary disclosure on the relationship between earnings and share value into a new domain, i.e., environmental reporting. Voluntary disclosure encompasses any information that is disclosed by a firm beyond what is required by regulators and standard-setters. However, it may reflect either voluntary or mandated environmental actions. Second, instead of relying on a comprehensive reporting measure (e.g., a global score), we look beyond and split environmental reporting into its key aspects, allowing for finer analyses of their value relevance. Third, we compare the moderating influence of environmental reporting on the relationship between a firm's earnings and its stock market value across three countries representing the two dominant financial reporting regimes. Fourth, we control for the endogenous effect of a firm's decision to report environmental information as well as its exposure to media. Fifth, if voluntary environmental reporting is found to affect the relationship between earnings and share value but is not reflected into financial statements, it raises questions as to whether financial statements are a sufficient indicator of firm performance to both its regulators and investors.

The remainder of the paper is organized as follows. Section 2 presents the paper's theoretical framework as well as research propositions. Section 3 describes the study's methodology. Section 4 shows empirical results. Lastly, Section 5 contains a discussion of the results.

2. Conceptual background and research propositions

2.1. *Incremental value relevance of voluntary disclosure*

Interactions between a firm's disclosure strategy and its stock market value are most often described in terms of information asymmetries between investors and managers (Grossman, 1981; Milgrom, 1981). For instance, by reassuring a firm's investors about various aspects of its operations or performance, higher quality disclosure leads to a reduction in information asymmetry between managers and investors (e.g., Kim and Verecchia, 1994). Such a reduction in information asymmetry, resulting from better quality disclosure, increases the certainty of a firm's future securities returns and lowers transaction costs for investors (Lev, 1988; Lang and Lundholm, 2000). Thus, by allowing investors to make less risky and more efficient decisions, higher disclosure improves the credibility of a firm's reported earnings (Beaver, 1989; Datar et al., 1991; Feltham et al., 1991).