A GENERAL THEORY OF CORPORATE OWNERSHIP*

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Abstract

This essay explores the considerations that determine whether ownership of a firm is assigned to investors of capital or, alternatively, to some other group of persons, such as consumers of the firm's products or suppliers to the firm of a factor of production other than capital. It argues that ownership is generally assigned in a manner that tends to minimize total transaction costs for all persons who transact with the firm. This involves minimizing the sum of (a) the costs of market transactions for those persons who are not owners, and (b) the costs of ownership for the class of persons who have ownership. The most significant costs of market transactions are generally those associated with monopoly and asymmetric information. The most significant costs of control are: the costs of exercising effective oversight; the losses from managerial slack in the absence of effective oversight; the costs of collective decision-making when owners' objectives are diverse; and the costs of risk-bearing.

The theory is illustrated by examining several specific alternative patterns of ownership: conventional investor-owned business firms; customer-owned retail, wholesale, and supply cooperatives; mutual life insurance companies; and worker-owned firms.

I. INTRODUCTION

Most corporate enterprise in the United States is organized in the form of the conventional business corporation, in which the firm is collectively owned by investors of capital. Not all corporate enterprise is so structured, however. Even if we exclude corporations that are not privately owned -- such as nonprofit corporations, municipal corporations, and governmentally owned corporations -- there are large numbers of economically significant corporations that are owned by some group of persons other than investors of capital. There are, for example, many corporations that are owned by their customers. These include consumer retail cooperatives, business-owned wholesale and supply cooperatives, cooperative and condominium housing, mutual insurance companies, and mutual banking institutions. There are also many corporations that are owned by persons who supply the firm with some factor of production other than capital. Worker-owned firms, such as the professional service firms found in law and accounting, are one example; agricultural processing and marketing cooperatives are another.

The objective of this essay is to develop a general understanding of the economic factors that determine the class of persons to whom ownership of enterprise is assigned in different industries. In particular, it explores the considerations that determine whether ownership is assigned to investors of capital, or alternatively to some other group of individuals. The emphasis here will be on corporate enterprise -- that is, on firms in which ownership is shared among a large number of persons, as in the typical publicly-held business corporation. There are two reasons for this emphasis. The first is that such firms are the dominant actors in the contemporary economy. The second is that widely shared ownership gives rise to particular problems that have a strong bearing on the assignment of ownership, and that call for focused attention.

The subject of ownership is not a new one. A number of scholars in recent years have dealt with various aspects of it. In particular, Williamson has dealt extensively with considerations that bear on the choice of market contracting versus "unified governance" (essentially ownership), and I shall draw heavily here on the concepts that he has developed.[1] Similarly, a number of writers have looked at questions of ownership in particular contexts. The most prominent focus has been worker ownership versus investor ownership, which has been examined thoughtfully by, among others, Jensen and Meckling[2] and Meade.[3] My ambition here is to extend the work of these and other

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1. The most recent and comprehensive treatment appears in Oliver Williamson, The Economic Institutions of Capitalism (1986). Williamson's work focuses most closely on situations involving single owners. In the firms that are the focus of attention here, in contrast, ownership is generally shared among a large class of persons -- a circumstance that in itself has important implications for the assignment of ownership, as I shall argue. Williamson has himself noted the need for further investigation of the relative efficiency of collective ownership of the firm by labor and other parties; see *id*. at 265-8 ("The Producer Cooperative Dilemma").

2. Michael Jensen and William Meckling, Rights and Production Functions: An Application to Labor-Managed Firms and Codetermination, 52 J. Bus. 469 (1979).

3. James Meade, The Theory of Labour Managed Firms and of Profit Sharing, 82 *Econ*. *J*. 402 (1972).

authors[4] by looking generally at the question of ownership in collective enterprise. This exercise provides further illustration of some of the theories that have already been explored in the literature, and also points to some considerations that to date have generally been neglected or underdeveloped.

Like the authors just cited, I shall assume that the organizational forms that survive in a market economy such as ours tend to be those that are relatively efficient. Consequently, the general approach that I shall take here is to consider the pattern of ownership that appears in our economy, and then to infer from that pattern which factors are most significant in determining when and where particular assignments of ownership are efficient.[5] To keep the exercise within reasonable bounds, I shall draw examples largely from the American economy. More particularly, I shall focus on several specific examples of alternative ownership patterns that effectively illustrate the theoretical framework proposed here: conventional investor-owned business firms; customer-owned retail, wholesale, and supply firms; mutual life insurance companies; and worker-owned firms.

Part of the motivation of this inquiry is simply to advance positive social science -- to help explain the pattern of industrial organization that appears in the economy. But the exercise also has an important policy dimension. There is

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4. E.g., Eugene Fama & Michael Jensen, Agency Problems and Residual Claims, 26 J. Law & Econ. 327 (1983).

5. Of course, various subsidies and constraints have also had an effect on patterns of ownership, and I shall make an effort here to take these into account.

considerable enthusiasm today for forms of ownership other than the conventional capitalist firm. This is particularly true, for example, of worker ownership, which is being promoted by changes in tax policy, by the recently-charted National Cooperative Bank, and by the special employee-owned corporation statutes that have been enacted recently in several states. It is therefore important that we have some understanding of the efficiency of these alternative forms of ownership.

Furthermore, by considering patterns of ownership in general, we can obtain a better appreciation of the strengths and weaknesses of the type of investor ownership that is the norm in our economy. For example, we can obtain some important insight into the familiar problem of the separation of ownership and control in large firms, and into the significance of the market for corporate control as a means of dealing with this problem.

II. A THEORETICAL FRAMEWORK

A. The Meaning of "Ownership"

A firm's "owners," as the term will be used here, refers to a class of persons who share two rights. The first is the right to control the firm -- a right that, in corporate enterprise, is generally embodied in the form of the authority to elect the firm's directors and to vote directly on major organizational changes, such as merger or dissolution.[6] The second is the right

6. It is a truism that the persons who have the nominal right to elect a corporation's board of directors sometimes exercise little actual authority over the firm. Often, in such circumstances, it is said that the putative owners do not in fact have control -- as in the references to the "separation of ownership and control"

to appropriate the firm's residual earnings.

In theory, the right to residual earnings could be separated from the right to control. When this is done, however, obvious incentive problems arise. In particular, the persons who control the firm may have little incentive to maximize, or even to pay, the earnings to which the residual claimants are entitled. Consequently, the two rights are generally joined, and the term "owner" can be used unambiguously.

To be sure, not all firms have owners in this sense. In particular, nonprofit firms are characterized by the fact that the persons who control the firm are barred from receiving its residual earnings. As we shall see, however, the same considerations that determine the class of persons to whom ownership is efficiently assigned also determine when it is efficient for a firm to have no owners at all.

B. An Overview of the Theory

It will be helpful to have a term to comprise all persons who transact with a firm, either as purchasers of the firm's products or as suppliers to the firm of some factor of production. Such persons will be referred to here as the firm's "patrons."

Most firms are owned by persons who are also patrons. This is conspicuously true of producer and consumer cooperatives. It is

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that have been commonplace since the work of Berle and Means. Much will be made of this issue in what follows. For purposes of defining a firm's owners, however, it is helpful to focus on the formal right to appoint the firm's directors, regardless of how effectively that right is exercised. As we shall see, there may be good efficiency reasons for assigning that right to a given class of persons even when it is apparent from the outset that they will never exercise it with much effect.

also true of the standard business corporation, which is owned by persons who lend capital to the firm. In fact, we can usefully view the standard investor-owned firm as nothing more than a special type of producer cooperative -- a lenders' cooperative, or capital cooperative.

In theory, a firm could be owned by someone who is not a patron -- that is, who does not otherwise transact with the firm as either supplier or customer. The owner would then have roughly the character of a pure Knightian entrepreneur.[7] Such a firm's capital needs would be met entirely by borrowing; its other factors of production would likewise be purchased on the market, and its products would be sold on the market. The owner would simply control the firm, and receive its (positive or negative) residual earnings after all output was sold and inputs paid for. Firms of this type exist, but they are rare.[8] More commonly, ownership is assigned to persons who have some other transactional relationship with the firm. The reason for this, evidently, is that the ownership relationship can be used to mitigate some of the difficulties that would otherwise attend these transactional relationships if they were managed through simple market contracting.

In the presence of those conditions that we call, collectively, "market failure," such as imperfect competition or asymmetric information, market contracting can be accompanied by substantial

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7. Frank Knight, Risk, Uncertainty, and Profit (1921).

8. Examples include some limited partnerships in which the general partner has put up no appreciable amount of capital.

costs. These costs may take the form of foregone transactions, inefficient transfers, or expenses undertaken to protect against opportunistic behavior. In such circumstances, the total costs of transacting can sometimes be reduced by merging the purchasing and the selling party in an ownership relationship, hence eliminating the conflict of interest that makes market contracting expensive or hazardous.

This suggests, as a simple first cut, that ownership of a firm should be assigned to that patron, or class of patrons, for whom the problems of market contracting -- that is, the costs of market failure -- are potentially most severe. But there is another side to the problem as well. An ownership relationship can itself involve substantial costs. These costs can, broadly speaking, take either of two forms. First, there are the transaction costs of exercising effective control. Second, there are the costs -- such as those associated with managerial slack and opportunism -- that are likely to be incurred if control is <u>not</u> exercised effectively.[9]

Efficiency will be best served, then, if ownership is assigned so that total transaction costs for all patrons are minimized. This means minimizing the sum of (a) the costs of market transactions for those patrons who are not owners, and (b) the

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9. This parallels the definition of "agency costs" offered in Michael Jensen & William Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. Financial Econ. 305 (1976).

costs of ownership for the class of patrons who are owners.[10] If market forces select for efficient ownership forms, therefore, they will lead to the differential survival of those forms that economize on transaction costs in this fashion.

To give this theory more substance, it will be helpful here to survey systematically the most significant types of costs that attend market contracting and ownership relationships, respectively.

C. The Costs of Market Contracting

Although there are various forms of market failure that can make transactions costly, it will be helpful here to distinguish three characteristic types of problems that commonly affect market transactions and that can often be mitigated by assigning ownership to the patrons involved.

1. Simple Monopoly

One compelling reason for assigning ownership to a given class of patrons is that the firm is in the position of a monopolist or monopsonist toward those patrons, in the simple sense that there are few or no firms that compete with the seller. (The terms "monopoly" and "monopsony" will be used quite loosely here to comprise all cases in which a firm has substantial market power owing to fewness of competitors.) If, in such a situation, the patrons own the firm, they can avoid the efficiency costs that

10. A given class of patrons need not necessarily themselves bear all the costs associated with the type of transactional relationship they have with the firm -- whether market contracting or ownership. Often those costs will be passed on to other classes of patrons, depending on such factors as the elasticities of demand and supply for the goods and services consumed and produced by the firm.

monopoly entails, as well as the even larger private costs that monopoly prices would otherwise impose on them.

2. Ex Post Monopoly

As Williamson has emphasized, problems of monopolistic exploitation can arise after a person begins patronizing a firm, even when the firm has a substantial number of competitors.[11] This is most likely to be a problem where two conditions are present. First, the patron must make substantial transaction-specific investments (that is, investments that cannot be fully recouped if the transactional relationship with the firm is broken). Second, the transactional relationship is sufficiently complex, or is likely to extend over such a substantial period of time, that it is impossible to foresee, and to devise a workable contract to cover, all possible contingencies; consequently, some elements of the transaction must be left open so that they can be dealt with according to experience. The difficulty in such circumstances is that, once the transactional relationship has been entered into, the patron no longer has the option of switching costlessly to another firm in case the first firm seeks to renegotiate the terms of the transaction in its favor as contingencies arise. Thus the patron may be open to exploitation by the firm.[12] Ownership of the firm by the patron reduces the

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11. This switch from ex ante competition to ex post monopoly is what Williamson calls "the fundamental transformation." He has emphasized strongly that the resulting problems are a major incentive for vertical integration in transactions involving two parties. See Williamson, supra note 1.

12. The problem here is not just the potential for monopolistic exploitation, but also the prospect of high transaction costs as the parties haggle at great length over renegotiation of the

incentives for opportunism in such a situation.

3. Asymmetric Information

A third common problem with market contracting is that which has been variously referred to as "moral hazard," "asymmetric information," "agency costs,"[13] and "contract failure."[14] In essence, the problem arises when the firm has better information than the patron concerning the quality of performance offered or rendered by the firm. Where patrons cannot compare clearly the goods or services offered by competing firms, market competition will provide poor discipline for the firms. And where patrons cannot evaluate accurately the goods or services actually delivered by a firm, both contract enforcement and reputation will also be weakened as disciplining forces. Again, ownership of the firm by the patrons reduces the incentive for the firm to exploit its information advantage.

D. Who Owns Whom?

In the preceding discussion it has been assumed that it is the firm that is in a position to benefit from market failure, and that this gives rise to an incentive for the patrons to own the firm. The problem can, however, be just the reverse: the firm

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contract, or the prospect that the transactional relationship will simply be broken as a result of the adoption by the parties of inconsistent bargaining strategies. In the situations we shall be looking at here, however, the class of affected patrons is generally large, and the firm is unlikely to bargain separately with individual patrons.

13. Michael Jensen & William Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. Financial Econ. 305 (1976).

14. Henry Hansmann, The Role of Nonprofit Enterprise, 89 Yale L. J. 835 (1980).

can be the party that must make transaction-specific investments that will be at risk if the patrons decide to switch to another firm, or the firm may be the party that is at an informational disadvantage. And this, in turn, can create an incentive for the firm to own its patrons.

If there were only two parties involved -- that is, if the firm had only one patron who was affected by the class of transactions in question -- then it would be a matter of indifference who owns whom. But where a single firm with many patrons is involved, it does make a difference who owns whom. Ownership of a single firm by multiple patrons does not create the same incentives as does ownership of the patrons by the firm. If the problem is that patrons are in a position to behave opportunistically toward the firm, then this problem is not completely solved by having the patrons own the firm. There remains an incentive for each individual patron to continue to behave opportunistically even under patron ownership, since the patron who so behaves will bear only a fraction of the cost of such behavior; most of the costs will be borne by the other patron-owners. Thus, where patrons are the ones with the strategic advantage, ownership of the patrons by the firm, rather than patron ownership of the firm, is potentially the more efficient solution.

Yet there are situations in which ownership of the patrons by the firm is not feasible. Where the firm owns the patrons rather than vice-versa, the result is not just vertical integration of the patrons and the firm, but also horizontal integration of the patrons. This may in turn lead to significant diseconomies of scale, or to loss of important incentives for efficiency among the patrons. This is especially the case where the patrons are competing businesses, such as farmers or retailers. And, where the patrons are individuals rather than firms, legal prohibitions on personal servitude, as well as a variety of practical contracting problems, prevent the firm from gaining title to the patrons.

Where, for these or other reasons, the identity of the individual patrons must be keep distinct, patron ownership of the firm sometimes appears as a second-best solution to problems of opportunistic behavior on the part of the patrons. Even if patron ownership does not eliminate entirely the conflict of interest that provides the incentive for opportunism, it may at least mitigate that incentive.

E. Costs of Establishing Control

Although the hazards of market contracting just described can sometimes be reduced by having the patrons own the firm, there are offsetting costs of ownership that must also be weighed in the balance. For convenience, we can group the most significant of these costs under four headings.

1. Exercising Oversight

If a given class of patrons is to exercise effective control over a firm, they must incur the costs of (1) becoming informed about the operations of the firm and (2) communicating among themselves for the purpose of exchanging information and making decisions. These costs are worth bearing only where they are smaller than the potential savings to the patrons from exercising effective control. In general, this means that the costs must be small relative to the value of the patrons' transactions with the firm. This requirement is met relatively easily where, for example, the patrons involved are relatively few in number, reside in geographic propinquity to each other and the firm, and transact regularly and repeatedly with the firm over a prolonged period of time[15] for amounts that are a significant portion of their budget.[16]

2. Managerial Slack

To the extent that the class of patron/owners does not exercise

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15. The importance of the frequency of transacting in making "unified governance" -- essentially ownership -- an efficient form for transactional relationships has been emphasized by Williamson, *supra* note 1, ch. 3.

16. I shall take it for granted here that a firm of any substantial size and complexity needs a hierarchical form of organization for decision-making, which means that the firm must have a single locus of executive power with substantial discretion and authority. This means that, where ownership of the firm is shared among a large class of patrons, highly participatory forms of decision-making will not be efficient. Rather, in such situations control will generally be exercised by the firm's owners indirectly, through election of the firm's directors; direct participation in decision-making will be confined to approval of major structural changes such as merger and dissolution.

Williamson, *supra* note 1, ch. 9, presents a convincing analysis of the advantages of hierarchical decision-making in the context of a discussion of worker management. He there argues for the superiority, in efficiency terms, of the capitalist firm with a strong central management over a highly participatory ("communal") form of worker ownership. By itself, however, Williamson's analysis simply shows the virtues of centralized management; it does not tell us which class of patrons, workers or lenders of capital (or yet some other group of patrons), can most effectively exercise the right to elect that management. Recognition of this appears in Raymond Russell, Employee Ownership and Employee Governance, 6 J. Econ. Behavior and Organization 217 (1985), and Oliver Williamson, Employee Ownership and Internal Governance: A Perspective, 6 J. Econ. Behavior and Organization 243 (1985).

effective control over the firm's managers, the managers are free to pursue objectives that are at variance with those of the owners. The owners have an incentive to bear the resulting costs only where they are smaller than the costs of effective oversight.

It is important to note that these costs are sometimes worth bearing. Just because the class of patrons in question cannot exercise any meaningful degree of effective oversight, and thus cannot exercise much control over the firm beyond that which they would have simply by virtue of market transactions with the firm, it does not follow that there is no gain to those patrons from having ownership of the firm. Put differently, it may be efficient to assign ownership to a given class of patrons even where, for those patrons, voice adds nothing important to exit in the way of control. The reason is that, by virtue of having ownership, the patrons in question are assured that there is no other group of owners to whom management is responsive. It is one thing to deal with managers who are nominally your agents, but who are slack in serving you; it is another to transact with managers who are responsive to owners who have an interest clearly adverse to yours.[17] The managers of a firm are not in the same position as owners; they do not have a lawful claim to all of the firm's residual earnings. Anything they take from the firm must be taken by indirection. Controlling managers is therefore a second-order

17. In large firms, managers will never be able to divert to themselves, through perquisites and other forms of self-dealing, any significant fraction of the firm's net earnings. They do not, therefore, have the same incentive as owners have in exploiting the firm's non-owner patrons through opportunistic behavior.

problem. While it would be desirable if the owners of a firm could keep management on a tight leash through the direct exercise of oversight, the firm may well remain viable without that, and still be more efficient than the same firm would be if ownership were assigned to some other class of patrons.

3. Collective Decision-Making

When a class of patrons owns the firm, some mechanism for collective decision-making must be devised to permit those patrons to exercise collective control. Most commonly, a simple majority voting mechanism is employed. Often, as in the case of most investor-owned firms, votes are weighted by volume of patronage, although some cooperatives adhere to a one-member-one-vote scheme.[18]

Market contracting is a convenient mechanism for aggregating the demands of a group of patrons. Collective choice mechanisms, in comparison, potentially involve substantial costs. Although a variety of factors influence the magnitude of these costs, the consideration that seems most significant is the extent to which the patron/owners have divergent interests concerning the conduct of the firm's affairs. Where the patrons involved all have essentially identical interests -- for example, where they all transact with the firm under similar circumstances for a single homogeneous commodity -- the costs associated with

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18. Jensen & Meckling, supra note 2, assume that worker-owned firms universally employ a one-worker-one-vote decision rule, and note the particular inefficiencies that can result from such a rule. In fact, however, cooperatives in which levels of patronage vary widely among patrons, such as the farm supply cooperatives discussed below, commonly employ patronage-weighted voting schemes.

collective decision-making seem generally to be small. Where, however, the patrons have substantial conflicts of interest among themselves, these costs may be large. Such costs can come in several different forms.

To begin with, decision-making by collective choice mechanisms may yield decisions that are inefficient in the sense that they do not maximize aggregate patron surplus. For example, if all individuals vote simply according to their private preferences, and if the preferences of the median voter are not those of the mean, a majority voting mechanism may not only yield inefficient decisions, but in fact yield decisions that are inferior, from a welfare standpoint, to those that would be reached if the patrons simply bargained as individuals with a profit-maximizing firm.

An extreme form of this problem arises when one group of patrons self-consciously seeks to use the collective choice mechanism to exploit another group -- for example, by having the firm charge the latter group higher prices or provide them with inferior services. The threat of such an outcome may discourage some patrons from becoming members of the firm in the first place. They may expect to be no worse off if they deal with a firm through market contracting. And in fact they could be much worse off as owners then they would be under market contracting if, to become owners, they must make a transaction-specific investment (such as a contribution of capital that is not easily withdrawn) that is at risk. If, as a result, a sufficiently large group of patron/owners cannot be assembled, ownership by the class of patrons in question may in fact be infeasible for this reason alone.[19]

Further, the process of collective decision-making itself can have high transaction costs in the face of heterogeneous interests. Because there is a strong incentive for individuals to form coalitions to shift benefits in their direction, efforts to form and break such coalitions may consume substantial effort. Patron/members will also have incentives to behave strategically in other ways, such as by misrepresenting their preferences. When patrons deal with the firm simply through market contracting, they have no leverage over firm policy beyond the threat of withdrawing their individual patronage. But where a collective decision-making mechanism is available, strategically situated patrons can achieve disproportionate influence. Moreover, these problems are likely to be accentuated if, as is often the case, some patrons are better situated to participate effectively in collective decision-making than others -- whether for reasons of geographic accessibility to the firm, low opportunity cost of time, special managerial expertise, or whatever.

It is not necessary to assume a high degree of venality on the part of the patron/members to expect such results. One need

19. Of course, even where all patrons have essentially identical interests, it may be possible for a majority (or effectively controlling minority) to manipulate the firm's affairs in a fashion that will exploit other patrons for the benefit of the controlling group. Where all patrons are alike, however, it is likely to be difficult to coordinate such an outcome (i.e., coalitions will not be stable), since there is likely to be no obvious focal criterion other than equality of treatment for making decisions among members. For the same reason, invidious treatment of a subgroup of patron/owners will be difficult to manage without being highly conspicuous.

simply recognize that an individual's own interests are likely to have more salience to him or her when making decisions than are the interests of others. In dealing with any given group of patrons, an owner who is not among those patrons is likely to find it easier to aggregate their interests even-handedly than is one of the patrons themselves.

Even where patrons diverge considerably in interest, however, the costs associated with collective decision-making may be low if there is some simple and obvious criterion for balancing their interests. For example, where it is easy to account separately for the net benefits bestowed on the firm by each individual patron, dividing up net returns according to such an accounting is likely to be both natural and uncontroversial even if the nature and the volume of the transactions with individual patrons differ substantially.

In discussions of the economics of alternative forms of collective enterprise, such problems of collective decision-making are often given little attention.[20] As we shall see in our industry survey below, this problem of markets versus collective decision-making in aggregating preferences appears to be crucial in determining the efficiency of alternative assignments of

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20. A significant exception is Jensen & Meckling, _supra_ note 2, who refer to this issue as "the control problem." They do not analyze the issue in detail, observing simply that "no one today has a viable theory of . . . political processes," _id_. at 488-9, and suggesting that the problem of reconciling diverging interests may be an important obstacle to worker-managed firms. They also make the important observation, which will be reaffirmed below, that one of the most important sources of the efficiency of investor-owned firms may be the limited opportunity they afford for advantaging one group of owners at the expense of another. _Id_. at 494.

ownership.

4. <u>Risk-Bearing</u>

The preceding discussion has focussed on the costs associated with the first element of ownership: the exercise of control. But there are also costs associated with the second element of ownership: the receipt of compensation in the form of residual earnings.

Patrons who deal with the firm through market contracts typically make or receive payment in predetermined amounts. Of course, this is not uniformly the case; market contracts are often designed with prices that are dependent on various contingencies. But where contract terms are made flexible, an opportunity for opportunism, and for high transaction costs due to haggling, is created; consequently, flexibility in prices is generally restricted to situations where there is a clear index to which the contractual payment can be tied. As a consequence, owners, through fluctuations in their residual earnings, bear many of the risks of the enterprise.

Some of these risks, to be sure, can be passed along to other patrons, or even to third party insurers, by contractual means. For example, some of the risk associated with fluctuations in demand can be passed along to the firm's workers and suppliers by arranging for short-term contracts with those patrons and then simply adjusting the amount purchased from them according to current demand for the firm's final products. Where neither the firm nor its patrons need to make long-term commitments to the enterprise -- which is to say, where there are no important transaction-specific investments involved -- then there may in fact be little residual risk to be borne by the firm's owners. But often it is necessary for the firm to make substantial long-term commitments with its non-owner patrons,[21] and the owners of the firm then bear the cumulative risk of these commitments.

It is often the case that one class of a firm's patrons is in a much better position than others to bear such risks. In particular, one class of patrons may be better able than another to eliminate firm-specific risks through diversification. There are then important economies to be had from assigning ownership to those patrons.

Assignment of ownership to lenders of capital is commonly explained on these grounds. A firm's invested capital can be broken down into shares sufficiently small, and spread across sufficiently many shareholders, that each shareholder's stake in the firm represents only a fraction of his or her wealth, and can be combined with other investments in unrelated firms and industries to provide effective diversification. It is not true, however, that lenders of capital are the only low-cost risk-bearers. For example, as we shall see below, consumers are also often in a good position to bear the risks of enterprise.[22]

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21. Non-owner patrons could of course bear the risk of their transaction-specific investments themselves. But this might create the possibility for opportunism on the part of the firm. And thus the firm, in order to attract such patrons, may well have to make a long-term commitment.

22. In principle, many of the risks of an enterprise could be insured with third parties. The obstacle here, of course, is moral hazard. It is often impossible to distinguish in practice between fluctuations in returns owing to exogenous factors and

A further consideration here is that market contracting can itself create risk. For example, fixed-price long-term contracts impose on both parties the risks of inflation. If the parties' other transactions are adjusted for inflation (or are sufficiently short-term so that such adjustment happens as a matter of course), then the contract in question could impose substantial costs of risk-bearing. If a shorter-term contract is impracticable because of the risks of opportunism or other hazards, then having the patrons in question own the firm may be an attractive way to avoid the problem. This is a significant consideration in insurance contracts, for example, as we shall discuss below.

F. Firms Without Owners: Nonprofit Enterprise

Sometimes the conflicts between the competing considerations just surveyed are so strong that there is no class of individuals to whom ownership of a firm can be assigned without severe inefficiencies. In such situations, nonprofit firms, which effectively have no owners, are often the expedient that evolves.

Two circumstances are commonly conjoined in those situations in which nonprofit firms emerge. First, there is an extreme problem of asymmetric information between the firm and some class of its patrons -- usually a significant group of the firm's customers. As a consequence, assigning ownership to anyone other than the class of patrons in question would create both the incentive and the opportunity for those patrons to be severely exploited. But, second, those same patrons are so situated that the costs to them

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fluctuations owing to the manner in which the enterprise is managed. Consequently, owners cannot escape being risk-bearers.

of exercising effective control over the firm are large relative to the value of their transactions with the firm -- so large as to make the exercise of control impracticable for them. The solution is to create a firm without owners -- or, more accurately, to create a firm whose managers hold it in trust for its patrons.

We shall not consider nonprofit firms, and the industries in which they are common, in detail here.[23] One important observation is worth making, however: the survival of nonprofit firms, which have large market shares in many industries where they compete directly with for-profit firms, is strong evidence that the costs of managerial slack that accompany a complete lack of direct owner oversight need not be cripplingly high. This conclusion will be reinforced by some of the examples of alternative ownership patterns surveyed below.

G. Applying the Calculus

Any assignment of ownership involves important tradeoffs among the various costs of market contracting and of ownership just outlined. By examining the pattern of ownership that has evolved in various industries, we can explore these tradeoffs and gain a better appreciation of the character and magnitude of the costs involved. The remainder of this essay will explore several alternative patterns of ownership that are particularly instructive in this regard.

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23. For a detailed survey see Hansmann, supra note 14.

III. INVESTOR-OWNED FIRMS[24]

A. Market Failure

Problems of monopoly or monopsony rarely provide an incentive for lenders of capital to become owners of the firm they lend to; capital markets today are highly competitive. Rather, problems of asymmetric information provide the strongest rationale for assigning ownership to suppliers of capital.

In theory a firm could borrow one hundred percent of the capital it needs, with the owners of the firm -- whether they be another class of the firm's patrons, or third parties who do not otherwise transact with the firm -- investing no capital themselves. If there is a substantial risk that the firm's earnings will be insufficient to repay the loan, this can be dealt with by running up the rate of interest.

The difficulty with this approach lies in creating the proper incentives for the firm's owners. If the owners could be constrained by the terms of the loan contract to devote the borrowed funds only to the most efficient projects, and to take none of the proceeds of those projects themselves until the loan had been repaid, then there would be no problem. But it is extremely difficult to write and enforce a contract that effectively constrains the owners in this way. And, without such

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24. It would be more consistent with the general theory offered above if conventional capitalist firms were referred to here as "lender-owned" rather than "investor-owned." The former label emphasizes more clearly the nature of the transactional relationship by virtue of which the patrons in question are owners. Because the term "investor" is often used to denote individuals who are not just lenders but also owners, the expression "investor-owned" is a bit redundant. Nevertheless, it is also the more conventional locution.

contractual terms, the owners have an incentive to behave opportunistically, converting the proceeds of the loan to themselves. The owners might undertake this distribution directly, by distributing to themselves dividends (or perquisites) that are unjustified by the firm's earnings. Or -- what is harder to police -- they can do it indirectly by investing the proceeds of the loan in highly risky projects whose gains will go disproportionately to the owners and whose losses will fall disproportionately on the lenders.

The incentives of the owners to behave this way can be effectively curbed if they are made to post a bond for the full amount of the loan. If the proceeds of the loan are invested in assets that are not organization-specific, this can be easily accomplished simply by giving the lenders a lien on those assets. Where, however, the loan proceeds are in some part invested in organization-specific assets -- and this will be the usual case -- the problem is more difficult. One solution is to have the owners provide personal security for the loan -- either by pledging personal assets or future income as collateral, or by posting a bond through a surety.[25] This is, in fact, a common procedure, particularly in small firms. Where large-scale

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25. In a sense, such pledges of security in themselves make the owners investors in the firm. But it is not quite the same thing. Assets pledged as security, unlike assets actually invested in the firm, can be productively invested elsewhere. This permits an individual to use a given stock of capital to obtain ownership interests in a larger number of firms than would otherwise be possible (which is useful for risk diversification purposes) or alternatively to obtain a larger ownership share in each of a given number of firms (which is useful for purposes of exercising more effective control over each firm).

enterprise is involved, however, and the ownership class is numerous, this device is quite cumbersome. It is difficult for a lender to check the value of the numerous pledges of surety, and it is expensive to foreclose on a large class of small guarantors in case of default.[26]

As a consequence, there are substantial economies if the owners invest some of their own assets directly in the firm. This obviates the incentive problem so far as those assets are concerned. Further, it provides a convenient pool of capital for the owners to pledge collectively as security for any further assets that they borrow; this pool will be much easier for (non-owner) lenders to evaluate and to foreclose on than will a collection of personal pledges.

Another reason for investor ownership derives from the advantages of financing a firm through retained earnings. One of these advantages is that, by retaining earnings rather than paying them out and meeting all new capital needs of the firm through borrowing, the firm avoids the transaction costs of constantly arranging new loans. A second advantage is that the corporate and personal income taxes together provide for a tax subsidy to this form of financing. Thus, even if the owners of a firm do not start out as investors, they are likely to become investors if the firm prospers and grows. If in fact the owners of the firm are

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26. This is not to say the device is not used. English corporation law in fact makes special provision for corporations limited by guarantee rather than by shares. In such corporations the members' liability is limited by the amount of their guarantees, not by the amount they have invested (which might be nothing).

owners by virtue of some other form of patronage -- say, because they are customers of the firm -- then they will come to have two different patronage relationships with the firm: as customers and as investors. And, as we shall see in more detail in Section IV, in such a situation problems of heterogeneity of interest among the owners are likely to be aggravated. Thus, if owners will ultimately become investors in any case, there are economies in simply choosing investors as owners from the start.

B. Cost of Control

One of the great strengths of investor-owned firms is the fact that the owners generally share a single well-defined objective: to maximize the net present value of the firm's earnings per dollar invested. To be sure, differences in tax status may lead investors to differ about the most appropriate financial policy for the firm -- what proportion of earnings should be paid out as dividends, for example -- and there may also be differences among investors in attitudes toward risk. But even these differences can be resolved to some extent by having investors sort themselves among firms.

Risk-bearing is of course another great strength of investor ownership. A firm's invested capital can easily be subdivided among a large number of individual investors, so that each bears only a small portion of the risk of the firm and can diversify that risk through a portfolio of other investments.

The obvious liability of investor-owned firms, on the other hand, is that investors frequently are in a poor position to engage in meaningful supervision of the firm's management. To be sure, if the firm's capital comes largely from a small number of large lenders, then those lenders are likely to have both the ability and the incentive to remain informed about the firm's problems and prospects and to act on that information. But where -- in order to obtain access to a larger pool of capital and to diversify risk -- the firm's capital is drawn from a large group of relatively small investors, the familiar problem of separation of ownership and control arises. If effective control is exercised at all in the large publicly-held corporation, it is presumably exercised not directly but, as conventional economic wisdom today would have it, indirectly through the market for corporate control -- that is, through the threat of takeover by a concentrated group of large investors who are in a position to act effectively.

The proliferation in our economy of large investor-owned business corporations with broadly dispersed share ownership might be taken for evidence that in fact the market for corporate control works as a highly effective means for bringing corporate management to serve the interests of investors. There are, however, good reasons to be skeptical of this conclusion. For one thing, the market for corporate control has been highly active only for the past decade or two. Prior to that, hostile takeovers were rare, quite possibly because the managerial and legal innovations necessary to effect them were not in place. Yet widely-held business corporations have been commonplace for the past century. Further, the sharp increase in activity in the market for corporate control in recent years does not seem to have brought with it any obvious increase in the efficiency of corporate enterprise. Indeed, the past decade and a half -- the period in which the hostile takeover became most refined as a tool for shifting corporate control -- has been a period of remarkably low productivity growth in the United States, both by historical standards and relative to the nation's major international competitors.

We might, therefore, draw another conclusion from the widespread development of investor-owned firms with broadly dispersed share ownership: effective exercise of oversight by the owners is not of great importance relative to the other factors surveyed in Section II. Under this view, the primary protection that the investors in an investor-owned firm have from opportunistic behavior on the part of the firm lies simply in the absence of a class of owners with interests contrary to theirs. But this may be important protection, and worth paying for by bearing the costs of some managerial slack.[27]

If elimination of a class of owners with adverse interests were the only consequence of assigning ownership to investors in large publicly-held firms, then those firms would have few advantages over nonprofit firms. The fact that investor-owned firms remain the dominant form suggests, therefore, that direct exercise of oversight by owners in large firms is not completely ineffective.

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27. In investor-owned firms the problem of managerial opportunism may be mitigated by the fact that, when it comes to investment policy, there is good reason to believe that, contrary to the behavior to be expected of owners who are not investors, the managers will be too conservative rather than too speculative, since their own human capital is on the line if the firm goes bankrupt.

On the other hand, the ability of nonprofit firms to compete successfully with investor-owned firms in many industries, such as hospital care, provides some evidence that the difference in efficiency between these two forms of ownership is not great.[28]

IV. CUSTOMER-OWNED RETAIL, WHOLESALE, AND SUPPLY FIRMS

The distribution of consumer cooperatives that appear in markets for standard consumer and producer goods offers a broader perspective on the tradeoffs among the various costs of market contracting and of ownership.

A. Retailers of Consumer Goods

In the popular imagination, customer-owned firms are commonly exemplified by retail stores organized as consumer cooperatives. Yet consumer cooperatives have an almost negligible share of the market for nearly all ordinary retail items, amounting to only .25% of the overall consumer goods market.[29]

The small market share held by retail cooperatives is easily explained in terms of the market failure and cost-of-control considerations surveyed above. Most retail goods and services are sufficiently simple or standardized that asymmetric information is not a serious problem, and the market for most retail items is

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28. Of course, there are other factors involved in competition between nonprofit and investor-owned firms, such as the various direct and indirect subsidies that nonprofit firms often benefit from. For an empirical estimate of the significance of tax exemption in this connection see Henry Hansmann, The Effect of Tax Exemption and Other Factors on the Market Share of Nonprofit Versus For-Profit Firms, National Tax J. (forthcoming, March 1977).

29. Richard Heflebower, Cooperatives and Mutuals in the Market System 4 (1980).

sufficiently competitive that consumers are not faced with clearly monopolistic prices. Further, the customers of any given retail firm are generally so numerous, transitory, and dispersed that the costs of organizing them effectively would be excessive.

Cooperative grocery stores, which seem to typify consumer cooperatives in the popular imagination, provide a good example of both the limits and the strengths of the cooperative form in retail markets. At present, grocery cooperatives account for only .4% of the retail food market.[30] This insignificant market share is not easily explained in terms of cost-of-control considerations alone, which appear relatively favorable for grocery cooperatives: groceries are a large budget item for most people; customers commonly patronize the same store regularly over long periods of time; and customers frequently live in close proximity to the store where they shop. Risk-bearing does not seem to be a major problem; most of the risks of fluctuations in the wholesale cost of goods are passed through to consumers in any event. To be sure, there is a question about homogeneity of interest; grocery stores carry a wide variety of different products. Since most consumers purchase roughly similar market baskets of goods, however, this may not in itself be a serious disadvantage to the cooperative form -- a conclusion that is reinforced somewhat by the success of grocery wholesale cooperatives, to be discussed below.

Rather, the obvious explanation for the general absence of retail grocery cooperatives is that consumers face no significant

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30. Id.

degree of market failure. Asymmetric information is clearly not an important problem with groceries. Neither is monopoly: in most markets, grocery retailing is an extremely competitive business.

The single retail market in which consumer cooperatives have established significant market share is the market for books, where cooperatives account for 9% of all sales.[31] This large market share reflects the prevalence of cooperative book stores on university campuses, where a significant fraction of the nation's books are sold. The principal incentive for adopting the cooperative form here is apparently monopoly; there is usually room for only one important seller of textbooks on a campus. The cost-of-control factors are also favorable: the amounts spent on books are a significant fraction of a student budget; students typically continue to patronize the same store for four years or so; student demand is relatively homogeneous; and students can be easily organized through their common affiliation with the university.

B. Wholesale and Supply Firms

Although consumer-owned retail stores are rare, wholesale and supply firms that are owned by the retailers or other businesses to which they sell are widespread. For example, although consumer cooperatives constitute less than half of one percent of the retail market for groceries, retailer-owned wholesale cooperatives in 1985 accounted for fourteen percent of all groceries distributed at the wholesale level, and thirty-one percent of the

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31. Id. at 124.

market excluding distribution within chains with integrated wholesale and retail operations.[32] Retailer-owned wholesale cooperatives are even more important in hardware, where they have fifty percent of the market.[33] A substantial share of the nation's bakeries obtain their baking supplies from firms that they own as cooperatives.[34] And the largest international news service, Associated Press, is cooperatively owned by about 1500 U.S. newspapers and 5700 U.S. radio and television stations.[35]

1. Market Failure

Monopoly appears to be the principal motivation for customer control in many of these cases. There are two principal sources of monopoly here. First, there is natural monopoly in the usual sense, in which economies of scale lead to fewness of competing sellers. In the grocery business, for example, the large chains maintain their own wholesale distribution system. If independent stores are to compete with the chains at the retail level they must keep costs to a minimum, and thus they cannot afford to pay pure profits to a wholesaler. Yet economies of scale at the wholesale level are such that there is room for only one or a few firms to serve the independent retailers in most areas, which means that the wholesalers have considerable market power. Consequently, there is a strong incentive for retailers to avoid

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32. 65 Progressive Grocer 8 (April 1986).

33. Wholesaling: A Leaner, Meaner Industry, Hardware Age 36, 37 (June 1984).

34. Heflebower, *supra* note 28, at 114-15.

35. AP also has roughly 9000 newspaper, radio, and TV members abroad. Telephone interview with AP Public Relations, July 1986.

price exploitation by owning the wholesaler that serves them. The Associated Press is another obvious example. Economies of scale have led to a market occupied by only two substantial news services in the United States, United Press International and Associated Press, the former investor-owned and the latter a cooperative.

A second source of the market power that provides the impetus for customer ownership derives from the use of a common brand name for marketing purposes. Retailers can derive considerable economies from collective use of a single logo or insignia by which their stores and their products are identified. For example, most members of the largest bakery supply cooperative market bread under the common name "Sunbeam." This permits collective purchase of packaging as well as economies in advertising.[36] Similarly, independent hardware stores belonging to the same wholesale cooperative generally use a common store name and insignia, and also market products that bear that name. True Value (the brand name of Cotter and Company, a wholesale cooperative with almost 7000 local retail stores as members) is a familiar example; Ace Hardware is another.[37]

Of course, the mere existence of economies from use of a common brand name does not mean that cooperative ownership of the wholesaler possessing that brand name is efficient. An investor-owned wholesaler could also license a brand name to the retailers

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36. Id.

37. See James Cory, Dealer-Owned Wholesalers: What's Next?, Hardware Age 52 (October 1983).

purchasing their supplies from it. In fact, such arrangements are not uncommon. For example, some independent (investor-owned) grocery wholesalers license their retail-store customers to use a common store logo and brand name goods; IGA is an instance. But a degree of market power necessarily attaches to the owner of the brand name, since there must be substantial costs to the retailer from changing its affiliation. Customers of a hardware store that has long been identified as an "Ace" hardware store might not all maintain their patronage uninterruptedly when the store suddenly changes to a "True Value" hardware store; rebuilding patronage under the new name could take time. Consequently, the licensor of the name has a degree of leverage (ex post monopoly) over the licensee once the latter has established itself under the licensor's logo -- leverage that could be used to extract pure profits from the licensee. Through collective ownership of the licensor, the retailers obviate this difficulty.

2. Costs of Control

Cost-of-control factors are strongly conducive to customer ownership here. A retail grocery or hardware store, for example, can purchase a significant fraction of its goods from a single wholesaler with which it transacts continuously for years. Thus, the store is in a position to oversee the affairs of the wholesaler without incurring substantial costs beyond those it would incur under market contracting. Moreover, the supply business does not require large amounts of organization-specific capital; warehouses are general-purpose structures, and inventory can usually be liquidated without substantial losses. And, as in the case of consumer-owned retail grocery stores, risk-bearing seems unlikely to be a substantial problem for retailer-owned supply firms.

Finally, heterogeneity of interests is presumably even less of a problem for retailer-owned supply cooperatives than it is for consumer-owned retail firms, since retail stores are likely to stock a relatively uniform array of merchandise, whereas individual consumers sometimes have quite varied tastes.[38]

3. Cooperatives Versus Integrated Firms

The preceding discussion has considered the relative advantages of the customer-owned and the investor-owned form for supply firms. There are, however, other choices for the relationship between a supply firm and the retailers to which it sells. One of these is to have a fully integrated firm in which the supplier and

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38. One important factor affecting heterogeneity of interests cuts the other way, however. A member of a wholesale supply cooperative will generally want to exclude from membership all other retailers that compete locally with him or her. Other members of the cooperative, on the other hand, will have an interest in admitting such retailers in order to realize economies of scale for the overall enterprise.

In this conflict, the interests of members in avoiding local competition seem generally to prevail: wholesale cooperatives commonly discourage membership by competing firms. For example, prior to 1942 the Associated Press gave each of its members a veto over the admission of any new member of the same type (say, a morning newspaper) that served the same local market. The veto could be overridden by four-fifths of the membership, but even so the new member would be required to pay the competing existing members three times the total assessments they had paid AP from 1900 to date. This practice was eliminated only as the result of a successful antitrust suit. Heflebower, *supra* note 28, at 115-16. Similarly, hardware supply cooperatives do not admit new members that compete closely with existing members. *Id*. at 112. It is possible that some economies of scale are lost as a result, and that an investor-owned wholesaler would permit greater density of stores using the brand name.

the retailers to which it sells are commonly owned (or, to put it differently, the wholesaler owns the retailers rather than vice-versa). This approach is common in the grocery business, for example, where the fully integrated chain stores account for 55% of volume at the wholesale level.[39]

The fully integrated firm solves the same problems with market contracting between retailers and wholesaler that the cooperative form solves: exploitation of the retailers by virtue of the market power of the wholesaler, whether by virtue of the latter's sheer market share or the lock-in effect of using its brand name. And the fully integrated firm has the further advantages that it can economize on common planning and services in ways that are difficult for independently owned retailers, and it can ensure, more easily than can a cooperative, a high degree of homogeneity of services and products among the affiliated retail stores that will assist in establishing its brand name clearly among consumers.

The disadvantage of the fully integrated firm, on the other hand, is that it gives up the strong incentives for cost minimization and customer responsiveness at the store level that characterize independently-owned retailers. These incentives are evidently important in most retail businesses. And the economies from complete integration at the retail level are apparently small. The significant economies come from wholesaling and merchandising, and these are available through cooperatives as well as through fully integrated firms.

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39. 65 Progressive Grocer 8 (April 1986).

C. Farm Supplies

Farm supply cooperatives are a particularly prominent form of business-owned supply firm. In 1983 there were roughly 2200 such firms, which together accounted for 27% of the overall market for farm supplies -- up from 23% a decade earlier.[40] The cooperatives are particularly important in supplying petroleum products (34% of the market), feed (23%), fertilizer (18%), and farm chemicals such as pesticides (8%).[41]

Most farm supply cooperatives serve only a local area of one or several counties, and are controlled directly by their farmer-members. Often these local cooperatives are federated into much larger regional cooperatives, which have the local cooperatives as members and which supply many of the goods sold by the local cooperatives. The regional cooperatives, in turn, are sometimes federated into national cooperatives that manufacture or wholesale major lines of supplies. The regional and national cooperatives are often quite large; a number of them appear among the Fortune 500 listing of the largest U.S. industrial corporations.[42]

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40. Agricultural Cooperative Service, Farmer Cooperative Statistics 1983 (U.S. Department of Agriculture, 1984), at 10.

41. Id. at 26.

42. Some cooperatives that provide farm supplies also market the crops grown by their farmer-members, although this function is often performed by marketing cooperatives that are separately organized. We shall be concerned here only with supply cooperatives, or with the supply operations of cooperatives that perform both functions. Agricultural marketing cooperatives benefit from exemption from the antitrust laws, and seem often to be formed in order to achieve a degree of monopoly power. Further, they are subject to special tax exemptions that are unavailable to other types of cooperatives. Consequently, they provide a more ambiguous test of the efficiency of alternative organizational forms than farm supply cooperatives do.

1. -<u>Market Failure</u>

As in the case of the other types of wholesale and supply cooperatives just discussed, lack of competition among investor-owned suppliers has evidently provided an important incentive for customer ownership in the farm supply business. At the time when cooperatives first established a significant market share in most lines of farm supplies -- primarily the two decades immediately following World War I -- the markets involved were apparently not highly competitive. Investor-owned firms in the fertilizer industry, for example, were repeatedly the subject of investigation and prosecution for restrictive agreements concerning prices and sales territories.[43] Petroleum supply cooperatives achieved their most important growth in areas of the country, such as the midwest, which were removed from the areas of oil production and where distribution was dominated by several large companies that avoided price competition in favor of service and advertising competition, and that had a monopoly on low-cost means of transportation (chiefly pipelines); cooperatives achieved little market share in those regions, such as the southwest, that were characterized by surplus production and consequent stiff competition among producers and refiners.[44]

In addition, and in contrast to the other types of wholesale and supply cooperatives we have considered here, asymmetric information seems to have been an important factor in the

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43. Helfebower, <u>supra</u> note 28, at 81.

44. <u>Id</u>., ch. 8.

development of some types of farm supply cooperatives. In the early decades of the century, for example, when commercial livestock feeds were first coming into use, the ingredients of these feeds were largely unknown to the buyers, and the quality was generally low. As a result, the cooperatives had an advantage in gaining the farmers' trust in their products. Similarly, the contents and relative effectiveness of commercial fertilizers, which also came into widespread use in the first part of the century, were often a mystery. Cooperatives, again, had an advantage in credibility.

It is not clear, however, how long this advantage lasted, or how important it was. Both livestock feed and fertilizer were from an early date the subject of "open formula" campaigns that promoted the disclosure of ingredients on labels -- campaigns in which the cooperatives themselves took part. By 1916, for example, all states in which large amounts of fertilizer were sold required labels listing active ingredients by percentage.[45] The effect of such regulation, here as in the insurance industry discussed below, has been to make investor-owned firms more viable; it serves as an effective substitute for consumer ownership.

2. Cost of Control

As with other types of wholesale and supply businesses, cost of control considerations are highly favorable to farmer-owned agricultural supply cooperatives. Each of the commodities in which farm supply cooperatives have significant market share make

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45. *Id*. at 78-9, 81.

up a substantial, and relatively constant, fraction of a farmer's budget. A farmer is likely to be in business, and hence in a position to continue to patronize the same supplier, for many years -- often decades or even generations. Owing to the sorting effects of soil and climate, farms that are of a given type, and which therefore have similar demands for supplies, tend to be clustered geographically; consequently, they can be relatively easily organized to exercise effective oversight of a local cooperative supply firm.

The local cooperatives tend to concentrate simply on distribution of supplies, which has sufficiently limited economies of scale to permit a single firm to be confined to a relatively small local area. This, too, helps assure effective customer control. Federation of the local cooperatives then permits larger-scale wholesale and manufacturing operations to be carried on, which in turn can be effectively controlled by the local distribution cooperatives that are their members. In this way, workable customer control can be achieved even for enterprise of substantial scale. And, indeed, customer control does seem to be effective in these firms; unlike the mutual insurance companies discussed below, the members actually participate actively in decision-making through a system of elected representatives.

Moreover, a number of factors help to assure substantial homogeneity of interest among the farmers who belong to a given cooperative. Most conspicuously, the supplies in which cooperatives have the largest market are all relatively simple, homogeneous commodities. The fact that petroleum is the commodity for which cooperatives have the largest market share is noteworthy in this respect.

Presumably owing to economies of scope, a given supply cooperative often handles more than one commodity. This could potentially give rise to conflicts of interest among members, and hence to governance problems. It is common, however, for patronage refunds to be computed separately for each of the different product lines that a cooperative carries, according to the profitability of each line.[46] For example, Land O'Lakes, the large midwestern dairy farmers' cooperative, has refined its patronage refund accounting to the point where it computes a separate rate of refund for each of its six different types of fertilizer.[47] Similarly, farm supply cooperatives (such as Land O'Lakes) that also market agricultural products for their members commonly compute patronage refund rates separately for their marketing and supply operations. This practice is evidently undertaken -- at some accounting expense, and with a loss in opportunity for risk diversification -- precisely because it helps avoid conflicts of interest among members. The result, in effect, is to create a separate cooperative for each product.

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46. General information on patronage refund accounting appears to be unavailable; consequently, it is difficult to determine precisely how common it is for supply cooperatives to compute refunds separately for different product lines. Interviews with representatives of a number of supply cooperatives suggest that this practice is typical among both local and federated cooperatives.

47. Telephone interview with Terry Nagle, Director of Communications, Land O'Lakes, July 17, 1986.

3. Problems Associated with Capital

Farm supply cooperatives have in many areas integrated upstream into manufacturing, and these operations sometimes require substantial capital. For example, farm petroleum cooperatives own, singly or jointly, refineries that provide roughly half their supplies, oil wells that produce close to ninety percent of the refineries' crude oil input, and pipelines that transport most of the oil from the cooperatives' wells to their refineries.[48] Similarly, farm supply cooperatives have integrated upstream into the manufacture of fertilizer, feed, seed, and agricultural chemicals. The capital financing devices used by these cooperatives provide some insight concerning the strengths and limitations of non-investor-owned firms in capital-intensive businesses.

In discussing investor-owned firms, we saw that there are strong transaction-cost reasons for having the owners of the firm put up at least some portion of the capital that is needed by the firm. Where the owners of the firm have some transactional relationship with the firm other than simply as lenders of capital, several difficulties can arise.

a. Liquidity and Risk-Bearing

First, and most obvious, liquidity problems may make it difficult for the owners to provide the necessary capital under any circumstances.

Further, investing in a firm that one also patronizes in another capacity increases risk. If adversity strikes a consumer-

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48. Heflebower, supra note 28, ch. 7 (figures from 1969).

owned firm, for example, then the owners stand to lose their capital investment at the same time that the terms upon which they can make purchases from the firm become unfavorable.

b. Conflict of Interest

When the owners of a consumer cooperative -- or a producer cooperative -- also have a substantial capital investment in the firm, a particular problem of heterogeneity of interest is likely to develop. Residual earnings in such a firm must be divided between returns to invested capital on the one hand, and patronage dividends on the other hand. The inadequacies of cost accounting are such that any division of this sort must necessarily be somewhat arbitrary. This is of no consequence if all consumers who are entitled to patronage refunds also own capital shares in direct proportion to the amount of their patronage. In the absence of such proportionality, however, some patrons stand to benefit at the expense of others when earnings are allocated. This prospect may discourage some individuals from joining the cooperative in the first place, or may lead to costly disagreements or inefficient investment policies once the organization is established.

We can develop some measure of the extent of this problem by considering the equity investment plans adopted by the farm supply cooperatives. Members contribute capital to these firms in two ways. The first is by purchasing capital shares at the time they join the cooperative. The second, and generally more important, is by having the firm retain earnings that would otherwise be paid out as patronage dividends. Members are commonly given capital certificates representing the amounts thus retained.

Farm supply cooperatives typically do not pay dividends or interest on equity, and they generally redeem equity at book or net value, whichever is lower.[49] The only return that a member gets on his or her investment in the firm is therefore in the form of lower net (i.e., after-dividend) prices for products purchased through it. This makes it particularly important that patronage and capital investment be kept in line with each other. Consequently, many farm supply cooperatives, and particularly the larger and more successful ones, have adopted policies of various sorts to achieve this end. The most common method, termed a "revolving fund plan," is just to redeem all equity investments after a certain period of time has passed. The period chosen varies between eighteen months and thirty years. The most sophisticated method, called a "base capital plan," is frequently used by the larger federated supply cooperatives. Under this approach, the cooperative (1) computes the total or "base" amount of equity capital that it currently needs, (2) computes each member's share of this total capital on the basis of the member's share of total patronage over a base period, usually the past three to seven years, (3) determines the amount each member is overinvested or underinvested through capital retentions made to date, (4) increases retentions from underinvested members, and (5)

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49. Comptroller General of the U. S., Family Farmers Need Cooperatives -- But Some Issues Need to be Resolved, U.S. General Accounting Office, Report to the Congress CED-79-106 (1979), at 39; Equity Redemption Issues and alternatives for Farmer Cooperatives, Agricultural Cooperative Service Research Report No. 23, U.S. Dept. of Agriculture (1982), at 11.

retires some of the equity of the overinvested members to bring them closer to their appropriate share of total capital.[50]

All schemes of this sort involve tension among the amount of capital that can be accumulated per member, the speed with which capital can be accumulated, and the degree to which each member's invested capital is kept proportional to patronage. That tension is least where patrons remain members of the cooperative over long periods of time, and where the level of patronage remains fairly constant for most members. These conditions are relatively easy to meet in the farm supply business, which undoubtedly contributes significantly to the viability of the cooperative form there.

The development of relatively sophisticated capital accumulation schemes such as base capital plans among the more capital-intensive farm supply cooperatives is evidence of the importance of keeping investment in line with patronage in firms of this type. On the other hand, only about half of the federated farm supply cooperatives (and one third of the non-federated ones) have a systematic redemption program of any sort, and of these only a quarter have a base capital plan of the type just described rather than some simpler and less finely-tuned scheme such as a revolving fund plan.[51] There is evidence that the failure to

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50. In practical effect, this is roughly equivalent to lending each new member the amount of capital needed to service him or her, and then having the member pay off that loan through retentions, with adjustments to the retentions to keep the amount of capital invested from exceeding what is needed to service the member's current level of patronage.

51. Phillip F. Brown & David Volkin, Equity Redemption Practices of Agricultural Cooperatives 5, 8 (U.S.D.A. Farmer Cooperative Service Research Report No. 4, 1977).

adopt better methods of compensating members for their equity contributions has discouraged farmers from starting or increasing business with supply cooperatives.[52] Nevertheless, these cooperatives are evidently viable even with relatively crude systems of capital accounting.

4. Market Failure Versus Cost of Control

The large market share obtained by customer-owned enterprise in wholesale and supply industries provides some useful perspective on the relative importance of the different cost factors outlined earlier.

What is most striking about these industries is that the degree of market failure that characterizes them, and that provides the impetus for customer ownership, is relatively modest. Undoubtedly many, and perhaps most, industries in the United States exhibit similar degrees of imperfection in their product markets. The distinguishing feature that has led to widespread development of customer ownership in these industries, rather, seems to be that the cost of customer control is uncommonly low. Evidently even small degrees of product market imperfection make it efficient to abandon investor ownership in favor of customer ownership where the customers are in a good position to exercise effective control. And this holds true even in moderately capital-intensive industries such as agricultural supplies.[53]

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52. Comptroller General of the U. S., supra note 48 (reporting surveys of farmer attitudes toward cooperatives).

53. There may in fact be a more extreme interpretation of these facts. It may be that there is effectively no meaningful degree of market failure in the product markets involved here -- or at least not enough in itself to make it worthwhile for the customers

Further evidence concerning the tradeoff between market failure and cost of control comes from the farm machinery business. Market failure, in terms of both monopoly and asymmetric information, seems much more severe in farm machinery than it does in the commodities typically handled by farm supply cooperatives. Farm machinery accounts for a significant portion of farm budgets.[54] Yet cooperatives play an insignificant role in marketing or manufacturing farm machinery. One reason for this may be the capital intensity of the business. Yet petroleum is also a capital-intensive business, and this has not prevented cooperatives from occupying a third of the market.[55] More likely, the critical factor in the farm machinery business is that the

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to acquire ownership simply to reduce that degree of market failure. The customers, however, are in such a good position to exercise control over the firm that it is worthwhile to make them also the firm's investors. That is, any costs that derive from having the firm's customers also supply its equity capital -- costs such as poor risk diversification and limitations on liquidity -- are more than compensated for by the reduction in asymmetric information problems facing the firm's investors.

54. In 1985 farmers spent $9.5 billion on farm machinery. In comparison, during the same year they spent $24 billion for feed and seed, $13.6 billion for petroleum products and machine maintenance (separate figures are not available here), and $8.9 billion for fertilizer and lime -- all supplies in which cooperatives have a large market share. U.S. Department of Agriculture, <u>1986 Fact Book of U.S. Agriculture</u> 4 (1985).

55. Moreover, it is presumably open to farm supply cooperatives to enter the machinery business the same way they did the petroleum business -- by beginning at the retail distribution stage, which does not require much organization-specific capital, and then integrating upstream only after establishing themselves at that level. And upstream integration need not involve instantly creating a full-line competitor to the John Deere Company. Rather, it can begin with the manufacture of parts and accessories, and only gradually, as experience and capital is accumulated, advance to the production of such items as tractors and combines.

cost of customer control is much higher than in other farm supplies. In particular, the fact that farmers use a range of different types of equipment of different vintages makes for heterogeneity of interest. Further, the sporadic nature of purchases makes it more difficult for farmers to engage in continuous monitoring of producers.

V. Life Insurance

Roughly half of the life insurance sold in the United States is sold by mutual insurance companies. In fact, the annual volume of business done by mutual life insurance companies far outweighs the volume of business done by consumer cooperatives in any other industry.[56]

1. Market Failure

Simple monopoly is not a problem in the life insurance business; anyone purchasing life insurance has a large number of competing firms to choose from, all offering a fairly homogeneous product. Thus monopoly cannot explain the appearance of customer-owned firms in this industry. On the other hand, it appears that the life insurance business is -- or at least was in its early days -- characterized by substantial problems of asymmetric information, and this has evidently served, at least historically, as a major inducement to the adoption of the mutual form.

A life insurance policy is a long-term contract between the

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56. For a more detailed analysis of the life insurance industry, and of the property and liability insurance industry as well, see Hansmann, The Organization of Insurance Companies: Mutual Versus Stock, 1 J. Law, Econ., & Org. 125 (1985).

insurance company and the insured that typically has a duration of several decades and often is in force for more than half a century. Throughout most of the term of this contract, the insured is a substantial creditor of the company. If the company is organized on a stock basis, the stockholders have an incentive to shift some of the expected value of the firm from the policyholders to themselves by increasing the risk level of the firm, which they can accomplish either by keeping the corporation's assets to a minimum through large dividend payments to the stockholders, or by investing the organization's assets in highly risky ventures. The availability of bankruptcy will insure that the policyholders bear more of the increased risk than do the stockholders. In short, an insurance company's policyholders face much the same situation that confronts individuals who lend capital to a firm.

This problem is aggravated by another feature of the typical life insurance contract. In order to avoid problems of adverse selection, life insurance premiums have a heavy front-end load: annual premiums in the early years of the policy exceed what is necessary to buy insurance for the coming year. If it were otherwise (so that life insurance policies essentially had the character of renewable term insurance), insureds who found themselves to be unusually healthy in their later years would have an incentive to abandon their policies, perhaps to seek cheaper insurance elsewhere, thus leaving the company holding only those policies that represent the worst risks. Heavy initial payments are therefore employed to lock the insureds into the company for the life of the contract -- or at least make it quite expensive for them to switch -- and thus reduce this incentive for adverse selection. But this approach has another, and unfortunate, consequence as well, for it means that if the policyholder comes to suspect that the insurance company is following an unsound investment policy, exit will be an expensive means of avoiding victimization.

Presumably the insureds would seek to prevent unsound investment practices, if they could, by placing appropriate provisions in the contract of insurance. Since the period of that contract is so long, however, and the contingencies that the company is likely to encounter during that period are so manifold, effective provisions of this sort are impossible to draft. Thus the insured has no effective way to police the conduct of the firm from which he purchases insurance.

In any event, this was the case when the life insurance business originally took shape in the first half of the nineteenth century, before state agencies were established to regulate the assets of insurance companies. The mutual form offered a means of eliminating the incentive for the company to act opportunistically toward its insureds. The historical record supports this line of reasoning: stock life insurance companies did not compete effectively against mutual companies until public regulation of the industry developed in the latter half of the nineteenth century.

2. Cost of Control

Some aspects of life insurance seem moderately favorable to the effective exercise of customer oversight: life insurance involves a contractual relationship that extends over a large number of years; the cumulative size of the transaction is large; a life insurance company's assets (largely contained in its investment portfolio) are for the most part not organization-specific; and the product is relatively homogeneous. On the other hand, the number of policyholders in most mutuals is quite large, and they are geographically dispersed. And these latter factors are apparently crucial, for the management of nearly all mutual life insurance companies is effectively self-appointing and free of any supervision or control by policyholders whatever. Moreover, this managerial autonomy from effective policyholder control is not simply a recent development, but rather seems to have been the norm since the first mutuals were established in the 1840s.

Considerations of risk-bearing, on the other hand, are strongly in favor of customer rather than investor ownership. When a person buys life insurance, he is primarily seeking insurance against the possibility that he will live a shorter life than the average person. This is a risk that can be eliminated relatively inexpensively by pooling, and such pooling is of course the primary function of life insurance companies. A life insurance policy with a stock insurance company, however, also involves "insurance" for the policyholder against the risks that the average life expectancy of individuals in the insured's generation will be shorter than expected (that is, that the actuarial tables will prove to be inaccurate), and that the long-run rate of return to investments in the economy and the long-run rate of inflation in the economy will be lower than expected (since the policies are generally written in terms of nominal dollars). Insurance against these latter risks is likely to have little or no value to the insured. Yet stockholders will charge policyholders a premium for bearing such risks, since they are in large part nondiversifiable. In a mutual company such risks continue to be borne by the policyholders, who therefore need pay no premium for shifting them.

3. Tradeoffs

It is open to question whether the mutual form continues to offer any efficiency advantages over the stock form in the life insurance business today. The worst problems of asymmetric information affecting policyholders in stock life insurance companies were solved in the latter half of the nineteenth century with the introduction of state regulation of the companies' financial reserves and investment policies. Indeed, failure rates among life insurance companies of all types have been extremely low in this century.

Also, the problem of risk-bearing in stock insurance companies seems much less troublesome today than it did in the last century, when actuarial tables were crude and the ability to forecast the economy and to diversify risk through the capital markets was quite limited. Moreover, stock insurance companies have now taken to writing "participating" life insurance policies that return to the policyholders some of the net earnings that the company gets from its policies, thus shifting some risks back onto the insureds.

Nevertheless, mutual life insurance companies have continued to occupy a sizable share of the market, and are losing that market to the stock companies only very gradually. There seem to be several possible explanations for this.

One explanation is that the costs -- in terms of managerial slack and self-dealing -- that result from the failure of the owners of a firm to exercise direct oversight are not great. Managers of large firms have sufficient stake in their jobs and their reputations to give them an incentive to perform that is nearly as strong as that which would be provided if they were to have ownership of the firm. Consequently, the mutual form is not markedly less efficient than the stock form.

Another possible explanation is that the costs of lack of effective oversight are substantial, but are borne by stock firms as well as by policyholder-owned firms. That is, the devices that have evolved to reinforce investor control of stock corporations -- such as financial disclosure, proxy rules,[57] and the market for corporate control -- do not really serve to increase substantially the incentives of managers to perform in the interests of the owners of the firm. Thus the mutual form, though inefficient, is not markedly more so than the stock form.

Finally, it may be that policyholders in a mutual life insurance company exercise less effective oversight than do the

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57. The disclosure requirements and proxy rules that are mandated for investor-owned firms by the federal securities laws do not apply to mutual insurance companies, which are largely free of any such regulation at either the federal or state level.

shareholders in a stock insurance company, and this is reflected in substantial costs associated with managerial slack and self-dealing, but that this continues to be largely outweighed by the countervailing efficiency advantages of the mutual form. In particular, it may be that, despite the advent of participating policies and other developments outlined above, the mutual form still has an advantage over the stock form in risk-sharing properties.

These explanations are not mutually exclusive; some combination of them may account for the continuing survival of mutual life insurance companies. We can only say that the costs of managerial slack resulting from the complete absence of effective owner oversight have not been sufficient to impair seriously the ability of the mutuals to survive in the marketplace.

VI. WORKER-OWNED FIRMS

The only important industries in the United States in which worker-owned firms are clearly the dominant form of organization are the service professions, such as law, accounting, investment banking, and management consulting, where partnerships and professional corporations (that is, corporations in which shareholding is confined to professionals practicing in the firm) are the typical form of practice.[58] There are, however, some

58. One cannot safely conclude that worker ownership is superior to investor ownership in the service professions simply because worker ownership is the nearly universal form of organization there. The reason is that competition is not unconstrained between cooperative and capitalist firms in these industries. In

other service industries in which such firms are relatively common. For example, many taxicab companies are collectively owned by their drivers. Similarly, trash collection companies are sometimes worker-owned.[59] Outside the service sector, on the other hand, worker-owned firms are generally isolated and often short-lived entities, competing in industries in which investor-owned firms are clearly dominant. One of the few exceptions is plywood manufacturing; roughly two dozen plywood firms in the Pacific Northwest have long been operated, with considerable success, as labor cooperatives.

A. Market Failure

Simple monopsony, in the sense of market power in the market for new hires, is rarely an important problem in labor markets,

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law, for example, it is illegal in every state in the Union for a lawyer to work in an investor-owned law firm in which the investors are other than lawyers who practice in the firm. And in accounting, though the investor-owned form is not generally illegal, it appears to be strongly discouraged by the profession's ethical codes.

Of course, one would not expect lawyers and accountants to choose to impose upon themselves a form of practice that is highly inefficient. But, on the other hand, there would be no need to proscribe investor-owned firms if they clearly had no survival value in the market. And there may be material gains to (at least the more established members of) these professions from keeping away outside investors, even if the cooperative form carries with it some inefficiencies in comparison to the capitalist mode of organization. In this connection it is interesting to note that, after the widespread state-law restrictions on the investor-owned corporate form in medical practice were removed by federal legislation in 1973, investor-owned health maintenance organizations began to arise and now seem likely to dominate the practice of general medicine within the near future.

59. For a detailed study of worker ownership in the latter two industries, see Raymond Russell, Sharing Ownership in the Workplace (1985).

and is clearly not a problem in the service industries in which worker ownership is common; it cannot, therefore, help explain why that form has become dominant in those professions.

On the other hand, in many labor markets there is some degree of monopsony in the ex post rather than the ex ante sense: after an individual has worked for a particular firm for a prolonged period of time, his or her skills are often specialized to that firm, and thus the threat of exit cannot be employed effectively to demand from the employer the full value of the employee's marginal product. Thus the employer may be in a position to extract some quasi-rents. Collective ownership of the firm by the workers reduces the incentive for this type of opportunism.

In itself, however, this problem does not explain the existing pattern of worker ownership, since the particular types of industries in which worker ownership is well established are ones in which the workers do not seem particularly subject to such exploitation. Service professionals are highly mobile. Lawyers, for example, can and often do leave a firm even after many years of service to join another firm or to set up their own practice. Staff employees in large investor-owned business corporations are probably often in no better position, and frequently in a worse position, to take their skills with them to another employer.

On the other hand, one can argue that, at least in some important cases, labor cooperatives are a response to a type of asymmetric information. In this case, however, the information disadvantage runs in the reverse direction from the cases we have analyzed above: the problem is not that the individual patron cannot police the firm's behavior, but rather the reverse.[60] Where, as in the case of law firms and accounting firms, the employees are performing complex and highly skilled work that requires substantial autonomy and discretion, effective monitoring of employees may be difficult. Consequently, there is an incentive to undertake vertical integration in order to eliminate conflicts of interest between the firm and the lawyers who work for it. And, since the firm cannot own the lawyers, the lawyers own the firm. As discussed earlier,[61] patron ownership does not entirely eliminate the incentive problem in such a situation, but it may alleviate the problem considerably. That form not only gives each worker a stronger incentive to identify with the success of the firm but, perhaps more importantly, gives each worker an incentive to police his or her fellow workers.

An argument along these lines has been made before to explain the existence of worker-owned firms.[62] The difficulty with this argument is that it is not at all obvious that workers are particularly more difficult to monitor in those industries in which worker ownership is common than it is in other industries. Is the output of corporate lawyers, for example, more difficult to monitor than that of corporate managers, or of white-collar

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60. Property and liability insurance is another industry in which patron ownership may have arisen in part as a response to problems the firm has policing the patrons rather than vice-versa. See Hansmann, _supra_ note 55.

61. See Section II.D _supra_.

62. See Alchian & Demsetz, Production, Information Costs, and Economic Organization, 62 Am. Econ. Rev. 777 (1972); Jensen & Meckling, _supra_ note 2; Russell, _supra_ note 16.

workers in general? Moreover, large business corporations seem able to police the output of the staff of their legal departments fairly well, just as partners are able to judge the work product of associates in a law firm. Indeed, it will be argued below that just the reverse of this argument holds: employee ownership tends to arise primarily in those situations in which the output of individual workers is relatively <u>easy</u> to monitor.

In summary, substantial problems of market failure arise when workers are hired through market contracting. These problems do not, however, seem particularly more significant in those industries in which worker ownership is common than in those in which it is not. We must turn, therefore, to cost of control factors to seek an explanation of the existing pattern of worker ownership.

B. <u>Cost of Control</u>

1. <u>Oversight</u>

Workers in nearly all industries are in an excellent position, in comparison with other classes of patrons, to oversee the management of the firm. The majority of their income typically comes from their work relationship with the firm; they are in daily contact with the firm's operations, and knowledgeable about them; and they are easily organized for collective decision-making.

2. <u>Capital Intensity</u>

Highly capital-intensive industries are poor candidates for worker ownership. Liquidity constraints will compel workers to borrow most of the necessary capital, and this will result in substantial costs of several sorts. For one thing, it will impose substantial nondiversifiable risk on the workers. Not only will they have a large fraction of their own capital tied up in a single firm but, even worse, the returns on that capital will be highly correlated with the returns to their own labor. Or, as the familiar complaint goes, the problem with worker ownership is that, when the firm goes under, the workers lose not only their jobs but their savings too.

Another problem with highly leveraged worker-owned firms is that the cost of capital is likely to be exceptionally high, for lenders will face the hazards of opportunism discussed earlier. This might not be a major difficulty if workers could pledge their human capital as security for the loans -- that is, if workers could pledge a fraction of their future income in perpetuity to pay off the loans in case of default. Yet such arrangements are barred by the law, and would have high enforcement costs and poor incentive properties in any event.

It is not surprising, then, that those industries in which worker-owned firms are best established, such as law and accounting, are characterized by low amounts of organization-specific capital per worker.[63] Yet there are many industries, particularly in the service sector, that are highly labor-

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63. There are exceptions. The plywood cooperatives seem to be characterized by moderate capital intensity, though the assets involved may not be highly firm-specific. Occasionally a highly capital-intensive firm, such as the Wierton steel works, is sold to its workers, though these cases may be best explained by the fact that only with such a transaction is it possible for unions to agree to the substantial wage cuts necessary to make the firm viable.

intensive but are nevertheless populated largely with investor-owned firms. Other considerations, therefore, must be at work.

3. Risk-Bearing

Even in the absence of substantial leverage, risk-bearing might appear to be a liability for worker-managed firms. Since workers generally cannot diversify their source of income by working for more than one firm at a time, it would seem advantageous to have the firm owned by investors, who would provide workers with some degree of job security and a contractually fixed wage. But it is extremely difficult to write a long-term contract with the requisite features. For example, it will be extremely difficult to set the wage term in such a contract; a guarantee of employment at some wage is about the best that can be managed. And this is roughly what one has with a worker-owned firm. Moreover, a truly long-term employment contract runs the risk of moral hazard on the part of the worker. It is presumably as a consequence of such difficulties that workers in fact bear substantial risk in investor-owned firms. Consequently, the risk-bearing features of worker ownership seem unlikely to be the reason they are so rare.

4. Homogeneity of Interest

The truly striking feature that seems common to virtually all well-established worker-owned firms, and that seems most clearly to divide these firms from those that are investor-owned, is that there is strong homogeneity of interest among the workers involved. In particular, what seems to be important is homogeneity of jobs and homogeneity of skills: labor cooperatives appear to work best where all of the workers who are also members of the cooperative perform essentially identical tasks within the firm. The importance of this factor, here as in the other industries we have considered, apparently is that it minimizes conflicts of interest among the cooperators in deciding significant questions of firm policy, and it reduces problems of fair division of the proceeds of the enterprise.

Evidence for the importance of job homogeneity is impressive. For example, the partners in law firms all have similar skills and perform similar tasks. For the most part, the partners handle clients on their own or in small groups; there is relatively little vertical division of labor or hierarchy among the partners in the firm. Further, the trial periods of roughly six years that young lawyers serve in law firms before being considered for partnership serve to permit the existing partners to select others to join them who are of like ability -- and like temperament, for that matter. And much the same is evidently true of accounting firms and other types of professional partnerships.

It is, in fact, striking that many large and highly successful law firms follow a practice of dividing income among partners strictly on the basis of number of years with the firm: all partners of a given length of tenure receive the same share.[64] Such a practice is presumably adopted in part because it reduces

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64. See Ronald Gilson and Robert Mnookin, Sharing Among the Human Capitalists: An Economic Inquiry into the Corporate Law Firm and How Partners Split Profits, 37 Stan L. Rev. 313 (1985).

considerably the costs of decision-making.[65] It is possible, however, only in a firm in which all owners make roughly equal contributions.

In the plywood cooperatives, the manager of the firm is hired by the worker-owners, and is not a member of the cooperative. The workers themselves self-consciously rotate jobs, presumably to eliminate conflicts of interest among workers doing different jobs: where all do the same jobs, equal division is a simple and workable sharing rule, and all the members will be affected similarly by any decision made by the firm.[66]

To the extent that workers in worker-owned firms perform different jobs, it seems to be important to the viability of the firm that the returns to those jobs be separable. The reason, evidently, is that this permits a differential division of the firm's earnings with a minimum of friction. Thus, some partners in law firms work longer hours, have greater skills, or bring in more new clients than others. Where such disparities are substantial, law firms sometimes use productivity-based formulas for dividing up earnings. Such formulas are feasible only where the returns to an individual worker's efforts are fairly easily observable, as they are in a law firm, in which such productivity

65. Such a sharing rule may also serve important risk-sharing functions. See id.

66. Egged, the large Israeli bus monopoly, is yet another example. It is a workers' cooperative in which the bus drivers, and only the bus drivers, are the owners. The administrators, ticket agents, interpreters, and mechanics are all just employees. Again, the reason is presumably that, whereas it is easy to secure consensus among the bus drivers, it would be much harder to secure consensus among the bus drivers, the interpreters, and the ticket agents.

devices as hours billed to individual clients are available. In contrast, it is hard to imagine how one would even design a productivity-based compensation formula for managers in a large business corporation, much less reach agreement on the terms of the formula among the different managers themselves.

Such considerations of homogeneity of interest are evidently an important reason why worker-owned firms appear, as remarked above, not where worker productivity is particularly difficult to monitor, but on the contrary in those industries in which worker output seems relatively easy to measure. Thus it is that trash-collection crews, taxicab drivers, and service professionals are the types of workers who form worker-owned firms, and not blue-collar or white-collar workers who work in large teams.

It is, in fact, extremely difficult to find successful examples of worker-owned firms in which there is substantial hierarchy or division of labor among the worker-owners. On the contrary, there is substantial evidence of failure in efforts to create such firms. For example, the Israeli kibbutzim have long been among the most successful examples of cooperative enterprise in a free-market economy. When they began diversifying beyond their traditional agricultural operations, however, and undertook manufacturing with its need for division of labor and hierarchy, dissension began to be a problem, with the result that the kibbutzim in many cases ultimately decided to employ wage labor in the factories rather than making the factory workers members of the cooperative. Success with the worker cooperative form for agricultural operations, it appears, depends heavily on the fact that such operations involve relatively little division of labor.

Indeed, worker-owned firms in the service professions, where they are most commonly found, are in many ways analogous to the wholesale supply cooperatives that we examined earlier. The partners in such firms are in considerable degree autonomous workers, servicing their own clients. In many cases they could do nearly as well practicing on their own, or in much smaller groups, affiliating in various combinations only when necessary to deal with large or complex matters. This very separability in their services, which makes their individual contribution to the firm relatively easy to monitor, is what makes the incentive pay system that accompanies worker ownership so effective; it is possible to assign to each worker roughly that portion of the firm's earnings that he or she contributes, and thus give the worker a strong incentive for maximum productivity.

There are, however, economies in sharing common services, such as a library, secretarial staff, receptionist, data processing, record-keeping, and so forth. Such services can be, and often are, rented from a firm established to provide these services for multiple firms of professionals located in the same building. But there is at least some incentive for the professionals to own the provider of these common services collectively, to avoid the possibility that the provider will exploit a position of ex post monopoly. More importantly, the professionals may find it efficient to advertise collectively, as it were, by adopting a common brand (firm) name. And, as in the case of the wholesale cooperatives that provide common brand names to their member retailers, there is some incentive to own the brand name collectively to avoid monopolistic exploitation.

In a sense, then, worker-owned firms such as these might be viewed more appropriately as consumer cooperatives than as producer cooperatives: they are groups of independent firms that collectively purchase some common services.

VII. CONCLUSION

The preceding survey suggests that there are several reasons for the dominance of investor-owned firms in market economies. One is that market failure is a more serious problem in capital contracting than it is in the other markets -- such as the labor market and the product market --in which most firms operate. A second reason is that, however poorly situated investors may be to exercise effective control, there is seldom any other group of patrons who are in a better position to assert control. Where either of these conditions fails, other forms of ownership arise. Thus, when there is a serious problem of market failure in the firm's product or input markets, the firm is often organized as a consumer or producer cooperative or as a nonprofit.

Similarly, when some group of patrons other than suppliers of capital is in a good position to exercise collective control, consumer or producer cooperatives often arise even when the patrons in question are not faced with a substantial problem of market failure. The latter fact, it should be emphasized, suggests that the effectiveness of the oversight exercised by shareholders, even with the assistance of the market for corporate control, is distinctly limited.

In contrast to these considerations, risk diversification, which is often held up as a major advantage of investor ownership, seems to be a factor of only secondary importance.

In determining whether the costs of control will be manageable for a given class of patrons, homogeneity of interest appears to be a critical consideration. This is arguably the single most significant explanation for the widespread success of the modern investor-owned business corporation. It may also be the best explanation for the general absence of worker-owned firms, which otherwise have significant efficiency advantages.