I. Purpose and Scope of this Study

Performance measurements that evaluate managers or divisions are among firms’ most important concerns. These measures are significant not only for compensating managers through accurate appraisal, but also for influencing managerial strategic behavior. In practice, however, performance measures are often imperfect, thereby hindering firms from precise evaluation and control of managers’ performance. As such, exploring the nature of imperfect performance measures and addressing inter-firm and intra-firm behavior influenced by this nature are important considerations in managerial accounting research. In this study, I investigate these issues through the lens of optimal contracting. In particular, I examine how firms make use of alternative contracting instruments to overcome concerns inherent in imperfect performance measurements, and how firms respond to information generated by such measurements. The results provide novel explanations that increase our understanding of existing empirical research and documented practices associated with imperfect performance measurement.

II. Outline of this Study

The unifying goal of this study is to better understand the impact of imperfect performance measurements in inter- and intra-firm levels. To distinguish different aspects of imperfect performance measurements, Chapter 1 and Chapter 2 first discuss available, but less-understood contracting devices. Specifically, Chapter 1 studies the role of related-parties in inter-firm transactions when a performance measure is subject to information asymmetry. Chapter 2 studies CEO appointment when a performance measure is symmetric but unverifiable. Then, shifting the focus from a pre-contracting perspective to a post-contracting perspective, Chapter 3 examines, in the context of CEO turnover, how firms reconcile a trade-off between induced moral hazard and perception of agents’ types contributing to an imperfect performance measure when it is symmetric, verifiable, but subject to noise.

Chapter 1, “Not all Related-Party Transactions are Bad: Hold-up Problems under Information Asymmetry” introduces a simple model of bilateral trading in which a buyer and seller share a common agent and face contract incompleteness with a subjective performance
mechanism. The motivation for this chapter is based on the continuing presence of related-party transactions which are often considered harmful for shareholders. The results show that the presence of a shared agent (i.e. related-party), can help attain efficient ex ante investment and ex post renegotiation. Furthermore, the related-party trading becomes more efficient in a long-term relationship. These results suggest that a related-party transaction is not necessarily detrimental for principals; rather, contrary to common understanding, it can make them better off when they are subject to imperfect performance measurement.

Chapter 2, “When do Firms Hire Externally: CEO Appointments, Pay, and Firm Performance” develops a multitask-multiagent team production model where each task sequentially requires a firm-specific skill and a management decision. By nature of its firm-specificity, this team production faces imperfect performance measurement, a problem caused by observable but unverifiable performance measures. This chapter is inspired by puzzling observed associations among CEO appointments, pay, and firm performance. In recent decades, the trend of external CEO hiring has increased, a practice often involving high outsider pay premiums. Most academics and practitioners ascribe the practice of outsider premiums to two factors: managerial talents and a match between a firm and a CEO. However, this perspective seems to overlook that, after an outsider CEO is hired, firm performance often becomes unsatisfactory. To understand the missing link between CEO hiring, I solve a multiagent contracting problem, and identify conditions under which either internal promotion remains optimal or external hiring becomes optimal. This optimal contracting framework for multiple agents also explains why outsider CEOs appear to be paid more than insider CEOs, and how the performance of external hiring firms tends to be worse than the performance of internal promoting firms in spite of the higher pay.

In contrast to Chapter 1 and Chapter 2, in Chapter 3, “CEO Succession and the Market for Reputation”, the discussion of imperfect performance measurements will center on a post-contracting decision, in particular the impact of performance information on a firm’s decision to replace an incumbent CEO. This study is motivated by previous research and existing practice that have shown a weak association between CEO turnover and firm performance. I argue that the relevance of performance information should be traded off against the future agency costs contributing to managerial reputational incentives. Based on a repeated principal-agent model, I formalize this argument by adding a small amount of incomplete information about agents’ types (inept or competent) and considering an agent exerting effort to select investment projects every period when the contractible investment outcome is the only source of information that sorts the types. I show that, due to this imperfect performance measure, compensation to motivate a potentially competent agent in a subsequent period becomes too expensive or too cheap depending on the past outcomes even absent deferred compensation. More specifically, I find conditions where negative performance does not lead to turnover on account of the agent’s incentive to rebuild a lost reputation, and, counterintuitively, where positive performance does lead to turnover on account of the agent’s incentive to maintain a good reputation. Overall, the baseline model emphasizes a firm’s trade-off between induced moral hazard and perception of agents’ types in explaining the weak turnover-performance relation.
I then propose four applications of this baseline model to better understand existing CEO succession practices. First, I introduce a board of directors who has access to an additional private performance measure. I show that as the board’s additional measure becomes more precise, the performance-turnover relation becomes weaker by virtue of the board’s extra information serving as a substitute for the public performance information. The second proposed application of the baseline model is to examine how, by introducing selective disclosure, a firm can control the CEO’s reputational incentives. I prove that the non-disclosure of CEO’s performance can be used as part of an optimal contract, which is consistent with evidence that firms rarely reveal the detail of performance information upon the departure of their incumbent CEOs. The third application considers the quality of performance measurement as a choice variable of a principal, which provides implications for an optimal information system design. Contrary to the first three applications which rely on a partial equilibrium analysis, the fourth proposed application generalizes the baseline model to encompass a competitive equilibrium analysis of the CEO labor market. This full generalization aims to explain the relative performance evaluation puzzle found by the existing empirical literature, thus explaining why performance outcomes can have different implications on a decision of CEO replacement across firms.