PERFORMANCE MEASUREMENT IN FIRMS WITH DECENTRALIZED RISK MANAGEMENT AND A RISK-AVERSE BOARD

Marta Michaelis, University of Goettingen, Goettingen, Germany

dx.doi.org/10.18374/EJM-21-1.1

ABSTRACT

Risk management is often a legal requirement for listed firms and is a recommended part of corporate governance. It differs from other managerial activities, but its incentivization has not been extensively discussed in literature. To fill this gap, I model a firm under LEN assumptions, with a risk-averse board and a single business unit that employs a risk manager, stylizing a decentralized risk management system. Contracts of the risk-averse managers are based on performance measures correlated with the firm's outcome; risk management decreases the variances of both metrics. Due to the complexity of the results, I propose the use of simulated correlation coefficients as an alternative to comparative statics. The analysis indicates the existence of contradictory effects of the measure's precision: business unit (risk) managers are better incentivized with more (less) precise measures. Still, more precise measures are preferred in contracts, as they attain higher utility in equilibrium, even while reporting higher risk. The results suggest that incentivizing risk managers with the same profit-based measures as other managers may be suboptimal; therefore, diverging or unique contracting metrics must be found for risk managers.

Keywords: *risk management; incentives; monitoring; performance measurement; simulation*

1. INTRODUCTION

Managers that are employed for productive tasks like contracting, coordinating, supporting, and monitoring, impact the general prosperity of the firm and their own compensation (Calvo and Wellisz 1978; Melumad, Mookherjee, and Reichelstein 1995; Hofmann and Indjejikian 2018). Thus, it has always been of utmost importance for firms to measure and accordingly incentivize personnel performance on these tasks. The optimal choice of the number and characteristics of performance measures (PMs) is the core of empirical research by Haubrich (1994), Gibbs, Merchant, and Van der Stede (2004), Chenhall and Langfield-Smith (2007), Lazear (2018), and analytical research by Demski (1976), Sappington (1991), Baker (1992), Prendergast (1999), Hofmann and van Lent (2017), and many others. As far as the characteristics of PMs are concerned, their sensitivity and precision are most crucial when a single task is involved. Sensitivity measures how the PM reacts to changes in implemented effort, whereas precision informs of the sole extent to which the PM depends on this effort, without distortion by other factors. The measure of this distortion is a reversed precision, defined as noisiness or the PM's risk. According to analytical research, more precise PMs make incentivizing productive activities of the managers less costly (Banker and Datar 1989; Feltham and Xie 1994).

Among managerial activities, risk management is accorded high importance, especially as risks are becoming increasingly multifaceted (Fatemi and Luft 2002; Simkins and Ramirez 2008; Bromiley et al. 2015). A risk management system is mandatory for firms listed on the stock exchange and generally recommended for all small and medium-sized businesses as an element of corporate governance (OECD 2014). Based on the legal requirements and recommendations for listed firms, risk management is typically the responsibility of the board, taking the form of board-level committees, and/or implementation of internal risk management systems and/or the appointment of Chief Risk Officers (CROs) (OECD 2014; Bennett 2017). CROs are often engaged as risk managers (RMs) for single hierarchical tiers, that is in separate business units by the business unit managers (BUMs), which is tantamount to the decentralization of risk management (Arena, Arnaboldi, and Azzone 2010; Schiller and Prpich 2014; Siegel 2017). As their efforts fundamentally contribute to the reduction of risks faced by the firm, they influence the decision-making framework of all employees. However, for opportunistic managers, their activities depend on the PMs their contracts are based on. Thus, for the incentivization of RMs, the connection between the risk of the firm