Dissertation Defense

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Essays on the Structural Models of Executive Compensation

This dissertation is composed of three chapters in which I use both reduced-form approach and structural approach to study executive compensation in S&P1500 firms from 1993 to 2005.

Chapter 1 provides the literature and methodology background of this dissertation. I summarize existing accounting empirical studies on executive compensation under two tasks, that is, (1) testing contract theory and (2) analyzing policies. I compare structural approach with reduced-form approach in terms of their scopes, execution, and comparative advantages. Also, I briefly introduce the steps of implementing structural analysis and close this chapter with a high level plan for the following two chapters.

Chapter 2 focuses on the first task and is based on my job market paper entitled "Mutual Monitoring within Top Management Teams: A Structural Modeling Investigation". I study whether executive compensation reflects that shareholders take advantage of top managers' mutual monitoring. Mutual monitoring as a solution to moral hazard has been extensively studied by theorists, but the empirical results are few and mixed. This chapter semi-parametrically identifies and tests three structural models of principal-two-agent moral hazard. The Mutual Monitoring with Individual Utility Maximization Model is the most plausible one to rationalize the data of executive compensation and stock returns. The No Mutual Monitoring Model is also plausible but relies on the assumption that managers have heterogeneous risk preferences across firm characteristics. The Mutual Monitoring with Total Utility Maximization Model is rejected by the data. These results indicate that shareholders seem to recognize and exploit complementary incentive mechanisms, such as mutual monitoring among self-interested top executives, to design compensation.

Chapter 3 focuses on the second task and attempts to answer the question in its title, "Do 2002 Governance Rules affect CEOs' Compensation?" From two non-parametric tests, I found that both the CEOs' compensation contract shape and the distribution of gross abnormal return (performance measure) have significantly changed after 2002. These changes indicate that shareholders may have adjusted CEOs' compensation contract to those governance rules. The results also give confidence to a more sophisticated test using structural approach based on welfare estimation.