

# Reforming Financial Institutions and Markets in the United States

Towards Rebuilding a Safe and More Efficient System

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# 9 FINANCIAL MARKETS AND MANAGERIAL MYOPIA: MAKING AMERICA MORE COMPETITIVE\*

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## Introduction

In the Japanese bestseller, *The Japan That Can Say "No,"* Sony president Akio Morita and liberal democratic party member Shintaro Ishihara (1990) say, "We [Japan] are focusing on business 10 years in advance while you [the United States] seem to be concerned with profits 10 minutes from now. At that rate you may never be able to compete with us." Yotaro Kobayashi (1990), the president of Fuji Xerox, describes the Japanese view of U.S. managers this way: "It is one of people who love to plot takeover bids and play the mergers and acquisitions game, who have their minds on only short-term profits, and who readily lay off workers while rewarding themselves with fat bonuses."

In recent years U.S. managers and financial markets have come under increasing attack at home as well because of their perceived myopic

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behavior. Critics contend that the short-term investment horizons of U.S. investors are forcing corporate managers to focus on short-term earnings to the detriment of both the long-run interests of their firms and the United States. Corporate managers, it is alleged, forego long-run, value-enhancing projects out of a fear that a reduction in short-run earnings will cause their stock prices to plummet, exposing them to hostile takeover.

Critics cite several pieces of evidence in support of the view that stockholders are to blame. First, stockholders have become increasingly impatient. The trading of stock, as measured by annual turnover, increased sharply during the 1980s. Stocks are now held on average for just two years, as opposed to over four years in 1980 and seven years in 1960. The average holding period for institutional investors is even shorter: for pension funds and mutual funds it is less than two years (Froot, Perold, and Stein, 1991; Lorsch and MacIver, 1991). A decline in a firm's current earnings, it is argued, triggers an immediate sell reaction on the part of many investors. Critics also point to the increased stock market volatility during the 1980s, which they link to the increased turnover of stocks and to a pervading speculative mentality.

The impatient behavior of U.S. investors stands in sharp contrast to their counterparts in Japan and Germany. While the average turnover of stocks in Japan and Germany is much the same as in the United States, this statistic hides more than it reveals. In these countries a large portion of stock is held by long-term or "relationship" investors, who seldom trade the stock. For example, in Japan the average holding periods of corporate stockholders (which hold about 30 percent of total equity) and insurance companies are 7.4 years and 18.3 years, respectively. Overall, about 70 percent of total Japanese equity is held for an average of just over five years. In contrast, no single group of U.S. stockholders has an average holding period of more than five years (Froot, Perold, and Stein, 1991).

Second, the trend in the United States is clearly toward a growing presence of institutional investors, which, as stockholders, rank among the most impatient U.S. investors. During the last ten years, institutional ownership of stock has grown to over 50 percent of total stock outstanding in the United States, and this trend shows no sign of abating. A recent survey conducted by the New York Stock Exchange found that from 1985 to 1990 more individuals (14 million) added stock mutual funds to their investment portfolios than added shares of individual stocks (8.6 million people). By the end of 1990 there were more than 25 million holders of stock mutual funds, which was more than double the number just five years earlier. Thus, more investment power is being placed in the hands of professional money managers, whom business executives view as

short-term oriented, ready to sell at the slightest hint of lower current earnings.

Third, the frequency of hostile takeovers during the 1980s, it is contended, reinforces the view that short-termism is prevalent. If impatient investors fail to appreciate the long-run strategies of companies, and instead push stock values to unrealistic low levels, takeover specialists can acquire the firm, oust management, and dismember the firm in order to realize its true long-run value. A hostile-takeover environment, therefore, encourages short-run managerial planning.

Those who hold these views point as well to Japan and Germany, where hostile takeovers are virtually impossible. Management in these countries, it is argued, is protected from precipitous ouster and is left free to pursue strategies that enhance the long-run value of their firms.

The evidence cited above, however, is subject to alternative interpretation. For example, the more active trading in the 1980s may simply have been a response to lower trading costs. Similarly, the advent of hostile takeovers and leveraged buyouts during the 1980s may have been a response to managerial inefficiency or myopia, rather than a cause of it. Critics may be confusing correlation with causality. The causality may run the other way: corporate myopia may have resulted in inefficient firms that investors sought to profit from by replacing underperforming management through hostile takeovers.

Despite the ambiguity of the evidence, there appears to be widespread agreement among business executives and financial managers that investor short-sightedness is a major cause of myopia in U.S. companies. A 1990 survey conducted by the Financial Executives Institute asked 2,000 of its members to list in order of importance the factors that inhibit the international competitiveness of U.S. firms. Institute members consist of top American financial executives, ranging from corporate financial officers to private pension fund managers. Their responses singled-out two factors as primarily responsible for America's competitiveness problems: the "shortsightedness of investors" and "the shortsightedness of corporate managers" (Jacobs, 1991, p. 8). Another survey of chief executive officers conducted by James M. Poterba and Lawrence H. Summers (1991, table 1) revealed that U.S. managers believe that U.S. firms have shorter planning horizons than do their foreign competitors. Further, there is some evidence that foreign CEOs in Japan, Germany, and the United Kingdom agree with this assessment.

Although these views have not yet found their way into public policy, several aborted legislative efforts have sought to reduce investor myopia by curbing short-term trading. In 1989 Republican senator Nancy

Kassebaum of Kansas introduced a bill that would impose a 10 percent tax on capital gains earned by pension funds on assets held less than 30 days, and a 5 percent tax on assets held less than 180 days. The cosponsor of the bill was no less than Senate minority leader Robert Dole. The Bush administration also considered introducing a similar tax bill. Such a bill, in the words of then Treasury secretary Nicholas Brady, would "encourage Americans to take the long-term view in their economic thinking" ("White House," 1989). Finally, and perhaps of more import today, in 1989 the Senate Finance Committee chair (and now Treasury secretary) suggested that he might propose a tax on short-term trades by pension funds ("White House," 1989). Still other proposals have been made to tax spot and derivative-market transactions in foreign exchange for the purpose of "increasing the weight that market participants give to long-range fundamentals relative to immediate speculative opportunities" (Tobin, 1992).

This chapter reviews the evidence related to the question of whether U.S. investors, both individuals and institutions, behave myopically. In general, this evidence is found to be inconsistent with the view that U.S. investors behave myopically. Second, it provides an alternative explanation for the existence of managerial short-sightedness in the past: U.S. firms have faced a higher cost of capital than have Japanese and German firms. Differences in the cost of capital between U.S. and foreign firms are partly due to the higher risk premiums demanded by American stockholders and lenders, which in turn appear to stem from differences in the structure of corporate ownership in the respective countries. In Germany and Japan financial institutions and institutional investors are able to take "large-owner" roles, and as a consequence are able to reduce the risk premiums they demand, resulting in a lower cost of capital for German and Japanese firms. Third, I propose that financial reforms be undertaken in the United States both to encourage long-term ownership by institutional investors and to enable institutional investors to take a more active role in corporate governance.

### **The United States' Competitive Decline and Its Link to Managerial Myopia**

The genesis of the debate over corporate myopia in the United States is the widespread perception that the United States in general and U.S. firms in particular are losing out in the global struggle for markets and jobs. During the 1980s the United States' share of total world exports declined as Japan and Germany wrested a greater share of the world's economic

pie. More alarming, perhaps, is that the United States' share of world exports of *manufactured* products declined from about 12.1 percent in 1982 to 11.8 percent in 1989. In 1986 the Japanese share of manufactured exports surpassed the United States for the first time.

The real wages of U.S. workers also fell during the last 15 years while the real wages of workers in many other countries were rising. Of the major countries, only the United States has seen the real hourly compensation of its workers fall. In the other countries real wages rose by substantial amounts: 40 percent in Germany, 22 percent in Japan, 42 percent in France.

Ironically, what has happened to U.S. workers stands in sharp contrast to that of the top U.S. business executives: during the last decade the compensation of U.S. CEOs has more than doubled. At a time when U.S. workers were losing out to their counterparts in Japan and Germany, the gap between the pay of top managers and workers in the United States was growing relative to that of leading competitor countries. In the United States the pay of top executives is more than 100 times the average U.S. worker's pay. In Japan this pay ratio is more like 17 times the average worker's wage, and in European countries is closer to 35 times the typical worker's pay (Jacobs, 1991). These glaring differences in compensation, not surprisingly, have raised questions about the determinants of managerial compensation in the United States and about whether the compensation of U.S. managers is tied closely enough to the performance of their firms.

Perhaps most disturbing of all, productivity growth in the United States has been consistently below that of our major competitors since the 1960s. Although U.S. workers are still 20 percent more productive than the workers of main foreign rivals, this lead is steadily eroding.

There is a widespread belief that managerial myopia is at the heart of this relative decline in productivity. Three factors largely determine worker productivity: labor quality, technology, and the amount of capital goods used per worker. These in turn are the cumulative results of past investments in, respectively, human capital, research and development (R&D), and plant and equipment (U.S. Department of Labor, 1989). Critics allege that U.S. firms are underinvesting relative to our foreign competitors because of the shortsightedness of corporate managers.

Defining and measuring investment on a consistent basis across countries is difficult, but the evidence we have leaves a distinct impression that U.S. firms are not investing as much as their foreign counterparts. The U.S. invests about half as much of its GNP in new plant and equipment as does Japan and about two-thirds as much as does Germany (Brooks, 1985). Recent estimates of *absolute* capital spending in 1990 indicate that U.S. and Japanese capital spending is almost identical—\$586 billion versus \$524

billion, although Japanese GNP is only half as large as the U.S.'s GNP ("Japan Seen Passing . . .," 1992). Further, net domestic investment in the United States declined from an average of almost 7 percent of GNP during the 1960s to an average of 3.2 percent by the mid-1980s (Friedman, 1988). The relative difference in our investment pattern may be even more significant than the figures suggest because of a growing "vintage" gap: U.S. capital stock is older and is aging more rapidly than capital stock in foreign countries (Sunohara, 1990).

U.S. spending on R&D is also declining relative to our rivals. The July 1991 issue of the *Japan Economic Survey* stated that Japanese business in 1989 spent 9.60 trillion yen on research. At a market exchange rate of 135 yen to the dollar, that figure is equal to \$71.10 billion dollars, compared to a 1989 figure of \$71.77 billion for the United States ("Japan Seen Passing . . .," 1992). Further, as a percent of GNP our *total* R&D spending is only slightly less than in West Germany and Japan, but if defense activities are excluded from total R&D spending in all countries, the gap between the U.S. and Japan and Germany widens considerably. The non-defense R&D/GNP ratio for the U.S. in 1987 was 1.7 percent, compared to 2.6 percent for West Germany and 2.8 percent for Japan. This is a large difference in total R&D spending, no matter how measured. In addition, the growth in spending on R&D in the United States appears to have slowed even more in recent years.

In future years a critical contributing factor to higher productivity is likely to be investment in human capital—educating and training the workforce. Industry has complained that the U.S. workforce lacks the requisite basic skills to make the United States more productive, and that the quality of U.S. education is dismal compared with that of other countries (Reich, 1988). Critics argue that U.S. firms are partly to blame for this. With longer horizons, they contend, firms would be willing to invest more in on-the-job training for employees and in improving the quality of the workforce.

Reliable estimates of the extent of U.S. worker training by U.S. firms relative to Japanese and German firms do not exist. The few available data we have, however, indicate that "competitor countries provide more training, take a much more systematic approach to training, provide government support for it, and train their workers to higher average standards" (U.S. Congress, 1990; Blinder and Krueger, 1992; Kochan and Osterman, 1992). Data on training programs in U.S. and Japanese automobile plants are suggestive. Figures 9-1a and 9-1b compare the annual hours of training per employee for U.S. and Japanese auto assembly plants: plants in Japan (J-J), Japanese-owned plants in the United States (J-U.S.), and U.S.-owned

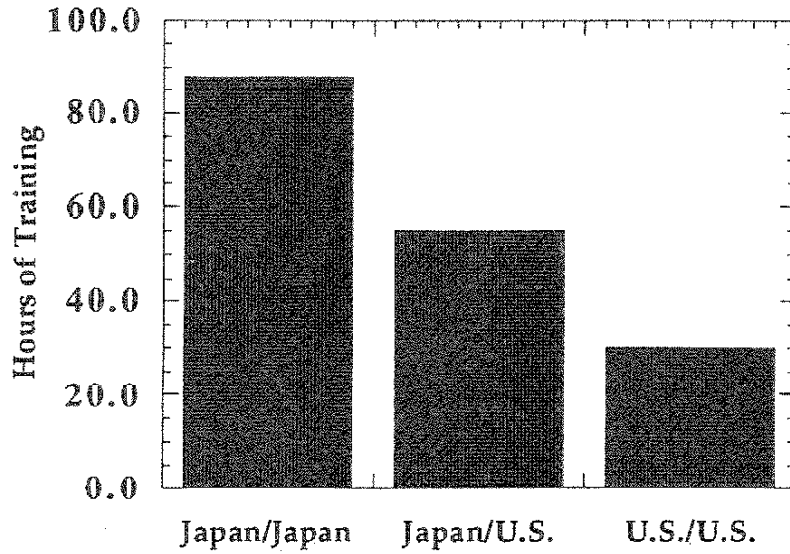


Figure 9-1a. Annual Hours of Training Per Employee, Automobile Assembly Workers.

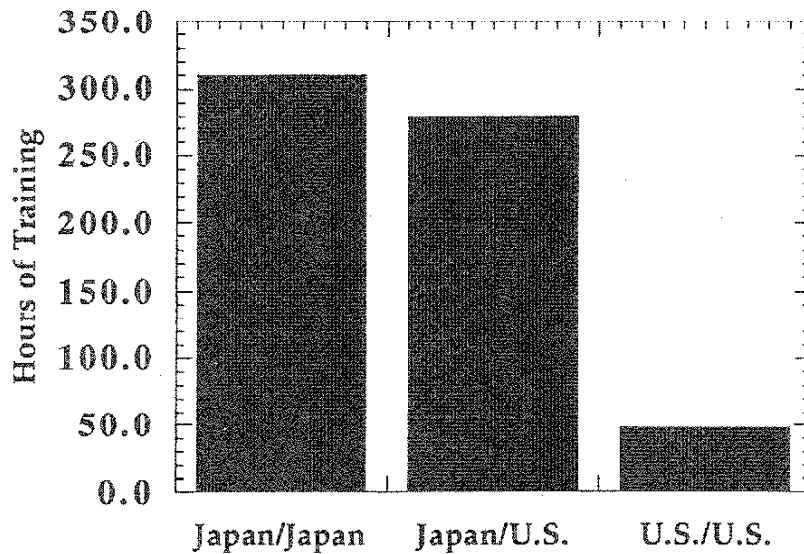


Figure 9-1b. Hours of Training, Newly Hired Automobile Assembly Workers. Source: John F. Krafcik, *Training and the Automobile Industry: International Comparisons*, contractor report prepared for the Office of Technology Assessment under contract N3-1910 February 1990, pp. 8-9.



plants in the United States (U.S.-U.S.). Autoworkers in J-J plants get more than three times as much training each year as workers in U.S.-U.S. plants. Even more striking differences exist for newly hired workers: new employees in J-J plants get more than 300 hours of training in their first six months compared with fewer than 50 hours for U.S. workers in U.S. plants (U.S. Congress, 1990).

Not all evidence, however, is supportive of the view that the United States has a competitive problem (Lawrence, 1991a). For example, U.S. firms themselves, as opposed to the United States as a geographical entity, have maintained their share of the world's export market. They have done this as multi-national firms, exporting from production locations throughout the world. U.S. multinationals' share of world exports of manufactured goods was 16.1 percent in 1989, compared to 17.3 percent in 1966, a rather small decline over 23 years. If U.S. firms have had incompetent, short-sighted, management, how have they managed to hold their worldwide market share so well?

Another piece of inconsistent evidence is that the United States continues to be a leading exporter of high-technology products—products made by research-and-development-intensive industries. U.S. multinationals operating from locations around the world account for 30 percent of total exports of high-technology products, and this share has been nearly constant for the last 15 years. It is difficult to understand how managers who manage only for the short-run could maintain a leadership role in an area requiring extensive long-run planning and expenditures on research.

Despite such inconsistent evidence, there persists a widely held view that short-termism on the part of U.S. managers has been a major cause of the United States economic decline. Further, this short-termism is seen as being the direct result of pressures on managers by U.S. investors and Wall Street money managers who care only about firms' current earnings. Corporate myopia, critics charge, is the business executive's response to myopic shareholders.

### **Are U.S. Investors Myopic?**

Many corporate managers clearly believe that the stock market penalizes them for adopting long-run strategies. In a survey of 100 CEOs of major U.S. corporations, 89 said that Wall Street's preoccupation with quarterly earnings was a key reason for their failure to emphasize long-term investment ("Business Bulletin," 1986).

Do in fact firms that undertake long-run investments see their stock

values decline? Studies that examine the stock market's response to announcements of various kinds of proposed corporate long-term investments generally find just the opposite: a positive reaction to such proposals. For example, a study of 634 "strategic" or investment decisions announced by 347 different companies operating in 81 different industries, over the period 1972 to 1984, found that in general there was a positive stock market reaction to such announcements (Woolridge, 1988). The announcements studied included those related to increased research and development spending, increased expenditures for expansion or modernization, joint ventures, and various new product strategies. Of particular note is that a company's stock value generally rose immediately following an announcement that it was undertaking new R&D projects or increasing plant and equipment expenditures.

In still another study of 658 corporate capital expenditure announcements over the period 1975 to 1981, McConnell and Muscarella (1985) found that increases (decreases) in capital budgets result in significantly positive (negative) abnormal stock returns for the companies making the announcements. In another study of 62 R&D expenditure announcements over the 1973 to 1983 period, Jarrell, Lehn, and Marr (1985) found that these announcements were generally associated with significant increases in stock values.

These results appear to contradict the common perception that stockholders do not care about the long-run prospects of companies (Hector, 1988). In fact, investors generally have looked favorably upon companies that have planned for the long-run, even at the cost of reduced current earnings.

Another way of analyzing the weight that stockholders put on the long-run prospects of firms is to determine what portion of a company's stock value is attributable to its current earnings as opposed to future (or expected) earnings. The current price of a stock should be equal to the present value of all of the future cash flows to investors. This includes both current dividends as well as future expected dividends, no matter when occurring and in what form. These expected cash flows are normally discounted by a rate that should reflect both the time value of money (the risk-free interest rate) and the risk of holding the specific security. This rate is investors' required rate of return on that particular security.

In a study by Woolridge, current earnings and dividends as well as five-year projected dividends' and earnings' growth rates are used to estimate companies' dividends and earnings over the next five years (Woolridge, 1988). These five-year cash flows are then discounted by an estimated required rate of return to determine what portion of a company's current

stock price is attributable to its earnings over only the next five years. Whatever is not attributable to these cash flows must, of course, be due to dividends and earnings that are expected to occur subsequent to the five-year period—or in the long-run. Woolridge finds that, on average, about 80 percent of a company's stock value is dependent on its long-run *dividends*, or about 55 percent of its stock value depends on its long-run *earnings*.

Woolridge's results are similar to those of Alfred Rappaport, who examines the stocks of the 20 largest U.S. companies (Hector, 1988). He finds that from 66 to 89 percent of a company's stock price cannot be explained by projected dividend flows further out than the next five years. The inference, therefore, is that a considerable portion of a stock's value depends on the market's assessment of the firm's long-run prospects (or its earnings beyond a five-year horizon).<sup>1</sup>

The general inference to be drawn from these studies also is consistent with what we observe in the venture capital market, where investors pin their hopes entirely on the future prospects of a firm—often many years into the future. Highly innovative and successful companies such as Apple Computer, CML Group, Cray Computer, Data General, Digital Equipment, Federal Express, Genentech, Intel, Lotus Development, Microsoft, Sun Microsystems, and Teledyne all received early funding in the venture capital market. In 1989 an estimated 674 venture capital firms in the United States managed more than \$33 billion in capital, up from \$5 billion in 1980 (Venture Economics, 1990). In committing venture capital, investors are looking to the long-run success of their companies and not to short-term earnings.

The contention that U.S. investors generally take a long-run view is supported as well by responses to the recent survey of CEO's taken by Poterba and Summers (Porterba and Summers, 1991). They asked whether the firm ever decided to forego making a profitable investment out of fear that the stock market would penalize its share price. More than three quarters (81 percent of the respondents said that they had *never* passed up a profitable investment opportunity because of this fear, and fewer than 1 percent indicated that they passed up such opportunities frequently. These responses are consistent with the view that U.S. investors do not penalize firms for undertaking long-term investments. Indeed, firms undertaking such investments usually experience a rise rather than fall in their stock values.

Finally, it is often alleged that stockholders can be fooled by managers who manipulate accounting rules in order to inflate short-term earnings. The evidence, however, does not support this concern. In a study of 108

accounting policy changes where the effects of the changes on reported earnings were disclosed, Ball finds that there is no relationship between a firm's value and "cosmetic" changes in reported earnings (Ball, 1972). A firm's value changes only if there is an effect on the firm's real cash flows, either positive or negative.

In another study Kaplan and Roll (1972) examine the effects of changes in two accounting policies: a switchback to straight-line depreciation, and a switch from the deferral to the flow-through method of accounting for deferred taxes. Both of these changes affect reported earnings but do not affect tax liabilities. Thus, they do not affect real cash flows. Kaplan and Roll conclude that neither change has an effect on a firm's stock price. Stockholders are not fooled: they have their eyes squarely on real cash flows and not on reported earnings. Managers, therefore, do not appear to be able to boost stock values by cosmetic, short-term changes in current earnings: no one is fooled.

There is substantial evidence, therefore, that U.S. stockholders are not myopic. Although it is still possible, of course, that the statistical studies discussed above fail to capture some form of myopic behavior, those who allege such behavior have the burden of producing some evidence in support of this view.

### **Are Institutional Investors Different?**

Another common perception is that the behavior of U.S. investors has changed in the last decade because of the increasing dominance of institutional investors. Institutional ownership—by pension funds, mutual funds, etc.—has skyrocketed during the past decade, putting more stock under the control of fiduciaries.

In 1950 institutional investors owned only 8 percent of the equity of U.S. corporations. By 1980 their holdings had risen to 33 percent of equity, and today they exceed 53 percent of all publicly-traded stock (see table 9-1) (Brancato and Gaughan, 1988). Institutions own on average 53 percent of the outstanding shares of the largest 100 U.S. corporations. In several of the companies their holdings are much greater: 82 percent in General Motors Corp., 74 percent in Mobil Corp., 70 percent in Citicorp, 86 percent in Amoco, and 71 percent in Eli Lilly & Co. (Brancato, 1990a). The 10 largest pension funds together with the ten largest (nonpension) professional money managers now control more than 15 percent of the stock of the largest 10 U.S. companies (Brancato, 1990b).

Institutional investors do appear to behave differently than individual

Table 9-1. Changes in Institutional Equity Ownership, 1981 to 1990 (Percentage of Total U.S. Market Capitalization)

<i>Institution</i>	<i>1981</i>	<i>1986</i>	<i>1990</i>	<i>Change from 1981 to 1990</i>
Private pension funds	15.5%	16.7	19.9	4.4%
Bank trusts	10.1	10.1	9.2	-0.9
Public pension funds	3.0	5.1	8.3	5.3
Mutual funds	2.5	6.8	7.2	4.7
Insurance companies	5.7	4.8	6.9	1.2
Foundations/endowments	1.2	1.3	1.8	0.6
Total	38.0%	44.8%	53.3%	15.3%

Source: Brancato and Gaughan (1991, table 10). Brancato and Gaughan (p. 2) define *institution* to include pension funds, mutual funds, insurance companies, bank-managed trusts, and foundation and endowment funds. This definition excludes shares owned by investment banks, bank holding companies, and nonbank, nonpension trusts.

shareholders. The average annual turnover of institutional stock portfolios is about 50 percent. Turnover is only about 20 percent for individuals (Froot, Perold, and Stein, 1991). Thus, institutional investors hold a stock on average for about two years, as opposed to five years for households. Further, in the early 1970s the rate of turnover of the average share on the New York Stock Exchange (NYSE) was just 16 percent, which implies an average holding period of more than five years. Today, the average holding period for NYSE stocks is just over two years. The increase in trading activity during the 1980s appears to stem largely from the increased trading of institutional investors.

Many believe that the high turnover of institutional portfolios manifests the short-term investment orientation of professional money managers. However, the link between either institutional ownership or increased trading and the investment horizons of corporate managers is not obvious. In a world of perfect capital markets, in which there are no information asymmetries, stock values should reflect all information about the firm, including its long-run prospects. Thus, even traders with short horizons will not be reluctant to hold the stocks of companies with a long-run orientation. Stock values will accurately reflect all long-run as well as all short-run prospects immediately. Similarly, corporate managers who have attractive long-run investment opportunities will not be deterred

from undertaking these investments even if their stocks are more actively traded, because stock values will reflect the long-run prospects of the firm accurately.

Froot, Perold, and Stein (1991) explore possible market imperfections that might lead to a link between increased turnover (or short investor trading-horizons) and corporate behavior. They examine, first, whether increased trading may cause excess volatility, or stock prices to respond to nonfundamental factors as well as to economic fundamentals. Excess volatility, arguably, could result in a higher cost of capital for firms, which would shorten their planning horizons and reduce long-term investment.

Second, they explore the possibility that an information gap (or information asymmetry) between managers and stockholders may exist that causes managers to emphasize short-run strategies out of fear that impatient stockholders will sell their stock when current earnings decline, even though the earnings decline is due to the firm undertaking long-run investment that will eventually enhance the firm's value.

Froot, Perold, and Stein conclude that there is no clear relationship between turnover and volatility, either in the stock market or in any other market. This conclusion is consistent with studies that find no correlation between volatility and institutional ownership. Indeed, there is some evidence that volatility is lower in the stocks of companies that have *greater* institutional ownership (Jones, Lehn, and Mulherin, 1990; Aggarwal and Rao, 1990). Thus, in the absence of a link between trading activity and excess volatility, there is no reason to think that the greater trading activity of institutional investors results in a higher cost of capital for firms.

A study by Lakonishok, Shleifer, and Vishny (1991) supports the view that trading by pension fund managers does not destabilize stock prices. They examine quarterly changes in the portfolio holdings of 769 all-equity pension funds between 1985 and 1989 to see if a trading pattern exists that is consistent with the view that institutional behavior causes price instability. The funds examined were managed by 341 different institutional money managers. Lakonishok, Shleifer, and Vishny find that although institutional investors pursue a broad spectrum of trading strategies, their trading does not exhibit the kind of herding or positive-feedback pattern that would increase stock-price volatility.

With respect to a possible information-gap link, the conclusion is less clear. Froot, Perold, and Stein (1991, p. 36) say that "because the theory is all about information problems and "invisible" investments, it is hard to assemble unambiguous evidence in its favor." In general, however, after examining various kinds of circumstantial evidence, they conclude that the existence of an information gap between managers and stockholders does

not result in any obvious links between institutional stock holdings and shortened managerial horizons.

The results of this research are consistent with evidence garnered from survey data. Although a survey of CEOs, conducted by Poterba and Summers (1991, table 1), revealed substantial variation in the "hurdle rates" (or in the cost of capital) used by firms in deciding whether or not to undertake an investment, there appeared to be no relationship between the presence of institutional investors and the hurdle rates used by firms. More specifically, one-third of the firms used "real" hurdle rates below 10 percent, while more than 10 percent of firms employed "real" hurdle rates greater than 15 percent. Poterba and Summers attempt to explain these differences with both financial variables (P/E ratios, current ratios, etc.) and with variables representing the characteristics of a firm's stockholders—in particular, the fraction of stock held by institutions and the annual turnover of a company's stock. They could find no association between either institutional stock holdings or turnover and the hurdle rates used by firms. Thus, there is no evidence that either institutional ownership or trading affects the investment horizons of firms.<sup>2</sup>

#### **Do Differences in the Cost of Capital Explain Short-Termism in the United States?**

If myopic behavior by U.S. investors is not responsible for the shortened investment horizons used by U.S. corporate managers, what is? A possible explanation is that U.S. firms have faced a higher cost of capital. Several studies have concluded that the cost of capital for U.S. corporations has been significantly higher than for Japanese and German companies during the last 15 years (Hatsopoulos, 1983; Hatsopoulos, Krugman, and Summers, 1988).

If U.S. firms have faced a higher cost of capital than their foreign competitors, this could explain their shorter planning horizons. A higher cost of funds can have a significant effect on the calculation of the net present value of an investment project. Further, as the returns associated with an investment become more distant, a higher cost of capital on an investment becomes more significant. For example, an increase of two percentage points in the cost of capital (say, from 10 to 12 percent) will reduce the net present value of a return to be received in one year by only 2 percent. But the same increase in the cost of capital applied to an investment that will yield returns over 20 years will reduce the net present

value of that 20-year investment by over 30 percent (Malkiel, 1991). Thus, if Japanese and German firms have had a cost of capital that was only one or two percentage points lower than that of U.S. firms, they would have been willing to undertake much longer-term projects than would U.S. firms, and would have appeared to have had much longer managerial horizons. In fact, using data for the 1977–1988 period, studies of the relative cost of capital have estimated the disparity in favor of foreign firms to have been much greater than two percentage points (Malkiel, 1991).

The standard definition of the cost of capital is that it is the minimum before-tax rate of return that an investment project must generate in order to pay its financing costs after tax liabilities. This rate of return is determined by the required payments to a firm's debt and equity holders (or the cost of funds), by the economic depreciation of the investment and the tax treatment of that depreciation, the taxation of corporate earnings, and any other fiscal incentives associated with investment (McCauley and Zimmer, 1989). It is obvious, therefore, that comparing the cost of capital in different countries requires a thorough analysis of both differences in financing costs and differences in tax burdens. Further, measuring the cost of capital is not straightforward. In particular, the cost of equity capital (or the rate of return demanded by equity investors) cannot be observed directly but must be inferred or estimated. As consequence, there is considerable debate about the proper methodology and assumptions to use when making such estimates.

Despite these difficulties, several carefully researched studies have provided us with what are viewed as reasonably accurate estimates of the cost of capital in different countries. These studies unanimously indicate that U.S. firms have in fact faced a higher cost of capital during most of the 1970s and 1980s. In general, these studies calculate the cost of capital for a firm as the weighted average after-tax cost of the debt and equity in the company's capital structure. Typically, debt costs are taken to be stated borrowing rates adjusted for taxes and any other factor affecting borrowing costs, while equity costs are inferred from adjusted earnings-to-price ratios.

Studies by McCauley and Zimmer, Ando and Auerbach, Bernheim and Shoven, and Malkiel all find that the cost of capital was considerably higher in the United States than in Japan and Germany during the 1977–1988 period (McCauley and Zimmer, 1989; Ando and Auerbach, 1988; Bernheim and Shoven, 1989; Malkiel, 1991). A particularly striking finding is McCauley and Zimmer's estimates of the real after-tax cost of funds in the three countries (shown in figure 9–2). Here the cost of funds represents the weighted average of debt and equity costs to firms, using the book value of debt and the market value of equity. During the 1980s, the cost of funds



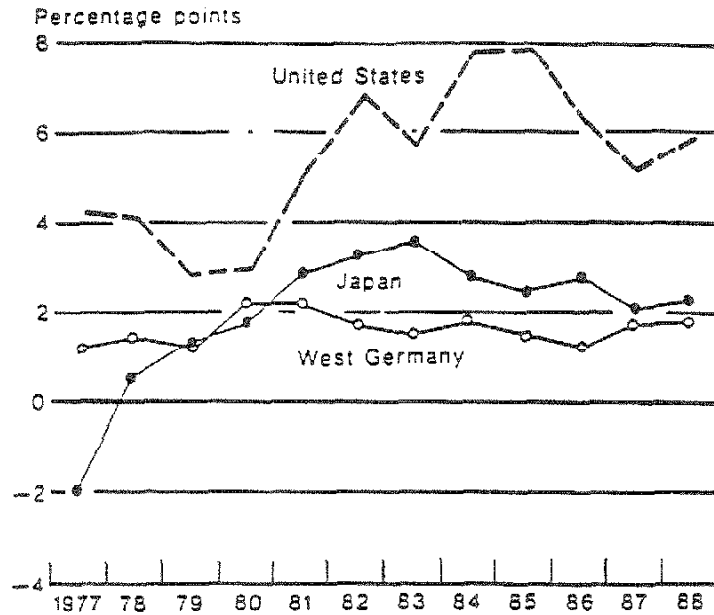


Figure 9-2. McCauley/Zimmer Estimates of the Real After-Tax Cost of Funds. Source: Robert N. McCauley and Steven A. Zimmer, "Explaining International Differences in the Cost of Capital," FRB, NY Research Paper No. 8913, August 1989.

in the United States was on average twice as high as in Japan and Germany. Although the cost of funds alone does not measure the cost of capital because it does not take into account differences in inflation, taxation, and depreciation conventions, McCauley and Zimmer show that even after adjusting for these factors there still existed a substantial cost of capital gap in favor of foreign firms.

To illustrate the effect of a higher cost of capital on long-investment decisions, McCauley and Zimmer (1989, table 2) estimate that in 1988 a U.S. firm would have needed to earn an 11.2 percent return on an investment in equipment and machinery with a life of 20 years before being willing to undertake such an investment, while Japanese and German firms would have needed to earn only about a 7 percent return on the same investment. Alternatively, in order to undertake an R&D project that would

not yield returns for ten years, after which such returns would fall progressively over many future years, a U.S. firm would in 1988 have required a return of about 20 percent, whereas a Japanese firm would have required a return of only 8.7 percent and a German firm would have required a return of 14.8 percent (McCauley and Zimmer, 1989, table 2). Clearly, many more long-term projects would have been attractive for Japanese and German firms than for U.S. firms. In contrast, U.S. firms would have found it more profitable to concentrate on projects with a shorter life or a quicker pay-back. Such a strategy would have maximized the value of the firm.

The factors responsible for the higher cost of capital to U.S. firms are not obvious. Recent studies conclude that factors commonly blamed, such as the low U.S. savings rates and tax and depreciation differences, do not fully explain the cost of capital gap. The billions of dollars that flow across international borders every day makes it unlikely that real interest rate differentials can persist (Poterba, 1990). In addition, although comparing the relative tax burdens on capital in different countries is difficult, the consensus seems to be that tax disparities have worked in the direction of lowering U.S. capital costs relative to firms in foreign countries. McCauley and Zimmer (1989, p. 10), for example, find that although the nominal cost of debt (a weighted average of bank and bond debt) was considerably higher in the United States than in both Japan and Germany during the 1977-1988 period, when these figures are adjusted for both inflation and tax differences the effective real after-tax cost of debt was very similar in the U.S. and Japan. In Germany, on the other hand, firms have had a consistently lower cost of debt because of their greater use of bank loans, which have carried lower real interest rates.

The major source of the cost of capital gap appears to be due to the higher cost of equity to U.S. firms and to the fact that U.S. firms use more equity than debt financing relative to foreign firms. McCauley and Zimmer (1989, p. 12) estimate that the U.S. cost of equity capital has been much higher than in either Japan or Germany: it has often been more than double that in Japan and Germany (see figure 9-3). When this higher cost of equity is combined with the greater reliance of U.S. firms on equity financing (see figure 9-4), it is clear that U.S. firms must have a higher cost of capital: this cost is a weighted average of a firm's debt and equity costs (McCauley and Zimmer, 1989, p. 13).

These findings raise two questions. First, why is the cost of equity capital so much higher for U.S. firms than for either Japanese or German firms? Second, why do not U.S. firms simply use more debt (and less equity) financing and in that way reduce their cost of capital?

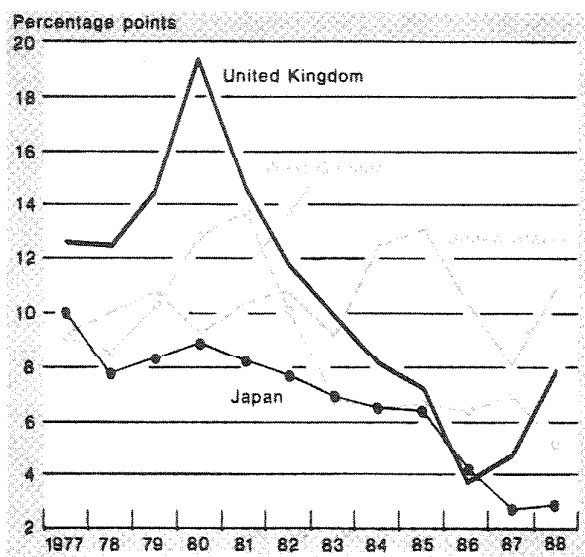


Figure 9-3. Cost of Equity.

Source: FRBNY Quarterly Review/Summer 1989, p. 12.

The answer to the second question is that U.S. firms have apparently used the level of debt that is optimal for them, *given* the supply of funds that they face. If they were to use more debt relative to equity, U.S. investors would perceive them to be more vulnerable to bankruptcy and would therefore demand a greater risk premium, thereby raising the interest rate on debt. More specifically, it has been estimated that in the United States during the 1977-1988 period a 10 percent increase in leverage was associated with a 29 percent rise in the fraction of corporate debt in bankruptcy (McCauley and Zimmer, 1989, p. 23). Thus, most U.S. firms may not be able to achieve a lower cost of capital by increasing their use of debt or their leverage.

McCauley and Zimmer (1989, p. 24) estimate that by doubling corporate leverage U.S. firms could only marginally reduce their cost of capital. For example, a corporation leveraging from a debt-to-equity ratio of one-to-one up to two-to-one on a book-value basis would typically be downgraded from a BBB to a B rating, and its interest payments would rise from 18 to 36 percent of its pretax cash flow. In 1989 B-rated bonds yielded

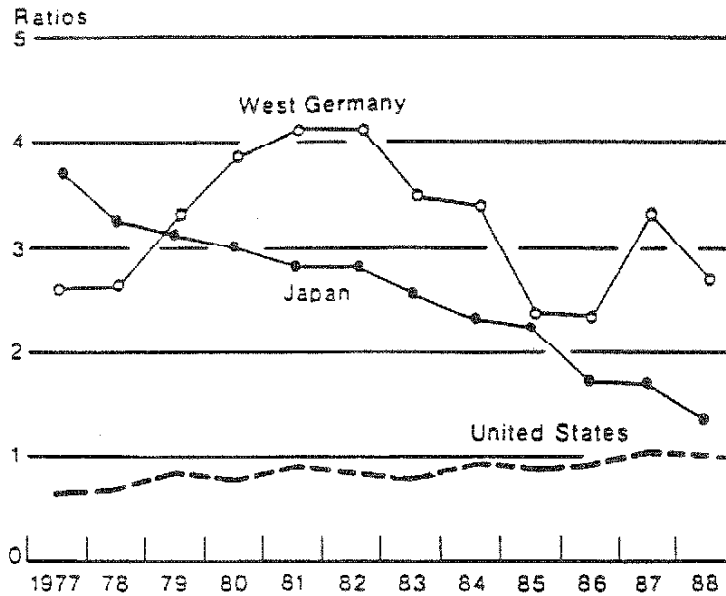


Figure 9-4. Debt/Market Equity Ratios.  
Source: McCauley and Zimmer, *op.cit.*

on average about 150 basis points more than BBB-rated bonds. (The rate spread ranged from 122 to 264 basis points during the year.) As a consequence, two-thirds of the firm's capital structure would become more expensive than before (even though interest costs are tax deductible). McCauley and Zimmer conclude, therefore, that because of the substantial risk premiums associated with greater leverage in U.S. capital markets, U.S. firms would have little to gain by increasing their use of debt relative to equity financing.

Thus, the question of why U.S. firms use relatively less debt than their foreign competitors is in fact a question about why U.S. lenders penalize U.S. firms so much more than foreign lenders penalize foreign firms for assuming greater leverage. The answer seems to be that the frequency of bankruptcy in Japan and Germany is less related to financial leverage than in the United States. Although Japanese and German firms must devote a higher proportion of their cash flows to interest payments, corporate bankruptcy rates in these countries are *lower* than in the United States

(McCauley and Zimmer, 1989, p. 22). Further, although corporate leverage is higher in Japan and Germany, the proportion of corporate debt in bankruptcy in the two countries is the same as it is in the United States (McCauley and Zimmer, 1989, p. 23). Thus, the risk premium associated with greater leverage in Japan and Germany appears to be less than in the United States.

A possible explanation for this difference is that Japanese and German firms rely to a much greater extent on banks for financing than do U.S. firms. In Japan, banks hold about 65 percent of total corporate loans and bonds (Prowse, 1990; Hamada and Horiuchi, 1987). Similarly, in Germany bank funding constitutes over 20 percent of corporate external funding. In contrast, in the United States bank financing is a relatively minor source of corporate funds.

Banks in Japan and Germany, it has been argued, are more willing to provide funding because they are better able to monitor borrowers than are most securities holders (Hoshi, Kashyap, and Scharfstein, 1989). In addition, Japanese and German banks have a greater incentive to be effective monitors: they usually own or control, either directly or indirectly, a substantial amount of stock in the companies to which they lend (Prowse, 1990; Mayer, 1989). For example, although banks in Germany own less than 10 percent of market equity, through the proxies they hold they control almost 60 percent of the total market value of equity. Further, in a survey of 66 large German companies, 51 had more than one banker on the board, and membership on these boards was concentrated among the top few banks (Bannock, 1991). Thus, the close relationship between banks and borrowers in Japan and Germany may reduce the agency and monitoring costs common to the lender-borrower relationship. Japanese and German firms are able to use relatively more bank debt than are U.S. firms without appreciably increasing their debt cost, resulting in a lower cost of capital for them.

Another reason that Japanese and German firms have had a lower cost of capital is that they have had a considerably lower cost of equity capital. While the precise sources of this cost advantage are debatable, it appears that it is at least partly due to a lower equity premium (Frankel, 1991). A common definition of the equity premium is the required rate of return on equity minus the risk-free interest rate. Thus, if there are significant differences in the cost of equity capital in different countries, they should occur because investors in the respective countries demand different equity premiums.

Bernheim and Shoven (1989) use data on adjusted earnings-price ratios in 1988 to estimate for both Japan and the United States the required rates of return on securities of different riskiness, where a security's riskiness is

defined to be its systematic or nondiversifiable risk with respect to the market portfolio. They find that required rates of return for a given risk-asset are much higher in the United States than in Japan (see figure 9-5), implying that U.S. investors demand a higher risk premium on equity.

Malkiel (1989) uses survey data of investors' expectations to arrive at the same conclusion. He shows that the required rate of return on equity can be estimated as the sum of the dividend yield (the anticipated yield for the next year) and the long-term growth rate of dividends. Dividend yields can be readily estimated, but long-term growth rates are more difficult to assess. For the latter, Malkiel uses the five-year forecasts of investors in the United States, Japan, and Germany for the years 1977 through 1989, obtained from survey data. His estimates of the cost of equity capital show that during the 1980s the real (adjusted for inflation rates) cost of equity funds in the U.S. was on average about two percentage points higher than in both Japan and Germany (see table 9-2).

Thus, equity capital, as well as debt capital, is subject to a lower risk premium in Japan and Germany. The explanation again may lie in the different institutional arrangements employed in those countries.<sup>3</sup> With respect to debt, we argued earlier that banks were more effective monitors because of their close ties to industrial firms, and because their equity participations in borrowing companies provided them with a greater incentive to monitor. A similar story can be told with respect to equity capital. In particular, "big ownership" of corporate equity, either directly or indirectly, is common in Japan and Germany, and big owners commonly have closer relationships with companies and have a much greater incentive to be informed and to monitor the firms in which they invest. Since big owners are more informed and are more able to exercise control over management, they are less subject to the kind of information asymmetries and agency costs that plague U.S. investors. Thus, there is less need for them to demand high equity premiums: their risk exposure is less.<sup>4</sup>

To summarize, studies of the cost of capital in the United States and in foreign countries generally find that U.S. firms have been subject to a higher cost of capital during much of the 1970s and 1980s. In response to this differential, it would have been rational for U.S. firms to have adopted shorter planning horizons and to have been less willing to undertake long-term investment and R&D projects. Similarly, it would explain why the managers of Japanese and German firms appear to be more long-run oriented, and why these firms have spent relatively more on capital improvements and R&D. The critical question is, why have U.S. firms had a higher cost of capital? An important part of the explanation is that U.S. investors have demanded a higher risk premium, on both debt and equity capital. Although the reasons for this are not clear, a possible explanation

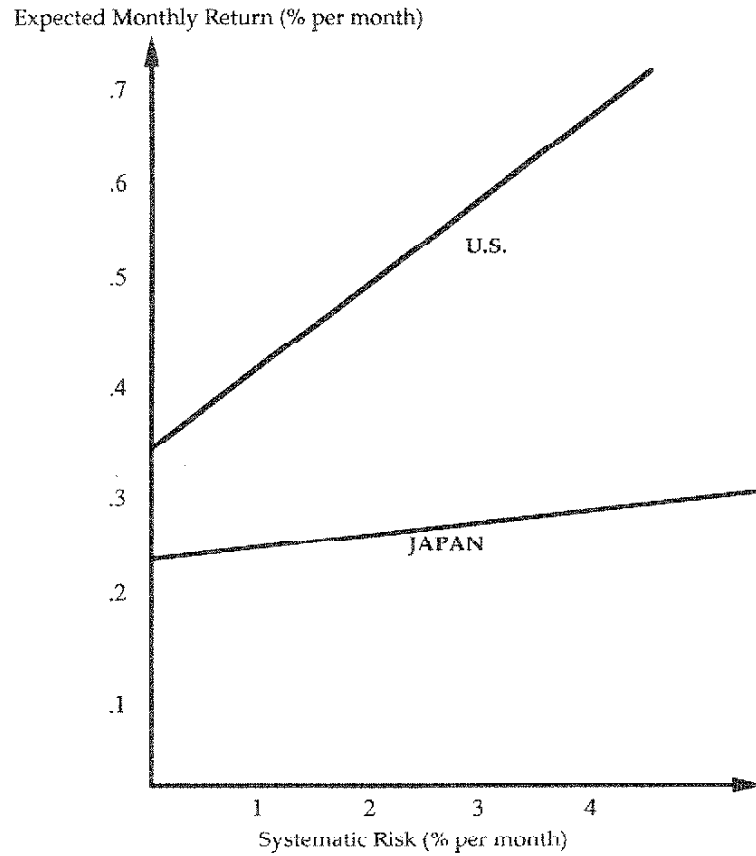


Figure 9-5. Capital Market Lines: U.S. vs Japan—1988.

Source: B. Douglas Bernheim and John Shoven, "Comparison of the Cost of Capital in the U.S. and Japan: The Rates of Risk and Taxes", CEPR Publication No. 179, Stanford University, September 1989.

Table 9-2. Estimates of Cost of Equity Capital ( $k_0$ )

	<i>Nominal</i>			<i>Real</i>		
	<i>United States</i>	<i>Japan</i>	<i>Germany</i>	<i>United States</i>	<i>Japan</i>	<i>Germany</i>
1977	14.4%	11.4%	10.2%	6.2%	6.5%	6.3%
1978	14.9	10.3	9.6	6.8	6.1	5.9
1979	14.4	9.7	9.4	6.7	6.0	5.9
1980	13.4	9.1	9.2	7.7	6.3	6.0
1981	13.3	7.9	8.8	8.0	5.7	6.0
1982	13.7	7.2	8.7	9.4	5.6	6.4
1983	11.9	7.1	7.5	7.9	5.6	5.4
1984	12.1	6.8	7.1	8.3	5.5	5.2
1985	10.9	6.3	6.8	7.3	5.0	4.9
1986	10.0	6.2	6.3	6.2	4.7	4.2
1987	9.8	6.5	7.1	5.6	4.8	4.7
1988	10.5	6.7	7.8	6.3	5.0	5.2
1989	10.3	6.3	7.8	5.9	4.8	4.6
Average, 1980-89	11.6%	7.0%	7.7%	7.3%	5.3%	5.5%

Source: Malkiel (1991).

Note:  $K_0 = \frac{D_0 (1 + g)}{P_0} + g$ .  $D_0$  is the dividend paid in the past year;  $P_0$  is the current price of a share; and  $g$  is the constant long-term growth rate of the dividend.

is that institutional arrangements related to the ownership and control of corporations in Japan and Germany may lower the risk associated with both lending and equity ownership. In particular, the ability of investors in Japan and Germany to take large or controlling equity positions in companies may enable them to reduce the costs associated with resolving the agency and monitoring problems that are commonly associated with both lending and equity ownership.

### **Big Ownership and Relationship Investors in Japan and Germany**

The term *big ownership* refers to stockholders with a large enough position in a company to be able to replace management. Such stockholders are



presumed to be well informed about the companies in which they invest and to be active in evaluating and monitoring managerial performance.

Relationship investors, although not necessarily big owners in the sense that they own a large block of a company's stock, play a similar role. Together with other similarly oriented investors, relationship investors hold controlling positions in companies for the purpose of maintaining long-term business relationships with those companies. Usually they develop communal arrangements for monitoring the managements of companies, and through these mechanism exert an influence on corporate management similar to that of big owners.

In Germany, big ownership is more common and plays a dominant role in monitoring and directing corporate management. There is, to begin with, a greater concentration of equity ownership than in the United States. Banks, families, foundations, other companies, and even state entities own sizeable blocks of shares in many major companies. In 29 of the 40 largest German companies there are shareholders who own 10 percent or more of the company's stock. In contrast, in the United States only 8 of the largest 50 publicly traded companies have stockholders with positions greater than 10 percent (Lorsch and MacIver, 1991). An example of how big ownership works in Germany is Porsche, the well-known German automobile manufacturer. Porsche is owned by two families—the Pech and Porsche families—who together own all of the company's common stock and 40 percent of its preferred stock. This kind of ownership stake makes it imperative for owners to stay informed and to take an active role in determining company strategy. If hard times befall a company, owners cannot easily sell their stock and move on to a new investment. They must either sell the entire company or put the company back on track. In 1992, when Porsche's sales were faltering badly and the future of the company was in doubt, the big-owner families intervened actively. Although in this instance they ultimately agreed to retain the company's management, they were able to influence the company's future strategy and goals.<sup>5</sup>

A big-ownership role also is exerted in Germany through banks. German banks directly own a substantial share of the voting stock. In 1987 the ten largest German banks owned 25 percent or more of the stock of 33 large German companies (capitalized at more than one billion DM). But banks control much more stock through their trust and custodial accounts. As a consequence, it is common for banks to have representation on the supervisory boards of German companies and to take an active role in corporate affairs. For example, when a managerial dispute erupted at Daimler-Benz a few years ago, the Deutschebank intervened to settle it. The Deutschebank alone controls about 25 percent of Daimler-Benz's stock,

some directly and some indirectly through its fiduciary funds and custodial accounts (Roe, 1991). Thus, German banks, in contrast to U.S. banks, play a direct role in the governance of German corporations.

In Japan, arrangements among relationship investors are the main vehicles through which control of corporate managers is exercised. The financial *keiretsu* lies at the heart of the Japanese industrial structure. At least 28 separate *keiretsu* groups presently exist in Japan (Flath, 1990). Typically, the *keiretsu* is characterized by extensive cross-holdings of stock among many companies and by the inclusion of a major (or main) Japanese bank that performs a centralized coordinating and monitoring function. These companies are bound together by long-term business relationships and by both social and financial ties. In addition, borrowing by member firms is commonly concentrated in the *keiretsu's* main bank so that the bank is not only a stockholder but a large creditor as well. As a consequence, key bank personnel often serve on corporate boards and may be put in top managerial positions in firms experiencing financial distress. Thus, although no single company in the *keiretsu* may own or control a substantial block of any company's stock, together the *keiretsu* member companies typically own more than enough stock in a company to permit effective monitoring and control of a company. It has been reported that about 70 percent of Japan's 1,500 public companies are at least 50 percent owned by related companies or financial institutions (Taylor, 1990).

A 1988 survey of the 300 largest manufacturing companies in both Japan and the United States by the Industrial Policy Bureau of MITI shows just how different the pattern of stockholding is in Japan and the United States. Almost 80 percent of Japanese corporate shares are held by relationship investors, while in the United States just the opposite is true. In the United States two-thirds of shares are held by purely financial investors, such as mutual funds and pension funds. Institutional investors in the United States have typically focused on financial returns and have not gotten involved in monitoring corporate management. Only in the last few years have public pension funds begun to take a more active role in corporate governance.

Table 9-3 shows the comparative ownership structure in Japan and the United States (Malkiel, 1991). In the United States passive institutional investors are clearly the dominant stockholders, while in Japan financial institutions with business relationships to the companies in which they hold stock are the dominant stockholders.

The role of relationship investors is manifested as well by the stock trading patterns in Japan and the United States. Data on stock trading on the Tokyo Stock Exchange show that while relationship investors own over two-thirds of the shares of Tokyo Stock Exchange companies they do

Table 9-3. Comparisons of Ownership Patterns of Equity Securities, United States and Japan, January 1988

	<i>United States</i>	<i>Japan</i>
<i>Purely investment-return-oriented investors:</i>		
Institutional investors (e.g., pension funds, mutual funds)	44%	15%
General public investors	<u>19</u>	<u>3</u>
Other	4	4
Total	67%	22%
<i>Relationship-oriented investors:</i>		
Financial institutions with business relationships (e.g., banks, life insurance companies)	12%	47%
Nonfinancial corporate holders	9	11
Parent and other group companies	3	17
Owner-founder	<u>10</u>	<u>4</u>
Total	34%	79%

Source: Industrial Policy Bureau of MITI from a survey of 300 of the largest manufacturing companies in the United States and Japan.

Note: Figures may not add due to rounding.

just over 25 percent of the trading (Malkiel, 1991). In contrast, passive institutional investors in the United States, while holding about half of the stock of New York Stock Exchange companies, do anywhere from 50 to 80 percent of the trading in these companies, depending on the year.

The long-term orientation of Japanese relationship investors also shows up in the longevity of their stock holdings. The top shareholders in 1978 in Japan's largest 181 corporations were still among the top five shareholders in the same company in 1988, ten years later. In addition, only 15 percent of the ten largest shareholders in 1978 had dropped out of the top 20 shareholders in the same company in 1988 (Futatsugi, 1990). Thus, control of Japanese companies commonly rests in the hands of relationship investors, who do not trade the company's shares frequently and who do not respond to the short-term financial vicissitudes of the company.

In both Germany and Japan, banks play a critical corporate governance role, although in somewhat different ways. In Germany their power comes from their ability to exercise influence through both the stock they own and the stock they hold in trust or custodial accounts. In Japan control is exercised through cross-holdings of stock and the main-bank structure.

Jonathan Charkham, advisor to the governors of the Bank of England, succinctly sums up the difference between the ownership structure in the United States and in both Germany and Japan: "In Germany and Japan the banks play a leading role in exerting influence because historically they are the main source of funds, often supplying a wide range of services: they have shareholdings and (in Germany) a seat on the supervisory board. In Japan associated companies, customers and suppliers (all of whom may be shareholders too) may exert influence. All of this is done quietly without public confrontation except in extremes" (Taylor, 1990).

In the United States neither big ownership nor relationship investing is an important feature of the corporate landscape. Consequently, U.S. stockholders generally do not have the same incentive to be informed and to stay informed and do not invest the same amount of time and effort in monitoring corporate management. Further, even if they wished to, they normally would not have the power to change the management. It is not surprising, therefore, that institutional investors in the United States "vote with their feet," selling a company's stock at the first sign of poor performance. This is often the only option open to them.

Thus, because U.S. stockholders are less informed about firms and the capabilities of management and are less able to influence management, they are subject to greater risk than are Japanese and German shareholders. A rational response, therefore, is for U.S. stockholders to charge corporations a higher risk premium for the use of their funds, increasing the cost of capital to U.S. firms relative to Japanese and German firms.

### **Policy Implications for the United States**

To the extent that managerial "short-sightedness" exists in the United States, it cannot be cured by easy solutions like a transactions tax on securities trading or a higher short-term capital-gains tax. Active trading by investors or a high turnover in financial markets is not the cause of managerial myopia; nor are leveraged buyouts and corporate takeovers the cause. If anything, it has been the relatively higher cost of capital to U.S. firms that has caused the shorter planning horizons used by U.S. managers. The remedy for U.S. short-sightedness, therefore, is to lower the cost of capital to U.S. firms.

This can be accomplished in two ways. First, by government providing a more stable macroeconomic environment in the United States and by providing incentives to increase private-sector savings. Second, by regulatory reforms to encourage more active participation by institutional stockholders

in corporate governance. More informed equity ownership can reduce the risk premiums that shareholders demand and lower the cost of capital to U.S. firms.

To encourage long-term, effective, ownership, several reforms need to be undertaken. First, institutional investors should be permitted to take larger equity positions in companies. Specifically, banks should be permitted to take equity positions in commercial firms (which they cannot do now), and restrictions on ownership by institutional investors such as insurance companies and mutual funds should be relaxed.<sup>6</sup> With larger ownership stakes, the incentive to work closely with corporate management for the long-run good of the firm will increase. Second, the array of legal deterrents to large ownership should be relaxed. Examples are existing filing requirements for large owners under section 13(d) of the Securities Exchange Act, the short-swing profit rule of section 16(b) of the Securities Exchange Act, and the extra layers of taxation that discourage corporate crossholdings (Black, 1992). Third, obstacles to being an active shareholder should be relaxed or eliminated. Examples are the requirements for active shareholders to report their holdings and plans on Schedule 13D; costly filing requirements imposed by the Hart-Scott-Rodino premerger notification rules; and SEC proxy rules that make it difficult and costly for owners to choose directors and engage in proxy campaigns (Black, 1992). These are just some examples of what might be done. The key point is that we must rethink our rules and regulations with a view toward encouraging both long-run ownership and the active participation of institutional investors in corporate affairs.

If these reforms are made, it is likely that in the future institutional investors will play a more dominant and active shareholder role than they do now. We will be asking fiduciaries and money managers to monitor corporate managers: managers will be watching managers. Clearly, this arrangement is not without risks. We must be attentive to the incentives of our fiduciaries and money managers as well as to our corporate managers. Still, there is reason to believe that such a system will work better than the one we have at present (Black, 1992). The alternatives, in any case, are less attractive.

## Notes

1. These studies, it should be recognized, do not take into account the possibility that there may be a considerable amount of unexplainable "noise" in the determinants of stock prices.

2. Some studies find that institutional ownership may encourage a longer managerial horizon. See, for example, Hansen and Hill (1991) and McConnell and Servaes (1990).

3. Although the United States has had a less stable macroeconomic environment than either Japan or Germany, it is not clear to what extent this has been responsible for the different risk premiums extracted by investors (see Lawrence, 1991b).

4. For a discussion of big ownership of corporate equity in Germany and Japan in comparison to the United States, and its implications, see Edwards and Eisenbeis (1993).

5. A story in the *Wall Street Journal* reports that "the Piech and Porsche families have always been quite ruthless in the past in changing chairmen who they don't feel are doing the job correctly" (see "Internal Struggle at Porsche," 1992).

6. For a discussion of the existing legal restrictions on institutional ownership and their historical origins, see Roe, 1991b.

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