

The Myth of Diffuse Ownership in the United States

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This article offers evidence on the ownership concentration at a representative sample of U.S. public firms. Ninety-six percent of these firms have blockholders; these blockholders in aggregate own an average 39% of the common stock. The ownership of U.S. firms is similar to and by some measures more concentrated than the ownership of firms in other countries. These findings challenge current thinking on a number of issues, ranging from the nature of the agency conflict in domestic corporations to the relationship between ownership concentration and legal protections for investors around the world. (*JEL* G32, G34)

Two stylized facts dominate thinking about the ownership concentration of public corporations—U.S. firms generally are diffusely owned, and U.S. firms are more diffusely owned than comparable firms elsewhere. Tirole (2006, p. 40), for example, writes that “ownership is extremely dispersed in the United States.” Franks, Mayer, and Rossi (2007, p. 1) report that “one of the best-established stylized facts about corporate ownership is that ownership of large listed companies is dispersed . . . in the U.S. and concentrated in most other countries.” Denis and McConnell (2003, p. 18) summarize: “A number of conclusions can be drawn from the international literature on the ownership of publicly traded firms. First, ownership is, on average, significantly more concentrated in non-U.S. countries than it is in the U.S.” In a similar vein, Becht and DeLong (2005, p. 1) ask: “Why is there so little blockholding in the United States?”

The view that U.S. ownership is unusually diffuse shapes contemporary views of a wide range of issues. Tirole (2006, p. 15) sees the separation of ownership from management in the United States as the starting point for

I thank Stijn Claessens, Simeon Djankov, Mara Faccio, Larry Lang, Rafael La Porta, Karl Lins, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny for their data. I thank Melissa Go-Alcantara and Edward Shim for research assistance. This paper has benefited from the comments of an anonymous referee, Vladimir Atanasov, Michael Barclay, David Chapman, Art Durnev, Alex Edmans, Stuart Greenbaum, Darren Kisgen, Rafael La Porta, Jun Qian, Mark Roe, Dennis Sheehan, Matthew Spiegel, and seminar participants at Boston College, London Business School, the ACLE/JFI Conference on the Ownership of the Modern Corporation, the Annual Meeting of the Financial Research Association, and the Annual Meeting of the American Finance Association. Special thanks go to Jeffrey Pontiff for his steadfast encouragement and keen insights. Earlier versions of this paper circulated under the title “A Contrarian View of Ownership Concentration in the United States and Around the World.” Send correspondence to Clifford G. Holderness, Finance Department, Carroll School of Management, Boston College, 140 Commonwealth Ave., Chestnut Hill, MA 02467, telephone: 617-552-2768. E-mail: clifford.holderness.1@bc.edu.

“academic thinking on corporate governance and corporate finance” over the past 70 years. Helwege, Pirinsky, and Stulz (2007, p. 996) propose that “the stylized fact that large U.S. corporations are much more likely to have dispersed ownership than comparable corporations in most other countries plays a central role in much of modern corporate finance.” Stulz (2005, p. 1595) argues that “ownership concentration limits economic growth, financial development, and the ability of a country to take advantage of financial globalization.”

Although it is widely believed that U.S. ownership is diffuse, empirical support for this proposition is surprisingly scant. Most research on corporate ownership addresses only one part of total ownership—namely, inside ownership. Relatively little research addresses ownership by all large-percentage shareholders, which differs from inside ownership to the extent that large shareholders are not directors or officers. The few empirical papers on large shareholders typically focus on their role in certain situations, such as Gilson’s (1990) study of blockholders in bankruptcy. In contrast, the theoretical work on large shareholders is extensive and includes such notable papers as Shleifer and Vishny (1986), Grossman and Hart (1988), Harris and Raviv (1988), Bebchuk (1994), and Burkart, Gromb, and Panunzi (1997, 1998).

In the absence of broad empirical studies that encompass all large shareholders within a firm, we know relatively few basic facts about ownership concentration in the United States. In particular, we do not know what fraction of public corporations has large shareholders or how much of a firm large shareholders own. These gaps in our knowledge are obviously at odds with the widespread belief that U.S. ownership is diffuse.

This study bridges the gaps in our knowledge by presenting hand-collected data on large-percentage stock ownership at a representative sample of 375 Compustat- and CRSP-listed firms. Ninety-six percent of these firms have shareholders who own at least 5% of the firm’s common stock (“blockholders”). Three times as many firms have majority blockholders as have no blockholders. Blockholders on average own 39% of a firm. Although there is an inverse relation between ownership concentration and firm size, even among large firms, ownership is unexpectedly concentrated. For example, 89% of the sample S&P 500 firms have blockholders.

These findings raise doubts about whether ownership in the United States is, in fact, less concentrated than elsewhere. The empirical support for this stylized fact, likewise, is not as strong as one might believe given its influence. The few existing studies consider only a handful of the very largest firms from the United States and other countries. Because ownership concentration decreases with firm size, these firms are unlikely to be representative of other firms from the same country. In addition, there is often a dramatic difference in the size of these large firms across countries, especially compared with the United States. Existing studies seldom control for this difference in size, and they never control for differences in other firm-level attributes known to affect ownership concentration, such as a firm’s age or industry. Existing studies also use country

averages to analyze ownership concentration, but this eliminates all within-country variation and thus artificially overstates differences across countries.

To correct these deficiencies, I compare the ownership of the CRSP and Compustat firms with hand-collected data from 7842 public firms from 22 European and East Asian countries. I find that ownership concentration in the United States is similar to what it is elsewhere. On a country-by-country basis, the United States falls in the middle of the distribution. These findings hold when I control for firm size as well as other firm-level determinants of ownership concentration; these findings also hold when I use alternative measures of ownership concentration.

Thus, the two central findings in this article are that most public corporations in the United States have large-percentage shareholders, and the ownership concentration of U.S. corporations is similar to the ownership concentration of corporations elsewhere. This contrarian evidence suggests a rethinking of a wide range of issues, extending from the nature of the agency conflict in U.S. corporations to whether large shareholders compensate for weak investor protection laws around the world.

1. Ownership Concentration Around the World

1.1 Ownership concentration in the United States

The fundamental problem with diffuse ownership is that a joint owner will not have the same incentives as either a manager or a monitor as a sole owner will have.¹ The more fractured the ownership becomes, the greater this free-rider problem becomes. Ideally, we would study the ownership concentration of all assets, not just corporations and not just exchange-listed corporations. The problem, of course, is that ownership data are (with rare exceptions) available only for exchange-listed corporations. The analyses in this article are, therefore, limited to exchange-listed corporations. This being said, we should remember that most concerns about the free-rider problems created by diffuse ownership have been made with specific reference to public corporations.²

To understand better the ownership concentration of exchange-listed firms in the United States and around the world, we should study large shareholders across a broad spectrum of firms, not just across countries but within countries as well. A narrower focus, say, of just large or old firms might be more appropriate for other purposes. For instance, if we were instead interested in the impact

¹ Holderness (2003) analyzes other property rights issues created by joint ownership.

² It appears that the importance of exchange-listed corporations in the U.S. economy is similar to what it is for many other economies. For instance, the United States ranks 10th out of 49 countries surveyed in the ratio of the number of listed domestic corporations relative to its population. In this metric, the United States is closer to the surveyed country with the fewest public firms (Indonesia) than to the country with the most public firms (Israel). Similarly, the United States ranks 8th out of 49 on the ratio of its stock markets to its GDP. These data and others comparing the importance of public stock markets can be found at Andrei Shleifer's Web site, <http://www.andrei-shleifer.com/data.html>.

of blockholders on a nation's economy, it might make sense to examine only large firms on the theory that they have a greater impact on an economy. But such a narrow sample would tell us less about blockholders in general. There might be something atypical about the ownership concentration of the largest firms in an economy for either political reasons (blockholders in these firms may have more political power) or financial reasons (ownership may be less concentrated in large firms due to personal wealth constraints). A narrow sample also makes cross-country comparisons problematic if the countries differ significantly along the dimension chosen to generate the sample. This is the case with firm size, for instance.

Given that it is impractical to examine all firms within a country because reliable ownership data must be hand collected (more on this below), the next best approach would be to examine ownership at a random or representative sample of firms. A representative sample enables us to determine the extent to which public firms have large shareholders and how the frequency of block ownership varies with firm size. This consideration will be important for international comparisons as U.S. firms tend to be larger than non-U.S. firms.

To generate a random sample of U.S. firms, I start with all firms listed on the March 1995 disc of Compact Disclosure. I select 1995 because it is the approximate date of the international databases on block ownership used later in the article. I use Compact Disclosure because it lists all firms on the NYSE, Amex, and NASDAQ. I select one of the first 10 firms listed in Compact Disclosure's alphabetical listing of firms at random; I then select every 10th firm thereafter. This produces a list of 428 firms. I exclude no type of firm; some of the eventual sample firms, consequently, are financial and utilities. I also include firms with dual classes of common stock and in such cases differentiate between voting rights and cash flow rights.

Reliable data on block ownership must be hand collected from proxy statements. It is necessary to read proxies to correct problems with double counting block ownership (for instance, attributing the same block to both a husband and a wife), including preferred stock as common stock, and ignoring large blocks that are not reported in the customary ownership table but instead noted only in text. I am able to obtain proxies for 376 of the 428 firms from LaserDisclosure, the SEC's Edgar database, or Lexis-Nexis's EdgarPlus database. The missing firms are generally either small domestic firms or large foreign firms, which although listed on U.S. exchanges do not have to file proxy statements. The proxies are from 1995 or as close to that year as possible. To avoid contaminating the sample with firms that effectively are not publicly traded, I drop the only firm in which blockholders in aggregate own 95% or more of the voting rights of the common stock.³ The resulting 375 firms constitute the sample of

³ The paucity of firms with aggregate block ownership greater than 95% (indeed, only one other firm has aggregate block ownership greater than 90%) probably reflects the fact that exchange-listed firms with fewer than 500 shareholders are exempt from filing public reports.

U.S. firms used in this article. Financial data on the firms are obtained from CRSP and Compustat as of December 31, 1994.

Two features of this sample are noteworthy for our purposes: the sample is broad and the sample is representative of CRSP and Compustat firms. The sample encompasses a broad array of firms, from such large, well-known firms as American Express and McDonald's to smaller firms like Eagle Hardware & Garden (a West Coast chain of stores) and Falcon Products (a manufacturer of commercial furniture). The smallest firm has a market capitalization of \$1.8 million (Armatron International); the largest has a market capitalization of \$29 billion (Pepisco). This range ensures that in international comparisons we will not be extrapolating beyond the range of the data.

The sample firms are also representative of the population of CRSP- and Compustat-listed corporations. By a variety of measures of firm size—namely, market value of equity (\$1.1 billion), book value of assets (\$2.0 billion), and sales (\$1.2 billion)—the sample firms have mean values that are statistically indistinguishable from the same measures for all firms listed on the merged CRSP/Compustat database. A variety of nonsize measures, including leverage and the proportion of firms paying dividends, are likewise indistinguishable between the sample and the merged CRSP/Compustat database.

I hand collect from proxy statements data on the ownership of all shareholders who own at least 5% of the common stock.⁴ All data are checked twice to ensure accuracy. Although firms in theory are required to report all shareholders who own at least 5% of their stock, some firms do not report shareholders who are outsiders and own between 5% and 10% (at which point a shareholder becomes a “beneficial owner” under securities laws and subject to additional legal obligations). I determined this by checking 13ds and 13fs that are filed contemporaneously with the proxies. I include such blockholder ownership in eight cases when a contemporaneous 13d or 13f shows that a blockholder has been mistakenly excluded. As the SEC's Edgar database's coverage of 13ds and 13fs has limited coverage for the mid-1990s, the data in this article probably understate block ownership.

When a firm has dual-class voting stock, I record both the voting rights and the cash flow rights held by each blockholder. Most analyses in this article are of the voting rights. I also record the number of identified representatives each blockholder has on the board of directors. Here I rely exclusively on the information in the proxies. Lastly, I record the stock ownership of directors and officers. Reporting of director and officer ownership is not limited to the 5%

⁴ I aggregate ownership only for members of the same immediate family and then only for block ownership. For example, if a mother owns 15% of a firm and her son owns 10%, I record this as 25% ownership. In contrast, if a mother owns 15% of a firm and her son owns 4%, I do not aggregate ownership because the son is not a blockholder. In this case, I would record only 15% ownership. This aggregation does not affect the two primary measures of ownership concentration used in the article, the aggregate ownership of all blockholders and whether a firm has a blockholder. It does, however, affect the ownership of a firm's largest shareholder, which is used as the measure of ownership concentration in some robustness tests.

Table 1
Summary statistics on the common stock ownership of blockholders, directors, and officers at 375 randomly selected, CRSP- and Compustat-listed firms measured as a percentage of the total votes outstanding

	Percentage
Ownership of all blockholders, directors, and officers	
Average ownership	43
Median ownership	43
SD of ownership	23
Maximum ownership	97
Minimum ownership	<1
Ownership of all blockholders only	
Average ownership	39
Median ownership	37
SD of ownership	23
Maximum ownership	95
Minimum ownership	0
Ownership of directors and officers	
Average ownership	24
Median ownership	17
SD of ownership	23
Maximum ownership	87
Minimum ownership	<1
Ownership of largest shareholder	
Average ownership	26
Median ownership	17
SD of ownership	20
Maximum ownership	86
Minimum ownership	<5
Percentage of firms with blockholders	96

Blockholders are those shareholders who own at least 5% of the common stock. The second panel includes firms with no blockholders counted as zero ownership. The third panel reports the ownership of directors and officers as summarized in proxy statements. The last panel includes only those 360 firms that have blockholders. Data come from 1995 proxy statements.

threshold. I include such ownership in the blockholder total only to the extent that the ownership of an individual director or officer meets the 5% threshold.

Table 1 offers summary statistics starting at the top with the most expansive measure of ownership concentration, measured as a percentage of the votes outstanding, and proceeding down to the narrowest measure. Most of these findings are reported for the first time or are very different from what others have reported. The top panel reports that as a group, blockholders, directors, and officers own 43% of the common stock of a randomly selected, CRSP- and Compustat-listed corporation. (Often blockholders or their representatives are directors. This figure avoids double counting, as do all other figures in the article.) To the extent one believes that corporate decisions are made jointly by large shareholders and corporate insiders, this would be the appropriate measure of ownership concentration. Such a measure is not available for non-U.S. firms, so it is not used in the article.

The next panel of Table 1 contains one of the two summary statistics that is the focus of this article: the aggregate stock ownership of all blockholders.

On average the large shareholders in a firm collectively own 39% (median 37%) of the voting power of the common stock. This includes firms without blockholders counted as zero block ownership. I have not seen similar data reported in the literature.

The third panel reports that the ownership of directors and officers as summarized in proxy statements averages 24% (median 17%). This is the one finding in Table 1 that is similar to what others have reported. Holderness, Kroszner, and Sheehan (1999) report equivalent figures of 21% (14%) for a sample of several thousand NYSE, Amex, and NASDAQ firms. Mikkelson and Partch (1989) report equivalent figures of 20% (14%) for hand-collected data from a random sample of NYSE and Amex firms. The similarity of these figures confirms Anderson and Lee's (1997) conclusion that Compact Disclosure (an electronic database that is the source of the data used by Holderness, Kroszner, and Sheehan) accurately replicates the summary statistic on directors and officers' ownership found in proxy statements. The relative ease of obtaining these data is undoubtedly a major reason why they have been so widely used for academic research.

A comparison of the top three panels of Table 1 reveals that there is more to ownership concentration than inside ownership. There are two reasons for this. First, the directors and officers' statistic (third panel) excludes blockholders who do not have representatives on the board of directors. Therefore, insurgents or institutional investors who have a policy of not sitting on corporate boards are excluded. In one sample firm, outside blockholders own 67% of the stock. On average, outside blockholders hold 11% of the stock (median 7%).

There is a second, heretofore unrecognized, problem with the directors and officers' proxy summary statistic. Some firms have entities such as trusts or other corporations that own large-percentage blocks. Often these blockholders have designated representatives who serve as directors or officers. Although this information is inevitably disclosed in the proxies, typically in footnotes, firms are inconsistent on whether they include such block ownership in the proxy's director and officer aggregate ownership figure.

An extreme example involves Vastar Corporation. In 1995, ARCO Corporation owned 82% of the common stock of Vastar. The proxy is replete with statements that ARCO unilaterally controls Vastar. Seven of the nine directors are past or current employees of ARCO, including one ARCO director. Yet, the ARCO block is not imputed to its representatives who serve as directors of Vastar. The aggregate ownership of all officers and directors reported in the proxy summary statistic is less than 1% even though the directors control 82% of the stock.

To correct this problem, I recalculate the voting ownership of directors and officers by consistently imputing block ownership to the board when a blockholder or a designated representative sits on the board. With this correction, inside ownership increases to an average of 32% (median 27%) as opposed to the proxy average of 24% (median 17%).

These two considerations, outside blockholders and entity blockholders who have representatives on the board but are not so imputed, cause the directors and officers' statistic from proxy statements, the data used in so many studies, to understate block ownership by 15–20% (second panel of Table 1). The directors and officers' statistic understates total ownership concentration, defined as inside ownership plus block ownership, by 19–26% (top panel of Table 1).

The last line of Table 1 reports that 96% of firms have blockholders. This is the second primary measure of ownership concentration used throughout the article. The only other study I am aware of that reports the frequency of blockholders in a representative sample is Becht (2001, p. 296), who reports that only 56% of NYSE and NASDAQ firms have blockholders. Because of this he concludes “that corporate governance in the United States is not driven by 5%+ blockholders.” Given that my sample is essentially a random subset of Becht's sample, it is hard to reconcile the vast difference in the frequency of large shareholders other than on the grounds of inaccurate data in one of the two samples. I hand collect data and check it twice for accuracy. Becht uses electronic data from the Global Researcher Database assembled by Disclosure, Inc. Other researchers, however, have rejected Disclosure blockholder data due to accuracy problems.⁵ The present comparison confirms the problems with Disclosure ownership data.⁶

The bottom panel of Table 1 reports the stock ownership of a firm's largest shareholder. This figure, in contrast to the other figures in the table, includes only firms with blockholders. When a firm has at least one blockholder, 96% of the sample, the average size of the largest block is 26% (median 17%). The only other paper that reports data on the largest shareholder in a representative sample of firms, again, is Becht (2001). He reports that the median size of the largest block in NYSE firms is 5.4%, and in NASDAQ firms it is 8.6%. Given that these Disclosure-based figures are significantly below the hand-collected data presented in this article, for reasons just discussed, they must be seen as unreliable.

Later in the article, I find, as others have found, an inverse relation between ownership concentration and firm size. I also find an inverse relation between ownership concentration and firm age. Yet, even most large, old firms have blockholders. For instance, 37 of the sample firms are in the S&P 500 Index. These firms have an average market capitalization of \$7.5 billion (median \$5.1 billion) and an average age of 55 years (median 55 years). By both measures, these firms are in the top decile of public firms generally. Nevertheless, 89% of these firms have blockholders. These blockholders in aggregate own

⁵ Dlugosz et al. (2006) and Perez-Gonzalez (2003) detail these problems.

⁶ Other sources also cast doubts on Becht's figures. Dlugosz et al. (2006) have a nonrandom sample of large, old firms. Because of these sample characteristics, their firms will have less concentrated ownership than the universe of public corporations. Although they do not report the percentage of their firms that have blockholders, it is possible to calculate this statistic with their raw data. In fact, 85% of their firms have blockholders. Their data, like my data but in contrast to Becht's data, are hand collected.

16% (median 12%) of the stock, and this figure includes firms without blockholders counted as zero.⁷

1.2 Comparison of ownership concentration at U.S. and non-U.S. firms

1.2.1 Non-U.S.-ownership data. The ideal way to test the conventional wisdom that U.S. public corporations have atypically diffuse ownership would be to compare the just-presented U.S. data with data from other countries that are collected in the same way. Thus, I would generate a random sample of countries with publicly traded firms. Next, I would randomly select firms from each country and hand collect ownership data on all 5% or greater shareholders from original sources, the equivalent of proxies, 13ds, and 13fs in each country. Following the procedure with the U.S. sample, no type of publicly traded firm would be excluded. Given how long it took me to do this for one country, however, it would be impractical to repeat this procedure for countries with limited online information, often in languages I do not understand.

In contrast, the easiest way to compare the ownership concentration of U.S. public firms with firms elsewhere would simply be to use Worldscope's electronic ownership data. Indeed, this option would obviate the need to hand collect U.S. ownership data. I investigated this option but rejected it because Worldscope's ownership is inaccurate. Among the major problems are that it often ignores outside blockholders and does not properly deal with dual-class stock, approximately 6% of all U.S. firms.⁸ Other researchers have found Worldscope's ownership data to be inaccurate for non-U.S. firms. One problem with the non-U.S. data is that custodial or depositary accounts are often included as blockholdings even though the institutions holding the stock typically may neither vote nor sell the stock. Another problem is that missing ownership data are sometimes coded as zero.⁹

A third option, and the one ultimately chosen, is to use the stock ownership database of Faccio and Lang (2002), which encompasses 13 Western Europe countries: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom; and of Claessens, Djankov, and Lang (2000), which encompasses nine East Asia

⁷ Three papers examine block ownership in larger, older firms. All involve hand-collected data, and all define blockholders as shareholders who own at least 5% of the common stock. Anderson and Reeb (2003) find that on average 26% of a nonutility, nonfinancial S&P 500 firm is owned by the founding family and unrelated blockholders. Villalonga and Amit (2006) find that on average 25% of a Fortune 500 firm is similarly owned. In both studies, the founding family is not required to own any particular amount of stock. Neither study reports the percentage of firms having blockholders or the stock ownership of all blockholders. Dlugosz et al. (2006) compile a database of larger, older firms that are monitored by a shareholder action group, the Investor Responsibility Research Center. The core of this sample is the S&P 500. They exclude firms with dual-class stock. Blockholders in aggregate own between 21% and 25% of their sample firms, depending on the year.

⁸ I compared my hand-collected ownership data with Worldscope's data for a random sample of firms. On average, Worldscope undercounts U.S. ownership by 13%. To confirm that the data used in these comparisons are accurate, I checked them once again against the proxies and found no errors.

⁹ For more detailed discussions of problems with Worldscope's ownership data, see Claessens, et al. (2000), Faccio and Lang (2002), and Lins (2003).

countries: Hong Kong, Indonesia, Japan, South Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.

Both databases, like the U.S. database, involve hand-collected data on shareholders who own at least 5% of the common stock in public corporations. Faccio and Lang (2002, p. 369) report that their “database records all owners who control at least 5% of voting rights.” Similarly, Claessens, Djankov, and Lang (2000, p. 91) report that they “analyze the cash flow and control rights of companies by studying all shareholders who control over 5% of the votes.” Both databases, again like the U.S. database, also include firms that have no blockholders; this will enable us to investigate the claim that U.S. firms are less likely to have large shareholders.

These two databases also appear to have the most accurate foreign ownership data currently available. Indeed, the very reason these databases were painstakingly constructed was that the researchers involved were not satisfied with the electronically available ownership data, particularly Worldscope. The accuracy of these two hand-collected databases explains why they have been used by a growing number of researchers.¹⁰ To confirm the accuracy of the data, I checked the Japanese ownership data because by some measures it has the least concentrated ownership among the 23 countries surveyed (Figure 2). Some readers have expressed surprise at this, believing Japan to have concentrated ownership because of its keiretsu system of interlocking stockholdings. I compared the ownership data for a random sample of the firms from the Claessens et al. database with data for the same firms as reported in the *Japan Company Handbook*. The *Handbook* is considered to have accurate ownership data and is widely used by academics and practitioners in both Japan and elsewhere (including Claessens et al.).¹¹ Differences between the two sources are trivial.¹²

This raises the interesting question of why many believe Japanese ownership is concentrated. Although it is widely believed that there are substantial cross-holdings among firms in the same keiretsu, which would increase ownership concentration, Miwa and Ramseyer (2002, pp. 169, 212) present convincing data that this is not the case. They find that “regardless of the keiretsu definition used, cross-holdings within the ‘groups’ were trivial, even during the years

¹⁰ Some researchers have similarly combined the two databases, for instance Durnev and Kim (2005).

¹¹ I thank Professor Hideki Kanda of the University of Tokyo Law School for his assessment of the accuracy of the ownership data in the *Japan Company Handbook*.

¹² Specifically, I selected 50 firms at random from the Japanese firms included in the Claessens et al. database. I then compared the data they report for these companies with the data for the same firms as reported in the *Winter 1998 Japan Company Handbook* (First Section and Second Section). The average (median) difference in aggregate ownership of all 5% or greater shareholders is 2.8% (0.2%). The average (median) difference in the ownership of the largest shareholder is 1.4% (0.0%). None of these differences are statistically significant. I also checked the ownership data for a country that the foreign database reports has abnormally concentrated ownership, France. The figures from the database are similar to what Bloch and Kremp (1999) report using a French government (and proprietary) survey of a vast number of listed and unlisted companies. Both sources show that most French companies have one large shareholder, who often owns at least 50% of the stock, but seldom have other blockholders.

when keiretsu ties were supposedly strongest.” They conclude that keiretsu are “creatures of the academic and journalistic imagination, from the start they existed only because we collectively willed it thus.” A second reason why Japanese ownership is relatively diffuse is that director and officer ownership is low. This may partially reflect the fact that Japanese firms were not allowed to grant stock options until May 1997.¹³

The two databases offer other advantages as well. They encompass over 7500 firms from 22 countries, ranging from sophisticated financial markets like the United Kingdom and Japan to developing nations like Portugal and Malaysia. There is also a wide range in the size of the sample firms, from less than \$1 million to nearly \$20 billion. This will avoid problems with most existing international comparisons that are limited to a small number of firms, often with very different sizes.

Although the two samples have many advantages, they are not perfect for our purposes. Most notably, the countries and the firms in the two foreign datasets are not randomly chosen.¹⁴ I attempt to compensate for this by including firm-level controls, such as firm size and firm age. Thus, we can compare like-size firms across countries. Most of the U.S. ownership data come from 1995, while the other countries report ownership data from 1995 to 1999 (all three databases use data from several years). This should not be a major problem as others have found that ownership at a given firm tends to be stable over short periods of time. I use original sources (proxies, 13ds, and 13fs) to collect ownership data for the United States; the foreign databases generally use secondary sources. This introduces the possibility of errors in transcribing data from the original source to the secondary source, but the direction of any resulting bias is unclear. Finally, there are some differences in data collection across the three samples. Some of these will tend to understate ownership concentration in the United States relative to the rest of the world; others will tend to overstate ownership concentration in the United States. The foreign databases include some depository accounts in spite of the authors’ efforts to exclude them. It also appears that some Asian blocks of less than 5% are rounded up to 5%. In contrast, the European sample does not include nonlargest blocks that represent between 5 and 10% of the voting power. (For the largest block, however, they always record ownership down to 5%.) The Asian sample reports some nonlargest blocks in five-percentage-point intervals. I attempt to compensate for these differences, first by analyzing the ownership of the largest shareholder, and second by considering only blocks of at least 10% or, alternatively, 20%.

¹³ Kato et al. (2005).

¹⁴ The firms, however, often encompass a substantial portion of the publicly traded firms within a given country. For example, Faccio and Lang’s database includes 94% of the listed firms from their countries. The Claessens et al. database ranges from 64% of the publicly traded firms in Thailand to 96% in Singapore.

1.2.2 Basic comparisons. Two alternative measures of ownership concentration are used to compare ownership in the United States with ownership elsewhere: a dummy variable that takes a value of one if a firm has at least one blockholder and zero otherwise; and the aggregate stock ownership of all blockholders, with firms without blockholders included at zero block ownership. An advantage of these two metrics is that they span block ownership. The dummy variable is a narrow measure as it asks only whether a firm has a blockholder. Although it can be complicated to determine exactly how much stock someone owns, it is usually clear if a firm has a blockholder. Thus, there will be little measurement error with this metric. The aggregate ownership is a broad measure as it includes all the stock of all the blockholders. This metric also avoids the problems from relying solely on dummy variables, which characterizes much research on ownership but can paint a misleading picture. The aggregate measure but not a dummy variable, for instance, accounts for the likelihood that a firm with a 45% blockholder is likely to be different from a firm with a 7% blockholder. The aggregate measure also accounts for the likelihood that a firm with three 20% blockholders will probably be different from a firm with only one 20% blockholder. Alternative measures of ownership concentration are used in robustness tests.

Figure 1 compares the aggregate voting ownership of blockholders in U.S. firms and non-U.S. firms. This is the key empirical finding in the article. We see that blockholders in the United States typically own more of the common stock (average 39%, median 37%) than do blockholders in non-U.S. firms (average 36%, median 33%). Differences in both means and rank-sum tests are significant (p -values of 0.02 on a difference in means test and less than 0.01 on a rank-sum test). Similarly, 96% of the U.S. firms but only 93% of the non-U.S. firms have blockholders. This difference is also significant (p -value of less than 0.01 on a test that the portion of firms having blockholders is the same in U.S. and non-U.S. firms).¹⁵

Figure 1 appears inconsistent with the widely held belief that corporate ownership in the United States is more diffuse than elsewhere. One must be circumspect, however, in drawing this or any conclusion from Figure 1 because firms from the two sources may not be comparable. The U.S. sample is a random sample; the non-U.S. sample is not random. The non-U.S. sample contains firms from 22 countries, with some countries being more represented. For instance, there are 567 French firms but only 97 Austrian firms. (Of course, one could counter that this is as it should be because there are more French firms than Austrian firms.) U.S. capital markets are more developed than other

¹⁵ Three adjustments are made to help ensure consistency across countries. First, blocks of less than 5% are ignored because most countries do not require that such blocks be revealed publicly. Second, firms in which blockholders collectively own at least 95% of the stock are excluded on the theory that these firms are effectively private and because U.S. firms are exempt from SEC filing if they have less than 500 shareholders. In robustness tests, I consider alternative cutoffs of 90, 99, and 100%, and the results do not change qualitatively. Finally, financial data from the same year as the ownership data are deflated to the end of 1994 to make them consistent with the U.S. data.

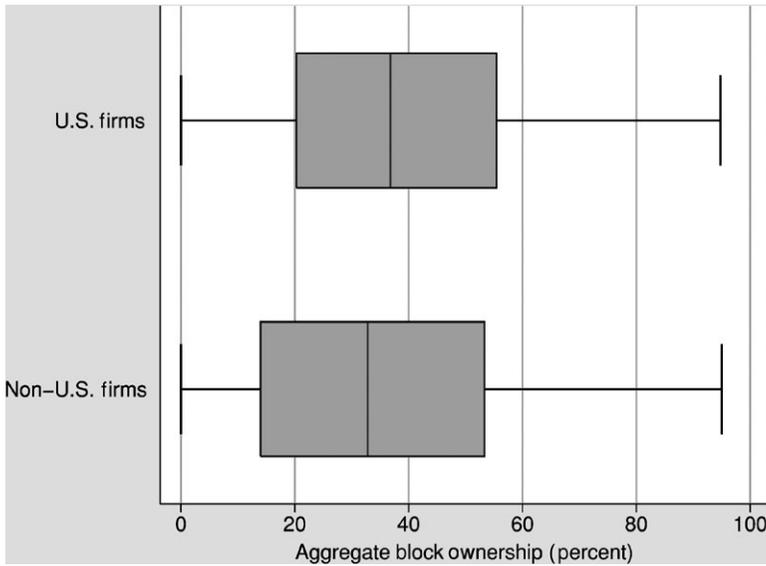


Figure 1
Comparison of large-block stock ownership at U.S. and non-U.S. public corporations

Block ownership is the aggregate voting percentage of all shareholders who own at least 5% of the common stock. If a firm has no blockholders, the firm is included at zero block ownership. The thin black line represents the median block ownership, which is 37% for U.S. firms and 33% for non-U.S. firms. Beginning and end of the shaded boxes represent the 25 and 75% figures, respectively. The ends of the whiskers represent the minimum and maximum block ownership. U.S. ownership data are from a random sample of 375 CRSP- and Compustat-listed corporations and come from 1995 proxy statements. Non-U.S. ownership data encompass 7842 firms from 22 countries and come from the data sets used in Faccio and Lang (2002) and Claessens, Djankov, and Lang (2000).

capital markets, and this suggests that different types of firms might be public in different countries. And perhaps most obviously, the firms may be of different sizes, and there is longstanding evidence of an inverse relation between firm size and ownership concentration (for example, Herman, 1981; and Demsetz and Lehn, 1985). Figure 1, thus, may be the starting point of an analysis of ownership concentration around the world, but it should not be the ending point.

1.3 A closer examination of ownership concentration around the world

When commentators claim that the United States has relatively diffuse ownership, they are implicitly, if not explicitly, claiming that a U.S. firm has more diffuse ownership than a firm of similar size, age, industry, and the like from another country. Thus, a natural way to help ensure that we are comparing similar firms across countries is to control for firm-specific determinants of ownership concentration. These controls are particularly important because we are unsure of the criteria used to select the non-U.S. firms. Moreover, if regression analyses omit control variables that vary significantly across countries and are correlated with ownership concentration, the resulting coefficients for the

Table 2
Description of variables used in the article

Variable	Description	Source
Block ownership	Aggregate percentage stock ownership of all shareholders who own at least 5% of the voting rights of the common stock ("blockholders"). When a firm has no blockholders, the firm is included at zero block ownership.	For U.S. firms: hand collected from annual proxy statements as close to 1995 as possible. For non-U.S. firms: hand collected. Faccio and Lang (2002) for European companies; Claessens, Djankov, and Lang (2000) for East Asian companies.
Firm has blockholder	Dummy variable that equals one if a firm has at least one shareholder who owns at least 5% of the stock and zero otherwise.	Same as above.
Firm size (log)	The natural log of the market value of the firm's equity.	For U.S. firms: Compustat annual data item 24 times item 25. For non-U.S. firms: Thomson Financial Datastream.
Age of firm (log)	The natural log of the number of years since incorporation.	For U.S. firms: Mergent Database or Web sites of individual companies. For non-U.S. firms: Thomson Financial Datastream.
PPE/sales	The ratio of tangible, long-term assets (property, plant, and equipment) to sales.	For U.S. firms: Compustat item 8 divided by item 12. For non-U.S. firms: Thomson Financial Datastream.
CapEx/PPE	The ratio of capital expenditures to the stock of long-term assets (property, plant, and equipment).	For U.S. firms: Compustat item 128 divided by item 8. For non-U.S. firms: Thomson Financial Datastream.
Free cash flow	The ratio of operating income to sales. Only nonnegative ratios are used.	For U.S. firms: Compustat item 18 divided by item 12. For non-U.S. firms: Thomson Financial Datastream.
Volatility	Standard deviation of firm's weekly stock price over the previous 12 months.	Thomson Financial Datastream.
Financial dummy	A dummy variable that equals one if the firm's primary SIC code is between 6000 and 6999 (inclusive) and zero otherwise.	For U.S. firms: Compustat. For non-U.S. firms: Thomson Financial Datastream.
Utility dummy	A dummy variable that equals one if the firm's primary SIC code is between 4900 and 4999 (inclusive) and zero otherwise.	Same as above.
Media dummy	A dummy variable that equals one if the firm's primary SIC code is between 2700 and 2799 (inclusive) or between 4830 and 4899 (inclusive) and zero otherwise.	Same as above.

relationship of country-level control variables on ownership concentration will be biased.

Although the theoretical case for including controls is solid, as a practical matter there has been limited research on the determinants of ownership concentration in the United States and virtually no research on the determinants of ownership concentration in other countries. Nevertheless, I use existing research to select control variables. Table 2 describes all variables used in the article.

The two variables that are most clearly (negatively) correlated with ownership concentration are firm size and firm age. There are accepted theoretical reasons for both regularities. The negative relation between ownership concentration and firm size is seen as resulting primarily from individuals' wealth constraints and, to a lesser extent, from the possibility that blockholders are able to accomplish less as firms become larger. I control for firm size with the natural log of the market value of a firm's equity.

Although firm age is used less often as a control, there is evidence for the United States and the United Kingdom that ownership concentration declines over the life cycle of a corporation.¹⁶ This phenomenon appears to be driven by company founders selling their stakes piecemeal over time for diversification reasons or by companies issuing equity, often for acquisitions, and thereby diluting the ownership of existing shareholders. I control for firm age with the natural log of years since incorporation. Given that the United States has more active IPO and acquisition markets than most countries, this is a potentially important control.

Two explanations have been advanced for why stock-return volatility might affect ownership concentration. Himmelberg, Hubbard, and Palia (1999) look at volatility in light of risk aversion. Because large shareholders may be underdiversified as a result of their block investment, the optimal level of block ownership should decline, *ceteris paribus*, as volatility increases. Demsetz and Lehn (1985) have a different reasoning that leads to a different prediction. They propose that the greater the instability of a firm's environment, the more difficult it is for outsiders to monitor management, and the greater are the benefits of inside ownership. Ideally, stock-return volatility data would be used as the control. Such data, however, are not available for non-U.S. firms, so instead the volatility of a firm's weekly stock price over the previous 12 months is used.

Faccio and Lang (2002) find that financial firms are more diffusely held in Europe than are nonfinancial firms. Demsetz and Lehn (1985) find in the United States that financial and utilities firms have less concentrated ownership and, conversely, that media firms have more concentrated ownership. I use these three industry dummy variables as controls.

Himmelberg, Hubbard, and Palia (1999, p. 364) propose that "to the extent that investments in fixed capital are observable and more easily monitored, firms with a greater concentration of fixed or 'hard' capital in their outputs will generally have a lower optimal level of managerial ownership." I use three of their measures of discretionary spending, capital-to-sales ratio, capital-expenditure-to-capital ratio, and operating-income-to-sales ratio (free cash flow). (I do not use their other two measures, which involve R&D expenditure and advertising expenditure, as these data are often unavailable for non-U.S. firms.) Himmelberg, Hubbard, and Palia find that the first measure is negatively associated

¹⁶ Firm age has been identified as being negatively correlated with ownership concentration for U.S. firms by Holderness, Kroszner, and Sheehan (1999) and Helwege, Pirinsky, and Stulz (2007), and for U.K. firms by Franks, Mayer, and Rossi (2007).

with inside ownership, and the other two measures are positively associated with inside ownership.

1.3.1 U.S. versus the world. The message of the raw data, that U.S. firms have similar ownership concentration to the rest of the world, holds in Table 3 after controlling for possible determinants of ownership concentration. The first four regressions report the marginal effects from logit regressions in which the dependent variable takes a value of one if a firm has at least one 5% blockholder and zero otherwise. The U.S. coefficient reports how the probability that a U.S. firm has a blockholder compares with the probability that a firm in another country has a blockholder. The last four regressions are OLS regressions in which the dependent variable is the aggregate ownership of all 5% or greater blockholders in a firm. Because there is no consensus on the determinants of ownership concentration, I present four versions of each logit and OLS regression; readers, therefore, may draw their own conclusions. First, I report a regression with only a dummy variable to identify U.S. firms. The second regression with each dependent variable controls for firm size. Ideally, I would also include firm age because standardized regression coefficients (not reported) suggest that firm age is at least equal in importance with firm size for ownership concentration. This, however, would result in analyses with substantially fewer observations as age is missing for many of the international firms. The third regression for each dependent variable, however, does include both firm age and firm size. The last regression includes the full array of controls.

Table 3 shows that depending on the specification, U.S. firms are from 4% (regressions 1 and 2) to 7% more likely (regression 4) to have a large shareholder than their foreign counterparts. Similarly, U.S. firms have from approximately two percentage points (regression 5) to six percentage points (regression 8) greater aggregate block ownership than firms elsewhere.

1.3.2 U.S. versus individual countries. Table 3 groups all non-U.S. firms together. In fact, the non-U.S. firms come from 22 countries. Figure 2 presents the raw country averages for both the aggregate ownership of blockholders and the proportion of firms having blockholders. On both measures the United States falls in the middle of the distribution of countries.

Table 4 compares block ownership in the individual countries with the United States conditional on firm size. I report the implied probabilities that a firm in a given country has a blockholder as well as the coefficients for dummy variables showing how the aggregate block ownership for each country compares with the United States (which is the omitted category and thus the intercept). Table 4 paints a picture similar to Figure 2. Controlling for firm size, the United States falls in the middle of the distribution of countries whether one looks to the probability that a firm has a blockholder or to the blockholders' aggregate holdings. This pattern persists when the Table 3 analyses that include either

Table 3
Analysis of the common stock ownership of blockholders at U.S. and non-U.S. firms

	Firm has blockholder				Block ownership			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
U.S. dummy	0.04 (0.01)	0.04 (0.01)	0.06 (0.00)	0.07 (0.00)	2.79 (0.02)	3.51 (0.00)	4.69 (0.00)	6.74 (0.00)
Firm size (log)		-0.01 (0.00)	-0.02 (0.00)	-0.02 (0.00)		-3.12 (0.00)	-1.93 (0.00)	-2.44 (0.00)
Age of firm (log)			-0.01 (0.27)	-0.01 (0.14)			-2.41 (0.00)	-2.37 (0.00)
PPE/sales				-0.00 (0.81)				-0.29 (0.16)
CapX/PPE				0.03 (0.36)				0.47 (0.13)
Free cash flow				0.08 (0.04)				18.55 (0.00)
Volatility				0.01 (0.00)				0.43 (0.00)
Financial dummy				-0.09 (0.00)				-4.44 (0.00)
Utility dummy				0.05 (0.02)				3.14 (0.36)
Media dummy				0.05 (0.00)				1.20 (0.67)
Constant	0.17 (0.00)	0.23 (0.00)	0.27 (0.00)	0.19 (0.01)	35.84 (0.00)	51.24 (0.00)	50.62 (0.00)	48.83 (0.00)
No. of observations	8076	6345	3189	2506	8076	6345	3189	2506
R ²	0.01	0.03	0.03	0.10	0.01	0.06	0.05	0.08

Blockholders are those shareholders who own at least 5% of the voting power of the common stock. Regressions 1 through 4 are the marginal effects from logit regressions in which the dependent variable takes a value of one if the firm has at least one blockholder and zero otherwise. The coefficients report the change in the probability for an infinitesimal change in the continuous variables and the discrete change in the probability for the dummy variables. Regressions 5 through 8 are OLS in which the dependent variable is the fraction of the common stock held by blockholders in aggregate. If a firm has no blockholders, the firm is included at zero block ownership. The U.S. firms are randomly selected, CRSP- and Compustat-listed firms. The U.S. dummy takes a value of one if the firm is from the United States and zero otherwise. The foreign firms come from 22 different countries. Variables are defined in Table 2. (*p*-values are reported in parentheses and are calculated with Huber-White robust standard errors.)

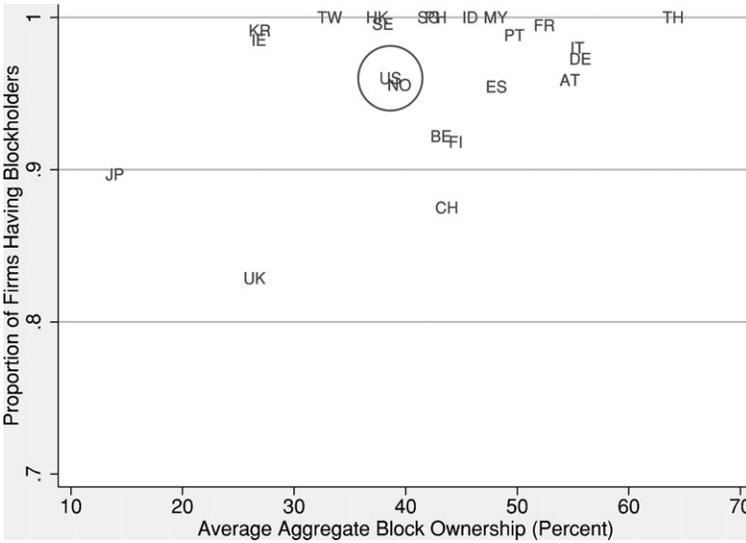


Figure 2
Scatter diagram of large-block common stock ownership at public corporations in the United States and 22 other countries

X-axis is the country average of the aggregate percent common stock ownership of all shareholders in a firm who own at least 5% of the voting power of the common stock. If a firm has no blockholders, the firm is included in the country average at zero. Y-axis is the proportion of firms within a given country that have at least one blockholder. Blockholders are those shareholders who own at least 5% of the voting power of the common stock. The scatter point for the United States is circled. U.S. ownership data are from a random sample of 375 CRSP- and Compustat-listed corporations and come from 1995 proxy statements. Non-U.S. ownership data encompass 7842 firms from 22 countries and come from the data sets used in Faccio and Lang (2002) and Claessens, Djankov, and Lang (2000). Variables are defined in Table 2. Country abbreviations are as follows: U.S. (United States of America), AT (Austria), BE (Belgium), CH (Switzerland), DE (Germany), ES (Spain), FI (Finland), FR (France), HK (Hong Kong), ID (Indonesia), IE (Ireland), IT (Italy), JP (Japan), KR (South Korea), MY (Malaysia), NO (Norway), PH (Philippines), PT (Portugal), SE (Sweden), SG (Singapore), TH (Thailand), TW (Taiwan), UK (United Kingdom).

firm age or the full array of firm-specific controls are repeated using individual country dummies instead of a single U.S. dummy (not reported).

It is important to put the cross-country differences in ownership concentration into context. Table 4 reports that 10 countries out of 21 have an average aggregate ownership concentration that is within five percentage points of the United States. Likewise, in 19 countries the probability that a firm has a large shareholder is within five percentage points of what it is among U.S. firms. The ownership concentration of U.S. public firms, thus, appears to be similar, both statistically and economically, to the ownership concentration found in many other countries. Because we may not have a representative sample of firms from the other countries, however, we should not conclude that ownership concentration, per se, is similar between the United States and the rest of the world. For instance, it is possible that the United States has larger firms and hence less concentrated ownership. The conclusion supported by the data is that the ownership concentration of U.S. firms is similar to the concentration of like-sized firms in many other countries.

Table 4
Comparison of block ownership at U.S. and non-U.S. firms conditional on firm size

	Probability firm has a blockholder conditional on firm size		Block ownership (percentage) conditional on firm size
Hong Kong	1.00***	Thailand	73***
Indonesia	1.00***	Germany	66***
Malaysia	1.00***	Italy	65***
Philippines	1.00***	Austria	63***
Singapore	1.00***	France	63***
Taiwan	1.00***	Malaysia	61***
Thailand	1.00***	Indonesia	56***
Sweden	0.99**	Switzerland	54*
South Korea	0.99**	Finland	54*
France	0.99***	Belgium	54*
Germany	0.98	Singapore	54***
Italy	0.98	Philippines	52*
Ireland	0.98	Spain	52
Norway	0.97	Norway	50
United States	0.96	United States	50
Spain	0.96	Hong Kong	49
Austria	0.95	Sweden	48
Belgium	0.95	Taiwan	46***
Finland	0.92**	Ireland	37***
Japan	0.89***	South Korea	37***
Switzerland	0.86***	United Kingdom	36***
United Kingdom	0.81***	Japan	27***

The first column of numbers contains the implied probabilities from a logit regression in which the dependent variable takes a value of one if a firm has a 5% or greater shareholder and zero otherwise and the independent variables are log of market value of equity and country dummy variables. The numbers in the second column are based on the coefficients of country dummy variables from a regression in which the dependent variable is the aggregate stock ownership of blockholders and includes the log of market value of equity as a control. The U.S. dummy is the omitted category in both regressions, so all reported measurements are relative to the United States. U.S. ownership data are from a random sample of 375 CRSP- and Compustat-listed corporations and come from 1995 proxy statements. Non-U.S. ownership data encompass 6033 firms from 22 countries and come from the data sets used in Faccio and Lang (2002) and Claessens, Djankov, and Lang (2000). (Portugal is excluded because financial data are unavailable for that country.) Variables are defined in Table 2. *** represents *p*-value of less than 0.01, ** represents *p*-value of 0.01–0.05 (inclusive), * represents *p*-value of 0.05–0.10 (inclusive) on the difference with the U.S. *p*-values are calculated with Huber-White robust standard errors.

1.4 Robustness tests and extensions

1.4.1 Largest shareholder in a firm. One reason to examine the ownership of the largest shareholder in a firm is that these data might be more accurate than they are for other shareholders. Another reason is that all three databases record identical information for the largest shareholder in a firm. The logits of Tables 3 and 4 already focus exclusively on the largest shareholder in a firm as they merely ask whether the largest shareholder owns at least 5% of the stock. Examining the level of stock ownership of the largest shareholder can serve as a further check. In general, U.S. firms are more likely to have blockholders, but when a firm has a blockholder, the largest blockholder in other countries usually owns more of the stock (26% versus 29%). This difference narrows, however, if we include the firms without blockholders as zero ownership for the largest blockholder (25% versus 27%). This difference becomes insignificant in regressions either with firm size and firm age as controls or with the full

Table 5
Summary statistics on the identity and ownership of the largest shareholder in a firm

	Family	Financial	Type of investor Corporate	State	Miscellaneous
U.S. firms					
Percentage of firms	53	29	11	0	7
Average ownership of category	0.32	0.12	0.39	NA	0.22
Non-U.S. firms					
Percentage of firms	59	25	6	6	4
Average ownership of category	0.36	0.17	0.31	0.36	0.30

The top entry in each cell is the percentage of either U.S. firms or non-U.S. firms that have a particular type of investor for the largest shareholder in a firm. These entries sum across the columns to 100%. The bottom entry in each cell is the average of the proportion of the voting stock held by the blockholders in this category. These numbers do not sum to any particular figure, although each shareholder included in this table owns at least 5% of the voting power of the common stock. Family includes individual ownership; financial includes banks, mutual funds, and pension funds; corporate includes both public and private nonfinancial corporations; state includes government; miscellaneous includes nonprofits, profit-sharing plans, and venture capitalists. U.S. ownership data are from a random sample of 375 CRSP- and Compustat-listed corporations and come from 1995 proxy statements. Non-U.S. ownership data encompass 7842 firms from 22 countries and come from the data sets used in Faccio and Lang (2002) and Claessens, Djankov, and Lang (2000).

array of controls. Thus, if one looks only at the largest shareholder in a firm, the United States resembles the rest of the world.

1.4.2 Identity of blockholders. The identity of large shareholders is an issue that is distinct from but related to the topic of this article, the concentration of ownership. It is possible that different types of blockholders have different incentives and expertise that, in turn, impact firm value differently. It is beyond the scope of this article to investigate how the identity and impact of large shareholders varies around the world, in part because this would entail data I do not have. I do have the data to conduct two preliminary investigations, however. The first looks at the identity of the largest blockholder in a firm. The second investigates how often blockholders have board of director representation.

The non-U.S. databases categorize the largest blockholder in a firm into five categories: family (which also includes individuals), financial (which includes banks, mutual funds, and pension funds), corporate (which includes public and private corporations), state (government), and miscellaneous (which includes, among others, nonprofits, profit-sharing plans, and venture capitalists). Table 5 reports the identity of the largest shareholder in a firm along with the average holdings of the shareholders in each of the five categories. In most respects, the United States looks like the rest of the world. For instance, there is not a large difference in either the fraction of firms with families as the largest shareholder (53% in the United States versus 59% elsewhere) or in the portion of stock those families hold (0.32 in the United States versus 0.36 elsewhere). The picture with financial blockholders is likewise similar. The one notable difference is that there is no U.S. sample firm in which the state is the largest shareholder. In contrast, the state is the largest shareholder in 6% of the non-U.S. firms.

Table 6
OLS regressions of the representation of block shareholders on corporate boards

	Fraction of block ownership represented on board		Fraction of stock owned by inside blockholders	
U.S. dummy	-0.04 (0.10)	-0.04 (0.08)	-1.44 (0.33)	-0.96 (0.51)
Firm size (log)		-0.05 (<0.01)		-3.24 (<0.01)
Constant	0.61 (<0.01)	0.88 (<0.01)	29.36 (<0.01)	45.37 (<0.01)
R ²	0.01	0.05	0.01	0.05
Observations	1775	1439	1775	1439

The dependent variable in the first two regressions is the percentage of the block ownership in a firm that is represented on the board of directors. The dependent variable in the last two regressions is the fraction of the outstanding common stock that is owned by blockholders who have board representation. Blockholders are those shareholders who own at least 5% of the voting power of the common stock. If a firm has no blockholders, it is not included in any of these regressions. U.S. ownership data are from a random sample of 375 CRSP- and Compustat-listed corporations and come from 1995 proxy statements. The U.S. dummy takes a value of one if the firm is from the United States and zero otherwise. Non-U.S. ownership data come from Lins (2003) and include firms from 17 emerging market nations. Variables are defined in Table 2. (*p*-values are reported in parentheses and are calculated with Huber-White robust standard errors.)

1.4.3 Board membership for blockholders. Another issue that is distinct from but related to ownership concentration is the level of involvement of blockholders in firm affairs. Blockholders can have different levels of involvement which, in turn, could impact firm value differently; a natural question is whether U.S. blockholders are more or less active than blockholders in other countries. This is not a simple issue to address. A blockholder who appears publicly to be passive may, in reality, be active behind the scenes. Conversely, a blockholder who sits on the board may be “asleep at the switch.”

One inquiry that is possible with the available data is whether blockholders have board of director representation. Although I have detailed information on the board representation of U.S. blockholders, the only database I am aware of that has any information on blockholder board representation in other countries is Lins (2003). This database encompasses 1433 firms from 17 emerging markets: Argentina, Brazil, Chile, Hong Kong, Indonesia, Israel, Malaysia, Peru, Philippines, Portugal, Singapore, South Africa, South Korea, Sri Lanka, Taiwan, Thailand, and Turkey. These ownership data are collected in a way similar to the one employed for the other data used here, with one important difference. Like Faccio and Lang (2002) and Claessens, Djankov, and Lang (2000), Lins starts with Worldscope and supplements the ownership data with hand-collected data from various country sources. Lins, like the others, also records the ownership of all shareholders who own at least 5% of the common stock and differentiates between voting rights and cash flow rights. The one major difference is that he excludes firms without blockholders. This is why his database is not used in the earlier analyses.

Lins reports the fraction of the common stock that is held by those with board of director representation. (He does not report the board representation of individual blockholders.) Table 6 uses this information and reports two sets

of analyses comparing U.S. firms with firms from emerging market nations.¹⁷ The dependent variable in the first two regressions is the fraction of block ownership that is represented on the board. As we see, slightly less of the block ownership of U.S. firms is represented on the boards of directors, but the difference of approximately 4% is at best marginally significant (p -value of 0.08 or 0.10 depending on the specification). Specifically, 57% (median 61%) of the block ownership in a representative U.S. firm has identified board representation; the equivalent figure for firms from developing market nations is 61% (median 76%). The dependent variable in the last two regressions is the fraction of the total voting stock owned by inside blockholders. We see that insiders own slightly less in the United States (in the range of 1–2%), but this difference is not statistically significant.

Thus, the largest shareholder in U.S. firms seems to be roughly the same type as the largest shareholder in firms elsewhere. Similarly, blockholders in the United States seem to have approximately the same level of board representation as do blockholders from firms in emerging markets. These regularities, of course, do not tell us what decisions blockholders make or how those decisions impact firm value. These are fruitful areas for future investigations.

1.4.4 Ownership concentration in emerging markets. Lins's data can also be used to compare ownership concentration of emerging market firms with U.S. firms more broadly. As noted, he excludes 164 firms without any 5% blockholders. Although I can adjust for the missing firms on whether they have a blockholder (they obviously do not) and aggregate block ownership (which, of course, is zero), I do not know the names of the firms, so I am unable to control for other characteristics of the missing firms. With this limitation in mind, I find that U.S. firms are 6% more likely to have a blockholder, but aggregate block ownership is 5% higher in the emerging market firms (both differences are statistically significant). Given that U.S. firms tend to be larger than firms in developing economies, it is possible that these differences would change if firm size were controlled for. In any event, these simple comparisons suggest that the ownership concentration of U.S. firms is roughly similar to the ownership concentration of firms from emerging markets.

1.4.5 Alternative regression methods and standard errors. When I replicate the OLS regressions of Table 3 using a logistic transformation of block ownership for the dependent variable, which converts a bounded measure into an unbounded measure, the U.S. dummy remains positive and significant in all four specifications. When I replicate the OLS regressions of Table 3 as Tobit regressions to take account of the censoring of data at 0 and 95%, the U.S. dummy is always positive and significant. I also recalculate the standard errors

¹⁷ I control only for firm size because data for the other firm-level controls are typically unavailable for the emerging-market firms.

of Tables 3 and 4 by bootstrapping to ensure that the results are not being driven by outliers.¹⁸ The bootstrapped standard errors are very similar to the Huber-White robust standard errors used in Tables 3 and 4.

1.4.6 Alternative control variables and specification. I replicate the Table 3 analyses with different independent variables (log of sales instead of log of market value of equity; years of firm age instead of log of years; Fama-French industry dummies instead of financial, utility, and media dummies), and the results remain qualitatively the same. I replicate the country analyses of Table 4 using log of sales instead of log of market value of equity, and the rank ordering of the United States increases slightly. The same thing happens when I use a full array of alternative control measures and country dummy variables.

I also conduct robustness checks with different specifications. First, I replicate the logit and OLS analyses of Table 3 with the addition of log of firm size squared to address a possible nonlinear relation between ownership concentration and firm size. I also use log of GDP per capita to control for the possible influence of economic development on ownership concentration. With these specifications (both of the new control variables are significant), the U.S. coefficient changes little and remains significant. To increase the sample size, I run more parsimonious regressions by excluding firm age and certain accounting measures, such as free cash flow. The U.S. dummy remains positive and significant here as well.

1.4.7 Alternative cutoffs. Although most studies use a 5% cutoff for block ownership, a few studies use a 10% or a 20% cutoff. The 5% cutoff seems appropriate for several reasons. First, there is no theoretical reason why either 10% or 20% ownership is significant. To be sure, there is no theoretical reason why 5% ownership is significant, but that is the level at which shareholders are typically required to reveal their ownership stakes. Given the lack of an accepted theory on block ownership, the prudent course of action is to have as broad a sample of large shareholders as possible. Second, there is anecdotal evidence that blocks in the 5–10% range can be important. Recently, for example, Kirk Kerkorian tendered for 9.9% of the outstanding stock of the General Motors Corporation. There was a positive stock price reaction associated with this move, even though at the time there were two larger percentage blocks in the firm. Third, there is systematic empirical evidence confirming that blocks in the range of 5–10% affect firm value in some dimensions. Mikkelsen and Ruback (1985) and Holderness and Sheehan (1985) document significant stock price reactions to initial public announcements of block formations in this fractional range. Morck, Shleifer, and Vishny (1988) find that the relationship between inside ownership and Tobin's Q varies over this ownership range. Given these

¹⁸ I use the nonparametric bootstrap algorithm from Stata 9 with 1000 repetitions for each regression.

considerations and given how little we actually know about large shareholders, the prudent course of action is to use the full array of publicly available data, which is what this article and most papers do.¹⁹

Nevertheless, to explore possible differences between the United States and the rest of the world, I conduct analyses with higher cutoffs. These analyses generally confirm that U.S. firms are more likely to have blockholders and are more likely to have multiple blockholders, but the blockholders own somewhat smaller fractional blocks. In most instances, the difference in block ownership with these higher cutoffs is not statistically significant. When I replicate the logits of Table 3 using a dummy variable that takes a value of one if a firm has at least 10% (20%) block ownership and zero otherwise, the U.S. dummy is always positive and sometimes it is significant.²⁰ When I ignore all blockholders who own less than 10% (20%) of the stock, and replicate the OLS analyses in Table 3, the U.S. dummy is negative and ranges from -0.8 to -5.9% . Often, however, the dummy is insignificant. For instance, the U.S. dummy for the regression with the full array of controls is -2.2% (p -value 0.14) with a 10% block cutoff and -0.8 (p -value 0.59) with a 20% block cutoff.

1.4.8 Cash flow rights. All of the analyses to this point are of the voting rights of blockholders. Analysis of the cash flow rights of blockholders can also be informative because it offers a different measure of the incentives of blockholders. In Faccio and Lang's (2002) European firms, the largest shareholder owns a great fraction of the voting rights as compared to the cash flow rights in 32% of the firms. In Claessens, Djankov, and Lang's (2000) East Asian firms, the equivalent figure is 47%. Among the U.S. firms, in contrast, the largest shareholder owns more of the voting rights in only 6% of the firms (which is, in all but one case, due to superior voting stock).

Thus, any analysis of cash flow rights would show a greater relative concentration for the United States compared with an equivalent comparison of voting rights. For example, when I replicate the Table 3 analyses using the cash flow rights of the largest shareholder as the dependent variable, in the first OLS regression, the U.S. dummy is negative and insignificant; in the second OLS regression, it is positive and insignificant.²¹ In all four logits and in the last two OLS regressions, the U.S. dummy is positive and significant. These results also hold when I use either a 10 or a 20% cutoff for block ownership.

¹⁹ Papers using a 5% threshold include, among many others, Anderson and Reeb (2003); Becht (2001); Claessens, Djankov, and Lang (2000); Faccio and Lang (2002); Lins (2003); Mikkelsen and Ruback (1985); and Villalonga and Amit (2006). Some papers include large shareholders who own less than 5% of the stock, including Demsetz and Lehn (1985); La Porta, Lopez-de-Silanes, Shleifer, and Vishny (hereafter LLSV) (1998); La Porta, Lopez-de-Silanes, and Shleifer (hereafter LLS) (2006); and Morck, Shleifer, and Vishny (1988).

²⁰ The U.S. dummy is positive but insignificant when I replicate the logits of Table 3 using block ownership of at least 10%. When I use block ownership of at least 20% as the dependent variable, the U.S. dummy in the first three logits is positive and significant; in the last logit, it is positive and insignificant.

²¹ One of the international databases reports cash flow ownership only for the largest shareholder. Thus, my analysis of cash flow ownership is limited to the largest blockholder in a firm.

1.5 New perspectives on ownership concentration

The data point to two broad conclusions: one on ownership concentration in the United States, and the other on ownership concentration internationally. There is a split of opinion on the applicability of the model of atomistic shareholders for U.S. firms. Given that 96% of a representative sample of CRSP and Compustat firms have large shareholders and these shareholders on average own 39% of the common stock (Table 1), it is now clear that atomistic ownership is the exception, not the rule, in the United States.

Although there might be a split of opinion on the applicability of the model of atomistic ownership for the United States, there is widespread agreement that the ownership of U.S. firms is significantly less concentrated than firms elsewhere. The evidence, however, is to the contrary. The United States has from approximately 6% more to 6% less block ownership than other countries, depending on the measure of block ownership and the controls. In many instances, these differences are not statistically significant. Putting the issues of statistical significance and controls to the side, I know of no theory or empirical evidence suggesting that such small differences in ownership concentration are economically significant (at least at the levels of ownership concentration applicable here). Thus, the overall picture is that ownership concentration in the United States is equivalent to what is found in similar-sized firms elsewhere (Figure 1 and Table 3). On a country-by-country basis, the United States, rather than being an outlier on ownership concentration, falls in the middle of the distribution (Figure 2 and Table 4).

2. Why the Misconceptions About Ownership Concentration

Given these comparisons, indeed given the U.S. data alone, we are left wondering how the view of diffuse ownership became so widely accepted. It is a view that developed over 70 years and reflects the confluence of several factors that tend to understate U.S. ownership concentration, both in an absolute sense and relative to other countries.

2.1 The legacy of Berle and Means

Any analysis of the view of diffuse ownership should start with the 1932 publication of Berle and Means's *The Modern Corporation and Private Property*. This book had an immediate impact and continues to shape thinking about ownership concentration to this day. As Roe (1997, p. 9) puts it, "The reigning explanation of U.S. corporate ownership continues to be the one provided over 60 years ago by Adolf Berle and Gardiner Means." Berle and Means proposed a simple theory with undeniable merit: since the dawn of capitalism, most production had taken place in organizations in which the owners were also the managers. With the industrial revolution, however, technological innovation caused the efficient scale of many firms to increase to the point that no individual, family, or group of managers had sufficient wealth to own

a controlling interest. As a consequence, firms became large and ownership diffuse.

Although Berle and Means offer considerable empirical evidence, upon close examination their evidence is not as supportive of diffuse ownership as is often believed. When their book was written, most corporations had no legal obligation to report publicly who owned their stock, and few corporations voluntarily chose to reveal this potentially sensitive information. Berle and Means, consequently, had to rely on a variety of sources for reports of block ownership, including news reports, that might not be accurate. Crucially, when they could find no reports of block ownership, they classify a firm as “believed to be widely held.” In many analyses, they also classify a firm as diffusely held if another firm is a blockholder. Finally, although they have continuous ownership data (albeit of suspect accuracy), in most analyses they turn this into a discrete variable and thus discard information by merely reporting whether a firm has a 20% shareholder (a research practice that unfortunately continues).

One should not be overly critical of Berle and Means, however. They painstakingly collected data at a time when empirical analysis was uncommon. They also acknowledged many of the limitations of their data. It is clear, however, that in 1932 these limitations were not widely appreciated, and they still are not widely appreciated. The view that public companies in the United States are characterized by atomistic shareholders, lots of shareholders with relatively small holdings, was embraced immediately. Among its other influences, it is credited with shaping the Securities Act of 1933 and the Securities and Exchange Act of 1934 as attempts to help empower atomistic shareholders in the face of entrenched management.

2.2 A revival of ownership research in the 1970s

Over the following decades there was little empirical research on ownership, which probably helped to solidify the view of diffuse ownership. In the 1970s there was a revival of ownership research using hand-collected data involving the largest domestic corporations and a House of Representatives subcommittee survey also of large corporations. Ownership research accelerated as stock ownership databases became commercially available in the late 1970s and early 1980s.²² The first papers to study ownership concentration after this 50-year hiatus raised doubts about how diffusely held U.S. corporations actually are. In important but much-overlooked research, Eisenberg (1976) reports that the 30 largest shareholders in approximately one-third of the biggest nonutility public corporations own more than 40% of the common stock. He also reports that one-third of the largest industrial companies have at least one 10% shareholder.

²² Disclosure, Inc., started making proxy statements available on microfiche in the late 1970s. CDA Investment Technology started publishing its Spectrum series of ownership data in 1980. And CDE, an organization opposing U.S. firms that invested in South Africa, published a one-time-only study of ownership at 456 of the Fortune 500 firms in 1980. CDE’s database, however, excludes firms that “are wholly or tightly owned by one or two families or companies.”

Holderness and Sheehan (1988) identify 114 exchange-listed corporations with majority (greater than 50%) shareholders. Morck, Shleifer, and Vishny (1988) find that 31% of the Fortune 500 firms have boards of directors that own more than 10% of the firm. Demsetz and Lehn (1985) report that the five largest shareholders (who are not required to be insiders or to own any minimum stock) at the Fortune 500 firms on average own 25% of the stock.

Much empirical research followed these early papers, some of which challenged the view of diffuse ownership.²³ The view of diffuse ownership, however, persisted in some quarters. There apparently were several reasons for this. First, ownership concentration was typically considered only in passing, often as a control in cross-sectional analyses of firm value. There were few broad studies of ownership concentration, and most of these examined only one part of ownership, the readily available directors and officers' stock ownership. As explained earlier, this figure undercounts total ownership by approximately 25%. Studies that considered all large shareholders in a firm typically focused on blockholders either in specific roles or in specific types of firms.

Less than a handful of papers consider all blockholders at a large sample of firms, and these studies all focus on large, old firms.²⁴ Although these firms are important, their ownership will not be representative of firms in general because both size and age are negatively correlated with ownership concentration. Moreover, even these papers do not focus on ownership concentration but rather are concerned either with the relation between family ownership and firm value or how to clean electronic ownership data. Thus, for example, none of these papers report the percentage of firms that have blockholders.

2.3 International comparisons starting in the late 1990s

The next chapter in the history of the view that the United States has atypically diffuse ownership begins with two influential papers in the late 1990s examining the relation between law and finance around the world. In contrast to the U.S. studies, these two papers are not limited to inside shareholders, and the data are hand collected to ensure accuracy. LLSV (1998) study the ownership of the three largest shareholders in the 10 largest nonfinancial public firms in 45 countries. LLS (1999) study the ownership of the largest shareholder in the 20 largest public firms in 27 wealthy countries. LLS do not report the actual ownership of the largest shareholder, but instead report dummy variables whether the largest shareholder owns at least 10% or 20% of the voting rights. By any measure, LLSV and LLS find that the United States has among the most diffuse ownership. These studies helped revive the view that U.S. ownership is unusually diffuse.

²³ Other important papers on ownership concentration include Kole and Lehn (1999), McConnell and Servaes (1990), and Mikkelsen and Partch (1989).

²⁴ Please see note 7.

Given that LLSV had to hand collect data from a large number of countries, it is understandable that they focus on the very largest firms in each country. But this gives rise to three limitations. First, the sample sizes are small, only 10 or 20 firms per country. Second, because of the inverse relation between ownership concentration and firm size, it is unlikely that the ownership concentration of these few firms will be representative of other firms in the same country. Third, the size of these firms differs across countries, sometimes dramatically. For example, they report average sample firm size of \$1.2 billion in Brazil, \$4.2 billion in India, \$259 million in Portugal, \$4 million in Sri Lanka, and \$71 billion in the United States. Thus, when commentators write that a stylized fact from LLSV is that the United States has atypically diffuse ownership, they are generalizing from the extreme tail of a distribution, and in all analyses save one, they fail to account for the fact that the largest firms in the United States tend to be far larger than the largest firms in other countries.²⁵ And no study, to my knowledge, attempts to hold constant other factors that affect ownership concentration, such as a firm's age or its industry. Finally, LLSV and LLS use only country averages. This eliminates considerable within-country heterogeneity and thus overstates cross-country differences in ownership concentration.²⁶

These considerations have combined to create the misleading impression that the United States has atypically diffuse ownership. This can be illustrated with LLSV's data of the ownership concentration of the 10 largest firms in 49 countries.²⁷ This database played a central role in LLSV's early research and continues to be used by them (for instance, LLS, 2006) and by others (for instance, Beny, 2005). When their country averages are regressed on a

²⁵ LLS (1999, p. 474) acknowledge the importance of firm-level determinants of ownership concentration when they write that a sample of the largest firms within a country "runs into the objection that the largest companies in some countries are much larger than the largest companies in other countries. This is a particularly serious issue for a study of ownership because larger companies presumably have less of block ownership, and hence we should be careful that our measures of block ownership do not simply proxy for size." LLSV (1998) and LLS (2006), however, do not control for size or any other firm-level determinant of ownership concentration. LLS (1999), in contrast, control for firm size, but only for firm size, by replicating some of their analyses using "the smallest 10 firms in each country with market capitalization of common equity of at least \$500 million." It appears, however, that these 10 control firms at least from the United States are not representative of the ownership concentration of such-sized firms. In the random sample used in this article, which is representative of CRSP- and Compustat-listed firms in general, 78% of the approximately same-sized firms as the control firms in LLS (1999) (\$500 million to \$600 million) have at least one 10% shareholder; their sample has only 50%. Likewise, in the random sample, 28% of the same-sized firms have at least one 20% blockholder but only 10% of their \$500 million firms have such a blockholder. By this latter measure, LLS's sample of the 20 largest firms in the United States has more concentrated ownership than their 10 medium-sized firms. These are understandable complications from small samples. They also ignore all blockholders in a firm save for the largest one. This presents a problem for international comparisons as U.S. firms are more likely to have multiple blockholders. Finally, they present no regression analyses. Instead, they compare ownership concentration across different legal origins. The legal origin figures, in turn, are averages of country averages. The use of averages instead of firm-level observations needlessly eliminates much of the cross-sectional variation in ownership concentration.

²⁶ As Freedman (2004, p. 4028) summarizes, "It is all too easy to draw incorrect conclusions from aggregate data." LLSV (1998) and LLS (1999, 2006) use average figures for all of their analyses, so their R^2 's which often exceed 50% and at times approach 80%, are likely to be overstated. In contrast, LLSV (2002) use firm-specific observations to study Tobin's Q and get R^2 in the range of only 7%. For a brief summary of the problems with using averages as dependent variables, see Freedman, Pisani, and Purves (2007). For more detailed analyses, see Greenland and Robins (1994) or Freedman (2004).

²⁷ After publication, LLSV added ownership data on four additional countries. I use their expanded database.

U.S. dummy, the coefficient on the dummy indicates that U.S. firms have 27% less block ownership than that of firms from the other countries. This is about one-half the level found in other countries and is highly significant. When we examine the firm-level data, which the authors have been kind enough to supply, a different picture emerges. Six of the ten U.S. firms have shareholders who in aggregate own more than 10% of the stock; in three of these firms, blockholders own more than 20% of the stock; and in one firm (Wal-Mart), they own a majority of the stock. When the LLSV firm-level ownership data are regressed on firm size and a U.S. dummy, the U.S. dummy declines from 27% to 12% and is only marginally significant (p -value 0.10). When firm-size squared is added to account for nonlinearities in this sample of very large firms, the U.S. dummy declines to 7% and becomes insignificant (p -value 0.45).²⁸ Finally, when firm age is added to the regression, the U.S. dummy actually turns slightly positive.

3. Conclusion

This article offers two broad empirical findings on the ownership concentration of public corporations, both of which challenge conventional wisdom. First, although many believe that the United States has diffuse ownership, the evidence is to the contrary. Among a representative sample of U.S. public firms, 96% of them have blockholders. These blockholders in aggregate own an average of 39% of the common stock. Second, although virtually all commentators believe that ownership in the United States is more diffuse than elsewhere, again the evidence is to the contrary. The ownership concentration of U.S. firms is similar to like-sized firms elsewhere. On a country-by-country basis, the United States falls in the middle of the pack.

Ever since Berle and Means wrote their classic *The Modern Corporation and Private Property* in 1932, free-rider problems with diffuse shareholders have been seen as the fundamental governance problem with the modern public corporation. As Roe (2005, p. 1) puts it, “The core fissure in American corporate governance is the separation of ownership from control—distant and diffuse stockholders, with concentrated management.” Accordingly, most major securities legislation and much academic research focuses on agency conflicts between diffuse shareholders and managers. Given how concentrated the ownership is of most U.S. firms, the relevant conflict at most corporations is actually between large shareholders and managers or between large shareholders and small shareholders.

The findings in this article also raise doubts about a key theory from the law and finance literature. It is widely held that the ownership of public corporations is more concentrated in countries with weak investor protection laws. The

²⁸ When firm size, but not firm size squared, and firm age are the controls, the U.S. dummy is also negative (–11) and insignificant (p -value 0.14).

explanation, proposed first by LLSV (1998) and now broadly accepted, is that when investors have few legal protections, a large shareholder is needed to monitor management. The pervasiveness of large shareholders in the United States, a country with strong investor protection laws, raises doubts about the empirical foundation and hence the validity of this theory.²⁹

Although the evidence in this article may be contrary to conventional wisdom, it is not contrary to the fundamentals of private property. Berle and Means (1932, p. 8) were correct to worry that truly diffuse ownership would “destroy the very foundation on which the economic order of the past three centuries has rested.” It is rational for small shareholders to be passive because their individual actions are unlikely to make a difference (say, in casting the deciding vote in a corporate election). A public corporation, or indeed any enterprise in a market economy, with passive owners, however, would be unlikely to survive. Large shareholders, in contrast, have an incentive to act simply because they are more likely to make a difference. This undoubtedly helps explain why so many public corporations have large shareholders. From this perspective, it is unremarkable that the United States looks like the rest of the world.

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²⁹ Holderiness (2007) finds no support for the widely held theory that large shareholders are a response to weak legal protections for investors. In particular, there is no relation between ownership concentration and whether a firm comes from a common law country. Likewise, there is no systematic relation between ownership concentration and 14 indices that encompass a wide range of investor protection laws.

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