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Corporate social responsibility disclosure: The case of international shipping ☆

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ABSTRACT

Based on practices and legislation in the shipping industry, we construct a corporate social responsibility (CSR) disclosure index for listed shipping companies. We use Markov Chain Monte Carlo (MCMC) techniques for Bayesian inference, and we estimate the marginal effects of firm characteristics on CSR disclosure for each firm. Our results show a positive relationship between CSR disclosure and financial performance for each firm in our international sample. Firm size, financial leverage, and ownership structure are also associated with CSR disclosure. Our findings suggest that a majority of listed shipping companies have integrated CSR practices into their strategic planning and operations.

1. Introduction

Corporate social responsibility (CSR) practices have come under the spotlight of attention recently by regulators, policymakers, and businesses. This development is partially attributable to the plethora of recent financial scandals, such as the collapses of Enron, Parmalat, Bre-X Minerals, and Lehman Brothers, as well as catastrophic environmental accidents, such as Exxon Mobil, Sea Star, Torrey Canyon, and several other oil spills. Moreover, an international survey of CEOs carried out by the United Nations Global Compact in 2010 showed that the overwhelming majority believes CSR is an important path to higher profitability.

It is nowadays commonly believed that socially responsible firms, i.e., those that contribute both economically and ethically to the society and local communities they serve, are better positioned to grow in terms of reputation and revenues. Therefore, we address the following research question: Has increased corporate transparency through CSR disclosure practices become an integral business process in the global shipping industry? If so, CSR disclosure should be positively associated with corporate performance. This question is even more interesting given anecdotal evidence in Hong et al. (2012) that annual CSR outlays of U.S. firms can reach the hundreds of millions of dollars, thus potentially outweighing any benefits.

The literature has examined the CSR puzzle in a unified institutional framework (Mattingly and Berman, 2006; Baron et al., 2011), and it has largely failed to detect a clear relationship between CSR disclosure and firm value (or profitability). The meta-analysis of Margolis et al. (2007) concludes that the empirical link between CSR transparency and corporate financial performance is positive, but the effect is of only a small magnitude. In this study, we use the shipping industry as a platform to explore these questions further, because we believe it is an unusually distinct industry. Being globalized, extremely

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competitive, and highly volatile in nature, it has progressed further than most land-based industries in developing a generally accepted regulatory system for corporate behavior. The primary importance of shipping is naturally the integral role it plays in international trade. It is therefore often at the forefront of demands for greater transparency and accountability on issues such as global climate change, energy efficiency, waste management, worker safety and security, ocean and coastal health, and local community impacts and benefits (Coady et al., 2013). The IMO (the International Maritime Organization) and the ILO (the International Labor Organization) set the safety standards and oversee labor rights for the shipping industry, and they provide the common institutional framework for CSR disclosure practices. Flag states, classification societies, and port controls are also part of the corporate governance framework of the maritime sector, as these institutions serve enforcement roles.

We analyze the websites and annual reports of 111 internationally listed shipping firms during our 2002–2010 sample period for potential determinants of CSR disclosure. Given this unique dataset, the contributions of our paper are threefold. First, our study quantifies the effects of corporate performance, but also of firm size, leverage, and ownership structure that are associated with CSR disclosures in the shipping sector. Second, we construct a CSR disclosure index for each sample firm following Tagesson et al. (2009) and Orens et al. (2010), and we apply Generalized Smoothly Mixing Regression (GSMR) models to capture heterogeneity among firms in this index (Geweke and Keane, 2007; Villani et al., 2012). We use Markov Chain Monte Carlo (MCMC) techniques for Bayesian inference, and we derive statistically significant and distinct marginal effects for each firm in our sample. Using *Tobin's Q* as a measure of financial performance, we find that the relationship between CSR disclosure and firm valuation is positive for all firms in our sample. We also find a strong and positive association between both concentrated ownership and size with CSR disclosure for all firms. In contrast, we report a negative relationship between financial leverage and CSR disclosure. Third, our results are consistent with the observation that CSR disclosure is increasingly becoming the norm among shipping firms. This development suggests that enhanced CSR disclosure practices are not merely seen as the effect of sound financial performance, but perhaps more importantly, they are becoming a requirement for it. This relationship may partially explain why we find that shipping firms are eager to increase the amount of CSR information they disclose. Our analysis cannot unambiguously solve the issue of causality, but our results nevertheless offer some important policy implications for executives in the shipping industry.

The remainder of this paper is organized as follows: Section 2 contains a brief review of the extant CSR literature, and Section 3 discusses CSR in a shipping context. Section 4 develops our testable hypotheses. Section 5 describes the construction of our CSR disclosure index, and Section 6 presents our sample and methodology. Section 7 discusses our main empirical findings and contains several robustness checks. Finally, Section 8 concludes and provides an outlook for further research.

2. Literature review

2.1. CSR, firm performance, and firm risk

It was a different era when Friedman (1970) and his followers claimed that people have social responsibilities, not companies. At the time, the reasoning was that the concept of CSR was patently incompatible with the nature and purpose of an enterprise, which was assumed to be solely shareholder wealth maximization. Nowadays, CSR is still far from being well-defined, thus managers cannot easily determine what level of social responsibility their firms should assume. However, shareholders themselves are able to decide whether their stock income sufficiently represents social awareness. Put briefly, the main concern by CSR skeptics is that the (immediate) costs associated with CSR improvements are likely to outweigh the financial benefits (mostly occurring in the distant future), which may ultimately make CSR inconsistent with the principles of shareholder wealth maximization.

Nevertheless, since Friedman's time, a large part of the corporate management literature has embraced CSR as ethical business behavior that can enhance shareholder value. Based on an analysis of the fundamental concepts of CSR practices, Brooks (2012) argues that CSR is compatible with a set of assumptions that underlie the free enterprise system. Freeman (1984) views CSR as an optimal choice that minimizes transaction costs and potential conflicts with stakeholders. In this sense, CSR may be interpreted as an effective tool for improving firm reputation and mitigating the risks to a firm of becoming a victim of consumer activism and even legal action. Eichholtz et al. (2010) summarize the arguments in the management literature, and suggest that firms with well-defined and aggressive CSR policies may outperform competitors for the following reasons: improved corporate reputations, less intrusion from activist and governmental organizations, reduced threat of regulation, and improved profitability through lower input costs and higher employee productivity. Moreover, CSR can be related to performance because it serves as a proxy for management skills (i.e., a forward-thinking and long-term-oriented management), lowers operating risks, and potentially reflects (technological) innovation (Guenster et al., 2011).

From a financial point of view, CSR can have an impact on firm performance if and only if it affects expected future cash flows and/or risk (Bouslah et al., 2013). For example, Sharfman and Fernando (2008) argue that improved environmental risk management (e.g., a reduction in emissions and pollutants) reduces the probability of environmental crises that can negatively affect a firm's expected cash flows (e.g., lawsuits, clean-up costs of environmental accidents, fines, and reputation damage). Investing in CSR can thus create "moral capital," or goodwill, which provides insurance-like protection in the event of a crisis or a negative event (Godfrey et al., 2009).

In standard asset pricing models, investors evaluate assets based solely on payoffs and thus the total consumption they provide (Fama and French, 2007). Alternative theoretical models by Heinkel et al. (2001), Barnea et al. (2005), and