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A Survey of Blockholders and Corporate Control

1. Introduction

The notion of diffuse stock ownership is well entrenched among economists. It started with Adam Smith's legendary warning in *Wealth of Nations* about the "negligence and profusion" that will result when those who manage enterprises are "rather of other people's money than of their own." A century and a half later, another lawyer, Adolf Berle, along with a journalist, Gardiner Means, returned to the theme of diffuse stock ownership. Since the dawn of capitalism, Berle and Means reasoned, most production had taken place in relatively small organizations in which the owners were also the managers. Beginning in the nineteenth century with the Industrial Revolution, however, technological change had increased the optimal size of many firms to the point where no individual, family, or group of managers would have sufficient wealth to own a controlling interest. As a result, enterprises faced "the dissolution of the old atom of ownership into its component parts, control and beneficial ownership" (Berle and Means 1932, p. 8). Ultimately, this separation of ownership from control threatens "the very foundation on which the economic order of the past three centuries has rested."

The arguments of Berle and Means on the dangers of diffuse stock ownership, written during the depths of the Great Depression, had an immediate and profound impact.[1] Most notably, their arguments helped to shape the federal securities legislation of the 1930s. That legislation was intended to protect diffuse shareholders from professional managers, and it remains the primary federal securities law to this day.

The notion of diffuse ownership has also had a profound influence on contemporary economists. This can perhaps best be seen in one of the pivotal papers of the postwar era, Jensen and Meckling's (1976) agency paper. Much of the focus of that paper is on the conflict between diffuse shareholders and professional managers:

> Since the relationship between the stockholders and manager of a corporation fit the definition of a pure agency relationship, it should be no surprise to discover that the issues associated with the "separation of ownership and control" in the modern diffuse ownership corporation are intimately associated with the general problem of agency. We show . . . that an explanation of why and how the agency costs generated by the corporate form are born leads to a theory of the ownership (or capital) structure of the firm.

As economists started to employ this agency perspective, it was mainly in the context of diffuse shareholders and professional managers. This, for example, can be seen in the papers in a special issue of the *Journal of Financial Economics* on the market for corporate control in 1983. Many of these papers

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The author thanks Michael Barclay, Hamid Mehran, Kevin J. Murphy, and Dennis Sheehan for comments. The views expressed are those of the author and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.

have become widely cited. It is illuminating, however, that among the sixteen papers in the special issue, there is little mention of large-percentage shareholders or managerial stock ownership.[2] In the issue's review article (Jensen and Ruback 1983), stock ownership, be it by mangers or by outsiders, was not listed as a direction for future research.

After the volume was published, researchers began to discover that some public corporations had large-percentage shareholders, many of whom were top managers or directors. Researchers also discovered that some of these corporations were large and well known. Concentrated stock ownership, it appeared, was not limited to a few anomalous firms. Soon, academics began to study the impact of large-block shareholders.

Three empirical papers in the mid-1980s set the tone and the agenda for much of the research into ownership structure that has ensued over the following fifteen years. Demsetz and Lehn (1985) address the question of the types of public corporations that are likely to have high levels of managerial stock ownership. Holderness and Sheehan (1988) address the question of whether major corporate decisions are different when a corporation has a large-percentage shareholder. Morck, Shleifer, and Vishny (1988a) address the question of the impact on firm value of different levels of managerial stock ownership.

The new focus on ownership structure became evident in the next special issue of the *Journal of Financial Economics*. Now, after the passage of only five years, many of the papers addressed large shareholders, including the aforementioned Holderness and Sheehan (1988) and Morck, Shleifer, and Vishny (1988a). Moreover, the summary article, coauthored by Michael Jensen (who was also a coauthor in the 1983 review article that did not allude to ownership structure), identifies "ownership structure and the allocation of voting rights" as a direction for future research (Jensen and Warner 1988).

In this paper, I survey the academic literature on blockholders and corporate control. As with any survey paper, I must be selective. Thus, I focus on empirical research, as I believe that much of what we know about blockholders has come through empirical investigations as opposed to theoretical models, although there certainly are some insightful theoretical papers on blockholders. Moreover, this paper is not a traditional, full-fledged literature survey. Instead, I focus on what the literature tells us about four fundamental questions associated with blockholders: How prevalent are blockholders? What motivates block ownership? What impact do blockholders have on certain major corporate decisions? What impact do blockholders have on firm value?

The paper is organized as follows. Section 2 summarizes the data on the extent of block ownership and how the concentration of ownership has changed over time. Section 3 addresses the motivation of block ownership and the types of firms that tend to have concentrated ownership. Section 4 examines how block ownership affects three major corporate decisions: leverage, executive compensation, and the incidence of takeovers. Section 5 addresses the complex relationship between block ownership and firm value. A brief conclusion follows.

2. How Prevalent Are Blockholders?

Although Adam Smith was concerned with the separation of ownership and management, he offered no data on the extent of this separation. In all likelihood, he did not have the data. Moreover, when he was writing, prior to the Industrial Revolution, most enterprises were fairly small and were most likely owned by a single individual or a family. Corporations that were large and diffusely held, such as the East India Company, were very much the exception.

Berle and Means, in contrast, did offer data on ownership concentration, at least on the stock ownership of management. In fact, their book consists of two basic parts: a property-rights argument on the importance of the collocation of wealth effects and decision rights ("the atom of private property") and data on managerial ownership at a large number of American corporations. The fundamental limitation of these data is that, with the exception of a few regulated industries, companies at the time were not legally required to reveal their owners publicly, and few firms voluntarily agreed to do so. Likewise, directors and officers, as well as large-percentage shareholders, had no legal obligation to report their ownership stakes, and almost none did.

The first legal requirement for public reporting of ownership came in Section 16 of the Securities and Exchange Act of 1934. That provision mandates that directors, officers, and outside holders of at least 10 percent of the stock of any firm with equity registered on national securities exchanges report their holdings to the Securities and Exchange Commission (SEC). The SEC collected and published the Section 16 reports for share holdings as of December 31, 1935.[3] These are the earliest reliable data on ownership. They have been continually updated since then and are the ultimate source for virtually all ownership data used in academic research.

Holderness, Kroszner, and Sheehan (1999) were the first to analyze these ownership data from a time-series perspective. They compare a comprehensive cross-section of roughly 1,500 publicly traded U.S. firms in 1935 with a modern benchmark of more than 4,200 exchange-listed firms for 1995. They find that

managerial ownership was higher in 1995 than in 1935. The mean percentage of common stock held by a firm's officers and directors as a group rose from 13 percent in 1935 to 21 percent in 1995. Median holdings doubled from 7 percent to 14 percent. Although the very largest firms have similar ownership percentages in both periods, a firm size-weighted average is higher in 1995 than in 1935.

Although most research examines the fraction of a firm held by managers, it is an open question whether the dollar value of holdings may provide a better indication of a manager's incentives and willingness to make decisions than does percentage value of holdings. Holthausen and Larcker (1991) argue that "if it is equally difficult to affect firm value by a given percentage, say 5 percent of equity value, then dollar value of holdings is the appropriate measure, not percentage ownership. However, if it is equally difficult to get a given dollar magnitude change in the value of the equity, say $1,000, then the manager's percentage ownership is the appropriate measure of incentive." Hanka (1994), in one of the few studies to consider both measures, finds that both the percentage of stock holdings of management and the dollar value of those holdings affect the magnitude of corporate charitable donations. Given this evidence of the potential importance of the dollar value of holdings, it should be noted that insiders' stock holdings have risen (in real terms) from $18 million in 1935 to $73 million in 1995. This general increase holds across all firm sizes.

Other studies also address the level of inside ownership. Mikkelson and Partch (1989) collect officer and director ownership data from proxy statements of 240 randomly chosen New York Stock Exchange– and American Stock Exchange–listed firms in three years. They report average inside ownership of 19.8 percent in 1973, 20.5 percent in 1978, and 18.5 percent in 1983. The average ownership for the three years pooled is 19.6 percent, and the median is 13.9 percent. Similarly, an unpublished study by the Office of the Chief Economist of the SEC examined the ownership of 100 randomly chosen public corporations for 1987 and found average inside ownership of 21.2 percent.[4] Finally, Holderness, Kroszner, and Sheehan (1999) find that in 1995, insiders on average owned 21 percent of the common stock of a randomly selected firm (median: 14 percent). As such, 20 percent is the best available estimate of the current level of inside ownership at public corporations.

Obviously, 20 percent is only an average. At one extreme, Holderness and Sheehan (1988) report that approximately 5 percent of the firms on the New York and American Stock Exchanges have majority shareholders. Mikkelson and Partch (1989) likewise report that insiders control more than half of all votes in 9 percent of their sample firms. In 27 percent of their firms, insiders control 30 percent of the votes, an ownership level at which some commentators believe that a hostile takeover attempt cannot succeed. At the other extreme, some notable, often large, corporations have no external blockholders and management owns only a small percentage of the common stock. General Electric is such a corporation. According to its latest proxy, the directors and officers collectively own less than 1 percent of the stock, and no individual shareholder owns 5 percent or more of the stock. It is the quintessential diffusely held corporation.

Although most research on ownership concentration considers only the aggregate ownership of directors and officers, some papers also consider the stock ownership of the chief executive officer. Mehran (1995), in one such study, documents an average ownership by the chief executive and his immediate family of 5.9 percent (median: 1.2 percent) for 153 randomly selected manufacturing firms listed on Compustat.[5] Denis and Sarin (1999) find average CEO ownership of 7.2 percent (median: 0.3 percent) for a random sample of CRSP-listed firms selected in 1983. Jensen and Murphy (1990) report average ownership of only 1.0 percent (median: 0.03 percent) for 1984, but they examine only large firms.

Studies infrequently address the stock ownership of outside blockholders who do not serve on the board of directors. The significance of this omission is an open question. On the one hand, several studies (for example, Holderness and Sheehan [1988]) report that large-block shareholders or their representatives almost always serve as directors or officers, thus their ownership should be included in the total for the directors and officers. On the other hand, several theoretical studies posit a monitoring role for outside blockholders (Shleifer and Vishny [1986], for instance), in which case the ownership of blockholders would not be included if they are not directors.

Mehran (1995) is one of the few studies to look at the stock ownership of outside blockholders, which he and many researchers classify as individuals or entities owning at least 5 percent of the stock (because this triggers a mandatory SEC filing for all shareholders). He finds that 56 percent of a sample of randomly selected manufacturing firms had outside blockholders (23 percent of those were individuals, 23 percent were other corporations, and 54 percent were institutions).

2.1 The Stability of Block Ownership

The stability of block ownership goes to the essential organizational role of large shareholders. Some models, such as Shleifer and Vishny (1986), posit that block ownership will be stable over time because (in their model) external blockholders

are constantly monitoring management. Other models posit that blockholders enter and exit a firm as conditions change.

Barclay and Holderness (1989) find that once a firm has a large-block shareholder (independent of whether the blockholder or a representative sits on the board of directors), the firm usually has a blockholder five years later. More specifically, examining a sample of firms randomly selected from Spectrum 5 (which covers only firms with 5 percent or more shareholders), they find that only 4 percent of the firms that had 5 percent or more blockholders did not have one five years later. None of the firms that lost all of their blockholders initially had a block in place of 25 percent or more. Barclay and Holderness also report that the largest block in a firm tends to increase in fractional size over time.

Denis and Sarin (1999) likewise follow firms for five years (albeit a different sample of firms for a different time period). They find that firms that start the five-year period with low inside ownership normally end the period with low inside ownership. Firms that start with high inside ownership (which they define as more than 15 percent), however, typically experience a decline of approximately five percentage points. In addition, they find that within a given firm, inside ownership tends to be relatively stable over time. Specifically, they report that for those firms that have been in existence for at least five years (388 observations), two-thirds of them show a change in inside stock ownership of less than five percentage points over that period. Eighty-five percent of the firms show an absolute change in the proportion of stock controlled by directors and officers of less than 10 percent of the votes.

It is hard to know if these documented ownership changes are economically significant because we know little about the parameters of control. How does control change with fractional ownership? Is there some minimum threshold? Does it vary firm by firm? Does it depend on the existence of other blockholders? Does it depend on firm characteristics? Such potentially key issues have hardly been raised, much less investigated, in the literature.

A final data issue concerns the accuracy of the ownership data. As most ownership data come from proxies, and firms are subject to legal penalties if they report inaccurate or misleading information, it is generally assumed that ownership data are highly accurate. Although the data in the proxies may be accurate, firms are inconsistent in how they report indirect ownership. Indirect ownership arises when a director or officer shares voting rights over a block of stock but does not have the exclusive right to any attendant dividends. An example would be if a director is also a director of another corporation that owns a large-percentage block. Although such relationships are inevitably revealed in proxies, firms are inconsistent as to whether they include indirect ownership in the aggregate stock ownership of the directors and officers as a group. This is the figure used in most academic studies.

This inconsistency can be illustrated by comparing the 1995 proxies for Hershey Foods Company and St. Joe Paper Company. At the time, the CEO of Hershey was also a trustee of the Hershey Trust, which owned a majority of the common stock of Hershey Foods. Although a footnote in the proxy clearly describes this relationship, the Hershey Trust's block was not included in the total beneficial ownership of officers and directors. In contrast, the CEO of St. Joe Paper Company was a trustee of the Alfred duPont Charitable Trust, which similarly owned a majority of St. Joe Paper. In this case, however, the block held by the Trust was included in the total beneficial ownership of officers and directors. To date, this potential data problem has hardly been recognized. Whether it changes the findings reported in the literature is unknown.

3. What Motivates Block Ownership?

One of the foundations of modern finance is diversification. The capital asset pricing model, to take one example, assumes that investors will hold diversified portfolios to eliminate diversifiable risk. What motivates some individuals and organizations presumably to forgo the benefits of diversification by concentrating much of their wealth in the stock of a single firm?

Large-block ownership can be motivated by two factors: the shared benefits of control and the private benefits of control. The two are not mutually exclusive; indeed, the empirical evidence suggests that both factors typically are at work.

The shared benefits of control arise from the superior management or monitoring that can result from the substantial collocation of decision rights and wealth effects that come with large-block ownership. As the ownership stake of a blockholder increases, ceteris paribus, he has a greater incentive to increase firm value. To the extent that these higher cash flows are shared with minority shareholders, they constitute shared benefits of control. Several theoretical models, such as Shleifer and Vishny (1986), stress the shared benefits of control.

Empirical support for the existence of shared benefits comes from several sources. First, blockholders or their representatives usually serve as directors and officers, which puts them in the position to influence management decisions directly. Second, there is evidence that formations of blocks are associated with abnormal stock price increases (see, for instance, Mikkelson and Ruback [1985]). Third, there is also evidence that the trades of large blocks are associated with abnormal stock price increases (Barclay and Holderness 1991,

1992). If blockholders do not affect the cash flows that eventually accrue to minority shareholders, such stock price changes would be hard to explain.[6]

Blockholders also have the incentive to use their voting power to consume corporate resources or to enjoy corporate benefits that are not shared with minority shareholders. These are the private benefits of control. Such benefits could either be pecuniary, such as excess salary for an individual blockholder or synergies in production for a corporate blockholder, or they could be nonpecuniary, such as the amenities that apparently come from controlling corporations like professional sports teams and newspapers. Private benefits can also be negative if blockholders incur personal costs from monitoring or from lawsuits brought by disgruntled minority shareholders or government officials.

Barclay and Holderness (1989) were the first to offer systematic evidence of private benefits for large shareholders by studying the pricing of trades of large-percentage blocks of common stock.[7] They reason that if all shareholders receive corporate benefits in proportion to their fractional ownership—in other words, if there are no private benefits from block ownership—blocks should trade at the exchange price. Conversely, if large-block shareholders anticipate using their voting power to secure (positive) benefits that do not accrue to smaller shareholders, then blocks should trade at a premium to the exchange price, with the premiums approximating the discounted value of the (net) private benefits. However, if blockholders expect to bear net private costs, then blocks should trade at a discount to the exchange price.

The salient finding in Barclay and Holderness (1989) is that trades of large blocks of stock are typically priced at substantial premiums to the post-announcement exchange price (average: 20 percent, median: 16 percent).[8] They interpret these premiums as suggesting that in most firms the net private benefits of large-block ownership are positive.

Additional support for the private-benefits hypothesis comes from the Barclay and Holderness cross-sectional regression analyses of the premiums. They find that premiums tend to be larger as the fractional size of a block increases, holding other variables constant. This is consistent with the existence of private benefits. A larger fractional block increases the degree of control the block purchaser will realize. Barclay and Holderness also find a positive relationship between firm performance before the trade and the size of the premium. This likewise appears consistent with private benefits, as more profitable firms are likely to offer greater private benefits. For example, there are likely to be more corporate funds to pay a large salary to the blockholder; joint ventures with another company controlled by the blockholder are also more likely to be more profitable if the company has been successful in the past. Conversely, the authors find that when prior firm performance has been poor, blocks sometimes trade at discounts to the exchange price. This occurs in approximately 20 percent of their observations. It suggests that in some firms, the net private benefits of control are negative.

Subsequent studies have confirmed that block trades are generally priced at premiums to the exchange price. These studies also interpret the block premiums as reflecting anticipated private benefits of control. Mikkelson and Regassa (1991) document an average premium of 9.2 percent (median: 5.5 percent) for a sample of thirty-seven trades between 1978 and 1987. Chang and Mayers (1995) report premiums that average 13.6 percent (median: 10.1 percent).[9] They also find that premiums tend to be larger when the blocks exceed 25 percent of the firm's outstanding common stock.

Premiums on negotiated large-block trades, and the net private benefits they reflect, are apparently not limited to U.S. corporations. Nicodano and Sembenelli (2000) document premiums of 27 percent (median: 8.3 percent) for negotiated trades of large blocks of stock in Italian corporations. The authors speculate that the larger premiums, compared with those of U.S. companies, reflect the paucity of legal constraints on large shareholders and hence the greater opportunities for private benefits in Italy.[10]

Barclay, Holderness, and Pontiff (1993) offer additional support for the private-benefits hypothesis through an analysis of discounts on closed-end funds. They document that these discounts tend to be significantly larger when fund managers or those affiliated with them own a large-percentage block. Because managers would appear to have the power to open the funds and distribute the assets to shareholders, the reason for not doing so when their firms' stock is trading at a discount to net asset value would seem to be the continuation of their private benefits. The authors support this interpretation with press reports of all their sample funds that had managers who owned at least 5 percent of the stock. These reports raise the possibility that the blockholders were receiving private benefits through such means as employment of the blockholder and his relatives or the ownership of another company that does work for the fund.

It must be cautioned, however, that private benefits need not reduce the wealth of minority shareholders. This is an assumption of some analyses, but it is wrong. For example, neither the nonpecuniary pride that some individuals feel in controlling a public corporation nor the synergies in production that can result if a corporation is the blockholder (a common situation) will reduce the wealth of minority shareholders. Indeed, both of these private benefits could redound to the benefit of minority shareholders; both types of private benefits of control could, in other words, produce shared benefits of control.

The magnitudes of the shared and private benefits of control are likely to vary with certain firm characteristics. The concentration of ownership should therefore vary systematically across firms depending on the characteristics of each firm that are related to the shared and private benefits of block ownership. This is the spirit of Demsetz and Lehn's (1985) pioneering paper. Ownership concentration is endogenous.

Researchers have identified several firm characteristics that affect the level of private and shared benefits and thus the level of ownership concentration. Most notably, concentration (and, to reiterate, this usually means inside ownership, as few studies have addressed outside blockholders) tends to be inversely related to firm size (Demsetz and Lehn 1985; Holderness and Sheehan 1988). This likely reflects considerations of risk aversion and wealth limitations.

Regulation also appears to affect the level of inside ownership. A regulated firm has both shareholders and regulators to monitor management; a regulatory agency therefore may partially substitute for shareholder monitoring. Thus, in a regulated firm, the shared benefits of control are likely to be lower than in an unregulated firm. The private benefits of control are also likely to be lower in a regulated firm, as insiders typically have less discretion precisely because regulation limits managers' activities.

The available empirical evidence indeed suggests that inside ownership is indeed lower in regulated firms. Holderness, Kroszner, and Sheehan (1999) for 1935 and 1995, as well as Demsetz and Lehn (1985) for 1980, document this for firms in general. Among specific industries, it is noteworthy that banks have relatively low levels of inside ownership.

Kole and Lehn (1999) use the framework of endogenous ownership concentration to study what occurred after the U.S. airline industry was deregulated beginning in 1978. They find that following deregulation, neither insider stock ownership nor chief executive ownership (measured in fractional or dollar terms) changed significantly. Outside blockholdings, however, increased.[11]

Himmelberg, Hubbard, and Palia (1999) note that unobserved firm heterogeneity makes estimation of the effects of ownership difficult. They also argue that panel data have certain advantages in addressing these difficulties. Their panel data findings confirm that managerial stock ownership is influenced by various firm characteristics; in other words, that managerial stock ownership is endogenous. In particular, they find that increases in firm size, fixed capital intensity (which they associate with lower monitoring costs), discretionary spending, and idiosyncratic risk all appear to be associated with a decline in managerial ownership. Conversely, managerial ownership appears to increase with increases in advertising expenditures (which the authors associate with higher monitoring costs).[12]

4. Are Major Corporate Decisions Affected by Blockholders?

I now turn to whether major corporate decisions are different in the presence of a large-percentage shareholder. Obviously, I cannot consider all major corporate decisions; indeed, the relationship between ownership concentration and many major corporate decisions has not yet been addressed. I limit my discussion to three areas: executive compensation, leverage, and the incidence of a firm being acquired.

4.1 Executive Compensation

Although one can think of a host of issues concerning executive compensation and ownership concentration, two questions jump to the forefront.[13] First, what happens to the level of management compensation in the presence of a blockholder? Second, what happens to the relationship between pay and performance in the presence of a blockholder? One can ask these questions with reference to managers who are blockholders. Thus, do blockholder-managers pay themselves more? One can also ask these questions with reference to external blockholders. Thus, do external blockholders help implement incentive-based compensation for professional managers?

Holderness and Sheehan (1988) investigate whether top executives owning majority blocks of common stock receive higher salaries and bonuses than do top executives in similar-size but diffusely held firms. (Thus, in the comparison firms, the executives do not own large blocks nor are there any large shareholders.) They find that the majority shareholders in fact receive larger salaries, but the extra amount is only between $23,000 and $34,000. The authors conclude that "it is hard to imagine that excess annual compensation [of this amount] would motivate individuals to invest an average of $66 million to achieve majority ownership." I am not aware of any other study that addresses the relationship between cash compensation and an executive's stock ownership. This would seem to be an area ripe for future investigations.

Mehran (1995) examines the relationship between both managerial and external block ownership and the form of executive compensation. Studying a random sample of 153

manufacturing firms between 1979 and 1980, he finds that use of incentive-based compensation (specifically, the percentage of executive compensation that comes from new stock options, restricted stocks, phantom stocks, and performance shares) declines with the percentage of stock held by those executives. He interprets this finding as evidence that a firm's board considers an executive's stock ownership when negotiating compensation contracts. The use of incentive-based compensation also declines with the percentage of stock held by outsider blockholders. This he interprets as evidence of the blockholders' monitoring substituting for incentive-base compensation.

Bertrand and Mullainathan (2000) investigate whether compensation of top executives in the oil industry increases for reasons that are beyond their control, what the authors term "pay for luck." An example would be a pay increase for top executives following an increase in the world price of oil. They report that pay increases in such situations are lower when a large-block shareholder (who is not the chief executive officer) sits on the board of directors. They also find that there tends to be greater pay for luck as a manager's tenure with the firm increases, but this is not true when a large shareholder is on the board. Both findings are interpreted as monitoring by external blockholders.

Bertrand and Mullainathan also investigate how much chief executive officers are charged for their options. Here again they appear to find a monitoring role for external blockholders, as the presence of one on the board of directors is associated with an increase in how much CEOs are charged for their options.

Thus, the literature is consistent in terms of a role for external blockholders in monitoring the compensation of top executives. There is little evidence that managers use their own voting power to extract higher salaries.

4.2 Leverage

Some theoretical models posit a relationship between managerial stock ownership and leverage. In one of the most influential of these models, Stulz (1988) argues that high inside ownership should be associated with higher leverage. He reasons that greater leverage allows managers to increase their voting control for a given level of equity investment. Debt is thus one way to relax the wealth constraints that are inherent when a single individual or small group of individuals seek to gain voting control of a large public corporation.

There is little empirical support, however, for the proposition that leverage increases with ownership concentration. In fact, some studies suggest the opposite. Holderness and Sheehan (1998) find that firms with individual majority shareholders tend to have lower debt-to-asset ratios than similar-size firms with diffuse ownership. Firms with corporate majority shareholders have debt-to-asset ratios that are indistinguishable from those associated with similar-size firms with diffuse ownership. Holderness, Kroszner, and Sheehan (1999) report that although managerial stock ownership increased substantially between 1925 and 1995, the average leverage ratio did not increase. They also find a negative relationship between inside ownership and leverage for 1995. Finally, Mikkelson and Partch (1989) find no relationship between leverage and managerial stock ownership.

4.3 Takeover Activity

Ownership concentration could affect the frequency with which a firm is acquired in several ways. For instance, the frequency would decrease if management uses its block voting power to resist external overtures in an effort to preserve its jobs and any attendant private benefits of control. This is a key assumption of Stulz (1988), who predicts that the incidence of acquisitions will decline as managerial stock ownership increases. Conversely, the frequency of an acquisition would increase with inside ownership if management is personally motivated to realize the gains by selling its stock at a premium. Broadman (1989), in fact, finds that the probability of an initial offer succeeding is positively related to the potential dollar gains for top management.

The evidence on the relationship between block ownership and the frequency with which a firm is acquired is mixed. Morck, Shleifer, and Vishny (1988b) find that the probability of a Fortune 500 firm being acquired between 1981 and 1985 increased with the percentage of common stock owned by its top two managers. Walkling and Long (1984) have a similar finding for a different sample and a different time period. Holderness and Sheehan (1988) report that some types of majority-owned firms are acquired more frequently than their paired, diffusely held firms. Specifically, over the seven years that followed, 38 percent of their corporate majority shareholder firms were either acquired or taken private, compared with only 21 percent of the paired, diffusely held firms. This difference is significant at the 5 percent level, but the difference with individual majority shareholder firms and their paired firm is not significant.

Mikkelson and Partch (1989), in contrast, find that for 240 randomly selected corporations over the 1973-83 period, the probability of a change in control—which they define as a merger, delisting, or bankruptcy—is unrelated to managerial

ownership.[14] This finding apparently is driven by two conflicting tendencies. When managerial ownership is low, the probability that a firm will receive an offer is higher, but the probability that the offer will be accepted is lower. That is to say, with lower inside ownership, the probability of both an offer and managerial resistance increases.

Mikkelson and Partch (1989) also find that the presence of an external blockholder on a firm's board of directors increases the likelihood of a change in control. In contrast, blockholders who do not serve on the board of directors have no discernable impact on either the probability of a firm receiving an offer or the probability that a proffered offer will be accepted.

5. What Is the Impact of Block Ownership on Firm Value?

The relationship between block ownership and firm value—in many ways, the ultimate question with blockholders and corporate control—is conceptually difficult. Let us assume that a cross-sectional analysis finds a statistically significant positive relationship between firm value and ownership concentration (be it the percentage of common stock held by management or the percentage of common stock held by outside blockholders). Putting aside any data problems (the amount of stock insiders actually own) and any problems measuring firm value (the reliability of Tobin's Q as a measure of value), there are several possible relationships that are consistent with this empirical finding.

First, it is possible that firm value is higher because managers work harder as their fractional stake increases when they get to keep more of the fruits of their labor. This is the reasoning in Berle and Means (1932) and Jensen and Meckling (1976); it is also the reasoning behind much of the contemporary corporate finance literature, which typically stresses the shared benefits of control.

A second possibility is that there are systematic differences between firms with high and low managerial ownership, and it is these differences—not the level of managerial stock ownership—that are causing the difference in firm value. This is often called the unobserved heterogeneity problem. Consider the following example. Firm A operates in a competitive market, and this product-market competition provides considerable pressure for value maximization. Because of this and because such a firm probably offers few private benefits of control, the level of managerial ownership is low. The value of this firm—as measured either by its market-to-book ratio (Tobin's Q) or its accounting rate of return—is low because of the product-market competition. Firm B, in contrast, has a valuable patent that insulates it from the product-market competition faced by Firm A. Firm B has high managerial ownership, either because of greater private benefits of control or because of shared benefits from more attentive management. Firm B also has a high market value and a high market-to-book ratio due to its patent. It might appear from the cross-sectional regression that high managerial ownership is driving the higher value, but in reality it is the partial insulation from market forces—the patent—that is driving the higher value.

A third possibility is that the causation between firm value and ownership concentration runs in the opposite direction of what is typically portrayed in the literature. This is often called the reverse-causation problem. Recall our hypothetical finding of a positive relationship between firm value and managerial ownership. One possibility is not that higher managerial ownership causes high firm value, but that individuals accumulate blocks in high-value firms, perhaps because such firms offer greater private benefits of control.

The inability to conduct controlled experiments makes distinguishing among these possibilities difficult. (This, of course, is a common problem in all economics.) Nevertheless, many researchers have attempted to understand the costs and benefits of inside ownership by investigating the relationship between inside ownership and firm value.

Morck, Shleifer, and Vishny (1988a), in a widely cited paper, were the first to address the relationship between inside ownership and firm value. They examine a sample of 371 Fortune 500 firms for 1980. They find that firm value—Tobin's Q—tends to increase as managerial stock ownership increases to 5 percent; firm value then decreases as managerial stock ownership increases from 5 percent to 25 percent; finally, firm value tends to increase slightly as managerial ownership increases beyond 25 percent. The first two breakpoints are statistically significant. The breakpoint of 25 percent is marginally significant in some specifications and insignificant in others. This "saw-toothed" pattern of the relationship between firm value and inside ownership has become influential. The independent variables in their regressions are research and development expenditures per dollar of assets (measured by the book value of assets), advertising expenditures per dollar of assets, dollar value of assets, and industry dummies.

These fundamental results are also found with ownership by a firm's top officers and by its outside directors. One interpretation suggested by the authors is that at relatively low levels of ownership, increases in managerial ownership help to align the interests of managers and shareholders. At higher levels of ownership, however, additional ownership by insiders leads to entrenchment.

McConnell and Servaes (1990) take a similar approach to Morck, Shleifer, and Vishny (1988a) by also examining the relationship between Tobin's Q and block ownership for a large

sample of New York Stock Exchange– and American Stock Exchange–listed firms. There are some differences between the two studies, however. Primarily, McConnell and Servaes look at two years (not one), 1976 and 1986, and their ownership data come from Value Line (rather than CDE). McConnell and Servaes find that Q tends to increase until inside ownership reaches 40 to 50 percent, followed by a gradual decline as ownership increases further.[15] They find no significant relationship between Q and either the presence of an "outside" blockholder or the percentage of stock owned by such shareholders. (The authors are unclear on what constitutes an outside blockholder. Is it a blockholder who is not an officer, or is it a blockholder who is neither an officer nor a director?) They are able to confirm Morck, Shleifer, and Vishny's findings only for inside ownership between 0 and 5 percent.

Kole (1995) tries to reconcile the findings of Morck, Shleifer, and Vishny (1988a) with those of McConnell and Servaes (1990). She examines a sample of firms for which ownership data are available from CDE, proxies, and Value Line. Because CDE addresses only the largest (generally Fortune 500) corporations, her analysis is limited to large corporations. She eliminates thirty-nine cases in which the ownership data on inside ownership are potentially erroneous (that is, the three data sources are in considerable disagreement). She then replicates the regressions of Morck, Shleifer, and Vishny for each of the three data sources. She finds that the signs on the three breakpoints are the same for all three data sources: positive for ownership from 0 to 5 percent, negative for 5 to 25 percent, and positive beyond 25 percent. The ownership coefficients in the separate regressions, however, are different and their statistical significance varies considerably. The results using CDE data tend to be most robust, while the results using Value Line data tend to be the least robust. Additionally, in most of the regressions, the coefficient for inside ownership beyond 25 percent is insignificant. In the two regressions in which it is significant, it is so only at the 10 percent level of confidence. Finally, the variation in Tobin's Q that is explained jointly by the three ownership variables ranges between 2.2 percent and 0.9 percent only. Kole's conclusion is that the source of ownership data is not driving the different results of Morck, Shleifer, and Vishny versus those of McConnell and Servaes. "Rather the results . . . suggest that differences in the incentive alignment effect of ownership by a firm's key decision makers is attributable to differences in the size of sample firms" (Kole 1995, p. 428).

Numerous other scholars have followed with analyses of the relationship between firm value and ownership. In one of the more interesting of these studies, Mehran (1995) finds no significant relationship between firm performance (both Tobin's Q and return on assets) and outside directors' stock holdings. He also finds no significant relationship between firm performance and blockholders' stockholdings, or between firm performance and the outside blockholdings of a variety of investors (individual, institutional, corporate).

Himmelberg, Hubbard, and Palia (1999) take a different approach to study the relationship between firm value and inside ownership by using panel data. In theory, panel data should mitigate the unobserved firm heterogeneity problem. In a sample of 600 randomly selected Compustat firms over the 1982-92 period, they find that changes in managerial ownership seem to affect neither firm value nor firm performance.

Demsetz and Lehn (1985) take yet another methodological approach to investigating the relationship between firm value and inside ownership. They regress a firm's accounting rate of return on several variables, including the ownership of the largest shareholders.[16] They find no relationship between the accounting rate of return and the concentration of ownership. On a similar note, Holderness and Sheehan (1988) find no significant differences between the accounting rates of return of paired majority-owned and diffusely held corporations. (They also find no significant differences between the Tobin's Q ratios for these paired firms.) One interpretation of these results is that ownership concentration does not affect firm value. Another interpretation (favored by Demsetz and Lehn) is that the optimal ownership level varies by firm, and that firms are at their optimal level (given the costs of changing).

The relationship between firm value and ownership concentration is obviously pivotal to the topic of blockholders and corporate control. The studies summarized above should all be viewed in the context of a few overriding points. First, the profession has yet to disentangle the relationship between ownership concentration and firm value. Which way does the causation go? Is there a third factor that influences both? Second, the existing studies do not address the relationship between ownership concentration and firm value, although most profess to do so. These studies instead address the relationship between ownership concentration and the value of the stock valued at the exchange price.[17] The difference between firm value and exchange value can be significant in the presence of a controlling shareholder. The difference is any private benefits of control. Barclay and Holderness (1989) estimate that the private benefits average 4.3 percent of the exchange value of their firms' equity (median: 2.1 percent).[18] Given that the existing studies find that ownership concentration can explain little of a firm's (exchange) value—usually less than 2 percent—the failure to consider private benefits is a potentially serious omission in measuring total firm value.

I would summarize the current learning on blockholders and firm value as follows. First, it has not been definitely established whether the impact of blockholders on firm value is positive or negative. Second, there is little evidence that the impact of blockholders on firm value—whatever that impact may be—is pronounced.

6. Conclusion

This paper began by posing four pivotal questions on large-percentage shareholders in public corporations. Although none of these questions has been investigated fully—much less answered definitively in the literature—the current learning on each is that:

- Insiders own approximately 20 percent of a randomly selected, exchange-listed corporation in the United States.
- Block ownership is motivated both by the shared benefits of control: blockholders have the incentive and the opportunity to increase a firm's expected cash flows that accrue to all shareholders; and by the private benefits of control: blockholders have the incentive and the opportunity to consume corporate benefits to the exclusion of smaller shareholders.
- Surprisingly few major corporate decisions have been shown to be different in the presence of a blockholder. One exception is that external blockholders appear to monitor the form and level of managerial compensation. Conversely, there is little evidence that blockholders affect leverage.
- Ownership concentration appears to have little impact on firm value.

If one wants a single "take-away" point from the rapidly growing literature on ownership concentration, it is that small shareholders and regulators have little reason to fear large-percentage shareholders in general, especially when a large shareholder is active in firm management.

Perhaps above all, the academic literature highlights the richness of blockholders. An outside blockholder, for instance, has a different set of incentives than does a CEO blockholder. Blockholders have the incentive to improve management, but they also have the incentive to consume corporate resources. Blockholders that are corporations present a set of issues not found with those who are individuals. Because of this richness, the literature on blockholders and corporate control will continue to grow, and with it our understanding of the modern public corporation will deepen.

Endnotes

1. When the book was published, for example, Beard (1933) wrote, "In the time to come this volume may be proclaimed as the most important work bearing on American statecraft between the publication of the immortal *Federalist* by Hamilton, Madison, and Jay and the opening of the year 1933."

2. The notable exception is Dann and DeAngelo (1983), who examine targeted repurchases of large-percentage blocks of common stock.

3. With few exceptions, these data were ignored until the 1990s. Gordon (1936, 1938) tabulates small subsamples to investigate corporate ownership. Stigler and Friedland (1983) use this source to reclassify the control structures of the large firms in the Berle and Means (1932) sample but do not investigate it further. Recently, Hadlock and Lumer (1997) have used some of the data in their historical investigation of managerial compensation and turnover, and the data are the foundation of Holderness, Kroszner, and Sheehan (1999).

4. Denis and Sarin (1999) also study a randomly selected (from the Center for Research in Security Prices) group of corporations—in this instance, randomly selected in 1983—and find average stock ownership of officers and directors of 15.7 percent (median: 8.0 percent).

5. The voting power is 9.0 percent (median: 1.8 percent). The figure for ownership by all directors and top officers is 9.3 percent.

6. An alternative explanation is that the premiums simply reflect the trading parties' superior knowledge of firm value. Barclay and Holderness (1989), however, reject this explication because they find that positive abnormal stock returns are associated with block trades independent of whether a block is priced at a premium or a discount. If the superior-information hypothesis was valid in this setting, we should not observe positive stock returns associated with blocks that are priced at discounts to the exchange price.

7. Previous research—notably Scholes (1972), Dann, Mayers, and Raab (1977), and Holthausen, Leftwich, and Mayers (1987)—studied block trades that were large in relation to normal trading volume but constituted only a small percentage of the outstanding stock of a company.

8. Eighty percent of the trades are priced at premiums to the exchange price. These premiums are often substantial in other dimensions as well. They average 4.3 percent (median: 2.1 percent) of the total market value of the firm's equity and average $4.1 million (median: $1.7 million). The largest premium to the exchange price is 107 percent in percentage terms and $99.4 million in dollar terms.

9. Their premiums as a percentage of the value of a firm's equity are similar to those found by Barclay and Holderness (1989).

10. Zingales (1994) compares the pricing of voting shares and nonvoting shares listed on the Milan Stock Exchange and reaches a similar conclusion.

11. This is one of the relatively few empirical studies that explicitly consider outside blockholders.

12. Note that the authors' interpretation implicitly accepts the classic Berle and Means, or Jensen and Meckling, viewpoint: namely, that managers work harder as their ownership stake increases and that this benefits minority shareholders. The alternative perspective, which would lead to a different interpretation of their empirical findings, would be that as managers' ownership increases, their ability to consume private benefits increase, and this hurts minority shareholders.

13. Murphy (1999) offers an excellent survey of the academic literature on executive compensation in general.

14. The most important predictor of a change in control is firm size, with small firms experiencing a change in control more frequently than large firms. The authors find that leverage has no relationship to a change in control, but that toehold acquisitions are more likely in highly leveraged firms.

15. Tobin's Q reaches its maximum when inside ownership is 49.4 percent in 1976 and 37.6 percent in 1986.

16. Demsetz and Lehn consider alternatively the aggregate ownership of both the five largest and the twenty largest shareholders as well as a Herfindahl index of ownership concentration. I have always found this to be a strange choice. In particular, why not consider the stock ownership of the largest shareholder? For both legal and practical reasons, it is difficult to imagine twenty different large-block shareholders coordinating their corporate governance activities.

17. The studies, of course, also include debt in total firm value. There is no evidence, however, that private benefits also accrue to bondholders. If they do, then the use of market values (or book values) for debt would suffer from the same shortcoming.

18. In a more recent and larger study, Barclay, Holderness, and Sheehan (2001) report that the private benefits of control constitute 3.0 percent (median: 1.6 percent) of the total market value of the firms' equity.

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