14. Solutions to Principal-Agent Problems in Firms

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There are many settings in which one economic actor (the principal) delegates authority to an agent to act on her behalf. The primary reason for doing so is that the agent has an advantage in terms of expertise or information. This informational advantage, or information asymmetry, poses a problem for the principal—how can the principal be sure that the agent has in fact acted in her best interests? Can a contract be written defining incentives in such a way that the principal can be assured that the agent is taking just the action that she would take, had she the information available to the agent?

Solving this problem is a matter of some concern for patients dealing with their doctors, clients dealing with their lawyers, or celebrities dealing with their publicists. It is also a crucial concern for business firms dealing with their employees. Especially in the twenty-first century, employees are often hired precisely because they have information available that is unavailable to the managers of a firm. Making sure that employee expertise is put to work in the interest of the firm can make the difference between success and bankruptcy–as illustrated by the relative performance of Southwest Airlines compared to much of the rest of the airlines industry.

This paper examines the large principal-agency literature as it relates to management patterns in the firm. A powerful conclusion emerges, not from any one segment of the literature as much as from a bird's-eye view of the literature as a whole, that there is no unique "solution" to the principal-agent problems in a firm. Instead, a Coasean "contingency" theory can be constructed in which different conditions inside the firm (characterized by production technology, severity of information asymmetry, and relative risk-preferences of principals and agents) call for different "solutions" to the principal-agent problems.

While the first significant papers in principal-agency theory were developed independently of Coasian theory, this chapter of the Handbook will try to establish that there is a natural connection between the two. Coase (1937) hypothesized that transactions may be structured in different ways—in particular, some can be better managed via hierarchy *within* a firm rather than by the market *between* firms. This insight has led, in recent years, to a large and successful literature on the "boundaries of the firm"—examining when transactions are best

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organized within the firm, and when they should be organized between firms. (See the articles by Joskow and Klein in this Handbook.)

But the same Coasean logic can be applied to those transactions that occur strictly *within* the firm—notably, those hierarchical transactions between employer and employee. In particular, *incentives*, *monitoring*, and *cooperation* can and do play different roles in the infinite variety of contractual forms that can govern transactions within the firms. Which kinds of within-firm transactions are best governed by powerful incentives? In which transactions should the firm invest in high levels of monitoring capacity? In which should a long-term, cooperative relationship be encouraged among employees, or between firm and employees? In a Coasian manner, I argue that different intra-organizational transactions can best be structured by different kinds of employment contracts. I also suggest that the literature on principal-agency theory can help to explain *why* particular contracts are best applied to particular transactions. Fundamentally, principal-agency theory is about trade-offs; it is not surprising that the nature of the tradeoffs shifts subtly as conditions change, resulting in different kinds of solutions in different setting.

Furthermore, different solutions create very different types of firms. Some firms that rely heavily on incentives, like marketing powerhouse Pepsico, are known for a free-wheeling, risk-taking, entrepreneurial style of decision-making. Others that use monitoring more, like manufacturing giant General Motors, are often characterized as "bureaucratic"—implying that employees tend to avoid risk-taking by looking to hierarchical superiors and standard operating procedures for justification of their actions. In still other firms, like Southwest Airlines, the observer sees high levels of cooperation and teamwork within the firm. These behavioral characteristics may be thought of as derivative of the different kinds of contracts and transactions that emerge in response to different types of principal-agent relationships.

While there are multiple solutions, no one solution is perfect. Or rather, there are multiple solutions *because* no one solution is perfect. Except in "ideal" conditions (with zero risk-aversion and no information asymmetry), agency costs persist with each style of attempted solution. However, there are certain indicators that suggest those situations in which one type of solution may be systematically better than others. One of the tricks of good management is therefore to be sensitive to trade-offs between different kinds of costs associated with different transactional arrangements—within as well as between firms.

The purpose of this paper is to show how principal-agency theory has evolved to help explicate differences in within-firm managerial styles. Section I discusses those firms that tend to rely on high levels of risky financial incentives, thereby mimicking the market. Section II discusses why some firms cannot efficiently use outcome-based financial incentives, and turn to bureaucratic oversight, thereby mimicking the state. And Sections III and IV demonstrate that, for some firms, both incentives and monitoring can be improved on by long-term cooperation, between supervisors and subordinates, and among teams of subordinates. The