Studies in International Corporate Finance and Governance Systems

A Comparison of the U.S., Japan, & Europe

Edited by Donald H. Chew

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DONALD H. CHEW

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I. INTRODUCTION

1.) taxes
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The past decade has given rise to a growing debate over the relative efficiency of different national economic systems. At the risk of oversimplifying, there are two basic corporate finance and governance systems that predominate in developed economies today. One is the Anglo-American "market-based" model, with widely dispersed shareholders and a fairly vigorous corporate control (or takeover) market. The other can be represented by the Japanese and German "relationship-based" systems, with their large bank and intercorporate holdings (and conspicuous absence of takeovers). Given the increasing globalization of business, which of these two systems can be expected to prevail over time? Or will both systems continue to coexist, while seeking to adopt some aspects of the other?

Throughout the 1980s and well into the 1990s, the popular business press was telling us that U.S. companies were falling farther behind their global competitors—even as U.S. stock prices were climbing ever higher. We were also told that the corporate restructuring movement was adding to the American competitiveness problem by reducing investment and otherwise reinforcing the "short termism" of U.S. managers. At the same time, Japanese companies were pronounced the victors in the competitive wars, and U.S. managers and investors were urged to cultivate the "patience" of their Japanese counterparts.

Over the same period, however, academic research in corporate finance (much of which was reviewed in Bank of America's *Journal of Applied Corporate Finance*, which I serve as editor) was telling a quite different story. The average stock price reactions to announcements of all variety of U.S. corporate restructurings—takeovers, LBOs, spin-offs, and large stock buybacks—were consistently positive. A follow-up set of studies examining the operating performance of restructured companies have by and large vindicated the market's initial endorsement of such restructurings. Moreover, a 1993 study published by Morgan Stanley showed U.S. companies accounting for an impressive 48% of worldwide total profits and 37% of total sales in 19 major global industries over the period 1986-1992 (as compared to only 15% of profits and 32% of sales for Japanese companies over the same period, and 37% of profit and 31% of sales for European firms).

At the same time research in corporate finance was furnishing evidence in support of the Anglo-American market for corporate control, some financial economists were also beginning to question at least some aspects of the Japanese relationship-based system. At the end of 1990, we published an article by Harvard's Japanese corporate finance specialist Carl Kester entitled "*The Hidden Costs of Japanese Success*." That article identified a fundamental problem with the Japanese corporate governance system that was being masked by Japanese companies' gains in market share and the growing Japanese trade surplus. The problem, which has been called "the agency costs of free cash flow" by Harvard professor Michael Jensen, comes down to this: the Japanese system's ineffectiveness in forcing its large, mature companies to return excess capital to investors (dividends are minimal and stock repurchases were prohibited until quite recently) was leading to widespread, value-reducing corporate diversification as well as massive overcapacity in many industries.

Our analysis received confirmation of sorts in a 1992 report on the Japanese economy by the prestigious Nomura Research Institute. As summarized in a speech by Toshiba's Chairman Joichi Aoi (which appears in this book), the NRI's principal conclusions were as follows:

- *The declines in* [Japanese] *corporate earnings and share prices have by far exceeded those that would have been expected in a purely "cyclical" downturn, and the NRI has attributed such declines to a "structural" overcapacity stemming from lax investment criteria employed by Japanese companies.*

- *In addition to denying shareholders any means of effective oversight or control over their investment policies, Japanese companies also tend to compound the problem by retaining excess capital rather than returning it to shareholders in the form of higher dividends or share repurchases. Failure to pay out excess capital leads to inefficiency.*

Since publication of this report, calls for reform of both the Japanese corporate governance system and stock market regulations have intensified. One consequence of such pressures for reform was the lifting, in 1995, of the ban on stock repurchases by Japanese companies. And similar Anglo-American style corporate governance challenges have recently been launched in countries like Germany and France.

But if the world appears to be moving toward a more market-based system, does this mean that all is well with U.S. corporate governance and that the relationship-based system is doomed to obsolescence? The story now being told by economists and management experts—the one that this book attempts to present—is considerably more complicated.

For example, in the first article in the book, "*Capital Choices: Changing the Way America Invests in Industry,*" corporate strategist Michael Porter states that "the U.S. system of allocating capital both within and across companies appears to be failing," thereby putting "American companies in a range of industries at a serious disadvantage in global competition." As noted earlier, the most voluble critics of U.S. industry have long decried the short termism foisted upon American management by U.S. *financial* markets. According to the most popular version of this argument, the quarter-to-quarter focus of now dominant institutional investors pressures American companies into passing up valuable R&D and other long-term investments—investments that were allowing Japanese and German competitors to prevail in the international marketplace.

Such claims, to be sure, have been largely discredited by research attesting to the willingness of U.S. investors to respond positively to announcements of a variety of long-term projects: major capital expenditure programs, joint ventures, and increases in R&D spending. Assertions of the myopia of U.S. capital markets also seem unconvincing when set against the current level of U.S. stock prices, not to mention the recent booms in the U.S. IPO and venture capital markets. As Porter himself concedes, investors as eager to fund biotechnology start-ups as our IPO markets have shown themselves hardly deserve to be branded craven or short-sighted.

But Porter's story is both more complex and more persuasive. Porter's argument, stated briefly, is that U.S. companies face both *external* (capital market) and *internal* (corporate) pressures to underinvest in relatively intangible assets—things like stronger supplier relationships, market penetration, process improvements, employee training, and other corporate capabilities. Not only are such assets difficult for investors on the outside to appreciate (and reflect in higher share prices), but their value also tends to elude measurement by most internal corporate capital budgeting and management compensation systems. Under most capital budgeting systems, managers in large, decentralized corporations typically have incentives to skimp on investments in capabilities. Whereas the benefits of such investments take time to materialize and are generally shared throughout the company, the costs are expensed immediately rather than capitalized and are generally charged to particular units.

Such a tendency to underinvest could be counteracted by partly "centralizing" authority and by accounting properly for (say, by capitalizing rather than expensing) corporate investments in capabilities. But, according to Porter, the source of the U.S. corporate investment problem is far more fundamental—a flaw at the core of the entire ownership and corporate governance structure. As a result of laws and regulations passed since the 1930s aimed at curbing abuses and concentration of power, there has been a progressive widening of the gap between the ownership and control of large U.S. corporations. The major institutional investors that today dominate ownership of U.S. companies are essentially powerless to intervene when management neglects shareholder interests. And corporate boards, the nominal defenders of such interests, have until quite recently been almost completely ineffectual. Most institutions respond to these constraints by keeping American managements "on a short leash," demanding that their companies produce steady increases in earnings or dumping the shares and thereby driving down stock prices. The U.S. system is said to accentuate conflicts among shareholders, lenders, managers, and employees. As a result, in Porter's words, "even though all parties to the corporate contract are acting rationally, none is satisfied."

The stocks of Japanese and German companies, by contrast, are said to be held by "dedicated, permanent" owners whose aims are "perpetuation of the enterprise" and building "corporate position" rather than maximizing period-by-period profit. The greater concentration of ownership and investor participation encouraged by the Japanese and German systems reduces the large "agency costs"—notably, the conflicts of interest among management, shareholders, and lenders— and the "information costs"—the inability of outsiders to know what insiders know—faced by U.S. investors. Lower agency and information costs in turn mean less perceived risk for investors; and lower risk, all else equal, translates into lower investor required rates of return and higher stock prices.

All this, of course, *looks like* a lower cost of capital for Japanese and German companies; but it is not so in reality. Rather, U.S. investors are simply, and rationally, charging normal premiums for the higher risks imposed by the fragmented U.S. corporate governance system.

But, for all their strengths, the Japanese and German systems also have their own problems: overinvestment in declining industries, failure to abandon unprofitable activities, and excessive insistence on growth and market share. Indeed, most economists

would likely agree that holding up "self-perpetuation" as the primary goal for any enterprise is a prescription for chronic inefficiency. And Porter concedes as much, if only implicitly, when he argues for the current advantages of the U.S. system: "efficiency, flexibility, responsiveness, and high rates of corporate profit."

What Porter accordingly ends up proposing is, in effect, a blending of the strengths of the two systems—one that combines the near-term efficiency of the U.S. system with the greater willingness to invest in long-term capabilities that is said to distinguish Japanese and German companies. Such system-wide changes would aim to transform America's "EPS-enthralled," largely passive institutional investors into active, longer-term owners. This would be accomplished in part by giving board seats to major stockholders—and to representatives of other corporate constituencies such as major suppliers, customers, and employees. As in Japan and Germany, bankers and other lenders would also be encouraged to hold large equity stakes (now prevented, of course, by Glass Steagall). With the active, long-term owners envisioned by Porter, corporations would in turn be encouraged to make internal capital budgeting changes leading to more far-sighted investment decisions. The net consequence of such changes to corporate as well as capital market behavior, Porter suggests, would be a "system superior to that in Japan and Germany."

While endorsing some of Porter's proposed changes, one can disagree strongly with parts of the analysis. Perhaps the most troubling aspect of Porter's statement is its failure to lay sufficient emphasis on important adjustments in U.S. ownership and governance that were accomplished by capital markets in the 1980s—notably, the increased concentration of ownership achieved by the leveraged restructuring movement—and the stepped-up activism of institutional shareholders in the 1990s.

As Michael Jensen argues in "*The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems*" (which follows Porter's article), the leveraged restructuring of the 1980s has helped produce sharply increased levels of productivity and export growth among U.S. manufacturers by squeezing excess capacity out of mature industries. In short, restructuring has helped curb the U.S. *over*investment problem—a problem that may well be as harmful to competitiveness as the underinvestment problem that troubles Porter.

Indeed, Jensen goes so far as to suggest that squeezing out excess capital and capacity is the most formidable challenge now facing the U.S. economy—and, indeed, the economies of all industrialized nations. In making this argument, Jensen draws striking parallels between the 19th-century industrial revolution and worldwide economic developments in the last two decades. In both periods, technological advances led not only to sharp increases in productivity and dramatic reductions in prices, but also to massive obsolescence and overcapacity. And much as the great M & A wave of the 1890s reduced capacity (by consolidating some 1800 U.S. firms into roughly 150), the leveraged takeovers, LBOs, and other leveraged recapitalizations of the 1980s provided "healthy adjustments" to overcapacity that was building in many sectors of the U.S. economy: for example, oil and gas, tires, tobacco, commodity chemicals, food processing, paper and forest products, financial services, publishing, and broadcasting.

Jensen interprets the shareholder gains from corporate restructuring transactions of the 1980s (which he estimates at $750 billion) as evidence of the failure of U.S. *internal* corporate control systems—that is, managements as supervised by boards of directors—to deal *voluntarily* with the problem of excess capacity. And, given the shutdown of the takeover market in the early 1990s, together with intensifying global competition, worldwide protectionism, and other causes of future overcapacity, Jensen views reform of the U.S. corporate governance system as an urgent matter. Notable among his proposals is that large public companies should seek to replicate certain governance features of venture capital and LBO firms like Kleiner Perkins and KKR—specifically, significant equity ownership by managers and directors, greater participation by outside "active" investors, and smaller and better informed boards.

In "*Is American Corporate Governance Fatally Flawed?*", Nobel-Prize economist Merton Miller answers both critics of U.S. underinvestment and Jensen's pessimism about U.S. control systems with a classic defense of the "shareholder-value principle." That U.S. managers are more concerned than Japanese managers about stock prices, says Miller, is not a flaw, but rather "one of the primary strengths" of the U.S. economy. "Myopia," as he points out,

is not the only disease of vision afflicting business managers. They may suffer from astigmatism or even from excessive far-sightedness or hyperopia. Over the last 20 years, one will find cases in which

American firms facing strong stockholder pressures to pay out funds invested too little. But many Japanese firms, facing no such pressures, have clearly overinvested during the same period.

Japanese managers, adds Miller, are justly skeptical about using stock prices to guide their investment decisions. Because of "the heroic scale of financial intervention by the Ministry of Finance, Japanese managers can be pardoned for wondering whether the stock market may be just a Bunraku theater, with the bureaucrats from MOF backstage manipulating the puppets."

In the fourth article, however, corporate strategist C.K. Prahalad remains unconvinced by the arguments of both Miller and Jensen. In contrast to Jensen's focus on the importance of efficient exit, Prahalad asserts that the greater challenge facing large corporations today is ensuring continuous *renewal*—that is, finding new *growth* opportunities based on core competencies while still seeking efficiencies in mature businesses. To accomplish this end, moreover, corporate America must seek to balance its single-minded commitment to shareholder interests with greater concern for other corporate stakeholders such as employees and critical suppliers (especially those supplying access to key technology). At the same time, Japanese firms are urged to balance *their* traditional commitments to employees and suppliers with greater attention to shareholder interests.

Prahalad is also the featured speaker in the "*Continental Bank Roundtable on Corporate Competition in the 1990s*" that concludes the opening section of the book. There Prahalad argues that corporate restructuring—that is, the pruning back of excessive or misdirected corporate growth—is only part of the corporate process of adding value and creating social wealth. For American companies to meet global competitors such as the Japanese, near-term restructuring must be accompanied by far-sighted strategic investment designed to develop a company's core competencies. Such competencies, according to Prahalad, can and should then be "leveraged" across *multiple* businesses to create new growth opportunities for otherwise mature companies.

After exploring these strategic ideas with six top corporate executives (from companies ranging on a technology continuum from semiconductors and mainframes to grocery retailing and close-outs) with interesting effect, Prahalad then calls for a general re-examination of the principle that corporations be run to maximize shareholder value. This in turn provokes shareholder value advocate Bennett Stewart into a defense of leveraged restructuring, corporate specialization, and the shareholder gains of the '80s—and a challenge of the diversification strategies still being pursued by the largest Japanese companies. The resulting exchange between Stewart and Prahalad is one of the highlights of the book.

A WORD ABOUT THIS BOOK

This book consists of 28 articles and two roundtable discussions on aspects of corporate governance. The articles are divided into five sections. Following the "Overview" whose contents are summarized above, the next three sections are devoted to corporate governance issues in, respectively, the United States, Japan, and Europe. The fact that articles focusing on the U.S. experience make up more than half of the book reflects not (I hope) the provincialism or chauvinism of this writer, but rather the relative scarcity of research (and data) on companies outside the U.S. The fifth and concluding section consists of two articles on the "EVA® financial management system," an approach to corporate performance measurement and incentive compensation that has recently attracted strong interest in the U.S., Europe, Australia, and South Africa.

All but four of these articles were originally published in the *Journal of Applied Corporate Finance*, which is sponsored by Bank of America and published by Stern Stewart & Co. The aim of this publication is to "translate" outstanding academic research into relatively plain English for practicing businessmen. As such, this book should prove useful for MBA and corporate executive development programs.

In closing, I would like to thank Joel Stern and Bennett Stewart for their collaboration in what has become a 15-year publishing effort. My greatest debt, however, is to all the financial economists who have contributed to our journal.

Donald H. Chew
New York City
October 22, 1996

CAPITAL CHOICES: CHANGING THE WAY AMERICA INVESTS IN INDUSTRY

*by Michael E. Porter, Harvard Business School**

The Project on Capital Choices, *sponsored by the Harvard Business School and the Council on Competitiveness, initially set out to determine the extent to which the competitiveness of American industry is being undermined by a short time horizon. The project has since evolved into a broader examination of how private capital is allocated in the United States, Japan, and Germany and an assessment of the relative effectiveness of the American corporate governance system. Eighteen research papers were prepared by 25 prominent scholars in a wide range of disciplines. Professor Porter's paper, from which the following article is excerpted, develops an overall framework for understanding national investment systems and their consequences, drawing on the project papers and his own research. The complete paper is available through the Council on Competitiveness. A book containing all the project papers will be published by the Harvard Business School Press.*

To compete effectively in international markets, companies must continuously innovate and upgrade their competitive advantages. This requires sustained investment in a wide variety of forms, including not only physical assets but also intangible assets such as R&D, employee training and skills development, information systems, organizational development, and close supplier relationships. Today, the changing nature of competition and the increasing pressure of globalization make investment the most critical determinant of competitive advantage.

Yet the U.S. system of allocating investment capital both within and across companies appears to be failing.[1] Although the system has many strengths, including efficiency, flexibility, responsiveness, and high rates of corporate profit, it does not seem to be effective in directing capital to companies that can deploy it most productively and, within companies, to the most productive investment projects. As a consequence, many American companies invest too little in assets and capabilities critical for competitiveness (such as employee training), while others waste capital on investments with limited financial or social rewards (such as unrelated acquisitions). This distortion of corporate investment priorities puts American companies in a range of industries at a serious disadvantage in global competition and, ultimately, threatens the long-term growth of the U.S. economy.

*This article draws heavily on the research and commentary of my colleagues in the Project on Capital Choices, which was co-sponsored by the Harvard Business School and the Council on Competitiveness. Rebecca Wayland's research assistance and insights have contributed greatly to the study.

1. Although this report focuses on private sector investment behavior, public sector investment in education and in efficient transportation, communication, and information networks is also critical to industrial competitiveness.

Although critics frequently blame the shortcomings of American industry on a short time horizon, ineffective corporate governance, or a high cost of capital, these concerns are just symptoms of a larger problem. What is at issue here is the effectiveness of the entire U.S. system of allocating investment capital both among and within companies—a system that includes shareholders, lenders, investment managers, corporate directors, managers, and employees.

The U.S. system of capital allocation creates a divergence of interests between owners and corporations that interferes with the flow of capital to those corporate investments that offer the highest long-run payoffs. American owners, investment managers, directors, managers, and employees are thus trapped in a system in which all are acting rationally, but none is satisfied. The U.S. system also has difficulty aligning the interests of private investors and corporations with those of society as a whole, including employees, suppliers, and local educational institutions.

The problems with the U.S. system are largely of our own making and have been building over a long period of time. Yet the investment problem has surfaced particularly in the last two decades. Through a series of regulatory decisions and other choices with unintended consequences, important changes have occurred in such areas as the pattern of corporate ownership, stock valuation and trading practices, and capital budgeting practices—all of which have fundamentally altered the way corporate investment choices are made.

At the same time, the nature of competition has shifted in ways that make investment more critical to success—especially in forms of investment like employee training and development of close supplier relationships that are most heavily penalized by the U.S. system. Also, globalization has brought American firms into more frequent contact with firms based in nations with different capital allocation systems, intensifying the impact of U.S. investment practices.

Reform is needed to shore up the weaknesses in the U.S. system, while preserving its strengths. Meaningful change will be difficult because the U.S. investment problem is far more complex than conventional wisdom suggests. Most current proposals aimed at addressing America's investment problem fail to recognize the interdependencies among the different parts of our capital allocation system. Proposals to tax transactions or eliminate quarterly financial reports address the symptoms of the investment problem rather than its underlying causes. Other proposals seek to deal with the investment problem indirectly, through government support for investment in particular sectors and the encouragement of widespread collaboration among competitors. These, too, treat symptoms and risk unintended and unwanted consequences.

Reform must address many aspects of the U.S. system, ideally all at once. Policymakers, institutional investors, and corporate managers must all play a role in instituting necessary changes.

THE IMPORTANCE OF INVESTMENT IN A COMPETITIVE ECONOMY

The appropriate rate of investment in one form often depends on making complementary and sequential investments in others. A physical asset such as a new factory, for example, may not reach its potential level of productivity unless there are parallel investments in intangible assets such as employee training and product redesign.[2] Such "softer" investments are of growing importance to competition, and are also the most difficult to measure and evaluate using traditional approaches to evaluating investment alternatives.

The optimal rate of investment for society may also differ from that of an individual firm because of the presence of "externalities" or "spillovers" from private investment. These spillovers create benefits for the economy as a whole (referred to as "social returns") above and beyond the private returns accruing to a firm's shareholders.[3] Social returns include such things as potentially higher wages of employees or benefits to local suppliers that result from productivity-increasing technology investments. One important test of national systems for allocating investment capital is the extent to which such social benefits are created and captured.

2. See Carliss Y. Baldwin and Kim B. Clark, "Capabilities and Capital Investment: New Perspectives on Capital Budgeting," in the project on Capital Choices, Harvard Business School and Council on Competitiveness, 1992. The article also appears in this issue.

3. For example, the social returns from R&D have been documented to be 50 to 100% higher than private returns to investors. See J.I. Bernstein and M.I. Nadiri, "Research and Development and Intra-industry Spillovers: An Empirical Application of Dynamic Duality," *Review of Economic Studies*, Vol. 56, 1989, pp. 249-269. The difference between private and social returns varies by form of investment and tends to be higher for intangible forms of investment such as R&D than for investments in physical assets such as plant and equipment.

Evidence (and Complexities) of the U.S. Investment Problem

Ideally, we could test directly whether the rate and mix of investment in the United States are optimal. Unfortunately, the lack of available data, coupled with the many influences on the optimal rate of investment, rule out such a direct test. Instead, we are forced to proceed indirectly, and examine a variety of measures of the comparative outcomes, rates, and patterns of U.S. investment and the behavior of American investors.

Although there are important complexities, as described below, there is a great deal of evidence that supports the view that American industry invests at a lower rate and on a shorter-term basis than German and Japanese industry in many areas:

- The competitive position of significant parts of the U.S. economy seems to have declined relative to those of other nations.
- Aggregate investment in property, plant, and equipment, civilian R&D, and intangible assets such as corporate training and related forms of human resource development is lower in the U.S. than in Japan and Germany.
- Leading American firms in many industries, including automobiles, computers, and tires, are outinvested by their Japanese counterparts.
- Anecdotal evidence suggests that American firms invest at a lower rate than both Japanese and German firms in non-traditional forms such as human resource development, relationships with suppliers, and start-up losses to enter foreign markets.
- The R&D portfolios of American firms include a smaller share of long-term projects than those of European and Japanese firms.[4]
- The hurdle rate used by U.S. firms to evaluate investment projects appears to be higher than estimates of the cost of capital.[5]
- American CEOs believe that their firms have shorter investment horizons than their international competitors.
- The average holding period of stocks has declined from over seven years in 1960 to about two years.
- Long-term growth has become a less important influence on U.S. stock prices.[6]
- Many recent U.S. policy proposals such as government funding of specific industries, R&D consortia, and joint production ventures implicitly reflect a private investment problem.

Although these findings present a broadly consistent picture of lagging U.S. investment, there are some interesting and important complexities that seem to defy the overall pattern. These puzzles contradict many simple explanations of why America invests less or has a shorter time horizon:

- The U.S. investment problem varies by industry and even by company. Understanding why there are differences across industries and companies is crucial to telling a convincing story.[7]
- The United States does well in funding emerging industries and high-risk start-ups that require investments of five years or more. How does a low-investing, short-horizon nation achieve such performance?
- The average profitability of American industry is higher than that in Japan and Germany,[8] yet American shareholders have consistently achieved no better or lower returns.[9] There is thus no simple connection between average corporate returns on investment and long-term shareholder returns, as much American thinking about shareholder value seems to suggest.
- American industry seems clearly to have overinvested in some forms, such as unrelated acquisitions.[10] How this overinvestment can be reconciled with a lower average rate of investment in crucial forms such as intangible assets is important to fully understanding U.S. investment behavior.

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4. A recent survey of CEOs in the United States, Japan, and Germany provides insights into the composition of R&D portfolios, hurdle rates, and CEO perceptions of the relative investment time horizons of their competitors. See James M. Poterba and Lawrence H. Summers, "Time Horizons of American Firms: New Evidence from a Survey of CEOs," in the project on Capital Choices, Harvard Business School and Council on Competitiveness, 1992.

5. See Poterba and Summers, cited in the previous note.

6. See Burton G. Malkiel, "The Influence of Conditions in Financial Markets on the Time Horizons of Business Managers: An International Comparison," in the project on Capital Choices, Harvard Business School and Council on Competitiveness, 1992.

7. Although leading U.S. firms in industries such as construction equipment and steel invest less in R&D and capital expenditures than their Japanese or German counterparts, those in telecommunications and, compared to Japan, in pharmaceuticals, seem to invest as much or even more.

8. See R. Z. Lawrence, "Time Horizons of American Management: The Role of Macroeconomic Factors," in the project on Capital Choices, Harvard Business School and Council on Competitiveness, 1992.

9. The average return to shareholders in the first section of the Tokyo Stock Exchange between 1980 and 1990 was 13.0%, while the average return of shareholders of the NYSE for the same period was 11.8%. Results for the period 1960-1990 were 12.6% for the Tokyo Stock Exchange and 10.3% for the NYSE. For the periods 1960-1970 and 1970-1980, average returns were 8.2% and 15.2% for the TSE and 8.5% and 9.5% for the NYSE. Returns include dividend payments and price appreciation using year-end figures. They are not adjusted for inflation or the relative risk of the two markets. The generally lower rates of inflation in Japan and Germany strengthen this finding.

10. See M.E. Porter, "From Competitive Advantage to Corporate Strategy," *Harvard Business Review*, May-June 1987, and D. J. Ravenscraft and F.M. Scherer, *Mergers, Sell-offs, and Economic Efficiency*, Brookings Institute, 1987.

The nature of competition has shifted in ways that make investment more critical to success—especially in forms of investment like employee training and development of close supplier relationships that are most heavily penalized by the U.S. system.

- There is persuasive evidence of systematic overinvestment by some companies in studies documenting significant shareholder gains from takeovers.[11] Why do some firms underinvest while others apparently invest too much?
- The United States has the most efficient capital markets of any nation. How can such efficient capital markets be guilty of apparently sub-optimal investment behavior?
- The investment problem seems to have become more significant today than it was several decades ago. Why this is so is another puzzle that must be addressed in understanding the investment problem.

Clearly, it is not so simple as concluding that the U.S. underinvests or that the U.S. has a short time horizon. Yet many of these complexities only reinforce the notion that the U.S. system is missing the mark by failing to invest the appropriate amount in the appropriate forms. Explaining these paradoxes, as well as the differences in investment behavior across industries, companies, and forms of investment, is essential to gaining a full understanding of the U.S. investment problem.

THE DETERMINANTS OF INVESTMENT

The determinants of investment can be grouped into three broad categories: the macroeconomic environment; the allocation mechanisms by which capital moves from its holders to investment projects; and the conditions surrounding specific investment opportunities themselves.

The *macroeconomic environment* establishes the context in which investment by all firms in a nation takes place. Investment tends to flourish in a fiscally stable and growing economy; the expectation of stability and future economic growth reassures investors of adequate returns over the long term. In the United States, high federal budget deficits, low national savings rates, sporadic and unpredictable changes in tax policy, and a tax code favoring consumption over investment have dampened both private and public sector investment over the past two decades.[12]

The *capital allocation mechanisms* in an economy work through two distinct but related channels: the *external* capital market, in which holders of equity and debt provide capital to particular companies; and the *internal* capital market, in which companies allocate the internally and externally generated funds at their disposal to particular investment programs. Previous work has focused on individual aspects of these markets but has not addressed them as a whole. Our research focuses on the dual markets and their effects on investment behavior.

Project-specific conditions reflect the different payoffs that can be gained from a particular investment project. The potential returns of an investment can be affected by the nature of the industry, the competitive position of the company, and the nation or region in which the investment is made. My previous research suggests that the capacity to invest and innovate effectively depends largely upon the following factors: the presence of specialized skills, technology, and infrastructure; sophisticated and demanding local customers; capable local suppliers; competitive local companies in industries closely related by technology, skills, or customers; and a local environment that encourages sustained investment and vigorous competition.[13] These attributes combine to form a self-reinforcing system. Competitive advantage, then, grows not from a comfortable home environment but out of the pressure and challenges generated by these elements.

Sustained private investment can not only improve the skills of employees, increase the capabilities of supporting industries, or upgrade the sophistication of consumer demand, but also generates local "externalities" that develop and reinforce other parts of the system. Such "spillovers" from investment play a crucial role in building competitiveness.

The External Capital Market

Four attributes of the external capital market are of principal importance for investment behavior. The first is the pattern of share ownership and agency relationships, which refers to the nature of the owners, the extent of their representation by agents, and the size of the stakes held in companies. The second is the goals of owners and agents, which influence their desired investment outcomes. The ability to hold debt and equity jointly is one important

11. For a discussion of the corporate overinvestment problem and the role of corporate restructuring in addressing it, see Michael C. Jensen, "Corporate Control and the Politics of Finance," *Journal of Applied Corporate Finance*, Summer 1991.

12. See Lawrence, cited in note 8.

13. See M.E. Porter, *The Competitive Advantage of Nations*, New York: Macmillan, The Free Press, 1990.

influence on goals, as is the existence of a principal-agent relationship. The third attribute is the approach and information used by owners or their agents in monitoring and valuing companies. There is a spectrum of approaches to valuation ranging from fundamental research based on company-specific information to investing in index funds. The approach used by owners or agents will depend on their goals, the information available, and their incentives for information-gathering. The final important attribute is the ways in which owners or their agents influence management behavior in the companies whose shares they own. These four attributes are interrelated and, over time, mutually reinforcing.

The predominant configuration of the U.S. external capital market is very different from that in Japan and Germany. Although exceptions exist in all three nations, in each case there is a set of circumstances that affect the majority of large companies.

Fluid Capital. In the U.S., the attributes combine to create a system distinguished by fluid capital. Funds supplied by external capital providers move rapidly from company to company, usually based on perceptions of opportunities for near-term appreciation. Publicly traded companies increasingly rely on a transient ownership base comprised of institutional investors such as pension funds, mutual funds, or other money managers, which act as agents for individual investors. Such owners have increased their holdings from 8% of total equity in 1950 to 60% in 1990. The performance of U.S. money managers is typically evaluated based on quarterly or annual appreciation relative to stock indices, and they thus seek near-term appreciation of their shares, holding stock for an average of only 1.9 years. Due to legal constraints on concentrated ownership, fiduciary requirements that encourage extensive diversification, and a strong desire for liquidity, these investors hold portfolios involving small stakes in many, if not hundreds, of companies.

Because of their fragmented stakes in numerous companies, short expected holding periods, and lack of access to "inside" information through disclosure or board membership, institutional investors tend to base their buy and sell decisions heavily on relatively limited information oriented toward predicting near-term share price movements. Those investors that do conduct fundamental research are still highly sensitive to the timing of purchases and sales, given the pressure to show near-term appreciation. Investors are driven by the system to focus on measurable company attributes, such as current earnings or patent approvals, as proxies of a company's value. The value proxies employed vary among different classes of companies and can lead to underinvestment in some industries, or in certain kinds of investment, while allowing overinvestment in others.[14]

We can divide companies in the American market into three broad groups: (1) established companies in relatively mature industries; (2) companies in emerging or obviously high-technology sectors; and (3) companies in the throes of a clearly visible discontinuity. In the first category, the dominant value proxy is current earnings, which have a strong effect on share prices. For companies in the latter two groups, the value proxies are different. In such cases, current earnings are clearly an inappropriate indicator, and thus investments are based on value proxies such as scientific successes, regulatory decisions, and perceived rapid growth prospects. In such sectors, current earnings play a limited role until the firm is seen as "established."

Owing to the inability of many proxy-based approaches to outperform the market, some institutions have moved to invest as much as 70% to 80% of their equity holdings in index funds, which simply attempt to match the performance of the broad market and thus involve no use of company-specific information.

Despite their large aggregate holdings, U.S. institutional investors do not sit on corporate boards and have virtually no real influence on management behavior.

Dedicated Capital. The Japanese and German systems are fundamentally different from the U.S. system. Overall, Japan and Germany have systems defined by dedicated capital in which the funds of principal owners remain invested in companies over long periods of time. The dominant owners are principals rather than agents and hold significant ownership stakes. They are virtually perma-

14. Studies find that the stock market responds positively, on average, to announcements of increases in capital expenditures, R&D, and joint ventures. But because such studies examine broad populations of companies, they do not address the question of whether there are biases in particular subpopulations, which our theory would suggest is the proper question. For one of the few studies that attempts to address this issue, see Su H. Chan, John A. Martin, and John W. Kensinger, "The Market Rewards Promising R&D—and Punishes the Rest," in this issue.

Japan and Germany have systems defined by dedicated capital in which the funds of principal owners remain invested in companies over long periods of time. The dominant owners are principals rather than agents and hold significant ownership stakes.

nent owners who seek long-term appreciation, and their goals are more relationship- than transaction-driven. Suppliers and customers own stakes in each other, with the aim not of profiting from share ownership so much as cementing their business relationships.

Because principal Japanese and German owners hold significant shares for long periods, they have both the incentive and the ability to engage in extensive and ongoing information-gathering about the companies they own. Unlike the American system, principal Japanese and German owners are driven not by the need to make quick decisions on buying or selling stock for profit taking, but by the desire to assess the ongoing prospects of the company. They therefore command the respect of management, have access to inside information, and, particularly in Germany, exert considerable influence on management behavior.

Interestingly, the non-permanent owners/agents in Japan trade as much or even more frequently than those in the United States, and base buy and sell choices on even less information.[15] Yet it is important to recognize that, in both Japan and Germany, share prices and pressure from non-permanent owners/agents have virtually no influence on management.

The Internal Capital Market

The internal capital market is the system by which corporations allocate the capital available from both internal and external sources among competing investment projects within and across business units. The most important influences on the internal capital market can be divided into four categories that parallel those that shape the external market: corporate goals; organizational principles governing the relationship between senior management and business units; the information and methods used to value and monitor internal investment options; and the nature of intervention by senior managers into investment projects. Again, the predominant U.S. system of allocating capital internally differs markedly from those in Japan and Germany.

Maximizing Investment Returns. The U.S. internal system can be characterized as one structured to maximize measurable investment returns. It is organized to motivate management to achieve such returns, to raise accountability for unit financial performance, and to base decision-making and investment allocation heavily on financial criteria.

In the U.S. system, corporate goals are centered on earning high financial returns. Maximizing "shareholder value," *as measured by current stock price*, is explicitly codified in many companies as the corporate goal. The dominant influence on corporate goals is management, who are often subject to limited direct influence either by boards, which are dominated by outside directors with no other links to the firm, or by owners, who typically hold fragmented stakes in hundreds of different companies. The goals set by American managers are typically framed in terms of ROI or increasing stock price. The frequency with which managers meet with investors and analysts (once per week for CEOs, three times per week for CFOs) is both a cause and an indication of their attention to stock prices. Compensation and reward practices, based largely on current accounting profits and unrestricted stock options, only accentuate their importance.

Over the last two decades, many American companies have adopted a form of decentralization involving highly autonomous business units and limited information flow both vertically and horizontally. This is accentuated by the tendency for senior management to have little knowledge or experience in many of the company's businesses and to lack the technical background essential to understanding the substance of products or processes (partly because such background and experience are unnecessary in the typical decision-making process). Decision-making involves limited dialogue among business units or across different functions, and little consensus building. All of these factors have distanced management from the details of the business. Extensive diversification into unrelated areas has accentuated these tendencies and further restricted the flow of information throughout the organization.

15. The very high turnover rate of this rapidly traded portion of the Tokyo Stock Exchange is in stark contrast to the long holding periods of principal Japanese investors. The rapidly traded portion of the market lowers the average turnover on the TSE to 2.6 years, which is actually higher than the turnover of 2.8 years in the United States reported by Froot, Shleifer, and Stein (1992). But this comparison obscures the important difference that 70% of Japanese equity is comprised of holdings that were held, on average, over five years. Indeed, the most stable group of Japanese shareholders, insurance companies (accounting for 4% of total equity) and corporations (30%) held their shares for 18.3 and 7.4 years, on average, including shares that are actively traded. By contrast, no single group of U.S. stockholders had average holdings over five years.

For a comparison of Japanese and U.S. shareholder practices, see Kenneth Froot, Andrei Sheifer, and Jeremy Stein, "Shareholder Trading Practices and Corporate Investment Horizons," in the project on Capital Choices, Harvard Business School and Council on Competitiveness, 1992. The article also appears in this issue.

Both as a cause and an effect of the limited information available to top management, capital budgeting takes place largely through "by the numbers" systems in which unit or functional managers are required to justify investment projects quantitatively. Important investments such as R&D, advertising, or market entry are often not treated as capital investments at all; rather they are negotiated as part of the annual budgeting process, which is driven by a concern for current profitability. Intangible investments such as training may not even be tracked by the financial system and fall prey to deferral in the name of increasing near-term profits. Central control is exerted infrequently and occurs through strict financial budgeting and control systems that focus on financial measures of the unit's performance. Investment projects are placed on accelerated schedules under tight budgets, and senior managers intervene only when financial measures indicate a project is failing.

Securing Corporate Position. The Japanese and German internal capital allocation systems are significantly different from those in the United States, most notably in corporate goals and the flow of information. In both Japanese and German companies, the dominant goal is to ensure the perpetuation of the enterprise. Both Japanese and German companies practice a form of decentralization involving much greater information flow among multiple units in the company as well as with customers and suppliers. They tend to be less diversified than their American counterparts and diversification occurs into more closely related businesses. Managers are more likely to have a technical background and long tenure in the business of the firm. Top managers get involved in all important decisions, which are usually made after extensive face-to-face consultation and discussions aimed at building consensus.

Financial control and capital budgeting are practiced in Japan and Germany, but investments are heavily driven by technical considerations and the desire to ensure the firm's long-term position in the business. German companies are particularly oriented toward attaining technical leadership. Japanese companies place special value on market share, new product development, technological position, and participation in businesses and technologies that will be crucial in the next decade.

It is interesting to note that American innovations in management practices have, by and large, reduced the amount of face-to-face consultation, information flow, and direct involvement of management in the name of responsiveness and management efficiency. Many of these innovations were the American solutions to the problems of size and diversity that arose during the diversification boom of the 1960s. They preceded the major changes that occurred in the external capital markets. In contrast, Japanese innovations in management, such as total quality management and greater cross-functional coordination, result in much greater vertical and horizontal flows of information in support of management decision-making. This comes at the expense of efficiency in the short run but often results in greater effectiveness and efficiency over time as knowledge and abilities cumulate.

COMPARATIVE CAPITAL ALLOCATION SYSTEMS

The external and internal capital markets are linked and form a self-reinforcing national system for allocating investment capital. The way corporations allocate capital internally will be influenced by their perceptions of how equity holders and lenders value companies. At the same time, investors' process of valuation will be affected by their perceptions of how companies are managed and how they allocate their funds internally, thus creating a circular chain of influence. Reinforcing this effect, the use of stock options in management compensation creates a direct link between stock market valuation and management behavior.

Effects on Investment Behavior

The U.S. system for allocating investment capital creates the following tendencies and biases in investment behavior, which differ from those in Japan and Germany.

- The U.S. system is less supportive of investment overall, because of its sensitivity to current returns for many established companies combined with corporate goals that stress current stock price over long-term corporate value. This explains why the average level of investment in U.S. industry lags that in Japan and Germany.
- The U.S. system favors those forms of investment for which returns are most readily measurable due to the importance of financial returns and the limited information available to investors and managers. This helps explain why the United States underinvests,

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on average, in intangible assets, where returns are more difficult to measure.

- The U.S. system favors investment in discrete projects as opposed to ongoing programs of complementary investment that yield sustained capability improvements. This helps explain why the United States underinvests in areas such as employee training and supplier relationships.
- While the U.S. system is prone to underinvest in some forms, it simultaneously overinvests in others. The U.S. system heavily favors acquisitions, which involve assets that can be easily valued, over internal development projects that are more difficult to value and that constitute a drag on current earnings.
- The U.S. system encourages investment in some sectors while limiting it in others. It is at its best with companies in obviously high technology or emerging industries, especially those with rapid growth and high upside potential. The American system also supports investment in turnarounds or other situations of clear discontinuity. In these cases, investors recognize that current earnings are irrelevant and seek other value proxies, such as patents, new product announcements, and the track records of new management, that are more supportive of investment. This helps explain why the United States invests more than its competitors in some industries but less in others, why it performs well in funding emerging companies, and why it often awards high stock prices to turnarounds with current losses.
- The U.S. system allows some types of companies to overinvest. For example, case studies of takeovers demonstrate a tendency by target company managements to continue investing (or accumulating cash) despite few profitable opportunities as long as current earnings are satisfactory or until a company's situation so clearly deteriorates that it changes hands.[16] This helps explain why some companies waste resources while U.S. industry as a whole lags in investment.

There are companies and owners that operate differently from the predominant U.S. system and that achieve superior results. Firms with permanent family ownership, such as Hallmark, Hewlett-Packard, Motorola, and others seem to enjoy competitive advantages in investing. Investors such as Warren Buffett's Berkshire Hathaway have thrived by becoming, in effect, permanent owners of acquired companies, supporting well-performing current management, and concentrating on franchise building. Such investors seem to have devised their own alternative ownership and governance systems to overcome many of the weaknesses of the U.S. system.

Venture capital firms and leveraged buyout groups are also structured in ways designed to overcome some of the problems that trouble the dominant U.S. system. In both cases, investors with concentrated stakes receive inside information, participate actively on corporate boards, and exert strong influence over management. Yet neither venture capital firms nor LBOs represent the ideal solution. In both cases, the term of the investment is limited. Rather than being long-term, quasi-permanent owners, most American venture capital and LBO firms are at best medium-term owners who feel intense pressure to sell companies or take them public. This leads to a tendency to emphasize the rapid achievement of profits, and the company enters or reenters the mainstream system (perhaps prematurely) with its attendant problems.

Trade-Offs Among Systems

The U.S. system for allocating investment capital has major disadvantages, yet the Japanese and German systems are not ideal in every respect. While reform of the U.S. system is sorely needed, our system has important strengths that should be preserved. The U.S. system is good at reallocating capital among sectors, funding emerging fields, shifting resources out of "unprofitable" industries, and achieving high private returns each period, as measured by higher corporate returns on investment. Such responsiveness and flexibility, however, are often achieved at the price of failing to invest enough to secure competitive positions in existing businesses, investing in the wrong forms, and overinvesting in some circumstances.

The Japanese and German systems encourage aggressive investment to upgrade capabilities and productivity in existing fields. They also encourage

16. The slow-growth, mature industries (particularly those facing strong international competition) which our theory identifies as most vulnerable to overinvestment are those which Hall (1992) identifies as experiencing the predominant share of financial restructurings and control changes. See Bronwyn H. Hall, "Corporate Restructuring and Investment Time Horizons," in the project on Capital Choices, Harvard Business School and Council on Competitiveness, 1992.