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Executive compensation and non-financial risk: An empirical examination

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Abstract

Executives face potentially severe (non-financial) personal risks if firm environmental performance is below industry best practice. We examine the relation between CEO compensation and the non-financial risk associated with environmental exposure, and how use of environmental performance as an explicit determinant of compensation affects this relation. We find evidence that CEOs are compensated for exposure to environmental risk, even after controlling for financial risk. We also find that this premium is reduced when the CEO has greater opportunities to improve the firm's environmental performance.

Keywords: Executive compensation; Non-financial risk; Environmental accounting

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1. Introduction

Environmental performance is frequently used in determining executive compensation.[1] Such a policy gives managers direct financial incentives to manage firm environmental performance. An important aspect of environmental performance is that there are significant risks associated with poor environmental performance – risks which extend to corporate officers as well as to firms. In addition to indirectly bearing environmentally-related firm risks (e.g., fines, penalties, increasing regulation, mandated capital expenditures), executives may be subject to severe personal risk. For example, several environmental laws impose both civil and criminal liability on executives. Therefore, the risk of personal penalties for CEOs will be greater when their firm's environmental performance is poor. This context allows us to empirically investigate the role of a specific non-financial risk factor in executive compensation. Specifically, CEOs may demand a wage premium to compensate them for their exposure to environmental risk. Consistent with this conjecture, the empirical results reveal a positive relation between a firm's environmental risk and CEO compensation, after controlling for other determinants of compensation such as financial risk. Moreover, we find that this premium is reduced when the CEO has greater opportunities to improve the firm's environmental performance.

Both stock market and accounting-based measures of performance are frequently incorporated into compensation contracts and the relative use of these measures has been extensively investigated. For example, Murphy (1985) concludes that executive compensation is positively related to stock market rate of return. In addition, Antle and Smith (1986) demonstrate that executive compensation is more sensitive to return on equity relative to industry than to gross return on equity. Lambert and Larcker (1987) examine the cross-sectional differences in the relative importance of market returns and return on equity in compensation, while Ely (1991) provides evidence of inter-industry differences in the relative weight placed on alternative performance measures. Finally, Sloan (1993) shows that earnings-based incentives help shield executives from risk associated with fluctuations in firm value that are beyond their control.

Other research examines characteristics of firms that use non-financial performance measures and the association of those measures with executive compensation and future financial performance. For example, Ittner et al. (1997) use proprietary data to investigate the prevalence of, and choice between, financial versus non-financial performance metrics in executive bonus contracts. Bushman et al. (1996) examine factors that are associated with use of

[1] A Price Waterhouse (1995) survey of corporate environmental accounting and management practices reports that 38% of companies tie senior management compensation to environmental performance.