

flexibility of choosing between asset and stock acquisitions, but also the mechanics of stepping up asset bases in stock acquisitions reflect remarkable sensitivity to the dynamics of stock sales. The Code appears elegant and efficient rather than intrusive.

IV Conclusion

One could not claim that taxes do not intrude upon or distort decisions that take place in corporate and capital markets.⁵⁹ I have tried to suggest in this essay that alongside these intrusions there also is positive interplay. There is reason to think that the positive interactions described in this essay are not accidental in the evolutionary sense, either because the drafters of the relevant Code sections knew just what they were doing or, more likely, because they could perceive some weaknesses in the available alternatives. On the other hand, the more one can explain those areas of tax law that interact positively with various policy goals, the more mysterious or troubling are those areas in which taxes appear to be violent intruders. But whatever the explanation of the positive role of tax law, the study of positive interactions between tax and other law will assist reformers who, when trying to minimize the intrusions of tax law, need to understand that tax and other law are sometimes complementary.

⁵⁹ Even if current stock prices reflect all pertinent factors, the fact remains that at the margin the tax system's preference for recognition, rather than periodic appraisals, affects the decision to hold or sell an asset.

Ownership of the firm

Henry Hansmann

I. Introduction

Most large-scale 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. Other ownership patterns are prominent in a number of important industries, however. Many firms, for example, are owned by their customers. These include not just consumer retail cooperatives, which are relatively rare, but also business-owned wholesale and supply cooperatives, which are quite common, as well as public utility cooperatives, mutual insurance companies, mutual banking institutions, and cooperative and condominium housing. Further, many firms are owned by persons who supply the firm with some factor of production other than capital. Worker-owned firms, which predominate in professional services such as law and accounting, are conspicuous examples, as are the agricultural processing and marketing cooperatives that dominate the markets for many farm products. Finally, a number of important service industries are heavily populated by nonprofit firms, which have no owners at all. In this essay I explore the economic factors responsible for these different patterns of ownership.

In recent years a number of scholars have explored various aspects

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Helpful comments on previous drafts were offered by Bruce Ackerman, Bengt Holmstrom, Reinier Kraakman, Michael Levine, Saul Levmore, Roberta Romano, Alan Schwartz, Jeff Strnad, and Oliver Williamson, by participants in the Conference on the Economics of Corporate and Capital Markets Law at Harvard Law School and the Conference on the Economics of Institutional Choice and Design in Vienna, and by participants in workshops at New York University, the University of Toronto, and Yale.

of enterprise ownership. In particular, Williamson¹ and Klein, Crawford, and Alchian² have dealt insightfully with the influence of transaction-specific investments on the assignment of ownership, and I shall draw heavily here on the concepts they have developed. Similarly, a number of writers have looked at questions of ownership in particular contexts. A particularly common focus has been worker ownership versus investor ownership, which has been examined thoughtfully by, among others, Jensen and Meckling.³ This essay extends the work of these and other authors⁴ by viewing ownership in a more general framework. In the process I seek to provide better perspective on existing theories, develop some significant considerations that have previously been neglected, and offer a more comprehensive and convincing explanation for the prominence of noninvestor-owned firms in many important industries.

The primary focus here is on firms, such as the publicly held business corporation, in which ownership is shared among a numerous group of persons. One reason for this emphasis is that such firms are the dominant actors in the contemporary economy. But another reason is that widely shared ownership gives rise to problems that call for special attention. In particular, one of the central themes of this essay is that large costs can be engendered by conflicting interests when the ownership class is heterogeneous, and that these costs are a primary determinant of the relative efficiency of alternative assignments of ownership. Such costs have previously received little attention in the literature on the organization of the firm.⁵

Although this inquiry is largely an exercise in positive social science, it also has an important policy dimension. There is considerable enthusiasm today for forms of ownership other than the conventional capitalist firm. This is particularly true of worker ownership, which is being pro-

1 The most recent and comprehensive treatment appears in Oliver Williamson, *The Economic Institutions of Capitalism* (1986).

2 Benjamin Klein, Robert Crawford, and Armen Alchian, Vertical Integration, Appropriate Rents, and the Competitive Contracting Process, *Journal of Law and Economics* 21:297 (1978).

3 Michael Jensen and William Meckling, Rights and Production Functions: An Application to Labor-Managed Firms and Codetermination, *Journal of Business* 52:469 (1979). See also the authors cited in Section V below.

4 E.g., Eugene Fama and Michael Jensen, Agency Problems and Residual Claims, *Journal of Law and Economics* 26:327 (1983).

5 For example, Williamson's work focuses most closely on situations involving single owners, as in his analysis of the considerations bearing on the efficiency of vertical integration between two firms. He has himself noted the need for further investigation of the relative efficiency of collective ownership of the firm by labor and other parties; see note 1, Williamson, pp. 265-8 ("The Producer Cooperative Dilemma").

moted by large tax preferences, by the recently chartered National Cooperative Bank, and by special corporation statutes for employee-owned firms that have been enacted in several states and are on the legislative agenda in others.⁶ It is 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 achieve 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 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.

A general framework is set out in Section II. That framework is then illustrated and elaborated in subsequent sections by application to the ownership patterns that appear in a number of different industries. Section III deals with investor-owned firms. Section IV examines customer-owned retail, wholesale and supply firms – an important and interesting class of firms that has largely been neglected in the economics and legal literature. Section V deals with worker-owned firms and seeks to offer a more convincing explanation for their pattern of development than has previously been given. Finally, Section VI briefly considers mutual and nonprofit firms.

II A theoretical framework

A The structure of ownership

A firm's "owners," as the term is conventionally used and as it will be used here, are those persons who share two formal rights: the right to control the firm and the right to appropriate the firm's residual earnings.⁷ The reference here to "formal" rights is important. Often the persons who have the formal right to control the firm – which typically takes the form of the right to elect the firm's board of directors – in fact exercise little effective authority by this means over the firm's management. It is sometimes said that the owners of such firms do not "control" them – hence the familiar references to the "separation of ownership

6 E.g., Massachusetts Employee Cooperative Corporations Act, Mass. Gen. Laws Ann. ch. 157A (West 1987). Connecticut, New York, Vermont, and Washington have adopted similar statutes.

7 The term "residual earnings" is used here to encompass all net returns to the firm, including net current earnings and the net increase in capital value of any assets or other rights that the firm itself owns.

and control.” Nevertheless, I shall be concerned here principally with explaining the way in which the *formal* (legal) rights to control and residual earnings are assigned. Indeed, an important implication of the analysis and examples offered below is that it is often efficient to assign the formal right of control to persons who are not in a position to exercise that right very effectively.

In theory, the rights to control and to residual earnings could be held by different persons. In practice, however, they are generally joined, since those with control would otherwise have little incentive to use their control to maximize the residual earnings. To be sure, if all aspects of control could be contracted for *ex ante*, then this problem would not arise. But control can usefully be thought of as authority over precisely those aspects of firm policy that, because of high transaction costs or bounded rationality, cannot be specified *ex ante* in a contract, but rather must be left to the discretion of those to whom the authority is granted.⁸

Nevertheless, not all firms have owners in the sense defined here. In particular, nonprofit firms are characterized by the fact that the persons who have formal control of the firm are barred from receiving its residual earnings.⁹ The same considerations, however, 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.

In the discussion that follows 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, including capital. Such persons – whether they are individuals or other firms – will be referred to here collectively 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 also true of the standard business corporation, which is owned by persons who lend capital to the firm. In fact, the conventional investor-owned firm is in a sense nothing more than a special type of producer cooperative – a lenders' cooperative, or capital cooperative. Because we so commonly associate ownership in general with invested capital, and because the comparison of investor-owned firms with other types of cooperatives will be at the core of the analysis that follows, it may be useful to elaborate on this point.

8 See Sanford Grossman and Oliver Hart, *The Costs and Benefits of Ownership: A Theory of Vertical and Horizontal Integration*, *Journal of Political Economy* 94:691 (1986).

9 See Henry Hansmann, *The Role of Nonprofit Enterprise*, *Yale Law Journal* 89:835 (1980).

Consider, first, the structure of a typical producer cooperative. A representative example is a dairy farmers' cheese cooperative, in which a cheese factory is owned by the farmers who provide the raw milk for the cheese. The firm pays the members a predetermined price for their milk on the occasion of each sale. (In keeping with conventional usage, the term “member” will be used here to refer to the patron-owners of cooperatives.) This price is usually set low enough so that the cooperative is almost certain to make a profit from its operations. Then, at the end of the year, any profits that have been earned from the manufacture and sale of the cheese are distributed *pro rata* among the members according to the amount of milk they have sold to the cooperative during the year. Voting rights are held only by those who sell milk to the firm, either on the basis of one member–one vote or with votes apportioned according to the volume of milk each member sells to the firm. Some or all of the members may have capital invested in the firm. In principle, however, this is unnecessary; the firm could borrow all of the capital it needs. In any case, even where members invest in the firm, those investments typically take the form of preferred stock that carries no voting rights and is limited to a stated maximum rate of dividends. Upon liquidation of the firm, the net asset value – which may derive from retained earnings or from increases in the value of rights held by the firm – is divided *pro rata* among the members, usually according to some measure of the relative value of their cumulative patronage.

In short, ownership rights are held exclusively by virtue of the fact, and to the extent, that one sells milk to the firm. On the other hand, not all farmers who sell milk to the firm need be owners; the firm may purchase some portion of its milk from nonmembers, who are simply paid a fixed price and do not participate in net earnings or control. (Consumer cooperatives are set up similarly, with net earnings and votes apportioned according to the amounts that a member purchases from the firm.)

A business corporation is also organized in this fashion, except that it is owned not by persons who supply the firm with some commodity, such as milk, but rather by some or all of the persons who lend capital to the firm. To see the analogy clearly, it helps to characterize the transactions in a business corporation in somewhat stylized terms: The members each lend the firm a given sum. For this they are paid a fixed interest rate, set low enough so that the firm has a reasonable likelihood of running at a profit. Then at the end of the year, any profits earned by the corporation (after all contractual expenses, including wages and the cost of materials as well as the fixed interest rate on the capital borrowed from the members, have been paid) are distributed *pro rata*

among the lender-members according to the amount they have lent. The firm may also have lenders who are not members. These lenders, commonly banks or bondholders, simply receive a fixed market interest rate and have no share in profits or participation in control.

As it is, in a business corporation the interest rate that is paid to lender-members (i.e., shareholders) is generally set at zero for the sake of convenience. Moreover, the loans from members are not arranged annually or for other fixed periods, but rather are perpetual; the principal can generally be withdrawn only upon dissolution of the firm. In the typical cooperative, by contrast, members generally remain free to vary their volume of transactions with the firm over time, and even to terminate their patronage altogether. This distinction is not, however, fundamental. Investor-owned firms can be, and sometimes are, structured so that the amount of capital invested by each member can be redeemed at specified intervals or even (as in the typical partnership) at will. Conversely, cooperatives can be, and often are, structured so that members have a long-term commitment to remain patrons. Electricity generation and transmission cooperatives, for example, commonly have requirements contracts from their members (which are local electricity distribution cooperatives) that run for thirty-five years.

Indeed, we can view business corporation statutes as simply specialized versions of the more general cooperative corporation statutes. In principle, there is no need to have separate business corporation statutes at all; business corporations could just as well be organized under a well-drafted general cooperative corporation statute. Presumably we have separate statutes for business corporations simply because it is convenient to have a form that is specialized for the most common form of cooperative – the lenders' cooperative – and to signal more clearly to interested parties just what type of cooperative they are dealing with.¹⁰

In short, ownership need not be, and frequently is not, associated with investment of capital. Rather, lending capital is simply one of many types of transactions to which ownership of a firm can be tied. A general theory of corporate ownership, therefore, must explain both why ownership is generally tied to transactions and what factors govern the particular class of transactions – whether lending capital, supplying other factors of production, or purchasing the firm's products – to which ownership is tied in any particular case.

10 Nevertheless, the term "cooperative" will be used below, as is conventional, to refer to patron-owned firms other than investor-owned firms, and without regard to whether the firm is organized under a cooperative corporation statute or (as is common for many cooperatives) under a business corporation statute or as a partnership.

B *An overview of the theory*

In principle, a firm could be owned by someone who is not a patron. 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(s) would simply have the right to control the firm and to appropriate its (positive or negative) residual earnings.¹¹ Such firms are rare, however. Ownership commonly 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 costs that would otherwise attend these transactional relationships if they were managed through simple market contracting.

More particularly, market contracting can be especially costly in the presence of those conditions loosely called "market failure," such as limited competition or asymmetric information. 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 between buyer and seller that underlies or aggravates many of the avoidable costs of market contracting.

Ownership can itself involve substantial costs, however, and, as we shall discuss below, these costs can be quite different for different classes of patrons. Efficiency will be best served if ownership is assigned so that total transaction costs for all patrons are minimized. This means minimizing the sum of both the costs of market contracting¹² for those patrons who are not owners, and the costs of ownership for the class of patrons who are assigned ownership. Thus, if there are N different classes of patrons who transact with a given firm, ownership will be assigned most efficiently to that class j that minimizes

11 To be sure, the exercise of control, even if it amounts only to the choice of a manager, may require some effort. The owner might therefore be considered a contributor of labor to the firm, and the residual earnings might be considered a return for that labor. Viewed this way, such a firm is simply a reductive form of worker-owned firm.

12 The discussion here is framed in terms of two polar ways of structuring transactional relationships: market contracting and ownership. In fact, as Williamson has emphasized, a variety of different types of "governance structures" are available for transactions. In particular, what here is loosely termed "market contracting" can take various forms, ranging from simple spot market contracting, in which competition is essentially the only safeguard for the parties, to highly interdependent forms of "obligational contracting." See note 2, Williamson, Chapter 3. In general, the term "market contracting" will be used here to comprise all forms of contracting other than ownership.

$$CO_i + \sum_{\substack{i=1 \\ i \neq j}}^N CC_i,$$

where CO_i and CC_i are, respectively, the cost of ownership and the cost of market contracting for class i . To the extent that efficient ownership forms are selected by market forces, or simply by rational choice among alternatives by the interested parties, the result will be the differential survival of those forms in which ownership is assigned to economize on transaction costs in this fashion.

To give this theory more substance, I shall survey the most significant types of costs that attend market contracting and ownership, respectively. Because most of these categories of costs are familiar, this survey will be brief, emphasizing only those considerations that have not been well analyzed before and that have special bearing on problems of collective ownership.

C The cost of market contracting

Although a variety of factors can make market transactions costly, there are three characteristic types of problems that arise commonly and can often be mitigated by assigning ownership to the patrons involved.

Market power. An obvious reason for assigning ownership to a given class of patrons is that the firm, owing to the relative absence of effective competition, has a degree of market power vis-à-vis those patrons. If, in such a situation, the patrons own the firm, they can avoid not only the efficiency losses that result from setting prices above marginal cost, but also the larger private costs that such prices would impose on the patrons.

Ex post market power (“lock-in”). As Williamson has noted, problems of price or quality exploitation can arise *after* a person begins patronizing a firm even when the firm has a substantial number of competitors at the time of initial contracting.¹³ These problems appear where the patron must make substantial transaction-specific investments¹⁴ upon entering into the transactional relationship and where complexity requires that some elements of the transaction be left unspecified initially and dealt with according to experience. Once such a transactional relationship has

13 See note 1, Williamson, Chapter 2.

14 That is, investments whose value cannot be fully recouped if the transactional relationship with the firm is broken.

been entered into, the patron becomes locked in to a degree, losing the option of costless exit in case the firm seeks to renegotiate the terms of the transaction in its favor as events unfold. Ownership of the firm by the patron reduces the incentives for opportunistic behavior of this sort. This consideration is now widely recognized as an important incentive for vertical integration between individual firms.¹⁵ It can also help explain why ownership is extended to whole classes of patrons.

Asymmetric information. Finally, contracting can also be costly when a firm has significantly better information than its patrons concerning the quality of performance that the firm offers or renders. Ownership by the patrons reduces the incentive for the firm to exploit such an information advantage.

Who owns whom? In the preceding discussion, I have been speaking of mitigating the costs of market contracting by having the patrons own the firm. Sometimes those costs could also be avoided by having the firm own its patrons. Where there is only one patron involved, and where that patron is itself a firm, there is frequently no distinction between these two forms of vertical integration. But, as Grossman and Hart have emphasized, the costs and benefits of ownership are sometimes asymmetric between the parties to a transaction; if the parties are to be integrated, one party may be the less costly owner. This is often the case in the situations of principal interest here, where multiple patrons are involved and where the patrons are sometimes individuals: Ownership of the patrons by the firm may be costly or infeasible where the reverse is not true. This is obviously the case when the patrons are individuals – customers or workers, for example – rather than firms; legal prohibitions on personal servitude as well as a variety of practical contracting problems then bar the firm from establishing effective ownership (and especially control) of its patrons. But ownership of the patrons by the firm may also be impractical even where the patrons are themselves firms. Consider, for example, the common case of wholesale cooperatives owned by the retail stores to which they sell. Ownership of the stores by the wholesaler may lead to loss of the strong incentives for efficient operation that exist when the stores are owned by their local managers, while the reverse is not true.¹⁶

15 See note 1, Williamson, Chapters 4 and 5; note 2 Klein, Crawford, and Alchian.

16 The essence of the problem is – as Grossman and Hart, note 8, describe – that even when two parties have been vertically integrated some decisions must be left to the discretion of the original parties themselves. A local retail store manager's actions,

D *Costs of ownership*

As already emphasized, the ownership relationship itself can involve substantial costs. The most significant of these costs can be grouped conveniently under three headings.

Monitoring. If a given class of patrons is to exercise effective control over the management of a firm, they must incur the cost of (1) becoming informed about the operations of the firm, (2) communicating among themselves for the purpose of exchanging information and making decisions, and (3) bringing their decisions to bear on the firm's management.¹⁷ These costs, which Jensen and Meckling have labeled "monitoring" costs,¹⁸ can vary widely among different classes of patrons. They are most likely to be small, relative to the value of the patrons' transactions with the firm, 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

for example, cannot be entirely controlled by the wholesaler even if the wholesaler owns the store; the manager necessarily retains some discretion over her own effort. Costs may be better internalized, therefore, if the manager is given (shared) ownership of the wholesaler, so that the residual returns from her personal actions, and control over those actions, are both left largely in her own hands.

17 It will be taken 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, note 1, Chapter 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. See Louis Putterman, On Some Recent Explanations of Why Capital Hires Labor, *Economic Inquiry* 22:171 (1984); Raymond Russell, Employee Ownership and Employee Governance, *Journal of Economic Behavior and Organization* 6:217 (1985); and Oliver Williamson, Employee Ownership and Internal Governance: A Perspective, *Journal of Economic Behavior and Organization* 6:243 (1985).

18 Michael Jensen and William Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, *Journal of Financial Economics* 3:305 (1976).

a prolonged period of time¹⁹ for amounts that are a significant fraction of their budget.

To the extent that the owners of the firm fail to exercise effective control over its managers, the managers are free to engage in self-dealing transactions and exhibit slack performance. As the literature on agency costs has emphasized, the costs from such managerial opportunism are sometimes smaller than the costs of effective monitoring, and thus it may be efficient for the owners to bear these costs rather than to seek to impose discipline on the firm's managers.²⁰

An equally important but less familiar point is that for a given class of patrons the costs of managerial opportunism may be worth bearing as an alternative to having no ownership at all. That is, just because a given class of patrons cannot monitor effectively, and thus cannot exercise much control beyond that which they would have simply by virtue of market transactions with the firm, it does not follow that there is no substantial gain to those patrons from having ownership of the firm. Or, put differently, it may be efficient to assign ownership to a given class of patrons even where, for those patrons, voice adds little to exit in the way of control.²¹ 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 serve you poorly; it is another to transact with managers who are actively serving owners with an interest clearly adverse to yours. Although managers may be able to appropriate, in the form of cash or perquisites, some of the potential gains from exploiting patrons, their ability to do this is limited. The self-dealing transactions necessary for managers to divert to themselves a significant fraction of the potential residual in a large firm will usually be difficult to conceal, and can generally be explicitly proscribed by contract or by law, thus exposing the managers to a variety of moral, contractual, tort, and criminal sanctions.²² This is in contrast to the situation of owners, who can easily and

19 The importance of the frequency of transacting in making "unified governance" – essentially ownership – an efficient form for transactional relationships has been emphasized by Williamson, note 1, Chapter 3.

20 See note 18, Jensen and Meckling.

21 Cf. Albert Hirschman, *Exit, Voice and Loyalty* (1970).

22 There is, however, one very costly managerial perquisite that may not be easy to proscribe or detect – namely, excessive retention of earnings. Retentions can benefit managers by creating a financial buffer against adversity and by increasing the size of the firm and thus the scope of the empire that they manage. To the extent that the returns from these retentions are below their opportunity cost, or simply cannot be recovered by the current owners of the firm, whatever their rate of return to the firm, the owners stand to lose. The excessive financial reserves accumulated by mutual

lawfully distribute to themselves directly any net earnings that accrue to the firm from exploiting patrons. Owners thus have a much stronger incentive to engage in such exploitation than do managers who are simply pursuing their own self-interest.

To be sure, while legal, contractual, and moral constraints may effectively prevent most managers from taking grossly excessive compensation from the firm, they will not necessarily insure that managers work hard and make effective decisions. Thus, if the firm's owner-patrons are poor monitors, managers might nevertheless exploit them severely and then simply waste the resulting earnings through organizational slack – in effect extracting the potential gains in the form of an easy life. But, while theory and empiricism on this issue both remain in flux, there is reason to believe that the incentive and opportunity for managers to engage in substantial waste in this fashion may be distinctly limited. For example, the desire of managers to keep and enhance their jobs, or to get another job in the future,²³ probably serves as an important check on such behavior.²⁴ Consequently, the fact that the firm's nominal owners are unable to exercise effective control may result in only a modest amount of organizational slack.²⁵ Indeed, large groups of firms that have prospered over long periods of time in competitive environments without any effective exercise of control by owners whatever – and even without any owners.²⁶

In summary, if all else is equal, then the patrons who are the lowest-cost monitors are the most efficient owners. But all else is often not

insurance companies seem to be a conspicuous case in point. See John Hetherington, *Fact v. Fiction: Who Owns Mutual Insurance Companies*, *Wisconsin Law Review* 1969:1068 (1969). This is arguably a problem in investor-owned firms as well. See Michael Jensen, *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*, *American Economic Review* 76:323 (1986).

23 Incentive pay schemes, such as stock options, can also help align managers' interests with those of owners. But if the owners are not in direct control, they are presumably in a poor position to design the compensation mechanism.

24 For a thoughtful survey of the general issue see Bengt Holmstrom and Jean Tirole, *The Theory of the Firm*, in Richard Schmalensee and Robert Willig, eds., *Handbook of Industrial Organization* (forthcoming).

25 This is an important point that is often neglected in the literature on corporate control, with its emphasis on the incentives for efficient management that accompany receipt of residual earnings. See, e.g., note 18, Jensen and Meckling; also Michael Jensen and Eugene Fama, *Separation of Ownership and Control*, *Journal of Law and Economics* 26:301 (1983) (emphasizing that a board with outside directors may exercise a significant check on managerial discretion even in nonprofit firms in which the directors are not in the service of owners).

26 See, in particular, the discussion of mutual life insurance companies and nonprofits below.

equal; sometimes a class of patrons who face high costs of monitoring also face unusually high costs of market contracting (owing, for example, to severe problems of asymmetric information). Those patrons may then be efficient owners, in spite of their high monitoring costs. The costs of market contracting that are avoided by giving such patrons formal ownership rights may well outweigh any accompanying increase in the costs of managerial opportunism. This was apparently the case with depositor-owned life insurance companies in the middle of the nineteenth century, and it is arguably true of most large investor-owned corporations today.

In the discussion that follows, the term "monitoring costs" will be used to denote the sum of (1) the costs actually incurred by the owners in monitoring management and (2) the costs of managerial opportunism that result from the failure to monitor perfectly. This is essentially equivalent to Jensen and Meckling's "agency costs"; the term "monitoring costs" is used here simply to focus attention on the factor that determines the upper bound of these costs, namely the costs that the firm's nominal owners would incur if they were to oversee management effectively.²⁷

Collective decision making. When ownership of a firm is shared among a class of patrons, a method for collective decision making must be devised. Most commonly a voting mechanism of some sort is employed, with votes weighted by volume of patronage, although some cooperatives adhere to a one member-one vote scheme.

As methods for aggregating the preferences of a group of patrons, such collective choice mechanisms often involve substantial costs in comparison to market contracting. Little attention has been devoted to these costs in the literature on corporate control and the economics of organizational form.²⁸ Nevertheless, they appear to be crucial in determining the efficiency of alternative assignments of ownership. These costs might, to be sure, simply be included as part of the monitoring costs discussed above. They appear to be of such special importance in

27 See note 18; Jensen and Meckling include a third element, "bonding expenditures by the agent," in their definition of agency costs. These bonding costs are not distinguished here from the other costs undertaken to control the managers.

28 A significant exception are Jensen and Meckling, note 3, 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" (pp. 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 (p. 494).

determining the patterns of ownership actually observed, however, that they call for separate treatment.

Although a variety of factors influence the magnitude of these costs, a fundamental consideration 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 similar quantities of a single homogeneous commodity, as in the case of the farmers' cheese cooperative described above – the costs associated with collective decision making are naturally small. Absent such circumstances, however, these costs may be large relative to those of market transactions. The costs can come in several different forms.

To begin with, even if no patron acts strategically, such processes may yield decisions that are collectively inefficient in the sense that they do not maximize aggregate patron surplus. Thus, if the preferences of the median voter are not those of the mean, a majority voting mechanism may yield decisions that are not only inefficient but inferior, from a welfare standpoint, to those that would be reached if the patrons simply contracted as individuals with a profit-maximizing firm.²⁹ A more serious version of this problem can arise if one group of patrons self-consciously seeks to use the collective choice mechanism to exploit another group – for example, by raising prices or cutting quality for services consumed primarily by the disfavored group. If becoming an owner requires making a transaction-specific investment that is at risk (such as a contribution of capital that is not easily recouped when the patron withdraws from membership in the firm), then the disfavored group could be much worse off as owners than if they dealt with the firm simply through market contracting.³⁰

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.

The essential distinction between ownership and market contracting here is that, when patrons deal with the firm simply through market

29 Kenneth Shepsle and Barry Weingast, Political Solutions to Market Problems, *Journal of Political Economy* 78:471 (1984).

30 For example, consider purchasing a top-floor apartment in a four-floor cooperative apartment building. Can one count on the occupants of the first three floors to support maintenance of the elevator or the roof?

contracting, they have no leverage over firm policy beyond the threat of withdrawing their individual patronage. With a collective decision-making mechanism, by contrast, subgroups of patrons with particular interests can often achieve disproportionate influence. Moreover, this problem is likely to be accentuated if, as is often the case, some patrons are better situated to participate effectively in collective decision making than others – for example, because of geographic accessibility to the firm, low opportunity cost of time, or special expertise.

On the other hand, even where patrons diverge considerably in interest, the costs associated with collective decision making may be low if there is some simple and salient 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. The empirical literature indicates strongly, however, that, in the absence of such a clear focal point for decisions, agreement may take a long time to reach and often in fact is never reached.³¹

There are, to be sure, also some potential *advantages* to collective decision making over market transactions. As Hirschman has pointed out, there are many circumstances in which voice can be more effective than exit as a method of communicating patron preferences to the management of a firm.³² The evidence suggests strongly, however, that collective decision making is more costly than markets in this respect in cases of even modest heterogeneity of interest among the class of patrons in question. For example, there are very few large firms in which ownership is shared among more than one class of patrons, such as customers and suppliers, or investors and workers. The conspicuous exceptions –

31 One striking example is the extreme difficulty in organizing multiple owners of drilling rights in a common oil pool to act collectively, even when the potential efficiency gains are very large and the number of owners is relatively small. See Gary Libecap and Steven Wiggins, Contractual Responses to the Common Pool, *American Economic Review* 74:87 (1984).

Elizabeth Hoffman and Matthew Spitzer, Experimental Tests of the Coase Theorem with Large Bargaining Groups, *Journal of Legal Studies* 15:149 (1986), report results in which even groups with as many as nineteen persons experienced little difficulty in agreeing collectively to contract on efficient terms with an opposing individual or group. In these experiments, however, all of the individuals within a given group faced essentially identical payoffs; consequently, the results do not provide much insight into situations in which interests differ significantly among the individuals involved.

32 See note 21, Hirschman.

such as German codetermination – have generally been imposed by law, and they apparently do not involve much true sharing of control.³³

Risk bearing. The preceding discussion has focused on the costs associated with the first element of ownership: the exercise of control. But costs are also associated with the second element of ownership: the receipt of compensation in the form of residual earnings. Most conspicuous among these is the cost of bearing the risk of the enterprise and is typically reflected in residual earnings. One class of a firm's patrons may be in a much better position than others to bear such risk, for example, through diversification. Assigning ownership to those patrons can then bring important economies.

This is a familiar explanation for the prevalence of investor-owned firms. It is not true, however, that lenders of capital are the only low-cost risk bearers. For example, consumers can also be in a good position to bear the risks of enterprise, particularly where the goods or services involved make up a small fraction of the consumers' budget or where the consumers are themselves firms that can pass the risk on to customers of their own who in turn are good risk bearers.

Another important consideration here, and one that has been little remarked upon, is that market contracting with a given class of patrons itself sometimes *creates* a substantial degree of risk that can be avoided by assigning ownership to those patrons. This is particularly likely to be the case where the patrons must enter into a long-term relationship with the firm, so that the terms of the contract between them become a gamble on future contingencies.

E. *Applying the calculus*

Any assignment of ownership involves important trade-offs between the costs of market contracting and the costs of ownership. The efficient assignment of ownership, to repeat, is that which minimizes the sum of such costs among all the patrons of the firm.

33 The German Codetermination Act of 1976 in essence gives shareholder representatives on the board of directors a casting vote in cases of impasse between labor and shareholder representatives. For a brief description, see Jan Svejnar, West German Codetermination, in Frank H. Stephen, ed., *The Performance of Labour-Managed Firms* (1982), p. 214. It seems plausible that the most important efficiency advantage of codetermination lies simply in giving worker representatives access to inside information, and thus reducing the possibilities for strategic or opportunistic behavior by management toward workers. See Masahiko Aoki, *The Cooperative Game Theory of the Firm* (1984), p. 167.

In the discussion that follows I explore the particular costs of ownership and of market contracting that affect various classes of patrons in different industries, and I seek to explain the patterns of ownership in terms of those costs. Although the six categories of costs set out above do not comprehend all the transactional efficiency considerations relevant to ownership, they usefully organize those that appear most important. Sometimes, to be sure, public subsidies or legal constraints also influence organizational form, and these will be acknowledged where they seem important.³⁴ Other considerations – such as the “horizon problem”³⁵ – that have been emphasized by other authors but do not seem fundamental in determining which forms of ownership survive, will be discussed in the context of particular industries that illustrate the issues involved.

The simple analytic framework outlined here, of course, does not provide a precise calculus for determining the efficient assignment of ownership in any given industry. Rather, its principal object is simply to help in asking the right questions. More particularly, by viewing the prevailing ownership pattern in different industries with this framework in mind, we can gain a much stronger appreciation for the relative magnitudes of the various costs associated with both market contracting and ownership.

III Investor-owned firms

Although many of the efficiencies of investor-owned firms are familiar, it is useful to review them in terms of the framework developed above.

A *Costs of market contracting*

Because capital markets today are highly competitive, market power is rarely an incentive for lenders of capital to become owners of a firm to which they lend. Rather, problems of asymmetric information and lock-in provide the strongest incentive for assigning ownership to investors.

34 For efforts to determine empirically the relative efficiency of cooperative and investor-owned firms in industries in which cooperatives benefit from subsidies, see Henry Hansmann, *The Law and Economics of Cooperative and Condominium Housing* (Working Paper No. 57, Center for Studies in Law, Economics, and Public Policy, Yale Law School [1987]), and Philip Porter and Gerald Scully, *Economic Efficiency in Cooperatives*, *Journal of Law and Economics* 30:489 (1987). (The latter authors, however, seem to impute to cooperatives in general some characteristics that may be induced by the tax laws.)

35 See note 66.

In theory a firm could borrow 100 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. And if, in practice, 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 for themselves only a specified rate of compensation until the loan had been repaid, this approach would be workable. But it is extremely difficult to write and enforce such a contract. And, without such contractual terms, the owners have an incentive to behave opportunistically, distributing to themselves dividends (or perquisites) that are unjustified by the firm's earnings or (what is harder to police) investing the proceeds of the loan in high-risk projects whose gains will go disproportionately to the owners and whose losses will fall disproportionately on the lenders.³⁶

If the loan proceeds are invested in assets that are not organization-specific, these problems can be largely avoided by giving the lenders a lien on the assets. Yet, as other scholars have emphasized, where the loan proceeds are in some part invested in organization-specific assets – and this will be the usual case – this solution is unavailable.³⁷

These problems of asymmetric information are substantially magnified by lock-in. If lenders could withdraw their investments from the firm at will, there would be a substantial check on the possibilities for managerial opportunism. But firms typically must undertake long-term investments, and these require long-term financing. Short-term borrowing not only involves the transaction costs of continuous refinancing but, more importantly, threatens inefficient runs on the firm's assets by its creditors.

As a consequence, the costs of managerial opportunism can often be significantly reduced only by having the lenders themselves, or some subset of them, own the firm.

B Costs of ownership

Diversification of risk is of course a conspicuous advantage of investor ownership. Another great strength of investor-owned firms is the fact

36 This problem has been well recognized in the context of determining debt-equity ratios for investor-owned firms. See Jensen and Meckling, note 18.

37 See note 2; Klein, Crawford, and Alchian, p. 321, seem to be the first to note clearly that problems of opportunistic expropriation of firm-specific assets are an important reason "why the owners of the firm (the residual claimants) are generally also the major capitalists of the firm."

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 or risk preference may lead investors to differ about the most appropriate financial policy for the firm. But even these differences can be eliminated to some extent if investors sort themselves among firms.³⁸

The great 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 – particularly where, in order to obtain access to a large pool of capital and to diversify risk, the firm's capital is drawn from a numerous group of relatively small investors. It is commonly argued that the market for corporate control – more precisely, the threat of takeover by a concentrated group of large investors who are in a position to act effectively – is an effective surrogate for the direct exercise of oversight and control by the firm's current owners in keeping corporate management in line. But, whether or not this view has some validity as a description of current reality,³⁹ the existence of the market for corporate control seems both inadequate and unnecessary to explain the great success of large business corporations with broadly dispersed share ownership. The market for corporate control has been highly active only for the past decade or two. Prior to that, hostile takeovers were rare, possibly because the managerial, financial, and legal innovations necessary to effect them were not well developed.⁴⁰ Yet widely held business corporations have been commonplace for the past century.

We might, therefore, draw another conclusion from the success of such corporations: Direct exercise of oversight and control by owners is not of decisive importance for the efficient conduct of enterprise; it is often worth trading off in favor of the other cost factors outlined above.⁴¹ Under this view, much of the protection that the investors in a widely held investor-owned firm have from opportunistic behavior on the part of the firm derives simply from the absence of a class of owners

38 Cf. Harry DeAngelo, Competition and Unanimity, *American Economic Review* 71:18 (1981).

39 See Michael Jensen and Richard Ruback, The Market for Corporate Control: The Scientific Evidence, *Journal of Financial Economics* 11:5 (1983).

40 See, e.g., note 1 Williamson, p. 321.

41 This is arguably supported by the findings of Harold Demsetz and Kenneth Lehn, The Structure of Corporate Ownership: Causes and Consequences, *Journal of Political Economy* 93:1155 (1985), who report no empirical correlation between ownership concentration and profitability of investor-owned firms.

with interests contrary to theirs.⁴² But, as suggested earlier, this may be important protection, and worth the costs of some managerial slack.

IV Customer-owned retail, wholesale, and supply firms

A Retailers of consumer goods

In the popular mind, 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 0.25 percent of the overall consumer goods market.⁴³

The small market share held by retail cooperatives is understandable in terms of the cost considerations outlined above. The costs of customer ownership for many consumer goods and services are high: The customers of any given retail firm are commonly so numerous, transitory, and dispersed that organizing them effectively would be excessively difficult. And for those goods for which the costs of customer ownership might be manageable – for example, items such as food and clothing that comprise a significant share of consumer budgets – the costs of market contracting are typically low: Retail markets for such items are sufficiently competitive to keep prices close to cost, and the goods and services themselves are sufficiently simple or standardized, or are purchased so repetitively, that asymmetric information about quality is not a serious problem.

The single retail market in which consumer cooperatives have established significant market share is the market for books, where cooperatives account for nearly 10 percent of all sales.⁴⁴ 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 market power in the textbook market; there is usually room for only one important seller of textbooks on a campus, evidently be-

42 In investor-owned firms the problem of managerial opportunism may also 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. See, e.g., Yakov Amihud and Baruch Lev, Risk Reduction as a Managerial Motive for Conglomerate Mergers, *Bell Journal of Economics* 12:605 (1981).

43 Richard Heflebower, *Cooperatives and Mutuals in the Market System* (1980), p. 4.

44 *Ibid.*, p. 124.

cause of the substantial economies in having a single organization assemble information about the texts to be assigned for courses and the projected class enrollments. The costs of ownership are also favorable: The amounts spent on books are a significant fraction of a student's 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

While consumer-owned retail stores are rare, wholesale and supply firms that are owned by the retailers or other businesses to which they sell are common. For example, although consumer cooperatives constitute less than .05 percent of the retail market for groceries,⁴⁵ retailer-owned wholesale cooperatives in 1985 accounted for 14 percent of all groceries distributed at the wholesale level, and 31 percent of the market if we exclude internal distribution within chains having integrated wholesale and retail operations.⁴⁶ Retailer-owned wholesale cooperatives are even more important in hardware, where they have 50 percent of the market.⁴⁷ Bakeries commonly obtain their supplies from firms that they own as cooperatives.⁴⁸ And the largest international news service, Associated Press, is cooperatively owned by the thousands of newspapers and broadcasting stations it serves.

Costs of market contracting. Market power appears to provide the principal incentive for customer ownership in many of these cases. The grocery business, for example, is highly competitive at the retail level. If independent stores are to compete with the large chains, which maintain their own wholesale distribution systems, they cannot afford to pay pure profits to a wholesaler. Yet economies of scale at the wholesale level generally leave room for at most a few firms to serve the independent retailers in a given area, so that the wholesalers have a degree of market power. Consequently, there is an incentive for retailers to avoid 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

45 *Ibid.*, p. 4.

46 *Progressive Grocer* 65:8 (April 1986).

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

48 See note 43, Heflebower, pp. 114–15.

United States, United Press International and Associated Press, the former investor-owned and the latter a cooperative.

Another 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 achieve considerable economies in packaging and advertising through 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."⁴⁹ 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 and Ace Hardware are familiar examples.⁵⁰

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 purchasing their supplies from it, as in the typical franchise arrangement, and this form of organization is in fact common in wholesaling.⁵¹ But there is a lock-in problem, since the retailer can incur substantial costs from loss of the local goodwill it has built up if it changes its brand name affiliation.⁵² Collective ownership of the franchiser by the retailers obviates this difficulty.

Costs of ownership. Costs of ownership are also strongly conducive to customer ownership here. A retail grocery or hardware store, for example, generally purchases 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

49 Ibid.

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

51 IGA is an example in the grocery business. Interestingly, IGA is itself a *wholesaler's* cooperative owned by its twenty-two affiliated wholesalers. Ronald Tanner, Sixty Years of IGA: A Saga of American Independence, *Progressive Grocer* 65:25 (1986).

52 The economies of a common brand name presumably also help to explain the substantial economies of scale for wholesalers, and the consequent small number of competitors, that were noted above.

substantial losses. Consequently, risk bearing and liquidity constraints are not an important obstacle to customer ownership.

Finally, since retail hardware stores, or grocery stores, generally stock similar arrays of merchandise, their interests with respect to the wholesaler are reasonably homogeneous.

C Farm supplies

Farm supply cooperatives are a particularly prominent form of customer-owned supply firm. In 1983 there were roughly 2,200 such firms, which together accounted for 27 percent of the overall market for farm supplies – up from 23 percent a decade earlier. The cooperatives are particularly important in supplying petroleum products (34% of the market), feed (23%), fertilizer (18%), and farm chemicals such as pesticides (8%).⁵³

The large role of cooperatives in farm supplies can be explained by much the same considerations that are found in the case of retailer-owned wholesale cooperatives: The costs of market contracting are moderately high (owing to market power and, in some cases, asymmetric information about quality⁵⁴), and the costs of organizing farmers for effective ownership are relatively low (owing to the homogeneity of the commodities involved, the geographic concentration of farmers, and the fact that farmers typically patronize the same firm continuously over many years).

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. And the regional cooperatives, in turn, are sometimes federated into national cooperatives, some of which are large enough to appear among the *Fortune* 500 listing of the largest U.S. industrial corporations. Through this federated structure, reasonably effective patron control is evidently maintained even in the national cooperatives.

The regional and national 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 90 percent of the refineries' crude oil input, and

53 U.S. Department of Agriculture, Agricultural Cooperative Service, *Farmer Cooperative Statistics 1983*, pp. 10, 26.

54 Heflebower, note 43, Chapters 6 and 7.

pipelines that transport most of the oil from the cooperatives' wells to their refineries.⁵⁵ This indicates that, when conditions are favorable, relatively capital-intensive industries can be operated successfully as consumer cooperatives. Note, however, that when members of a cooperative have large capital investments in the firm, substantial conflicts of interest among groups of members can arise if one group supplies a disproportionate amount of the capital – since the apportionment of earnings between capital dividends and patronage dividends, which is necessarily a matter of judgment, can then be a subject of dispute. It is presumably for this reason that the more capital-intensive cooperatives have adopted elaborate schemes to keep members' capital investments proportional to their patronage.⁵⁶

D *Costs of contracting versus costs of ownership*

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

What is most striking about these industries is that the degree of product market failure that characterizes them, and that provides the impetus for customer ownership, appears relatively small. Many other industries presumably exhibit similar degrees of imperfection in their product markets. The distinguishing feature that has led to widespread development of customer ownership in the industries at hand, rather, seems to be that the costs of customer ownership are uncommonly low. Evidently even modest 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. To be sure, farm cooperatives have the benefit of favorable tax treatment, and this has presumably contributed to the cooperatives' market share. But farm cooperatives antedate these tax preferences, and the same preferences do not extend to the many wholesale and supply cooperatives found outside the agricultural sector.⁵⁷

55 Heflebower, note 43, Chapter 7 (figures from 1969).

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

57 Nonfarm wholesale and supply cooperatives benefit from no subsidies or other special privileges other than the right to be taxed according to Subchapter T of the Internal Revenue Code, which essentially applies to them a single tax – rather than the overlapping corporate and personal income taxes – somewhat along the lines of the tax treatment accorded partnerships and Subchapter S corporations. Since Subchapter T

V Worker-owned firms

Worker-owned firms are the dominant form of organization in the service professions, such as law, accounting, investment banking, and management consulting. They are also relatively common in some other service industries, such as taxicabs and trash collection.⁵⁸ 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.⁵⁹

Much ink has been spilled in recent years on the subject of worker-owned enterprise.⁶⁰ Nevertheless, a convincing explanation for the existing pattern of worker ownership has not been offered. That pattern, and the strengths and weaknesses of worker ownership in general, become more understandable when viewed in terms of the framework outlined in Section II.

A *Costs of contracting*

Few firms have labor market power in the service industries in which worker-owned firms are common. On the other hand, in many labor markets there is some degree of lock-in; 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. Moreover, workers and their families often develop nonfungible personal ties to the community in which their workplace is located, thus enhancing the lock-in problem. This problem may

is available to producer and consumer cooperatives in all industries, it should not directly affect the distribution of those forms across industries.

Farm marketing and supply cooperatives have the further benefit of exemption from the corporate-level tax on stock dividends and on certain forms of nonpatronage income under I.R.C. sec. 521. Since, however, farm supply cooperatives rarely pay stock dividends, it is not clear that this is an important reason why cooperatives are unusually prominent in this industry.

58 On worker ownership in the latter two industries, see Raymond Russell, *Sharing Ownership in the Workplace* (1985).

59 See Katrina Berman, *Worker-Owned Plywood Companies* (1967).

60 For surveys of the theoretical and empirical literature, see Avner Ben-Ner, *Producer Cooperatives: Why Do They Exist in Capitalist Economies?*, in Walter Powell, ed., *The Nonprofit Sector: A Research Handbook* (1987), Chapter 24; Frederic Pryor, *The Economics of Production Cooperatives: A Reader's Guide*, *Annals of Public and Cooperative Economy* 54:133 (1983).

be a substantial cost of labor contracting in many industries, and the potential for its elimination presumably provides an important incentive for worker ownership in general. But in itself it fails to explain the existing pattern of worker ownership since, as workers go, service professionals are exceptionally mobile.

The third of the basic costs of market contracting – asymmetric information – could also provide an incentive for worker ownership. In this case, however, the information disadvantage runs in the opposite direction from the cases we have analyzed above: The principal problem is not that the individual patron cannot police the firm's behavior,⁶¹ but rather the reverse. Where, as in the service professions, 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 integrate vertically to eliminate conflicts of interest between the firm and its workers, and thus give the workers stronger incentives for productivity. And since the firm cannot own the workers, the workers must own the firm.

An argument along these lines has been made before to explain the existence of worker-owned firms – most notably by Alchian and Demsetz.⁶² Among other difficulties,⁶³ however, this theory is contradicted by the fact that workers appear much *less* difficult to monitor in those industries in which worker ownership is common than in other industries. Law firms, for example, routinely keep detailed accounts of each lawyer's individual productivity in terms of revenue to the firm – something that would be impossible for workers in most other types of firms.⁶⁴

61 This is not to say that such problems do not exist. Indeed, as suggested in note 33, they may provide the best rationale for worker codetermination. As the codetermination example suggests, however, even minority worker representation on the board may be sufficient to eliminate the worst forms of opportunism from this source.

62 Alchian and Demsetz, *Production, Information Costs, and Economic Organization*, *American Economic Review* 62: 777 (1972). A similar argument appears, among other places, in Jensen and Meckling, note 3, and Russell, note 17.

63 In particular, where ownership of the firm is shared by a substantial number of workers, much of the incentive for opportunism would seem to remain: The individual worker will bear only a small fraction of the losses that the firm suffers from his or her shirking. On the other hand, the available evidence suggests that workers in worker-owned firms do not succumb much to this incentive to free-ride, and that worker ownership in fact has generally good consequences for productivity. See, e.g., note 59, Berman, chapter 12. This may be because mutual monitoring is fairly intense and effective under worker ownership, or because workers commonly respond more to the symbolism of ownership than to the actual incentives it creates.

64 As noted by Fred McChesney, *Team Production, Monitoring, and Profit Sharing in Law Firms: An Alternative Hypothesis*, *Journal of Legal Studies* 11:379 (1982).

In sum, there are probably substantial costs associated with labor contracting in nearly all industries, and these costs provide an incentive for worker ownership. Such costs seem unusually *low*, however, in industries where worker ownership is common. We must turn, therefore, to the costs of ownership to find an explanation for the existing pattern of worker ownership.

B Costs of ownership

Workers in nearly all industries are in a very good position, in comparison with other classes of patrons, to monitor 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 some aspects of them; and they are easily organized for collective decision making. This is not to imply, of course, that the typical shop-floor worker necessarily knows much about the firm's marketing problems or capital investment program. Rather, it is only to say that his or her opportunity and incentive to gain and use such information (or to locate, elect, and hold accountable representatives who will) is generally stronger than that of, say, the firm's customers or remote investors.

On the other hand, costs of risk bearing are often unfavorable to worker ownership. In discussing investor-owned firms, we noted that there are strong transaction-cost reasons for having the owners of the firm supply a substantial fraction of the capital needed to finance firm-specific assets. Yet if workers invest heavily in the firm for which they work, then their human capital and their savings, taken together, will be very poorly diversified – a problem with worker ownership that has frequently been noted.⁶⁵ It is not surprising, then, that those industries in which such firms are best established, such as law and accounting, are characterized by low amounts of organization-specific capital per worker.⁶⁶ Yet there are many service industries, such as retailing, hotel

McChesney's alternative hypothesis, that worker ownership provides a means for rewarding the promotional efforts of a firm's workers, is also unpersuasive, however.

65 See, e.g., James Meade, *The Theory of Labour-Managed Firms and of Profit Sharing*, *Economic Journal* 82:402 (1972); Jensen and Meckling, note 3.

66 Jensen and Meckling, note 3, argue that a major inefficiency of worker-managed firms lies in what they term "the horizon problem." By this they mean that when workers leave the firm they lose their share of the value of any capital that has been accumulated by the firm, and thus have insufficient incentive to invest in projects with long payback periods. Their analysis is confused by their assumption that it is, for unstated reasons, commonly impossible to arrange for the cooperators to redeem their equity share in

and restaurant services, and the construction trades, that are highly labor-intensive but are nevertheless populated largely with investor-owned firms.

To be sure, risk bearing might also appear to be a comparative liability for worker-managed firms even in labor-intensive industry. 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 job security and a contractually fixed wage.⁶⁷ But, presumably because of the difficulty of writing workable long-term employment contracts, workers in fact generally bear substantial risk – in the form of layoffs – even in investor-owned firms.⁶⁸ Consequently, the risk-bearing features of worker ownership seem unlikely to be the reason it is so rare.

Rather, 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.

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

the firm upon leaving or to sell it to a new worker. (A similar analysis also appears in Eirik Furubotn, *The Long-Run Analysis of the Labor-Managed Firm: An Alternative Interpretation*, *American Economic Review* 66:104 (1976).) In fact, schemes of the latter sort are not only feasible but frequently employed; in the Pacific Coast plywood cooperatives, for example, departing workers sell their position in the firm to new workers at fair market value. Berman, note 59. (Fama and Jensen, note 4, themselves recognize such schemes in the context of partnerships of professionals.) Indeed, what is most interesting is that cooperatives do not employ such schemes more extensively even where they are clearly practicable. Thus, farm-supply cooperatives, which are relatively capital intensive, typically redeem capital investments only at book value. The absence of more generous redemption plans suggests that, even without them, the horizon problem may not in fact be particularly important in firms in which membership commonly extends over many years.

67 As emphasized in the implicit contracts literature. See Sherwin Rosen, *Implicit Contracts: A Survey*, *Journal of Economic Literature* 23:1144 (1985).

68 Unionization may also be a factor here. See James Medoff, *Layoffs and Alternatives Under Trade Unions in U.S. Manufacturing*, *American Economic Review* 69:380 (1979).

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 true of 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.⁶⁹ Such a practice is presumably adopted in significant part because it reduces considerably the costs of decision making.⁷⁰ It is possible, however, only in a firm in which all owners make roughly equal contributions.

The plywood cooperatives, similarly, typically follow a rigid principle of equal pay for all worker-owners. The manager of the firm often is not a member of the cooperative, but rather is hired by the worker-owners. Worker-owners are generally capable of undertaking any job in the plant other than that of manager, since only semiskilled labor is involved. Job assignments are made according to a bid system, with more senior workers generally given preference, and there is much rotation among jobs.⁷¹ Such a system reinforces the equal pay rule and reduces conflicts of interest among workers: Where all workers do, or will ultimately do, the same jobs, they will be affected similarly by any decision made by the firm.⁷²

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

69 See Ronald Gilson and Robert Mnookin, *Sharing Among the Human Capitalists: An Economic Inquiry Into the Corporate Law Firm and How Partners Split Profits*, *Stanford Law Review* 37:313 (1985).

70 *Ibid.* Such a sharing rule may also serve important risk-sharing functions.

71 Berman, note 59, Chapter 10.

72 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.

to an individual worker's efforts are fairly easily observable, as they are in a law firm, in which such productivity 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 most large business corporations, 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.

Indeed, worker-owned firms in the service professions, where they are most commonly found, are in many ways analogous to the wholesale supply cooperatives examined above. 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 sometimes 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 problem of lock-in and subsequent exploitation. 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 deal with the additional lock-in problem that it creates.

It follows that worker-owned firms such as these can, alternatively, be viewed as consumer cooperatives rather than as producer cooperatives: In a sense, they are groups of independent firms that collectively purchase some common services.

VI Mutual and nonprofit firms

Mutual insurance companies, mutual banks, and nonprofit firms have been examined elsewhere in transaction-cost terms similar to those employed here. Several observations, however, are worth making.

A Mutual companies

Problems of asymmetric information were an important impetus to the formation of mutual (policyholder-owned) life insurance companies, while mutual property and liability insurance companies evidently arose in considerable part as a response to market power. In both cases, however, considerations of risk sharing also provided an important impetus for consumer ownership.

Life insurance contracts, for example, typically have a duration of decades and are written in terms of nominal dollars. Consequently, they involve a gamble on future interest rates and rates of inflation, and on the accuracy of mortality tables (which were quite crude in the nineteenth century, when the industry began). Stock insurance companies must charge substantial premiums for bearing these risks, which are largely nondiversifiable. Yet "insurance" for these matters is of little value to the insureds (and in fact constitutes a pure gamble so far as inflation is concerned). The mutual form eliminates these costs for policyholders, since, through adjustment in patronage dividends according to experience, only diversifiable risk is insured for. In short, mutuals permit pooling without creating the costs of risk bearing associated with long-term market contracts.

Similar considerations are operative in property and liability insurance. When the aggregate risk of loss for an industry as a whole is highly unpredictable – as it was in the early stages of the insurance industry, for example, and as it has become recently in medical malpractice owing to uncertainty about the legal standards of liability that will prevail when claims are litigated – the comparative advantage of the mutual form grows.

Other costs of ownership are less favorable to the mutual form. In particular, the policyholders in most mutuals are so numerous and so geographically dispersed as to make the exercise of collective control prohibitively costly. For example, the management of nearly all mutual life insurance companies has effectively been self-appointing and free of any direct control by policyholders whatever from the time the first such companies were established in the 1840s. Life insurance is thus a clear instance of an industry in which ownership has been assigned to a class of patrons in large part just to avoid the high costs of market contracting that those patrons would incur if ownership were assigned to anyone else.⁷³

Similar considerations explain the large role that mutual companies played in the savings bank industry in its early stages.⁷⁴

B Nonprofit firms

Nonprofit firms typically arise in situations in which two circumstances are conjoined. First, there is a class of patrons for whom the costs of market contracting are so severe – typically as a result of the patrons' extreme informational disadvantage – that assigning ownership to anyone else who could exercise it effectively would be impracticable. But, second, those same patrons are so situated that the costs to them of exercising effective control over the firm are unacceptably large relative to the value of their transactions with the firm. The solution to this strong conflict between the costs of contracting and the costs of control is to create a firm without any owners at all – that is, without anyone who has the right to both net earnings and control.⁷⁵

73 For more extended analysis see Henry Hansmann, *The Organization of Insurance Companies: Mutual Versus Stock*, *Journal of Law, Economics, and Organization* 1:125–53 (1985). See also David Mayers and Clifford Smith, *Contractual Provisions, Organizational Structure, and Conflict Control in Insurance Markets*, *Journal of Business* 54:407–34 (1981).

74 See Eric Rasmussen, *Stock Banks and Mutual Banks*, *Journal of Law and Economics* (forthcoming); Henry Hansmann, *The Role of Commercial Nonprofits: The Evolution of Savings Banks*, in Helmut Anheier and Wolfgang Seibel, eds., *The Nonprofit Sector: International and Comparative Perspectives* (forthcoming).

75 For a more detailed study of the nonprofit sector from a transaction-cost perspective similar to that developed here, including further observations on the respective roles of nonprofit and cooperative enterprise, see Henry Hansmann, *The Role of Nonprofit Enterprise*, *Yale Law Journal* 89:835 (1980). See also Henry Hansmann, *Economic Theories of Nonprofit Organization*, in Walter Powell, ed., *The Nonprofit Sector: A Research Handbook* (1987).

VII Conclusion

The preceding survey points to several reasons for the dominance of investor-owned firms in market economies. One is that contracting costs for capital are often relatively high as compared to contracting costs for other inputs – including labor – and for most products. 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 are serious imperfections in the firm's product or factor 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 faced with only modest problems of market failure. This suggests either that the effectiveness of the oversight exercised by shareholders – even with the assistance of the market for corporate control – is distinctly limited, or that other factors may be more important in constraining managerial opportunism.

In determining whether the costs of ownership are manageable for a given class of patrons, homogeneity of interest appears to be an especially important consideration. In particular, it is evidently a significant factor in the widespread success of the modern investor-owned business corporation, and it may be among the best explanations for the relative paucity of worker-owned firms, which otherwise have some significant efficiency advantages.