A CENTRAL QUESTION OF THE DAY is whether U.S. business firms are capable of success in highly competitive world markets. The question is embedded in hotly debated calls for the United States to develop an explicit industrial policy, in frequently expressed concerns about our loss of market leadership in the computer chip, television and automobile industries, and in charges of excessive executive compensation. It is important to consider the efficiency of the large corporation when answering this question, and what I discuss here is a connection between corporate efficiency and the regulation of capital market institutions.

The legal setting of a large U.S. corporation is usually thought of in terms of regulations that bear directly on the activities of business firms. These include business tax policy, environmental protection legislation, worker safety and health regulation, and antitrust. Because legal settings for business vary from nation to nation, regulations undoubtedly affect relative efficiencies of business firms differently in different parts of the world. Business regulation of this type has been discussed explicitly on many occasions, so I set it aside here. Instead, I give attention to the neglected connection between corporate efficiency and the regulation of capital market institutions. My purpose is to show how the regulation of banks, insurance companies and mutual funds impinges on shareholder control of top management in U.S. corporations.

Because most persons at this conference do not work in corporate economics, it is useful to begin by considering the potential control problem created by the diffuse ownership structure on which the modern large corporation rests—separation of ownership and control. This well-known agency problem has been around for some time. Even Adam Smith voiced concern in The Wealth of Nations, precisely because he believed that those who manage the funds of others cannot be expected to do as good a job as if their own funds were at stake. Along with many contemporary economists, the works of Veblen (1921), Berle and Means (1932), and Galbraith (1967) build heavily on this corporate control problem. Their works assert that owners of shares each have an ownership stake in the corporation that is too small to motivate efforts to control management and that is too small to convey disciplinary weight even if such efforts were made.
Dissatisfied shareholders can do little better than sell their shares. If such sales are large, the price per share will fall and adversely affect the terms on which management can raise new capital from the capital markets. This price effect penalizes errant management, but it does so only indirectly and only to the extent that the corporation finds it necessary to raise new capital.

The alleged weakening of the link between ownership and control makes the proposition correlating private ownership and efficient resource allocation more problematic in the minds of some students of the corporation. Uncontrolled professional management is likely to see its interest served, at least partly, by high management compensation, large firm size, altruism toward friends and community, leisure and other forms of on-the-job consumption and by indulging in these to an extent that seems inimical to shareholder interests.

The thesis appears to be much like that which popularly explains the failings of socialism. If all citizens are in principal owners of state property then no person qua citizen can exercise control over this property. Ownership is simply too diffuse to be effective. Managing this property then becomes the task of state bureaucracies. State employees, however, have interests that do not coincide with those of the population at large, and the pursuit of these interests is not guided by market incentives. A separation between ownership and control arises and undermines the credibility of socialism. The separation thesis as applied to the large corporation substitutes professional management for state bureaucracies.

Studies of corporate takeovers, mainly corporate takeovers undertaken in the United States during the 1980s, provide evidence of some instances of separation between ownership and control. These show that shareholders of target companies benefit considerably from a takeover of their firm. Successful takeovers increase share prices of target firms by an average of about 30 percent. Increases in share price may derive in part from several aspects of takeovers. The dominant view is that most of target shareholder gains derive from the removal of inept management, whose presence is consistent with the separation thesis. It should be noted, however, that only a small fraction of corporate assets has become the target of takeover attempts. This can be interpreted as statistical support for a proposition contrary to the separation thesis—that most modern corporations are not afflicted by significant separation between ownership and control.

The indictment of the modern corporation implicit in the separation thesis creates its own puzzle. Because the corporation, including its ownership structure, arises from contractual agreements voluntarily entered into, the separation thesis implies that serious, systematic and persistent errors are made by owners of the corporation in relying on ownership structures that are too diffuse. Owners fail to anticipate that they are abandoning control over their assets. This is inconsistent with the belief held by most economists that all parties to an agreement reached voluntarily expect to benefit from the agreement and that if the agreement is used repeatedly and extensively, this expectation is usually correct.

However, the empirical supposition of the separation thesis, the "fact" to which all adherents to the thesis have subscribed, is not at all fact. It is simply not the case that the ownership structure of the typical large corporation is so diffuse that it undermines the incentive and power of shareholders to influence management. That thousands of shareholders jointly own the typical large corporation is true, but recent studies show that not every owner of corporate stock owns an insignificant number of shares. A few of the thousands of shareholders usually own a relatively large fraction of the firm’s equity. In fact, the typical large corporation has a more concentrated ownership structure than serves the separation thesis well. For Fortune-500-sized U.S. corporations, the aggregate fraction of equity owned by the five largest shareholders is about one-fourth, and in Japan and several important European countries

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1 Socialized property and jointly owned corporate property are, however, far from equivalent. Socialized ownership is coerced into being, whereas corporate ownership is devised voluntarily. Given the facts of economic development and per capita wealth in East and West, we can surmise only that if there is separation between ownership and control in the large private corporation, it is less severe by several orders of magnitude than it is in the socialist state.

2 Evidence to date seems to indicate that target company gains do not derive from wealth transferred from bond holders [Jarrell, Brickley and Netter (1988)] or from most lower level employees. Although management personnel are released in disproportionately large numbers from target companies when a takeover occurs, the mass of laborers are not.


4 Demsetz and Lehn (1985) and Shleifer and Vishny (1986).
larger the firm, the greater the wealth they exposing themselves to firm-specific risk. If this firm is large, they would be have a large fraction of their wealth invested in ownership—the hearing of firm-specific risk. This implies that observed structures should bear a sensible relationship to these situations. More specifically, we may posit that variations in ownership structure reflect the benefits and costs to shareholders of controlling professional management tightly.

Concentrated ownership (and consequent tight control over management) comes at a cost. If this cost is high, the ownership structure that is truly profit maximizing must look much like that of the single-owner firm. This is the case in particular for large firms because size of firm correlates with one of the major costs of concentrated ownership—the bearing of firm-specific risk. Because controlling shareholders would tend to have a large fraction of their wealth invested in a single firm if this firm is large, they would be exposing themselves to firm-specific risk. The larger the firm, the larger is the wealth they must commit to own a controlling share of equity, and hence the greater is their exposure to firm-specific risk. The risk-adjusted, utility-maximizing ownership structure for large firms, contrary to what is suggested by the separation thesis, is not the single-owner firm. It is a more diffuse ownership structure because the cost of bearing firm-specific risk should be reflected in the optimal ownership structure. Nonetheless, this structure should be one in which enough shares are owned by a few shareholders that they can exercise more than a modicum of control over professional management. The data reveal precisely this—greater diffuseness in ownership structure for larger firms accompanied by enough concentration of ownership to imbue large shareholding interests with influence over management. This pattern of ownership, which suggests that shareholders choose ownership structures that maximize the value of their firms, has been confirmed for Swedish, Japanese and South African firms.

Of course, management cannot be disciplined so thoroughly by controlling shareholders and by the threat of corporate takeovers that ineptness is dethroned at once wherever and whenever it exists. In this respect, it is important to remember that ownership is not structured exclusively for the purpose of dealing with management ineptness. Other things matter to ownership structure and to risk-adjusted profit, such as the avoidance of firm-specific risk. If ownership is structured to maximize risk-adjusted utility, it must not be so tightly structured that all error in judging professional management is eliminated. Moreover, because there is a cost to altering the structure of ownership quickly, profits are also maximized by tolerating a lag between evidence of ineptness and altering ownership structure appropriately. Things will get out of whack on

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5There are several ways by which professional management can be guided to serve shareholder interest in the modern corporation—concentrated ownership (achieved through the normal financing of corporations or through corporate takeovers), the consequences of the capital market’s measurement of management performance, legal proceedings, and compensation systems. Time and space allow me to consider here only concentrated ownership. This is unfortunate especially in regard to executive compensation, for there are new empirical results to report about this. It is improbable that all these mechanisms transform the modern corporation into a precise analog of the firm pictured in neoclassical theory, but they do raise serious questions about the Berle and Means thesis.

6I speak somewhat superficially in reference to risk-adjusted utility maximization. Suppose a real corporation is owned by a single person, and suppose further that he guides his professional managers without error to pursue his chosen ends. Although risk-adjusted profit always looms important to this owner, it need not be his sole concern. He might derive satisfaction from owning a larger firm even if it is less profitable, or from using the firm’s assets to cater to personal utility maximization. The reduction in profit he thereby bears must not be thought of as a loss sustained because an agency problem separates his interests from management’s behavior. There is no agency problem here, there is simply the recognition that in cases such as this, profit maximization for the owner does not equate to utility maximization for the owner. This may also hold for degrees of ownership concentration less than the 100 percent just assumed.

7See Bergstrom and Rydqvist (1990), Prowse (1991), and Gerson (1992).
occasion, and when they do, dramatic restructuring of ownership is more likely to be called forth in the guise of a corporate takeover.

What seems to be true then is that professional management is not free of substantive guidance by shareholders, but that the degree of guidance, because it responds to problems of risk and other similar concerns, will not generally be designed solely for the purpose of controlling management malfeasance. From a shareholder's perspective, the optimal amount of management malfeasance is positive, not zero. Just what is optimal, however, is affected by the legal environment, and especially by laws bearing on the operation of capital market institutions. Ownership will tend to be more concentrated, and management malfeasance will consequently be less pervasive to the extent that these laws do not raise the cost of maintaining concentrated ownership structures.

Recent data reveal a puzzle regarding ownership concentration. After standardizing for variables that should influence the ownership structure of corporations, such as firm size and firm-specific risk, studies of corporate ownership reveal large differences across countries in the typical degree to which ownership is concentrated. Ownership is noticeably more diffuse in U.S. corporations than in Japanese, European and South African corporations. In the typical large corporation in the United States, the top five shareholders, as a group, own about one-fourth of the firm's outstanding voting stock. Most corporations traded on South Africa's Johannesburg Stock Exchange are controlled by small shareholder groups who own 50 percent or more of voting stock. Ownership structures in Germany and Sweden are more like South Africa than the United States. In Japan, the five largest shareholders own about 33 percent of voting shares.

The differences between the United States and these other countries are so large that we must suspect that the cost of concentrating corporate ownership differs substantially from one country to another and for reasons not captured by the variables being used to index this cost. If a five-shareholder group owning one-fourth of the voting equity of the typical large corporation is a suitable ownership structure in the United States, why is it not in other countries? A plausible source of this difference is in variation across nations of regulations that impinge on ownership structure and which make it more costly to maintain control in the typical large U.S. corporation than in the typical large non-U.S. corporation. Important capital market institutions in the United States do bear special costs to hold large stakes in the equities of other companies, and our banks are barred from holding any stake.

One potential source of equity capital is the investment company, but the Investment Company Act of 1940 restricts the ability of investment companies to take concentrated equity positions in the firms in which they invest if they advertise themselves as diversified investment companies. There is a tax advantage to registering as a diversified investment company, since this entitles the company to pass income through to its investors without paying taxes, but even investment companies that do not register as diversified are barred from exercising control over any firm engaged in interstate commerce. Hence funds channeled through investment companies are unlikely sources of controlling positions in the equity of corporations.

Insurance companies are another potentially important source of equity capital, and most states do allow insurance companies to invest a percentage of their assets in common stock. The percentage varies from state to state but is commonly about 20 percent. New York, a particularly important state for insurance, limits the amount that insurance companies can invest in one company to 2 percent of the insurance company's assets. Most other states have similar restrictions, but the percentage varies over a large range. States generally bar insurance companies from owning more than a stipulated percentage of the shares of other companies. A common upper bound is 10 percent. Finally, there frequently is a penalty borne by insurance companies that invest in common stock; most states require that capital be set aside to maintain a financial cushion against declines in the price of stock held for investment purposes. Although it is not impossible to use funds channeled through

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9See Sundqvist (1986).

11My summary discussion of the details of some of the relevant legislation rests heavily on work by Paul S. Clyde (1990).
insurance companies to take a concentrated equity position in a given corporation, it clearly is an investment tactic that is generally discouraged by state-imposed restrictions. Hence, a second capital market institution is handicapped in such an undertaking.

For more than 60 years the Glass-Steagall Act has barred banks from directly owning equity in U.S. corporations. There is no counterpart to this law in South Africa and in much of Western Europe, and only recently has Japan adopted a similar law. Although banks would seem to be low-cost conduits of equity capital, Glass-Steagall forces corporations to raise equity funds from other sources. In fact, banks play important equity roles in other nations, where they supply enough equity to own sizeable positions in corporate ownership structures. The possible connection between Glass-Steagall and ownership structure, however, is not generally suspected even though banks are potentially a major source of equity investment capital in the United States. If the behavior of foreign banks in their own countries is a guide to what U.S. banks would do if allowed to invest in corporate equity, it seems likely that U.S. banks would be important sources not only of equity capital, but also of concentrated ownership positions. A third major source of concentrated ownership is thus barred by legislation.

Because of recent court decisions, employment retirement funds remain one important source of capital that is free to take equity positions, even concentrated equity positions. In fact, we find a few of these funds playing key roles in monitoring and disciplining corporate management by virtue of their large holdings of stock in particular corporations. Most notable in this regard is the California State Employees Retirement Fund, but others have also become activist. For reasons discussed later, however, I do not believe that these funds offer monitoring and disciplining services as good as those likely to come from capital market institutions presently barred or penalized from taking large equity positions in specific corporations.

The consequence of these legal barriers is that corporations housed in the United States rely on capital that is secured directly from individual investors to a much greater extent than corporations located overseas. Really large controlling positions in the equity of U.S. corporations are taken mainly by individual and family investors in the United States. Because of greater portfolio specialization, these individuals and families are exposed to more firm-specific risk than capital market institutions would be. Moreover, individual or family wealth is seldom large enough to allow concentrated holdings of the equity of large corporations. The heavy reliance in the United States on this source of equity capital results in corporate ownership structures much more diffuse than those that exist for comparable foreign corporations. The optimal degree of control exercised by shareholders over the managements of their U.S. corporations, as a result of such legislation, is less than elsewhere.

Arguments pro and con can be made in regard to the various legal hurdles that keep important institutional conduits of capital from accessing the equity markets easily. Whatever the truth in this regard, the effect of these legal hurdles on ownership structure and control has not yet been taken into account. The control problem created by these hurdles, taken by itself, offers a novel basis for opposing such legislation.

But can institutional investors—for example, investment companies, insurance companies and banks—be relied on to perform the ownership function well? Since their capital comes from diffuse sources, it would seem that their own operations should be subject to the separation problem believed to plague large corporations. If so, institutional investors holding controlling positions in the equity structure of large corporations cannot be expected to perform the duties of owner as well as investors whose own wealth is at stake. I discuss this issue in the remainder of this paper, showing that the control problem can be ameliorated by such institutions but not as completely as if individuals owned concentrated ownership positions in corporations directly.

There are institutional investors that seem capable of circumventing the problem created by their own diffuse ownership structure, and there are others that seem not so capable of doing this. The distinction between the two lies in the ease with which individual investors can reclaim their funds from the institution. The open-ended mutual stock fund is organized so that investors can insist that the fund buy back their shares at the net asset value they represent in

Exceptions include Prowse (1990) and Gerson (1992).
the fund's portfolio. The closed-end stock fund has no such obligation; an investor who wants to convert his shares in such a fund to cash may sell them at whatever market-determined price they fetch, but he cannot demand their redemption by the fund. This is an important difference when it comes to the issue of separation between ownership and control. To see its importance, let us reconsider the separation problem in the context of the corporation.

Two conditions must exist for the separation problem to be severe in a corporation. One is the generally recognized condition that ownership structure be diffuse. The other is the condition that assets made available to a corporation by shareholders must belong to it and not to shareholders. This second condition has not been recognized explicitly in economic literature, but it is important. It refers to the fact that, although the shareholder may sell his shares if he is dissatisfied, the shareholder cannot insist that the corporation be the buyer of his shares. Thus the corporation, not the shareholder, has title to the productive assets it has purchased with funds secured from its initial issue of stock. If shareholders could reclaim these assets, the severity of the separation problem would be lessened even for diffuse ownership structures. It would be lessened even more if share ownership were concentrated, because shareholders with much at stake will be more attentive to what management has been doing with the firm's assets.

It is not practical to allow shareholders to reclaim their share of the firm's assets in the general case of the business firm. The typical corporation makes commitments to supply goods and services that, if they are dependably honored, require the corporation to have continuing control of its assets. A steel company cannot reliably stand by a commitment to fill an order for steel if its shareholders can force it to sell its assets to purchase back their stock. The typical corporation therefore must be organized in a way that bars investors from reclaiming their fraction of the firm's assets, and once the typical corporation sells a new issue of shares, the funds it acquires belong to it, not to those who purchased the shares.

Continued control by the firm over its assets is not a prerequisite to doing business if credible commitments of this sort are not necessary. Consider the open-ended mutual stock fund. This firm gathers capital from investors and uses its skill to place these funds in the shares of other corporations. These shares can be sold by the mutual stock fund on a moment's notice should it decide to do so, and in doing so it will not be jeopardizing any business commitments. Consequently, investors who place their capital at the disposal of open-ended mutual funds can withdraw their pro rata share of the value of the fund's assets should they become displeased with the fund's performance. De facto, the open-ended mutual fund is obligated to repurchase pro rata investment positions. These investors are not shareholders in the conventional sense. They are purchasers of investment services, but they also are providers of the capital that is in turn invested in shareholdings of other companies. In the absence of the Glass-Steagall Act, the same arrangement could work for banks who reinvest depositor funds in the shares of other corporations (but probably could not work well for that part of bank investments that constitutes time-commitment loans to business firms). Should those depositors who have made no commitment to keep their funds with a bank decide to withdraw deposits, the bank could sell its shareholdings in other corporations to cover the withdrawals.

It is this characteristic, the ability of investor-depositors to reclaim capital from a firm, that distinguishes these institutions from others for our purposes. The closed-end fund does not have this characteristic. It is organized like the typical corporation. It issues shares and converts the funds from their sale to assets that belong to it. Dissatisfied shareholders may sell their shares, but they cannot force the closed-end fund to be the purchaser. This allows the fund's management to make its investment plans without fear of being forced to alter them should investor desires for cash or beliefs about the investment environment change, but it also eliminates the threat to management that it will lose control of fund assets if the fund performs poorly.

It is this threat in the case of the open-end mutual investment fund that reduces the

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18Subsequent sale of shares by shareholders has a depressing effect on the price of the corporation's stock if enough shareholders offer to sell, and this has some disciplining effect on management, but even so, the corporation remains in control of the assets it has acquired.
severity of the separation problem. Should investors become dissatisfied in large numbers, mass withdrawals would diminish the assets available to a fund’s management, forcing it to sell the shares they own in other companies. This reduction in the wealth available to the managements of these institutions can take place even if no single investor or small group of investors has provided a lion’s share of the capital being invested. This disciplines the managements of these institutions in a way not available to stockholders when they are disappointed with the managements of typical corporations. The large scale sale of shares in the typical corporation depresses share price but does not reclaim assets from management control.

What this means is that managements of institutional investors of the open-ended mutual fund variety can be disciplined directly by providers of capital even when there is no concentrated provision of this capital. The diffuse owner problem is ameliorated, but only to a limited extent. It is more effectively defused if capital is provided in concentrated fashion to the institutional investor, for concentration of rewards and penalties makes the large shareholder more attentive and astute. Now suppose that this type of institutional investor has taken controlling positions in the equity of the firms whose shares it has purchased. The ability of even diffuse contributors of its capital to withdraw their assets surely makes the institutional investor represent its investors’ interests better than if the threat of withdrawal did not exist—as long as the ability of the institution to make long-term commitments is not important to its productivity. Because of this effect, capital secured from even diffuse sources can be combined without suffering fully from a separation between ownership and control.\(^{14}\)

One final point may be raised about another source of diffuse ownership in the United States. The New York Stock Exchange (NYSE) requires that firms it lists raise their equity capital on a one-share, one-vote basis. The NYSE did not always use this standard. It was adopted during the 1920s under considerable pressure from government and intellectuals who feared that the growing use of differing vote entitlements was disenfranchising many equity capital providers. Nonvoting equity shares are used much more extensively in other countries. This makes for a lower cost of establishing controlling equity positions in a company because only voting shares must be reckoned with when considering the direct control of management. Discussion of this issue, however, cannot be undertaken here.

REFERENCES


Veblen, Thorstein. The Engineers and the Price System (1921).

\(^{14}\)In fact, a doctoral dissertation recently completed at UCLA (Clyde (1990)) gives evidence that institutional investors behave much as do individual and family shareholders who own controlling positions in the ownership structure of a corporation.