Managing Risk and Exerting Productive Effort: Incentives and Job Design

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Abstract:
Recent events have reinforced the importance of risk management in the success of firms. In some contexts, risk management reflects reducing risk exposure in operations, for example, through disaster planning, safety initiatives, or logistical optimizations. In other contexts, risk management is the encouragement of exposure to certain risks, for example, risk taking in the R&D process. In yet other contexts, risk management is the transfer or acceptance of risk through financial transactions, such as hedging, long term supply contracts or insurance activities. All of these activities require effort on the part of firm-management. However, as of yet, the economics literature has paid only limited attention to principal-agent conflict when the agent exerts costly effort to manage risk.

In this paper, we explore the moral hazard question of a principal who wishes to induce effort on two tasks while only observing the final output of the process. The first task, productive effort, is the usual effort in moral hazard problems in that additional productive effort increases the expected value of output. The second task, risk management, primarily affects the spread of outcomes, but may also influence the expected value of output. With these two tasks, the principal first faces a job design question of how to allocate these two tasks. Should the principal employ a single agent responsible for both productive effort and risk management, or is it preferable to divide the tasks among two agents, each operating on only one dimension? Second, given the institutional choice of task allocation, how should incentives be optimally provided?
In this paper we expect to find that even when risk and effort are apparently separate ideal incentives for effort induce some additional risk taking by agents. This translates into the optimal choice of internal organization: when organizations want to induce more risk taking than the default level, organizations should combine risk management with productive tasks. However, when organizations want to control the level of risk these tasks should be separated and organizational controls instituted. This argues that a one size fits all approach to corporate governance may not be appropriate – too much division of responsibility can lead to ineffective incentives.