

南華大學 101 學年度 博士班 招生考試試題卷

系所別：企業管理系管理科學博士班

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科目：管理論文評析（一）

請詳讀所附論文之節錄內容，並逐項回答下列各題：

論文：Fama, E. and M. Jensen (1984), "Separation of Ownership and Control", Journal of Law and Economics, Vol. 26, No. 2, pp.301-325

1. 代理問題何以形成？ (25%)
2. 不同組織特性應對的代理問題的差異？請由所有權與控制權合併或分開來討論。(25%)
3. 企業運作的過程中，可以降低或解決代理問題的方法有哪些？請分別由外部控制機制及內部控制機制說明。(25%)
4. 陳述本文的貢獻。(25%)

A. *The Problem*

Agency problems arise because contracts are not costlessly written and enforced. Agency costs include the costs of structuring, monitoring, and bonding a set of contracts among agents with conflicting interests. Agency costs also include the value of output lost because the costs of full enforcement of contracts exceed the benefits.⁶

Control of agency problems in the decision process is important when the decision managers who initiate and implement important decisions are not the major residual claimants and therefore do not bear a major share of the wealth effects of their decisions. Without effective control procedures, such decision managers are more likely to take actions that deviate from the interests of residual claimants. An effective system for decision control implies, almost by definition, that the control (ratification and monitoring) of decisions is to some extent separate from the management (initiation and implementation) of decisions. Individual decision agents can be involved in the management of some decisions and the control of others, but separation means that an individual agent does not exercise exclusive management and control rights over the same decisions.

The interesting problem is to determine when separation of decision management, decision control, and residual risk bearing is more efficient than combining these three functions in the same agents. We first analyze the factors that make combination of decision management, decision control, and residual risk bearing efficient. We then analyze the factors that make separation of these three functions efficient.

B. *Combination of Decision Management, Decision Control, and Residual Risk Bearing*

Suppose the balance of cost conditions, including both technology and the control of agency problems, implies that in a particular activity the optimal organization is noncomplex. For our purposes, *noncomplex* means that specific information relevant to decisions is concentrated in one or a few agents. (Specific information is detailed information that is costly to transfer among agents.)⁷ Most small organizations tend to be noncomplex, and most large organizations tend to be complex, but the correspondence is not perfect. For example, research oriented universities, though often small in terms of assets or faculty size, are nevertheless complex in the sense that specific knowledge, which is costly to transfer, is diffused among both faculty and administrators. On the other hand, mutual funds are often large in terms of assets but noncomplex in the sense that information relevant to decisions is concentrated in one or a few agents. We take it as given that optimal organizations in some activities are noncomplex. Our more limited goal is to explain the implications of noncomplexity for control of agency problems in the decision process.

If we ignore agency problems between decision managers and residual claimants, the theory of optimal risk bearing tells us that residual claims that allow unrestricted risk sharing have advantages in small as well as in large organizations.⁸ However, in a small noncomplex organization, specific knowledge important for decision management and control is concentrated in one or a few agents. As a consequence, it is efficient to allocate decision control as well as decision management to these agents. Without separation of decision management from decision control, resid-

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ual claimants have little protection against opportunistic actions of decision agents, and this lowers the value of unrestricted residual claims.

A feasible solution to the agency problem that arises when the same agents manage and control important decisions is to restrict residual claims to the important decision agents. In effect, restriction of residual claims to decision agents substitutes for costly control devices to limit the discretion of decision agents. The common stocks of closed corporations are this type of restricted residual claim, as are the residual claims in proprietorships and partnerships. The residual claims of these organizations (especially closed corporations) are also held by other agents whose special relations with decision agents allow agency problems to be controlled without separation of the management and control of decisions. For example, family members have many dimensions of exchange with one another over a long horizon and therefore have advantages in monitoring and disciplining related decision agents. Business associates whose goodwill and advice are important to the organization are also potential candidates for holding minority residual claims of organizations that do not separate the management and control of decisions.⁹

Restricting residual claims to decision makers controls agency problems between residual claimants and decision agents, but it sacrifices the benefits of unrestricted risk sharing and specialization of decision functions. The decision process suffers efficiency losses because decision agents must be chosen on the basis of wealth and willingness to bear risk as well as for decision skills. The residual claimants forgo optimal risk reduction through portfolio diversification so that residual claims and decision making can be combined in a small number of agents. Forgone diversification lowers the value of the residual claims and raises the cost of risk-bearing services.

Moreover, when residual claims are restricted to decision agents, it is generally rational for the residual claimant–decision makers to assign lower values to uncertain cash flows than residual claimants would in organizations where residual claims are unrestricted and risk bearing can be freely diversified across organizations. As a consequence, restricting residual claims to agents in the decision process leads to decisions (for example, less investment in risky projects that lower the costs of outputs) that tend to penalize the organization in the competition for survival.¹⁰

However, because contracts are not costlessly written and enforced, all decision systems and systems for allocating residual claims involve costs. Organizational survival involves a balance of the costs of alternative decision systems and systems for allocating residual risk against the benefits. Small noncomplex organizations do not have demands for a wide range of specialized decision agents; on the contrary, concentration of specific information relevant to decisions implies that there are efficiency gains when the rights to manage and control decisions are combined in one or a few agents. Moreover, the risk-sharing benefits forgone when residual claims are restricted to one or a few decision agents are less serious in a small noncomplex organization than in a large organization, because the total risk of net cash flows to be shared is generally smaller in small organizations. In addition, small organizations do not often have large demands for wealth from residual claimants to bond the payoffs promised to other agents and to purchase risky assets. As a consequence, small noncomplex organizations can efficiently control the agency problems caused by the combination of decision management and control in one or

a few agents by restricting residual claims to these agents. Such a combining of decision and risk-bearing functions is efficient in small noncomplex organizations because the benefits of unrestricted risk sharing and specialization of decision functions are less than the costs that would be incurred to control the resulting agency problems.

The proprietorships, partnerships, and closed corporations observed in small scale production and service activities are the best examples of classical entrepreneurial firms in which the major decision makers are also the major residual risk bearers. These organizations are evidence in favor of the hypothesis that combination of decision management and decision control in one or a few agents leads to residual claims that are largely restricted to these agents.

We analyze next the forces that make separation of decision management, decision control, and residual risk bearing efficient—in effect, the forces that cause the classical entrepreneurial firm to be dominated by organizational forms in which there are no decision makers in the classical entrepreneurial sense.

C. Separation of Decision Management, Decision Control, and Residual Risk Bearing

Our concern in this section is with the organizational forms characterized by separation of decision management from residual risk bearing—what the literature on open corporations calls, somewhat imprecisely, separation of ownership and control. Our hypothesis is that all such organizations, including large open corporations, large professional partnerships, financial mutuals, and nonprofits, control the agency problems that result from separation of decision management from residual risk bearing by separating the management (initiation and implementation) and control (ratification and monitoring) of decisions. Documentation of this hypothesis takes up much of the rest of the paper.

1. *Specific Knowledge and Diffusion of Decision Functions.* Most organizations characterized by separation of decision management from residual risk bearing are *complex* in the sense that specific knowledge relevant to different decisions—knowledge which is costly to transfer across agents—is diffused among agents at all levels of the organization. Again, we take it as given that the optimal organizations in some activities are complex. Our theory attempts to explain the implications of complexity for the nature of efficient decision processes and for control of agency problems in the decision process.

Since specific knowledge in complex organizations is diffused among agents, diffusion of decision management can reduce costs by delegating the initiation and implementation of decisions to the agents with valuable relevant knowledge. The agency problems of diffuse decision management can then be reduced by separating the management (initiation and implementation) and control (ratification and monitoring) of decisions.

In the unusual cases where residual claims are not held by important decision managers but are nevertheless concentrated in one or a few residual claimants, control of decision managers can in principle be direct and simple, with the residual claimants ratifying and monitoring important decisions and setting rewards.¹¹ Such organizations conform to our hypothesis, because top-level decision control is separated from top-level decision managers and exercised directly by residual claimants.

However, in complex organizations valuable specific knowledge relevant to decision control is diffused among many internal agents. This generally means that efficient decision control, like efficient decision management, involves delegation and diffusion of decision control as well as separation of decision management and control at different levels of the organization. We expect to observe such delegation, diffusion, and separation of decision management and control below the top level of complex organizations, even in those unusual complex organizations where residual claims are held primarily by top-level decision agents.

2. *Diffuse Residual Claims and Delegation of Decision Control.* In the more common complex organizations, residual claims are diffused among many agents. Having many residual claimants has advantages in large complex organizations because the total risk of net cash flows to be shared is generally large and there are large demands for wealth from residual claimants to bond the payoffs promised to a wide range of agents and to purchase risky assets. When there are many residual claimants, it is costly for all of them to be involved in decision control and it is efficient for them to delegate decision control. For example, some delegation of decision control is observed even in the large professional partnerships in public accounting and law, where the residual claimants are expert internal decision agents. When there are many partners it is inefficient for each to participate in ratification and monitoring of all decisions.

Nearly complete separation and specialization of decision control and residual risk bearing is common in large open corporations and financial mutuals where most of the diffuse residual claimants are not qualified for roles in the decision process and thus delegate their decision control rights to other agents. When residual claimants have no role in decision control, we expect to observe separation of the management and control of important decisions at all levels of the organization.

Separation and diffusion of decision management and decision control—in effect, the absence of a classical entrepreneurial decision maker—limit the power of individual decision agents to expropriate the interests of residual claimants. The checks and balances of such decision systems have costs, but they also have important benefits. Diffusion and separation of decision management and control have benefits because they allow valuable knowledge to be used at the points in the decision process where it is most relevant and they help control the agency problems of diffuse residual claims. In complex organizations, the benefits of diffuse residual claims and the benefits of separation of decision functions from residual risk bearing are generally greater than the agency costs they generate, including the costs of mechanisms to separate the management and control of decisions.

3. *Decision Control in Nonprofits and Financial Mutuals.* Most organizations characterized by separation of decision management from residual risk bearing are complex. However, separation of the management and control of decisions contributes to the survival of any organization where the important decision managers do not bear a substantial share of the wealth effects of their decisions—that is, any organization where there are serious agency problems in the decision process. We argue below that separation of decision management and residual risk bearing is a characteristic of nonprofit organizations and financial mutuals, large and small, complex and noncomplex. Thus, we expect to observe separation of the management and control of important decisions

even in small noncomplex nonprofits and financial mutuals where, ignoring agency problems in the decision process, concentrated and combined decision management and control would be more efficient.

4. *Common General Features of Decision Control Systems.* Our hypothesis about the decision systems of organizations characterized by separation of decision management and residual risk bearing gets support from the fact that the major mechanisms for diffusing and separating the management and control of decisions are much the same across different organizations.

Decision hierarchies. A common feature of the diffuse decision management and control systems of complex organizations (for example, large nonprofit universities as well as large open corporations) is a formal decision hierarchy with higher level agents ratifying and monitoring the decision initiatives of lower level agents and evaluating their performance.¹² Such hierarchical partitioning of the decision process makes it more difficult for decision agents at all levels of the organization to take actions that benefit themselves at the expense of residual claimants. Decision hierarchies are buttressed by organizational rules of the game, for example, accounting and budgeting systems, that monitor and constrain the decision behavior of agents and specify the performance criteria that determine rewards.¹³

Mutual monitoring systems. The formal hierarchies of complex organizations are also buttressed by information from less formal mutual monitoring among agents. When agents interact to produce outputs, they acquire low-cost information about colleagues, information not directly available to higher level agents. Mutual monitoring systems tap this information for use in the control process. Mutual monitoring systems derive their energy from the interests of agents to use the internal agent markets of organizations to enhance the value of human capital.¹⁴ Agents choose among organizations on the basis of rewards offered and potential for development of human capital. Agents value the competitive interaction that takes place within an organization's internal agent market because it enhances current marginal products and contributes to human capital development. Moreover, if agents perceive that evaluation of their performance is unbiased (that is, if they cannot systematically fool their evaluators) then they value the fine tuning of the reward system that results from mutual monitoring information, because it lowers the uncertainty of payoffs from effort and skill. Since the incentive structures and diffuse decision control systems that result from the interplay of formal hierarchies and less formal mutual monitoring systems are also in the interests of residual claimants, their survival value is evident.

Boards of directors. The common apex of the decision control systems of organizations, large and small, in which decision agents do not bear a major share of the wealth effects of their decisions is some form of board of directors. Such boards always have the power to hire, fire, and compensate the top-level decision managers and to ratify and monitor important decisions. Exercise of these top-level decision control rights by a group (the board) helps to ensure separation of decision management and control (that is, the absence of an entrepreneurial decision maker) even at the top of the organization.¹⁵

V. SUMMARY

The theory developed in this paper views an organization as a nexus of contracts (written and unwritten). The theory focuses on the contracts that (1) allocate the steps in an organization's decision process, (2) define residual claims, and (3) set up devices for controlling agency problems in the decision process. We focus on the factors that give survival value to organizational forms that separate what the literature imprecisely calls ownership and control.

A. *The Central Hypotheses*

An organization's decision process consists of decision management (initiation and implementation) and decision control (ratification and monitoring). Our analysis produces two complementary hypotheses about the relations between decision systems and residual claims:

1. Separation of residual risk bearing from decision management leads to decision systems that separate decision management from decision control.
2. Combination of decision management and decision control in a few agents leads to residual claims that are largely restricted to these agents.

B. *Combination of Decision Management and Control*

When it is efficient to combine decision management and control functions in one or a few agents, it is efficient to control agency problems between residual claimants and decision makers by restricting residual claims to the decision makers. This proposition gets clear support from the proprietorships, small partnerships, and closed corporations observed in small-scale production and service activities. These organizations are all characterized by concentrated decision systems and residual claims that are restricted to decision agents.

C. *Separation of Residual Risk Bearing from Decision Management*

1. *The Role of Specific Knowledge.* In contrast, most of the organizations characterized by separation of residual risk bearing from decision management are complex in the sense that specific information valuable for decisions is diffused among many agents throughout the organization. Thus in a complex organization separation of residual risk bearing from decision management arises in part because efficient decision systems are diffuse. Benefits from better decisions can be achieved by delegating decision functions to agents at all levels of the organization who have relevant specific knowledge, rather than allocating all decision management and control to the residual claimants. Control of the agency problems of such diffuse decision systems is then achieved by separating the ratification and monitoring of decisions (decision control) from initiation and implementation (decision management). The efficiency of such decision systems is buttressed by incentive structures that reward agents both for initiating and implementing decisions and for ratifying and monitoring the decision management of other agents.

residual claimants and decision agents. Separation of decision management and decision control at all levels of the organization helps to control these agency problems by limiting the power of individual agents to expropriate the interests of residual claimants. Thus diffusion and separation of decision management and control have survival value in complex organizations both because they allow valuable specific knowledge to be used at the points in the decision process where it is most relevant and because they help control the agency problems of diffuse residual claims.

3. *Common Features of Decision Control Systems.* What we call separation of residual risk bearing from decision management is the separation of ownership and control that has long bothered students of open corporations. We argue that separation of decision and risk bearing functions is also common to other organizations like large professional partnerships, financial mutuals, and nonprofits. Moreover, our central hypothesis about control of the agency problems caused by separation of residual risk bearing from decision management gets support from the fact that the major mechanisms for separating decision management and decision control are much the same across organizations.

The common central building blocks of the diffuse decision control systems of complex organizations of all types are formal decision hierarchies in which the decision initiatives of lower level agents are passed on to higher level agents, first for ratification and then for monitoring. Such decision hierarchies are found in large open corporations, large professional partnerships, large financial mutuals, and large nonprofits. Formal decision hierarchies are buttressed by less formal mutual monitoring systems that are a by-product of interaction that takes place to produce outputs and develop human capital.

The common apex of the decision control systems of organizations, large and small, in which decision agents do not bear a major share of the wealth effects of their decisions is a board of directors (trustees, managing partners, etc.) that ratifies and monitors important decisions and chooses, dismisses, and rewards important decision agents. Such multiple-member boards make collusion between top-level decision management and control agents more difficult, and they are the mechanism that allows separation of the management and control of the organization's most important decisions.