OWNERSHIP AND ORGANIZATIONAL FORM

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I. INTRODUCTION

In contemporary market economies, productive enterprise is undertaken predominantly by large numbers of relatively independent firms. Although in theory these firms could be organized in myriad ways, in practice they typically adopt one or another of a small number of standard forms. In this chapter we'll examine the basic elements of those forms and analyze the economic forces that induce their adoption.

We begin, in Section II, by exploring the basic legal nature and economic role of the firm. We focus on the firm as a *contracting entity*, and on the relationship between the two different boundaries of the firm: the *control* boundary of the firm and the *asset* boundary of the firm. In Sections III-VIII – the heart of the chapter – we then turn to the *ownership* of the firm. We examine why it is that a firm is typically owned by one or another class of its *patrons* – that is, its suppliers and customers -- and we seek to explain the choice of one or another class of patrons as owners as determined by a tradeoff between *costs of market contracting* and *costs of ownership*. We focus, in this connection, not just on investor-owned firms but as well on the surprisingly numerous forms of supplier-owned firms, customer-owned firms (including mutual companies), and employee-owned firms (including professional partnerships) that are found in modern economies. We also consider, in the same framework, nonprofit firms and governmental enterprise.

In Section IX, we briefly explore some further basic structural issues in firm organization, including basic patterns of owners' and creditors' rights. Section X asks why specific rules of law are important to firm governance. Section XI concludes with some questions about the future evolution of standard forms for organizing firms.

II. WHAT IS A FIRM?

The economics literature has long described a firm as a "nexus of contracts" (Jensen & Meckling, 1976). As it's come to be used, this expression is ambiguous. Often it's invoked simply to emphasize that most of the important relationships within a firm (including, in particular, those among the firm's owners, managers, and employees) are essentially contractual in character. This is an important insight, but it doesn't distinguish firms from other networks of contractual relationships.

A. Control: The Firm as a Nexus *for* Contracts

The more fundamental fact is that a firm is a nexus *for* contracts. More precisely, a firm is a common party to a group of contracts. Although authority in a single firm is often exercised through a cascade of relationships, as in the conventional pyramidal organization chart, that is not the way that a firm's contractual relations are organized. General Motors, for example, is the common

party to millions of contracts with the firm's investors, employees, suppliers, and customers. Employees of the Chevrolet division each have a contract of employment with General Motors, and not with the Chevrolet division, much less with departments or supervisors within the division. The same is true of suppliers of steel to GM or any of its divisions, and of dealers that purchase cars produced by GM.

Figure 1 offers a simple illustration. The nodes numbered 1 through 12 are distinct persons – either natural persons (individuals) or firms. The dark connecting lines indicate contractual relationships. For concreteness, we might assume that persons 1 through 4 are employees, that persons 5 and 6 are lenders of capital, that persons 7 and 8 are suppliers of other productive inputs, and that persons 9 through 12 are customers. Together, these persons constitute the "patrons" of the firm – that is, persons who have a contractual relationship with the firm as either suppliers or customers. In Figure 1a there is a single firm, designated A, with which each of the twelve persons as patrons. In Figure 1b, in contrast, the same persons are patrons of two distinct firms, designated B and C (which might or might not themselves be connected by contract, as indicated by the dashed line).

[FIGURE 1 ABOUT HERE]

A much-studied question, famously raised by Coase (1937), concerns the efficient scope (or "boundary") of an individual firm. One interpretation of this "boundaries" question is to ask which persons should be made patrons of a given firm. Under what circumstances, for example, is the one-firm structure in Figure 1a more efficient than the two-firm structure in Figure 1b? The answer to this question concerns, importantly, the appropriate scope of control for the managers of a firm. The owners of a firm, or their designated managers, have authority to exercise the discretion – that is, the residual control rights -- afforded by the various contracts to which the firm is a common party. In choosing between the alternative firm structures in Figure 1, for example, it is important to know whether it is more efficient to have discretionary authority over all contractual rights in the hands of a single management, as in Figure 1a, or divided, as in Figure 1b. Moreover, just as a firm can enter into contracts in its own name, it can own assets in its own name. Consequently, the firm's discretionary powers extend beyond its contractual rights to include the residual control rights that are a concomitant of ownership.

The determinants of the firm's boundaries in terms of control, and related issues of incentives, are surveyed in other chapters in this volume. Considerations beyond the scope of control are involved in choosing a firm's boundaries, however. In particular, there is the question of how the firm's contractual commitments are to be bonded.

B. Bonding: The Firm as Asset Partitioning

As a general default rule of law, the contracts entered into by a firm – or by any legal entity, including a natural person – are bonded by the assets owned by that entity, in the sense that a patron with an unsatisfied claim against the firm can seize the firm's assets to satisfy that claim. An important distinction between the organizational structures in Figures 1a and 1b, then, is that in Figure 1b the contractual claims of both patron 1 and patron 2 are bonded by all of the assets of Firm A, while in Figure 1b the bonding assets are partitioned into two separate pools, with the claims of patron 1 bonded by the assets (including contractual rights, such as accounts receivable) of Firm B, while the claims of patron 2 are bonded by the assets of Firm C.

This distinction becomes particularly salient when one firm owns another. Suppose, for example, that the two firms in Figure 1b are organized as separate business corporations, but that firm C is a wholly owned subsidiary of firm B (which we can now take to be indicated by the dashed line connecting them). In that situation, there is effectively no difference between the organizational structures in Figures 1a and 1b in terms of control: the managers of B can exercise as much control over the decisions of C as they could if C and B were merged into a single firm, as in Figure 1a. (The most direct route to this result is simply to install employees of B as the directors of C.) Yet the structures in Figures 1a and 1b would nonetheless remain very different in terms of creditors' rights. If C becomes insolvent, then a creditor of C – by which we mean any patron of C with an unsatisfied claim against the firm -- can proceed only against the assets of firm C. They have no claim on the assets of firm B, even if B is quite solvent, and even though B entirely owns and controls C. This is a consequence, of course, of the limited liability that is granted the owners of business corporations. In this sense, limited liability partitions the assets of Firms B and C between their respective creditors, giving Firm B's creditors exclusive claim on Firm B's assets.

But there is another aspect of asset partitioning that, though less often commented upon, is more fundamental than limited liability. To see this, suppose that firm B goes bankrupt while firm C remains solvent (that is, C's assets are more than adequate to pay what is owed to C's own creditors). Then C's creditors will be paid in full out of C's assets before any of those assets become available to satisfy B's creditors. That is, by virtue of the fact that B is a separate corporation, firm C's assets – and hence its creditors -- are shielded from the creditors of firm B. This is an example of the general characteristic of *entity shielding* that is a feature of all legal entities: creditors of the firm have priority of claim, over the creditors of the firm's owners, on all of the firm's assets. Entity shielding is, in a sense, the converse of limited liability, which is a form of *owner shielding* that gives the creditors of a firm's owners first (or exclusive) claim on assets owned directly by the firm's owners.

It is asset partitioning -- entity shielding and owner shielding -- that make the situations in the two diagrams above fundamentally different even when Firm B owns Firm C. And what is the advantage of the two-firm structure of Figure

1b? Most importantly, it can reduce the organization's overall cost of capital. Suppose, for example, that a firm in the airline business decides that, to realize some valuable synergies, it will also enter the hotel business. Then it is likely to be advantageous to set up the hotel business as a separately incorporated subsidiary, like C in Figure 1b, while the airline is operated by the parent, like B in that figure, or by another subsidiary of the parent. The reason is that creditors of the hotel business – lessors of land and buildings, vendors of furnishings, suppliers of linens, etc. – may be quite familiar with the prospects of the hotel industry in general, and with the management (and competitors) of C's hotels in particular, and hence in a good position to estimate the risks of doing business with C. At the same time, however, they may be quite unfamiliar with the airline industry, and hence poorly positioned to appraise the risks of being a creditor of B. With C separately incorporated, however, C's creditors can adjust their terms of business according to the risks posed just by C, and can largely ignore the likely fortunes of B. Likewise, creditors of B – such as lessors of aircraft and vendors of jet fuel – can focus principally on the risks of the airline industry, which they're well positioned to understand, and can largely ignore the likely fortunes of the hotel operations undertaken through the subsidiary C. Thus, the aggregate cost of credit – or, more generally, the aggregate costs of contracting – for the airline and hotel operations may well be reduced by organizing those operations as separate entities, even though they're under common overall management.

In short, by partitioning an organization's assets so that some are pledged to the patrons of one line of business while others are pledged to the patrons of another line of business, the two-corporation structure can reduce monitoring costs for creditors by allowing them to focus just on the assets and operations with which they have greatest familiarity.[1] That two-corporation structure may also bring added costs, however, by creating the potential for opportunistic behavior on the part of the parent firm B and its owners. Most obviously, B's owners might be tempted to drain assets out of C and into B, to the detriment of C's creditors, if it begins to look as if C will fail.[2] A variety of legal rules and contractual devices are designed to inhibit such opportunism, but they're imperfect. As a consequence, organizing the two commonly-controlled businesses as separate corporations, rather than as mere divisions within a single corporation, is efficient – holding other considerations constant -- when the

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[1] [Cite security interests literature on monitoring costs.]

[2] Opportunistic behavior of the reverse character, exploiting entity shielding rather than limited liability, is the problem if it is the parent corporation, B, that looks as if it might fail. In that situation, B's owners have an incentive to pass more of B's assets down to C, hence shielding them from B's creditors and permitting them to be used as security for further borrowing on the part of C. This tactic was central to the financial debacle at Enron, which created over a thousand subentities for the purpose of extensive nontransparent leveraging. The bankruptcy doctrine of substantive consolidation is a crude means of dealing with this form of opportunism.

reduction in the costs of creditor monitoring exceed the increased costs of opportunism on the part of the firms' owners.

Although we've focused on a corporate subsidiary to illustrate the role of the legal entity as a device for asset partitioning, the same considerations are involved in partitioning the assets of a firm from the assets of the firm's owners in general. In the conventional business corporation with multiple shareholders, for example, limited liability shields the personal (and other business) assets of the firm's owners from the claims of the firm's creditors, while entity shielding protects the firm's assets from the claims of the shareholders' personal creditors. In firms with multiple owners, moreover, both these forms of asset partitioning not only offer the monitoring economies described above, but facilitate the transferability of shares by making the creditworthiness of the firm largely independent of the personal creditworthiness of the firm's owners.

Limited liability has, until recently, been the principal focus of the literature on the economic relationship between organizational forms and creditors' rights (Halpern et al., 1980; Easterbrook & Fischel, 1991; Woodward, 1985). Yet entity shielding -- while until recently largely ignored (and even lacking a name) in the Anglo-American literature in both law and economics -- is the more elemental rule (Hansmann & Kraakman 1999, 2000; Hansmann, Kraakman, & Squire 2006). All standard legal forms for enterprise organization today offer entity shielding – that is, they give the creditors of the organization first claim on the organization's assets, ahead of the individual creditors of the firm's owners. Limited liability, in contrast, is not universal. The partnership, for example, offers entity shielding but not limited liability. And the partnership, not the corporation, was the dominant form for organizing commercial activity in Europe from the middle ages until the late 19th century.[3]

All this is logical. Limited liability demarcates the assets on which the creditors of the firm *do not* have a claim. Entity shielding demarcates the assets on which the creditors of the firm *do* have a (prior) claim – that is, the pool of assets that affirmatively bond the firm's contractual commitments.

C. The Boundaries of the Firm: Control versus Assets

We observed earlier that the "boundary of the firm" might be defined in terms of the scope of control -- that is, how extensive is the set of contractual and ownership rights that are subject to common control. But, as a legal entity, a firm is also defined by a set of bonding assets. In essence, a legal entity is comprised of (a) a designated person or persons who have the authority to enter into contracts and exercise ownership rights in the name of the entity, and (b) a

[3] The historical evolution is actually somewhat more complex. The partnership, though lacking limited liability, had a weak form of owner shielding throughout most of the past millennium. See Section IX below.

designated set of assets that bond those contractual commitments.[4] Because the legal literature is a bit vague and confused about the definition of a "legal entity," however, it is perhaps better, from an economic point of view, to use the neologism "contracting entity" to denote the category of legal forms that have these two attributes. All of the standard legal forms for enterprise organization – corporations, partnerships, limited liability companies, trusts, and even individual persons – are contracting entities, although some legal writers might not classify some of these forms (e.g., partnerships or trusts) as legal entities. In what follows, we'll use the term "entity" or "legal entity" to mean "contracting entity" as just defined.

In all of the standard legal forms for enterprise organization – the types of contracting entities that the law makes available – the organization's scope of control and its pool of bonding assets are coterminous, in the sense that the firm's bonding assets (the set of assets demarcated by entity shielding) comprise all of the contractual and property rights over which the firm has control. The reason for this is that legal entities serve, critically, as devices for signaling (or, as lawyers would put it, giving notice of) the assets that back contractual commitments. As illustrated in our discussion of the hypothetical organization that's engaged in both the airline and the hotel businesses, however, the efficient scope of control may be different from the efficient size of a pool of bonding assets. We might say that, in such cases, the efficient boundary of the firm for control purposes (the "control boundary" of the firm) is different from the efficient boundary for bonding purposes (the "asset boundary" of the firm).

In particular, as the airline/hotel example shows, the efficient asset boundary may be smaller than the efficient control boundary. In that case, the different business activities may be organized into two (or more) distinct entities, with one owned entirely by the other or with both owned by a third entity (such as a holding company). In subsequent sections, we'll focus principally on entities with multiple owners. But, for the reasons discussed above, entities with single owners can also be efficient, and are extremely common.

III. OWNERSHIP OF THE FIRM

In principle, the choice of a firm's owners is largely distinct from the determination of the boundaries of the firm, in the sense that ownership can be structured in any of a host of different ways for a firm with any given control and asset boundaries. In practice, however, the two questions are related, since the

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[4] A legal entity secures the claims of the entity's creditors in a fashion that is far more flexible than is possible with even the most modern forms of contractually-created security interests. In effect, an entity creates a form of lien, collectively held by the entity's creditors, that not only "floats" over the ever-shifting pool of assets owned by the entity, but that also floats over the ever-shifting set of firm creditors (Hansmann and Kraakman, 2000b). [Cite H & K on property rights from JLS?]

owners of the firm are generally a subgroup of the firm's patrons – that is, of the persons with whom the firm has a contractual relationship as suppliers or consumers.

A. Owned versus Unowned Firms

The *owners* of a firm – as that term is conventionally used, and as we'll use it here – are persons who possess two rights: the right to control the firm, and the right to appropriate the firm's net earnings. There are obvious incentive reasons for putting these two rights into the same hands: if those who control the firm aren't entitled to its net earnings, they have little incentive to maximize those earnings, and hence may manage the firm inefficiently. Consequently, most firms have owners. There are, however, some firms, such as nonprofit firms, in which the right to control is separated from the right to receive net earnings, making the firms ownerless (or, viewed differently, self-owned). In the discussion that follows, we'll focus first on the assignment of ownership in firms with owners, and then examine the reasons why some firms don't have owners. The approach overall will echo that followed in Hansmann (1996).

In speaking of the persons who have the right to control the firm, we'll mean here the persons who have what we might term ultimate, or formal, control rights. In a business corporation, for example, the owners – the firm's shareholders -- may not manage the firm directly, but may simply have the right to elect the firm's board of directors at regular intervals, and to vote to approve other major transactions such as merger or dissolution of the firm. And in a publicly traded corporation with highly dispersed shareholdings, even those rights may in practice be exercised very feebly, making the firm's management effectively self-appointing. For this reason, it's often said that such corporations exhibit a "separation of ownership from control." In the discussion that follows, however, such a statement is an oxymoron: ownership by definition comprises control. However attenuated the ultimate or formal control rights may be, in their structure or in their exercise, the persons who hold them are, for purposes of the discussion here, the firm's owners, so long as they also have the right to appropriate the firm's residual earnings. Consequently, the shareholders of a business corporation are clearly its owners, however attenuated their control over the firm's managers may be. An important reason for this usage is that, as we will discuss, the economic considerations that lie behind the choice of a firm's owners seem to apply to both weak and strong owners.

B. Ownership by Patrons

In theory, anyone could own a firm. In practice, however, the assignment of ownership follows very particular patterns. In particular, the owners of a firm are nearly always one or another subset of the firm's patrons – that is, persons who also have some transactional relationship with the firm, either as suppliers or customers, in addition to their possession of the rights of ownership. Often, that transactional relationship is the supply of capital to the firm, in which case we have the conventional investor-owned firm. Not infrequently, however,

ownership of the firm is instead placed in the hands of another class of patrons. This is the case, for example, with producer cooperatives, consumer cooperatives, mutual companies, employee-owned firms, and governments (which, when democratic, are essentially a form of consumer cooperative). Indeed, such non-investor-owned firms play an astonishingly large role in modern economies, from consumer goods wholesaling and agricultural marketing to financial services and the service professions; we'll consider a number of representative examples below.

In general, ownership of a firm by its patrons can be structured in either of two forms. The most direct approach is simply to tie the attributes of ownership – control and earnings – directly to patronage. In farm marketing cooperatives, for example, it's common to allocate both votes and earnings to a member proportionately to the value of the agricultural goods that the member supplies to the firm. This is the approach followed in firms formed under cooperative corporation statutes. It's also the approach followed in investor-owned firms (e.g., firms formed under business corporation statutes), where votes and earnings are allocated proportionately to the amount of financial capital supplied to the firm. Indeed, an investor-owned firm is just a particular form of producer cooperative – a capital cooperative, as it were. Alternatively, if the patron-owners' principal form of patronage isn't the supply of capital, the patrons can also be given capital shares (sometimes involving only a nominal investment of capital), and ownership rights can be tied to those shares, whose ownership is in turn restricted to the class of patrons in question. Using the latter approach, producer and consumer cooperatives of any type, including employee-owned firms, can be – and frequently are -- formed under business corporation statutes and limited liability company statutes about as conveniently as under cooperative corporation statutes. The great flexibility of organizational law in this regard, particularly in the U.S., means that there is no simple correspondence between the standard legal forms for enterprise organization – the business corporation, the cooperative corporation, the limited liability company, the general partnership, etc. – and forms of ownership.

The literature on ownership sometimes speaks of "outside ownership," meaning ownership by investors of capital, versus "inside ownership," which is meant to include, in particular, ownership by employees. But this is potentially misleading. Lenders of capital and employees are both among the firm's patrons, as opposed to true "outsiders" who aren't patrons at all. A firm could, in theory, be owned by one or more persons who are true outsiders in the latter sense. Such owners would have roughly the character of pure Knightian entrepreneurs (Knight, 1921). They would control the firm and have the right to its residual earnings, but would not supply the firm with capital or otherwise transact with it (beyond providing the control that accompanies ownership). Firms of this character are rare, however.

Consequently, in exploring the assignment of ownership, we'll focus here on (a) why firms are owned by their patrons, (b) what determines which class of

patrons is given ownership, (c) why that class often – but by no means always – is a subset of the suppliers of capital, and (d) why some firms – such as nonprofit firms -- have no owners at all.

C. The Efficient Assignment of Ownership

The evident reason why ownership of firms is typically assigned to one or another class of the firm's patrons is to reduce the costs of contracting between the firm and those patrons. The circumstances surrounding the contractual relationship between a firm and its patrons – circumstances that might include, for example, market power, asymmetric information, or the need for the patrons to make transaction-specific investments – often place the firm in a position to behave opportunistically toward its patrons if it deals with them on an arms-length (or "market") basis. Making the patrons the owners of the firm reduces or eliminates the incentive for the firm to exploit that potential.

If this were the only consideration in the assignment of ownership, then efficiency would call for assigning ownership to the class of patrons for whom the costs of market contracting would be highest – or perhaps simply sharing ownership of the firm among all of its various types of patrons. But ownership, too, has its costs, including most obviously (though not necessarily most importantly) the agency costs associated with delegation of authority to the firm's managers. Some patrons are better positioned than others to keep those costs low. Consequently, when choosing which class of a firm's patrons are to be its owners, there can be a tradeoff between reducing the costs of contracting and reducing the costs of ownership. Moreover, the costs of market contracting for any given class of patrons may be affected by which group, among the firm's other patrons, is given ownership. Efficiency therefore calls for assigning ownership in a fashion that minimizes the total costs of contracting and of ownership for all of the firm's patrons combined. That is, in a firm with *n* groups of patrons, the efficient assignment of ownership is to the group that satisfies

$$(1) \qquad \min_j C_j^o + \sum_{i=1}^{n} C_{ij}^c$$

where C_j^o is the cost of ownership when patrons in group *j* own the firm and C_{ij}^c is the aggregate cost of contracting for patrons in group *i* when group *j* owns the firm (Hansmann, 1988; 1996).

The costs of market contracting can, of course, commonly be reduced or eliminated not just by having the firm owned collectively by its patrons, but conversely by having the firm own its patrons – as when a firm integrates upstream to own its suppliers or downstream to own its customers. Often, however, there are strong incentive reasons to keep each of the patrons under separate ownership, whether the patrons are individuals (where ownership by the

firm implies slavery) or small businesses. It's the latter situations, where we find a firm owned by a numerous subset of its patrons, that are our focus here.

D. Market Selection

If ownership is generally easy to reassign from one group of patrons to another, and if neither organizational law nor taxation nor regulation strongly influence the choice of ownership form, then – by virtue of market selection and self-conscious choice – the patterns of ownership we observe should generally be efficient. As it is, these conditions are reasonably well satisfied in the U.S.[5], and apparently hold to a rough approximation in most other developed economies as well. Consequently, existing patterns of ownership should offer evidence as to the relative importance of the various costs of contracting and ownership. With this in mind, we'll proceed here to look first at costs of contracting, and then at costs of ownership, with examples of industries where these costs seem conspicuous in determining which patrons own the firm.

IV. THE COSTS OF CONTRACTING

There are a variety of costs associated with arms-length contractual transactions that can be reduced by bringing the contracting parties under common ownership. We focus here on four that seem particularly important in explaining the patterns of ownership observed in market economies.

A. Simple Market Power

Situations in which a firm occupies a position of monopoly or monopsony vis-à-vis one or another class of its patrons offer conspicuous examples of the assignment of ownership to reduce the costs of contracting. Many types of firms organized as producer or consumer cooperatives fall into this category. Conspicuous among these are agricultural marketing cooperatives, which handle a large fraction of basic crops – from corn and wheat to oranges and nuts -- grown in the U.S. and other developed economies. These cooperatives clearly arose in response to the economies of scale that gave purchasers of crops substantial market power in comparison to the otherwise highly fragmented farmers who grew them. The consumer cooperatives that distribute electricity to many communities in the American West constitute another clear example, with the cooperatives avoiding both the costs of monopoly and the costs of public rate regulation.

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[5] That's not to say they hold perfectly. Most conspicuously, some service professionals have been constrained by law, or by the profession's internal discipline, to practice only in employee-owned firms. This was the case for doctors in the U.S. until 1973, for example, and remains the case for lawyers today.

Stock exchanges have historically provided yet another example. The liquidity offered by the exchanges depends on a high volume of trading, resulting in large economies of scale and consequent market power. In response, exchanges have commonly been organized as cooperatives, collectively owned by their major customers, who are the brokers and dealers with rights to trade on the exchange. The recent trend toward converting major exchanges from broker cooperatives to investor ownership evidently reflects changes in the technology of trading that increase the competition that alternative trading forums offer to the established exchanges, reducing the exchanges' market power (Lee, 1998; Pirrong, 2000).

B. Ex Post Market Power ("Lock-in")

Another common source of the costs of contracting that create an incentive for assigning ownership to a particular class of patrons is the "ex post small numbers situation" (Williamson, 1986) that results when patrons must make transaction-specific investments after choosing the firm with which they'll transact. Franchising offers a clear illustration. Franchisees commonly must make substantial investments that are specific to the franchisor with which they have a licensing agreement. The familiar result is to provide scope for franchisor opportunism. The problem is aggravated by the need to give the franchisor substantial discretion to alter its mode of operation (products offered by the franchisees, etc.) and to discipline errant franchisees. The problem can be solved by having the franchisor own the franchisees. But this eliminates the strong incentives for local efficiency that derive from having each store owned by its local manager. Consequently, the opportunism problem is commonly addressed in the reverse fashion, by making the franchisees, collectively, owners of the franchisor.

Credit cards provide a prototypical example. Originally, the VISA credit card concept and brand name were created and owned by Bank of America, which licensed other banks to sell VISA cards for which the local bank would provide the credit, while Bank of America managed the central credit clearance system and provided general advertising. Eventually, however, Bank of America encountered growth-limiting resistance from banks that were current and prospective VISA card franchisees, based on concerns that the banks were excessively vulnerable to opportunistic behavior by Bank of America. Consequently, Bank of America sold VISA to its (then hundreds, now thousands) of franchisee banks. When, subsequently, the competing MasterCard credit card franchising system was created, it was organized to be collectively owned by its franchisee banks from the start.[6]

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[6] In 2006, faced with threatened antitrust enforcement based on the overlapping ownership of the VISA and MasterCard systems that had evolved, MasterCard converted to investor ownership via a public offering of stock, though the franchisee banks retained voting control over the firm.

Franchisee-owned franchisors are extremely common in general. At one time most consumer hardware in the U.S. was marketed through seven national franchise systems (e.g., True Value Hardware, Ace Hardware), each of which was collectively owned by its several thousand franchisees, which were local independently owned hardware stores. Similar franchisee-owned franchisors have provided central marketing and distribution services for large market segments in other industries, including groceries, baking supplies, van lines, and news reporting.

Because franchisee ownership is so effective in mitigating the problem of franchisor opportunism without altering the other advantageous structural features of a franchise relationship, it might seem the natural form of organization for all mature franchise systems. Nonetheless, many franchise systems – most notably those in the fast food business – remain investor-owned rather than franchisee-owned. We'll return to the reasons for this when we examine the costs of ownership.

The lock-in problem also provides an incentive for collective tenant ownership of apartment buildings (as in cooperative and condominium housing) and for collective employee ownership of the firms that employ them (as in partnerships of professionals, to which we'll return below).

C. Asymmetric Information

A firm's customers or suppliers may also be vulnerable to costly opportunism because they're unable to observe or verify important aspects of the firm's performance of its contractual commitments. Again, patron ownership reduces the firm's incentive to exploit this informational advantage, and hence may reduce the costs of transacting. Simple but clear examples are provided by fertilizer and hybrid seed grain when these products were first commercially marketed to farmers early in the 20th century. It was difficult for farmers to evaluate the content of the fertilizers or seed grain offered for sale, and investor-owned producers exploited this vulnerability. In response, manufacture and sale of these products was undertaken by farmer-owned supply cooperatives. Investor-owned firms regained dominance in these industries only when, partly as a result of federal disclosure regulation, quality became observable and verifiable.

Life insurance offers another example. A whole life insurance contract requires the insured to make payments to the insurer throughout his lifetime, in return for the insurer's promise to pay a large sum to a third party beneficiary on the insured's death. This arrangement creates a natural incentive for the insurer to invest the premiums in highly risky ventures, or simply pay them out as dividends to the owners, since if the firm's reserves ultimately prove inadequate to cover its liabilities and it goes bankrupt, the losses will be borne largely by the policyholders. As a consequence, only mutual firms (policyholder cooperatives) were able to sell whole-life insurance policies in the U.S. prior to the advent of state regulation of insurance company reserves in the middle of the 19th century.

The most conspicuous example of ownership as a response to the costs of asymmetric information, however, is the conventional investor-owned business corporation. If a firm borrows most or all of its capital from non-owners via conventional debt contracts, the contracts must generally be long-term if the firm is to avoid repeated liquidity crises or hold-up by the lenders. But if the loans are long-term, the borrowing firm, like the early life insurance companies just discussed, has an incentive to behave opportunistically, investing the borrowed funds in excessively risky ventures or simply distributing them as dividends and leaving the resulting risk of bankruptcy to be borne largely by the lenders. In contrast to the situation with life insurance, moreover, this problem cannot easily be solved by public regulation of firms' investments. That approach works in life insurance because the firm's capital is held almost entirely in the form of financial investments whose risk profile is relatively easy to observe, and because the amount of capital that an insurance company must maintain to pay its future obligations to its policyholders is relatively easy to calculate. For other types of firms, however, regulation of investments for the sake of protecting creditors has proven largely impossible, as indicated by the progressive historical abandonment of both legal and contractual obligations for firms to maintain stated levels of "legal capital."

The more workable solution, instead, has generally been to make the lenders of capital, or a major subset of them, owners of the firm, hence removing the incentive for the firm to behave opportunistically toward them (Klein, Crawford, & Alchian, 1978; Williamson, 1985, Ch.12; Tirole, 2001).

D. The Risks of Long-Term Contracting

Contracts between a firm and its patrons can not only allocate risk, but sometimes create risk as well. This is particularly true when the contracts have very long terms. Life insurance again offers a clear example. A whole life insurance contract may well have an expected term of several decades. Consequently, if both premiums and death benefit are fixed in nominal dollars, the ultimate value of the contract to both the insured and the insurer will depend heavily on inflation rates, productivity growth rates, and mortality rates over the intervening period, all of which are difficult to predict, and were particularly unpredictable when the life insurance industry first began to grow in the early 19th century. The result was that life insurance contracts were essentially a gamble between insurer and insured on such macroeconomic factors, creating private risk that far exceeded social risk and raising the cost of the contract to both parties. This risk was substantially eliminated by giving collective ownership of the life insurance company to its policyholders, in the form of mutual companies, so that what policyholders lost on the gamble as insureds they gained as owners of the insurer, and vice-versa. This incentive for mutual life insurance companies arguably helps explain their dominance of the industry long after public regulation largely removed the risk of default by the insurers.

V. THE COSTS OF OWNERSHIP

Ownership, as we've noted, has two elements: receipt of residual earnings and exercise of control. Some of the costs of ownership, such as risk-bearing, are associated with the former, while others, such as agency costs and the costs of collective decision-making, are associated with the latter.

A. Risk-Bearing

For any given firm, some types of patrons are better situated than others to bear the risks of ownership. For large firms with publicly tradable shares, investor ownership has this strong and familiar advantage.

Proportionately speaking, however, most firms are insufficiently large to have freely tradable shares. Rather, if they are investor-owned, they must be closely held. As a consequence, customer ownership may offer comparable risk-spreading benefits.

More importantly, the risks of ownership are sometimes inversely correlated with other risks facing the firm's customers. Apartment buildings offer an example. It is common for retirees to sell their single-family homes and move into an apartment building, perhaps located in a climatically mild region such as Florida or Arizona. But if the retiree has an income that is fixed in nominal terms, as with a defined benefit pension plan, renting an apartment exposes the retiree to the risk of inflation or other factors that might raise nominal rents. Ownership of an apartment building by its tenants, as in a cooperative or condominium, financed via a mortgage with payments fixed in nominal terms, involves a large undiversified investment with risks that offset those imposed by the pension contract. In consequence, the apartment tenants are lower-cost risk bearers than are other potential owners.

But allocation of risk may not be a first-order consideration in the ownership of enterprise. Here as elsewhere, incentives seem to dominate risk-bearing. A particularly conspicuous illustration is offered by the millions of family-owned farms that dominate the production of staple grain crops in the United States. These farms are highly capital-intensive, sell their products in extremely volatile markets, and are quite undiversified (often depending heavily on a single crop). On top of this, competition is rigorous and the rate of technological progress is rapid, with the result that individual producers are constantly being squeezed out of business. Yet large-scale corporate farming under investor ownership has never made noticeable inroads on the sector despite the enormous advantages such a change would offer in risk-bearing. The reason, evidently, is that seasonality of crops frustrates specialization of labor and hence economies of scale,[7] and family ownership – in effect, employee ownership --

[7] [describe?]

provides strong incentives for high productivity.[8] And, importantly, families are willing to bear the extraordinary risks involved.

B. Agency Costs of Controlling Managers

Some classes of patrons are also in a better position than others to minimize the agency costs of controlling a firm's managers. In particular, some agents make better monitors than do others. Franchisees, for example, are good monitors of their common franchisor: franchisees necessarily know their franchisor's business well and are in constant contact with the franchisor and aware of its performance; moreover, good management of the franchisor has a large impact on the franchisee's own success. For similar reasons, farmers are good monitors of the marketing and supply cooperatives of which they're members.

By the same logic, employees should be good monitors of the management of the firm where they work. (One should have in mind here not just blue-collar assembly line workers, but key personnel such as plant foremen, division chiefs, and managers in engineering, finance, and marketing.) Yet employees rarely have ownership of large firms, which instead – at least in the U.S. and the UK -- are often owned by dispersed small shareholders who are relatively poor monitors.[9] Consequently, monitoring capacity is evidently not decisive in the allocation of ownershiip.

C. Collective Decision-Making

In firms with multiple owners, some means – typically involving voting -- must be used to aggregate the preferences of the owners for purposes of exercising control. Whatever the means chosen, it will bring costs of two types. First, there are the costs of the decision-making process itself. These include the time and effort needed to inform the various owners of the issues, to discuss the matters among the owners, and to make and break coalitions among subsets of the owners. Second, there are the costs of the substantive decisions taken, which may be inefficient as a consequence of problems in the process. For example, if majority voting is the method of decision-making employed, the result may be to take the decision representing the median rather than the mean of the owners (modeled in Hart & Moore, 1998). Or the decision may be skewed toward the interests of those owners who are better informed about their own

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[8] In firms that, unlike family farms, have large numbers of employees, employee ownership doesn't appear to lead to important increases in employee productivity [cites], presumably because most of the benefits of an employee's efforts are externalized to the firm's other employee-owners.

[9] Of course, shareholders in publicly traded corporations have the great advantage of information provided by market institutions – though this doesn't necessarily tell them where problems lie within the firm's management.

interests, or who are strategically positioned to control the agenda. The more heterogeneous the interests of a firm's co-owners, the higher the costs of both types are likely to be.

The patterns of ownership that we observe suggest that these costs of collective decision-making weigh heavily. In firms with only two or three owners, heterogeneity of interests is common. The prototypical example is the classic partnership in which ownership is shared between one partner who provides the firm's financing and another partner who manages the business. Evidently, with these small numbers, differences of interest can be resolved through negotiation. With larger numbers of owners, however, homogeneity of stakes is the overwhelming rule.[10] Not only is ownership confined to a single class of patrons -- such as investors of capital, employees, suppliers of some other factor of production, or customers -- but, even within that class, ownership interests are, or are structured to be, highly homogeneous. Thus, business corporations with more than a very small number of owners are typically owned only by investors of capital, and all owners are given common interests via shares of entirely homogeneous common stock.[11] Agricultural marketing cooperatives typically handle only a single type of crop, such as wheat or corn or cranberries, passing up economies of scope and risk diversification for the sake of having owner-members with essentially identical interests in all the firm's decisions. Employee-owned firms are generally owned by a single homogeneous class of workers – whether the drivers in a bus company or the senior lawyers in a law firm -- who perform very similar jobs and exhibit little vertical hierarchy among themselves.

Further evidence of the costs of collective decision-making can be found in other devices frequently employed to avoid conflicts of interest among the owners of a firm. A conspicuous example is the use of crude focal points -- such as a simple norm of equality -- to simplify decision-making. Thus, equality of compensation, or compensation according to a simple objective formula, is typical among the members of employee-owned firms. A striking instance is the once-common practice of allocating shares of earnings to partners in leading law firms strictly according to age, hence eliminating any financial incentive for productivity – all for the sake, apparently, of avoiding the internal conflicts that

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[10] While casual observation suggests that the number of firms with ownership shared among heterogeneous patrons falls off very rapidly when more than two owners are involved, we seem to lack systematic empirical evidence on the point. There may be a huge drop between the number of firms with two owners and those with three, or the number of firms may instead fall more continuously as the number of owners increases to as many as five or six. At stake is how much traction the Coase Theorem has in multi-actor settings.

[11] This phenomenon may lie behind Morck, Shleifer, & Vishny's (1988) finding that, when managerial stockholdings are large enough to represent a meaningful block of a firm's voting power, the size of those holdings correlates negatively with firm performance.

would accompany any effort to establish a more individuated compensation scheme.[12]

Franchise operations offer particularly strong evidence of the difficulty of creating institutions that discriminate among owners of a firm. As noted above, collective ownership of franchisors by their franchisees, though common in the sale of goods such as hardware and groceries, is rare among franchises for services such as fast food. A likely reason is that service franchises require that the quality of performance by franchisees be rigorously policed to avoid negative reputational externalities. This requires in turn that the franchisor be prepared to impose severe sanctions on errant franchisees, including, in particular, termination. The difficulty in deviating from a strong norm of simple equality of treatment among co-owners evidently renders franchisee-owned firms incapable of deploying such sanctions rigorously.

While it seems apparent from casual empiricism that the costs of collective decision-making play a decisive role in determining which allocations of ownership are efficient, the precise source of these costs is less clear. In particular, it isn't obvious whether the principal source of these costs lies in the processes of decision-making or in the nature of the substantive decisions reached. One might expect important insight into the nature and magnitude of these costs to come from the literature on political processes, but that is not the case. In fact, it may be that it's easier to study the costs of political-type collective decision-making mechanisms in firms than in governments, in part because firms are so numerous and operate under strong market selection and in part because, via the allocation of ownership, firms offer a clear choice between markets and politics as a means of aggregating the interests of the members of different classes of patrons.

VI. EMPLOYEE-OWNED FIRMS

Employee ownership has attracted particular attention in the industrial organization literature, and is a helpful focus for testing the relative importance of the various costs and benefits of alternative ownership structures. Employee-owned firms have long been particularly conspicuous in the service professions, including law, accounting, engineering, investment banking, advertising, and medicine, though in recent decades there has been a decided switch toward investor ownership in many of these industries, including the last three among those just mentioned. Various theories have been offered to explain these unusual and shifting patterns of ownership. Despite the prominence of

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[12] Another explanation offered for "lock-step" compensation in law firms – that it is a form of risk-sharing (Gilson & Mnookin, 1985) – not only seems inconsistent with observed behavior toward risk in other industries, such as farming, but is also inconsistent with the patterns of specialization observed in law firms (Garicano & Hubbard, 2005).

professional service firms in modern economies, however, there's no consensus on these theories.

One theory is that employee ownership serves to give stronger work incentives to hard-to-monitor employees (Alchian & Demsetz, 1972). A sophisticated variant on this theory is offered by Morrison and Wilhelm (2004; 2005; 2006), who seek to explain employee ownership in investment banking, and its recent decline, in terms of incentives for senior employees to commit credibly to train their juniors under circumstances in which customers cannot directly evaluate the quality of the services that the employees are capable of providing. But this theory faces serious obstacles. The most obvious and familiar obstacle – and one that faces any such effort to explain patron ownership as a means of dealing with moral hazard on the part of the patrons themselves rather than the firm – is the 1/N problem: in a firm with N worker-owners, a worker on average gets only 1/N of the returns to her increased effort. Alhough incentives for mutual monitoring might overcome this problem (Kandel & Lazear, 1992), the evidence is that it does not in professional partnerships (Gaynor & Gertler, 1995; Prendergast, 1999; Von Nordenflycht, 2006). Another difficulty with the worker incentive theory is that service professionals, relative to other employees, appear relatively easy to monitor. Corporate lawyers, for example, commonly work alone or in small teams in which most of the other members are salaried associates, and document the use of their time – and the client to be billed for it – at 6 minute intervals. This contrasts markedly with, say, an assistant manager in the finance department of a large industrial firm, whose marginal contribution to the firm's annual revenues would be extremely difficult to measure. This is not to say, of course, that employee ownership has no positive effect on incentives, but only that this cannot explain why employee ownership arises in the service professions and not elsewhere.

A rather different theory is offered by Levin & Tadelis (2005), who explain employee ownership of professional service firms not as a means of reducing the costs of contracting between the firm and its employees, but rather as a means of reducing the costs of contracting between the firm and its customers. They focus on employee-owned professional service firms that have equal profit sharing or some other form of cross subsidy from more productive to less productive worker-owners. They argue that the clients of professional service firms have particular difficulty observing the quality of the services rendered them, creating a risk of moral hazard. That incentive, they suggest, can be offset by the incentive (Ward, 1958) for profit-sharing employee-owned firms to hire workers whose marginal productivity is (otherwise) inefficiently high, making those firms more trustworthy for their customers than are investor-owned firms. But this theory presents the difficulty, among others, that it is unclear why the index of productivity used by the employee-owned firms wouldn't include the potential for exploiting consumers' inability to judge quality.

Another theory, which is less intricate than those just mentioned and more consistent with the role of non-investor-owned firms in other sectors, is that

employee ownership in professional service firms serves, not to prevent the employees from behaving opportunistically toward the firm or its customers, but to prevent the firm from behaving opportunistically toward its employees. One potential source of opportunism is the employees' investment in firm-specific skills, such as knowledge of the firm's particular personnel, procedures, and clients. A second is the inability of employees, after the passage of years, to signal to other prospective employers their abilities. Since their current employer, to whom the employees' abilities are presumably well known, has little incentive to communicate those abilities truthfully to competitors in the labor market, the firm has the ability to pay the employees less than their marginal product.[13] Both these problems, to be sure, may well be less serious among service professionals than among the more senior employees of, for example, large manufacturing firms. But for professional service firms, the costs of employee ownership appear unusually low because of the great homogeneity of interests (deriving from the great homogeneity of jobs and talent and the concomitant absence of internal hierarchy) among the employees who share ownership. Moreover, the relatively low requirements for firm-specific capital in professional service firms permit the employees themselves to provide the necessary capital and avoid the costs of raising it on the market from non-owners.

If this is the correct explanation for employee ownership in professional service industries, then why has there been a recent trend toward investor ownership in some but not all of those industries? One possibility is that the quality of professional services, and of individual professionals, is becoming easier for customers to value, hence reducing firms' ability to avoid paying employees a competitive wage (and reducing their market power as well[14]). Another is that the capital requirements for some of these industries are growing. There is evidence of both phenomena, for example, in the investment banking industry (Morrison & Wilhelm 2005, 2006).[15]

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[13] Another incentive for employee ownership may come from the market power that established professional service firms arguably often have toward their customers – market power that derives from the customers' inability to judge the value or cost of services, and from the customers' perceived costs of switching suppliers (i.e., customers' supplier-specific investments) (Morrison & Wilhelm, 2006, Ch. [ ]). If it is relatively easy for the employees to establish ownership of the firm – i.e., the costs of ownership are low – then the employees can capture these monopoly rents for themselves.

[14] See note 13 above.

[15] Yet another explanation is that legal and professional association prohibitions on investor ownership, long present in many service professions, are being lifted. When federal legislation preempted such restrictions among doctors in 1973, for example, there was a large shift out of the partnership form, and likewise among investment banks after restrictions on ownership imposed by the exchanges were lifted in [1971]. Those prohibitions have commonly been justified as consumer protection, on the grounds that investor-owners will be less constrained by professional ethics than will the professionals themselves. It seems likely, however, that the

VII. NONPROFIT FIRMS

For some goods and services, the costs of contracting between firms and one or another class of their patrons is potentially extremely high, but at the same time the class of patrons in question cannot be organized to serve as effective owners at any feasible cost. In these cases, the efficient solution may be to create a nonprofit firm -- that is, a firm without owners. In these firms, control is separated from the claim to residual earnings by imposing a bar – the "nondistribution constraint" – on distributions of the firm's net earnings or assets to persons who control the firm. The consequence is that all of the firm's revenues must be devoted to providing services. By removing incentives for the firm's managers to earn profits, the incentive to exploit the firm's patrons is reduced.

Asymmetric information between a firm and its customers is typically the source of the contracting costs involved. More particularly, the problem is often that the firm's customers cannot observe the quantity of product or service that the firm provides in return for the price they pay. Such a situation arises commonly when an individual, out of philanthropic motives, seeks to purchase services to be delivered to needy third parties in distant places. Payments to an organization like Oxfam to deliver food to famine victims in Africa are an example. The contributors are in no position to determine how their individual contributions were used. If such a firm were owned by someone other than its customers, the firm would have an incentive to provide few or no services in return for the payments it receives. Prospective customers, expecting this, would refuse to patronize the firm. At the same time, however, the firm's customers (whom we refer to as donors) are too transient and dispersed to be organized, at any acceptable cost, as owners capable of monitoring the firm's managers effectively; consequently, customer ownership is not a viable solution. A similar problem faces firms producing public goods, such as cancer research or commercial-free broadcasting: a contributor may be able to observe both the quantity and quality of services that the firm is producing, but cannot determine whether, at the margin, her own contribution induced an increase in quantity or quality.

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prohibitions have also been sustained by the market advantages they give to established members of the profession. If risk capital for, say, law firms can only be obtained from the lawyers in the firms, then the prosperous older partners of established firms, who have the most capital to supply, can get an above-market rate of return on their capital; they need not compete with new investor-financed entrants. Likewise, traditional modes of practice, familiar to senior professionals but perhaps no longer efficient, will not be under strong pressure from new firms.

On the other hand, whatever the reasons for the restrictions on ownership form, their abandonment presumably reflects shifts in the underlying transactional efficiency of investor ownership versus employee ownership.

Of course, once those who control the firm are deprived of the profit motive, one must ask what incentive they have to put any effort into managing the firm whatever, much less into producing a level of quantity and quality acceptable to customers. The best explanation is that, in the absence of competing "high-powered" profit incentives, the managers' actions are guided by "low-powered" nonpecuniary incentives, including pride, professionalism, and identification with the goals of the organization (Glaeser & Shleifer, 2001).

While the nonprofit form seems most commonly to be a response to the problems of contracting when *quantity* is unobservable, there are also situations in which they are evidently a response to unobservable or unverifiable *quality*.[16] Nursing homes for the elderly – where, for example, sedating patients into inexpensive tractability is a tempting strategy for the producers -- are evidently an example.

The observed distribution of nonprofit firms across industries cannot, however, be assumed to be a strong reflection of their comparative efficiency vis-à-vis other ownership types. In comparison with firms with owners, transactions in control – and particularly conversions out of the nonprofit form -- may not occur whenever they'd be efficient. In principle, a nonprofit corporation can sell its business as a going concern to a proprietary firm and either donate the proceeds to another nonprofit organization and liquidate, or invest the proceeds in another activity that the nonprofit can manage more efficiently. By virtue of the nondistribution constraint, however, the managers who control a nonprofit cannot gain financially from such a transaction, and may in fact suffer from it both in financial (salary) and in nonpecuniary (interest and status of employment) terms. In this regard, it's particularly significant that the managers of a nonprofit firm don't bear the opportunity cost of the capital that the firm has accumulated. Moreover, a nonprofit firm can survive indefinitely even if it earns only a zero net rate of return on its (self-owned) capital, and can in fact grow if it earns any positive rate of return, no matter how small. Consequently, survivorship can't be taken as an indication of the efficiency of the nonprofit form as confidently as it can with proprietary forms of ownership.

This problem is compounded by the evolution of industries over time. The nonprofit form is sometimes the best or only way to organize production in the early stages of developing a new service, before effective mechanisms to monitor and pay for the service have been developed. When those mechanisms subsequently come into place, proprietary firms can take over production and the nonprofit form becomes anachronistic. Yet, because market mechanisms are weak in inducing exit by nonprofit firms, they may long continue to account for a large share of the industry's production. A conspicuous example is offered by nonprofit savings banks, which arose in the U.S. (and elsewhere) in the early 19th

[16] Glaeser & Shleifer (2001) interpret their model, which is the best we have, in terms of unverifiable quality, though it can as easily be interpreted in terms of unobservable quantity.

century because (as with life insurance), in the absence of public regulation, depositors could not trust that their savings would still be intact for withdrawal after many years in a proprietary bank's possession. Although regulation and deposit insurance long ago removed this reason for the nonprofit form, it continued to have a large presence in the industry until recent times (Hansmann, 1996, Ch. 13; Rasmusen, 1988). Similarly, there is evidence that nonprofit hospitals – originally donatively supported institutions providing services to the poor -- retain a large market share today not because they are more efficient than proprietary hospitals but because of weak mechanisms to induce exit (Hansmann, Kessler, & McClennan, 2003).

The distinction between formally nonprofit firms and firms that simply have extremely weak owners is vanishingly small at the margins. Mutual life insurance companies, for example, are in formal terms collectively owned by their policyholders (i.e., they're consumer cooperatives), and hence are in principle proprietary firms. Yet the firms' highly fragmented policyholders have little incentive or ability to exercise effective control over the firms' managers. As a consequence, most U.S. life insurance companies, from the time of their initial formation, have effectively been nonprofit firms, controlled by self-perpetuating boards of directors and holding a growing pool of assets whose value the policyholders do not entirely appropriate. Similarly, there is today little meaningful difference in the U.S. between mutual savings and loan associations, which are formally depositors' cooperatives, and mutual savings banks, which -- despite the term "mutual" -- are formally nonprofit entities.

Large business corporations with highly dispersed shareholdings that are largely free from the market for corporate control, as some U.S. firms (such as General Motors) arguably have been over substantial periods, may likewise be little different from nonprofit entities with respect to costs of ownership – which, for nonprofit firms, consist principally of managerial agency costs. There are, in fact, some industrial firms that are formally organized as nonprofit corporations, or very close to it. The most conspicuous examples are the "industrial foundations" that are common in northern Europe (though effectively proscribed by tax law in the U.S.). Typically these are business firms whose founders, upon their death, converted them into nonprofit firms dedicated simply to continuing their established line of business. Sometimes the operating company is itself incorporated as a nonprofit. Alternatively, the operating company continues as a business corporation whose stock is held entirely or primarily by a separate nonprofit foundation that has no other important purpose. Industrial foundations of the latter type in fact represent half the value of firms traded on the Danish stock exchange and, by various measures (e.g., Tobin's Q), seemingly perform as well as listed firms that are wholly owned and controlled by investors (Thomsen & Rose, 2004) – lending some support to the judgment that, even at the extreme, the agency costs of delegated management are relatively modest in comparison with other costs of ownership and with the costs of market

contracting.[17] Even with no owners at all – or, as we might say, even with a true "separation of ownership from control" -- firms can be managed with fair efficiency.

VIII. GOVERNMENTS

Governments fit comfortably into the analytic framework described here. In effect, governments are territorial consumer cooperatives. This is most obvious at the local level, where (in the U. S.) geographically contiguous residents are relatively free to form themselves into a municipal corporation. Municipalities commonly provide a package of collective-consumption services to their residents for a price collected as taxation. As Tiebout (1956) long ago suggested, these packages of services might instead be offered by proprietary firms for an annual fee. But if the consumers purchase real estate within the territory served by the firm, they become locked in to the service provider and hence subject to exploitation. And if the service provider itself owns all the real estate and rents it to residents, there will be poor incentives for the residential and commercial occupants of the property. The simple solution is to have the residents own their own homes and businesses and then collectively own the local service provider.[18]

IX. RESULTING PATTERNS OF ORGANIZATION AND OWNERSHIP

We have relatively little rigorous empiricism on the tradeoffs among the costs of ownership and the costs of contracting just surveyed. The general patterns of ownership that we observe do, however, permit some broad inferences about the relative magnitudes of these costs.

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[17] Even if these results prove robust and not idiosyncratic to the Danish environment, it's possible that the particular dual-level structure of these firms is an important factor. The industrial firms in the sample are themselves organized as business corporations, with a controlling majority of their shares held by a separate nonprofit foundation. Thus, in a sense, the industrial firms are proprietary firms with an owner – namely, the foundation. And though the foundation is nonprofit, its management may think of the operating company principally as a source of revenue for the foundation, and hence seek to assure that the company is managed with substantial efficiency. In a sense, this structure is an extreme form of a company with a dual board system – an outside supervisory board that chooses an inside managerial board – which is itself a formal extension of the idea of having a single board with a majority of outside directors. For analogous results involving nonprofit hospitals in the U.S., see Hansmann, Kessler, and McClellan (2003).

[18] Municipalities are, of course, not fully owned by the residents, but rather are on the previously discussed borderline between cooperative and nonprofit entities.

A. The Firm as a Political Institution

Perhaps most strikingly, the costs of collective decision-making through non-market mechanisms are evidently high and play a strong and even decisive role in determining which forms of ownership are viable. It is rare to see ownership in the hands of a heterogeneous class of patrons regardless of the costs of contracting that those owners face. Conversely, non-capitalist firms, such as employee-owned firms, are evidently quite viable when the class of patron-owners is highly homogeneous, even if the costs of contracting that those patrons would face if they weren't the firm's owners appear relatively small. This supports the conclusion that investor-owned firms are dominant in the economy in important part because, relative to other classes of patrons, the interests of capital suppliers can easily be made highly homogeneous (Jensen & Meckling, 1979).

B. Weak versus Strong Owners

The patterns of ownership that we observe support the inference that, among the factors that determine those patterns, the agency costs of delegated management are distinctly secondary.

To be more precise, let us imagine a firm with two classes of patrons. For class A, the costs of contracting are high, and so are the agency costs of delegated management; for class B, in contrast, both types of costs are low. For example, class A might be purchasers of whole life insurance, or savings bank depositors, in the early 19th century, while class B might be a small group of investors who can provide financing for the insurance company or the bank. Or class A might be a group of widely dispersed small investors and class B might be a reasonably homogeneous group of senior employees at the firm. In such a situation, the observed distribution of ownership suggests that it is generally more efficient to give ownership to class A: the costs of contracting avoided are greater than the agency costs of delegated management that are incurred. The reason, apparently, is that the difference in costs between tightly controlling owners and owners who are no more than nominal is modest compared to the potential costs of market contracting. Put differently, it's clearly important, in terms of overall efficiency, that vulnerable patrons not face a firm that's owned by others; it appears much less important that the patrons themselves, when made the firm's owners, be able to exercise much control over the firm.

C. Regulation and Capitalism.

The literature on corporate governance appropriately emphasizes the importance of capital market regulation for facilitating efficient investor ownership of enterprise. But regulation of other markets in which firms operate is also important in this regard. By reducing the costs of contracting for patrons other than investors, regulation of product and supply markets makes investor ownership feasible for industries that might otherwise be heavily populated with

cooperative, nonprofit, or governmental firms. Conspicuous examples are life insurance and savings banking, discussed above, and consumer goods in Sweden, where the absence of antitrust law long fostered a large cooperative sector (Hansmann, 1996).

X. FURTHER STRUCTURAL ATTRIBUTES OF THE FIRM

We observed earlier that, as a consequence of the protean character of the standard legal forms for enterprise organization (the business corporation, the partnership, the limited liability company, the cooperative corporation, the nonprofit corporation, etc.), there is only a modest correspondence between those forms and the choice of the class of patrons to whom ownership is assigned.[19] There are, however, some strong regularities across legal entity forms in the patterns of relationships that owners and other patrons have to the firm. This is most conspicuous with respect to claims on firm assets.

Asset partitioning in organizations exhibits a greater variety of forms than just those described in Section II. Owner shielding, for example, has exhibited a variety of different forms over time, of which three have been (and remain) particularly common.[20] These are:

> *Complete owner shielding* ("limited liability"), in which the personal assets of a firm's owner are completely shielded from the claims of the firm's creditors, as in a modern business corporation.
>
> *Weak owner shielding*, in which firm creditors have a claim on the personal assets of the firm's owners, but only a claim that is subordinated to the claims of the owners' personal creditors. This is the traditional rule for partnerships.
>
> *No owner shielding*, in which firm creditors can proceed against the personal assets of the firm's owners on equal terms with the owners' personal creditors. This has been the rule for American partnerships since 1978.

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[19] As a further indication of this, the nonprofit form is sometimes even stretched to be used for fully owned organizations, such as cooperative housing and stock exchanges.

[20] We will deal here only with liability toward voluntary (contractual) creditors, not involuntary (tort) creditors. The two types needn't be treated the same, and it's arguable that limited liability for tort claimants is in general an inefficient rule that survives because of severe collective action problems affecting potential tort victims (Hansmann and Kraakman, 1990).

Likewise, for commercial firms[21] there are two principal forms of entity shielding:

> *Weak entity shielding*, in which the personal creditors of a firm's owners have a claim on the assets of the firm, but that claim is subordinated to the claims of the firm's own creditors. This is the characteristic rule for partnerships.
>
> *Strong entity shielding*, which is like weak entity shielding except that personal creditors cannot force liquidation of the firm, but rather must wait until it voluntarily dissolves to assert their (subordinated) claim to its assets. This is the characteristic rule for corporations.

Closely tied to asset partitioning is the question of whether the owners of the firm have individual withdrawal rights. Passing over complexities, there are two principal possibilities:

> *Free withdrawal*, meaning that an individual owner of the firm can, at will, terminate his membership in the firm and withdraw his share of firm assets. This is the default rule in a general partnership.
>
> *No withdrawal*, meaning that an individual owner cannot withdraw his share of firm assets until the firm itself is dissolved by its owners acting as a group (though the owner may be able to transfer his ownership share to another person). This is the typical rule in a business corporation.

Though there are variations, these rights tend to come in particular combinations, of which two have historically been the most common. The first, the general partnership, combines weak (or no) owner shielding, weak entity shielding, and free withdrawal. The second, the corporation, combines complete owner shielding (limited liability), strong entity shielding, and no withdrawal. The elements of each of these two packages are complementary, largely based on avoidance of owner opportunism toward personal or business creditors. In the partnership, personal liability compensates firm creditors for the instability in the firm created by the right of the owners and their personal creditors to force liquidation of firm assets. In the corporation, strong entity shielding and the absence of withdrawal rights provide creditors with a reliable base of assets to compensate for the lack of a claim on owners' personal assets.

Although the corporate form was employed in ancient Rome (Malmendier, 2005) and medieval Genoa (Ferrarini, 2005), it didn't supplant the partnership for most commercial activities until the twentieth century. This wasn't just a demand-side evolution, driven by the need to accumulate larger amounts of firm-specific capital, since even small service firms – of the type once commonly formed as partnerships -- are now organized as corporations. Rather – though

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[21] Nonprofit corporations exhibit yet a third firm, complete entity shielding, in which creditors of the firm's (beneficial) owners have no claim on firm assets at all.

the issue remains a bit clouded -- it is arguably a consequence, in part, of (a) better creditor protection, both through bankruptcy law and through financial contracting and monitoring, and (b) better owner protection, through greater judicial sophistication in guarding minority shareholders (rendering it less costly for those shareholders to give up their withdrawal rights, which offer valuable protection against expropriation by controlling owners) (Lamoreaux & Rosenthal, 2006; Blair, 2003; Hansmann, Kraakman, & Squire, 2006).

XI. THE ROLE OF LAW

The mushrooming "law and finance" literature, seeded by the eponymous article of La Porta, Lopez-de-Silanes, Shleifer, & Vishny (1998), explores the empirical relationship between legal systems and the development of corporate capitalism. That literature has focused heavily on the importance of particular substantive provisions of the law, such as rules that govern shareholders' ability to control corporate managers ("anti-director rights"). By and large, however, that literature doesn't ask closely what makes rules of law important. To be sure, the law and finance literature examines the degree to which the law is effectively enforced. But that's a characteristic of the legal system in general, not of organizational law in particular. The harder question – one that arises at the intersection of Coase's two most famous articles (Coase, 1937; 1960) -- is why specific rules of organizational law should be important, given the possibility of contracting around those rules.[22]

We noted above that rules of law are necessary to define the control and asset boundaries of the firm, since these provide the background social conventions necessary for contracting to take place. Nearly all other aspects of entity structure, however, can in theory be determined by contract among the organizers of the entity and placed in the firm's charter (articles of association) or in shareholder agreements. This includes, in particular, the designation of the firm's owners and the allocation of earnings and control among them, as well as all details of the firm's internal governance structure. Thus, in principle, the modern statutory business trust offers all that is really necessary in a legal form for enterprise organization: it provides for contracting authority and strong entity shielding, but lacks even default rules for most other aspects of entity structure, which are left to be specified in the firm's "governing instrument." Yet the business trust is used almost exclusively for just two specialized purposes: asset securitization and mutual funds. Other types of organizations, instead, choose to form under much more heavily articulated statutes – such as a general business corporation statute, a limited liability company statute, or a cooperative corporation statute -- that offers specific rules governing nearly all aspects of

[22] Acimoglu & Johnson (2005) offer evidence that, in the long run, such rules of law aren't in fact important.

organizational structure. Moreover, while closely-held firms often adopt specially-crafted charter terms, publicly-traded business corporations rarely take advantage of the broad freedom given them to deviate from the default terms of the corporation statutes, no matter how controversial those terms are, adopting instead all the standard statutory provisions.

Just why this is so – why firms do not more commonly use individually tailored governance structures -- is not entirely clear. Nor is it clear why, if firms adopt standard-form structures, the standard forms they adopt are publicly-provided via statute rather than – like many other standard form contracts – privately drafted. Network externalities in marketing shares or in obtaining legal advice is one potential explanation (Kahan & Klausner, 1997). Another is that state-provided organizational law may be a solution to a severe problem of incomplete contracting. Firms with long expected lifetimes, such as publicly-traded business corporations, need to revise their governance structure as surrounding circumstances – such as the character of financial markets, or the nature of applicable tax and bankruptcy and labor law -- change over time. But recontracting among the firm's participants -- majority shareholders, minority shareholders, managers, and creditors – to amend the firm's own charter is a highly imperfect means to such adaptations. The available mechanisms for charter amendment are unlikely to lead to efficient results; one group or another will have either too much veto power over changes or too much leeway to force changes on the other participants. By deferring to the legally provided default terms, firms delegate this process of continual charter revision to the state, which – at least if it is a small and economically marginal state, such as Delaware -- is a reasonably neutral party that is likely to avoid strong capture by any of the interests involved in corporations, including controlling shareholders, public shareholders, managers, creditors, and employees (Hansmann, 2006b; Listokin, 2006).

XII. CONCLUSION

Viewed as contracting entities, firms are assemblages of owners' rights and creditors' (more generally, patrons') rights. A classical firm has a simple structure in this regard. Ownership of the firm is in the hands of a single and highly homogeneous subset of the firm's patrons. All of the firm's other patrons have contractual claims on the firm that are backed by a single undivided pool of bonding assets, which consists of all of the firm's productive assets and all of the firm's own contractual claims. Historically, there have been two principal variants of this classical form: the general partnership and the business corporation.

The historical tendency, for at least the past century, has been to complicate this simple structure with respect to creditors' rights by providing for subdivision of the firm's assets into smaller pools that can be separately pledged to particular subsets of the firm's patrons. One route to this end has been increasing flexibility in the formation of subsidiary entities. Another has been

increasing flexibility in the mechanisms for giving interests in particular assets to selected creditors. Indeed, security interests and legal entities seem likely to become indistinguishable at the margins as the two devices continue to evolve.[23] The tradeoff here is between reducing monitoring costs and raising notice costs, both of which generally result from more articulated asset partitioning. That tradeoff has gradually shifted in favor of more refined partitioning as information costs of giving notice have decreased. The result has been increasing dissociation between the control boundaries and the asset boundaries of firms.

It's possible that increasing legal and contractual sophistication of the type that have permitted the fragmentation of the firm's bonding assets will also permit increasingly heterogeneous classes of patrons to have ownership rights in the firm. For example, senior managers of business corporations are today granted substantial claims on firm profits with contractual terms – such as highly contingent stock options and golden parachutes – that seek to minimize the conflict between the managers' interests as employees and the interests of the other owners of the firm. Debt covenants now permit creditors in many situations to exercise much tighter control over a company's management than can the firm's shareholders (Baird & Rasmussen, 2006). More complex convertible and reconvertible securities are permitting the ownership rights of different groups of investors and managers to be conditioned in ways that help avoid opportunism by one group or the other. Combined with the advent of hedge funds and private equity firms that are capable of serving as sophisticated activist investors, these developments suggest that the future may bring more complex forms of ownership in which control is shared, simultaneously and over time, among heterogeneous groups of patrons, in contrast to the traditional pattern, focused on here, of ownership by a single highly homogeneous class of patrons. This would result in much more complexity in the control as well as the asset boundaries of the firm, and even further dissociation between the two. The classical standard entity form for the firm may, therefore, be an evanescent thing.[24]

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[23] This involves, on the one hand, stripping legal entity forms of their internal structure, and on the other hand making it easier for security interests to float with respect to creditors. See note 4 above.

[24] Some scholars (e.g., Hansmann & Kraakman, [2000]) have boldly declared an "end of history" for corporate governance and law. If the trends suggested here materialize, that vision will prove badly mistaken.

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Figure 1a.

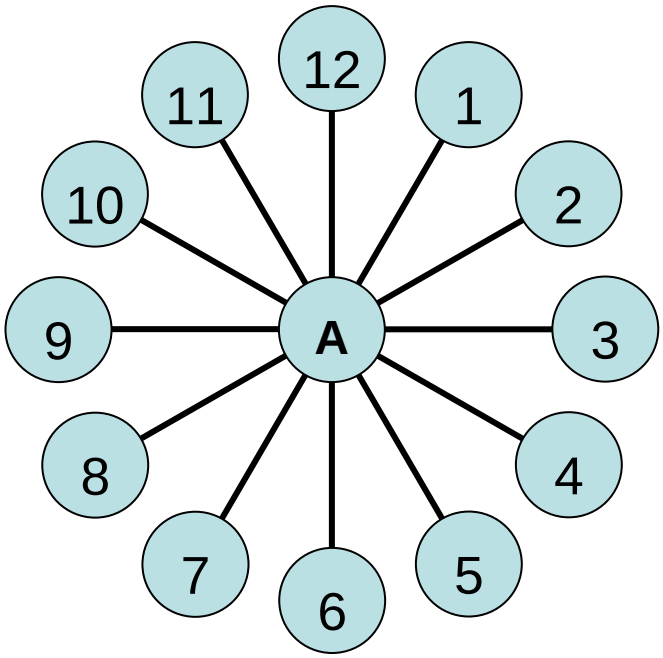

Figure 1b.