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COMPETITIVENESS ISSUES

The Business Environment in the United States, Japan, and Germany

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The Honorable Ernest F. Hollings
Chairman, Committee on Commerce, Science
and Transportation

The Honorable Richard H. Bryan
Chairman, Subcommittee on the Consumer
Committee on Commerce, Science
and Transportation
United States Senate

This report responds to your request that we examine the competitive implications of government policies, corporate structures, and financial and operating business practices in the United States and two of its major competitors—Japan and Germany—as well as the effect governments can have and have had on the business environment in these three countries.

We are sending copies of this report to other interested congressional committees; the Secretaries of Commerce, State, and the Treasury; and the U.S. Trade Representative. Copies will be made available to other interested parties on request.

Please contact me on (202) 512-4812 if you or your staff have any questions concerning this report. The major contributors to this report are listed in appendix IV.

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Executive Summary

Purpose

In recent years, some major U.S. industries, such as automobiles and steel, that once epitomized U.S. industrial supremacy have lost significant market share to foreign competitors, both at home and abroad. As the preeminent worldwide economic position of the United States has eroded in recent years, concern about the competitiveness of the U.S. economy has grown. At the request of the Chairmen of the Senate Committee on Commerce, Science, and Transportation, and its Consumer Subcommittee, GAO examined the competitive implications of government policies, corporate structures, and financial and operating business practices in the United States and two of its major competitors—Japan and Germany—as well as the effect governments can have and have had on the business environment in these three countries.

Background

An accepted definition of competitiveness, at a national level, is the ability of the nation to achieve overall levels of productivity increases that can sustain a rising standard of living in a complex world economy. Although there is no single, universally agreed-upon way to quantify competitiveness, many analysts have expressed concern about the position of the United States in relation to its trading partners. Interest in the way business operates in other countries has also risen as U.S. industries have increasingly come under intense competitive pressure from foreign firms both at home and abroad.

Competitiveness and various aspects of national business environments have been subject to much recent study and inquiry. These studies reached strikingly different conclusions based upon the same historical record and other evidence. Although a synthesis of these divergent studies was not possible, much of this report is based on the information contained in these studies. GAO has sought to present the range of conclusions and opinions in this report to the extent that was feasible. GAO's purpose in this report is to summarize the contemporary discussion of the business environment in the United States, Japan, and Germany, but not to advocate any changes to the U.S. system. Consideration of any change would have to balance a variety of goals in addition to competitiveness as well as the effectiveness of any alternatives within the U.S. context.

Results in Brief

A nation's competitiveness depends primarily on its productivity; this is influenced by different aspects of the business environment including, among other things, the complex interaction of government policies, financial relationships, features of corporate structures and governance, and business practices. Ultimately, however, no one of these influences clearly explains national productivity. Understanding differences in national productivity, and thus competitiveness, requires understanding differences in the interaction of the factors that constitute the business environment and how each system has advantages and disadvantages.

Significant differences exist among the business environments in which U.S., Japanese, and German companies operate and in government relationships with industry in each of these countries. Cultural, historical, and macroeconomic differences, such as saving and investment rates and the cost of capital, have influenced the business environments. Many economists believe that the cost of capital in Japan and Germany was lower than in the United States in the 1980s, thus influencing investment rates in all three countries. The U.S. government traditionally has not had a coordinated policy toward business, and its relationship with industry has often been adversarial. In contrast, Japan has sought a more cooperative approach to businesses, promoting the development of key technologies and export industries. The relationship between the German government and industry is generally cooperative, and the German government is not averse to intervention in the economy.

Differences in corporate ownership and governance affect the business environment by influencing the incentives for investors and the relationship between corporate management and stockholders. In the United States, corporate ownership is widely dispersed between individuals and institutional investors; however, institutional investors have become more active in corporate governance in the last few years. Most of the stock in Japan is cross-held by other corporations organized in industrial groups called "keiretsu." And in Germany, both banks and labor are actively involved in corporate governance.

Differences also exist in the relationship between finance and commercial operations. In the United States, banks generally have weaker ties to industry than in Japan and Germany. In Japan, banks are among the keiretsu members that own stock in corporations. In Germany, banks are also significant corporate shareholders. In addition, financial laws and regulations in Japan and Germany allow greater links between banks and industry than are permitted by U.S. law. Because of their close ties with individual firms, Japanese and German banks tend to have access to more internal firm information than do U.S. banks. In addition, they are able to arrange financial assistance packages for companies at an earlier stage of financial difficulty than can U.S. banks.

It is difficult to determine conclusively how each of the many differences in how businesses in the three nations operate and how governments regulate them affect competitiveness. For example, antitrust statutes in Japan and Germany are modeled on U.S. statutes; however, interpretation and enforcement in all three countries have differed. Other differences may collectively contribute to stable long-term relationships among businesses that may further competitive advantages for Japanese and German firms. Many Japanese and German business practices that contribute to these relationships may not be acceptable or successful in the United States due to different historical experience and legal traditions; on the other hand, some of these practices can and do work in this country. For example, some U.S. firms are developing closer ties with their suppliers and implementing other total quality management processes.

GAO's Analysis

Historical Experience and Government Relations Differ Across Countries

Historical and cultural factors strongly affect national business environments. The environments in the United States, Japan, and Germany have all been shaped by varied experiences, and it is natural to expect differences among the three countries. In the United States, power is distributed among major participants in the financial system and, in general, their relationships are conducted at arm's length. In contrast, the Japanese system operates on more of a consensus basis. Financial power is concentrated in several very large banks. In Germany, several large banks play important roles in corporate governance.

Macroeconomic factors, such as the national saving rate and the cost of capital, have a big impact on national business environments. National savings are important because they provide the investment capital for future economic growth, yet for several decades the saving rate has been significantly lower in the United States than in Japan or Germany. The cost of capital also affects business decisions. Many economists believe that the cost of capital was higher in the United States than in Japan and Germany until the late 1980s. This difference appears to have encouraged Japanese and German companies to invest a greater amount in research and development and in plant and equipment as a percentage of gross domestic product.

Government-Industry relationships directly influence national business environments. Relations between business and government in the United States are generally considered more adversarial than those between Japanese and German business and their governments. The Japanese system in particular is less legalistic than is the U.S. system. In addition, the governments in Japan and Germany are more likely to consult with business, thereby creating a more cooperative environment. Government tax policies also directly affect the environment within which business operates. Changes in U.S. tax policy in recent years have made it difficult for business executives to plan ahead. In contrast, despite higher statutory tax rates, the Japanese and German governments provide long-term tax incentives to encourage businesses to invest and to plan for the future.

Corporate Structure and Governance

The structure and governance of U.S. corporations differ significantly from that of Japanese and German corporations. In the United States, stock ownership has historically been broadly distributed between individuals and large institutional investors. Conversely, the predominant Japanese and German investors are financial institutions and corporations. In addition, U.S. investors are widely viewed as concerned primarily with the short-term performance of their investments, while Japanese and German investors are said to be more interested in the long-term viability of the corporation.

Keiretsu—industrial groupings that are linked through a network of cross-shareholding and exchanges of personnel among member firms—dominate Japanese corporate structure. The percentage of shares held by any one company alone usually is not large. However, because about 70 percent of Japanese stock is held for the long term, the structure effectively precludes takeovers and renders it difficult for outsiders to make major investments in member companies.

Relations Between Financial Institutions and Industry

The historic distrust of concentrated financial power in the United States is particularly apparent in comparing the U.S. banking system with the Japanese and German systems. One major difference between the systems is that Japanese and German banks are permitted to use their power as stockholders to exert influence on management, while U.S. banks are not. In Japan, the bank from which a company obtains the majority of its debt financing is known as its “main” bank; in Germany it is known as its “house” bank. The long-term relationship between banks and firms in Japan and Germany allows the banks to obtain significant information about the firms. This knowledge, in turn, facilitates the assistance banks provide firms. For example, Japanese and German banks can arrange financial assistance packages to aid companies in financial difficulty before the company files for bankruptcy. Some analysts believe U.S. bankruptcy laws, however, discourage U.S. banks from organizing similar packages at as early a stage in the process.

Direct access to capital markets and to other sources of capital have increased in recent years for companies in the United States, Japan, and Germany, primarily because of national deregulation that has coincided with the globalization of financial markets. For firms in the three countries, U.S. companies are least dependent on banks, and the U.S. capital markets are the most sophisticated. Although Japanese and German firms now have easier access to and more sources of capital than in the past, strong bank-industry ties are expected to continue in both countries in the future.

Business Practices and Antitrust Regulation

The fundamental way in which business operates differs in the United States, Japan, and Germany: These differences have significant competitive implications. In contrast to traditional U.S. business practice, stable business relationships, shareholding, and extensive information sharing are key elements of business practices of Japanese and German firms in the most competitive sectors. In addition, labor-management relationships in Japan and Germany are considered much more cooperative than those in the United States.

Antitrust laws in the United States, Japan, and Germany do not differ greatly; however, their interpretation and enforcement allow for variations in business practices. It is generally agreed that U.S. firms operate under more stringent antitrust rules than do their Japanese counterparts. By contrast, some legal commentators believe that antitrust enforcement is more rigorous in Germany than in the United States. The 1984 National Cooperative Research Act relaxed antitrust restrictions in the United States for firms engaging in joint research and development activities; however, business representatives are still concerned about antitrust implications of their cooperative activities. As a result of Structural Impediments Initiative talks begun in 1989, Japan is now increasing antitrust enforcement, but progress is slow. Germany is now subject to

European Community antitrust policy, which limits its national jurisdiction.

Significant changes are occurring in all three countries that will have an impact on competitiveness. Some U.S. firms are adopting an "enterprise" model of operations that borrows from certain Japanese keiretsu practices—specifically, reliance on cooperation among a group of manufacturers, suppliers, and finance companies. In contrast, some Japanese companies are relaxing their ties with suppliers. In addition, during the 1980s, some Japanese companies pursued a strategy of long-term market share gains over profits; however, due to the current economic slowdown in Japan, pressures are building for Japanese companies to rethink their priorities and global strategy. Finally, European single market initiatives are enabling German companies to compete more readily within Europe while making it easier for others to compete with German firms in Germany itself.

Recommendations

This report contains no recommendations.

Agency Comments

Because this report does not evaluate the programs or performance of any particular federal agency, GAO did not seek agency comments on it. Several experts from academic institutions reviewed a draft of the report. They generally agreed with GAO's work, and their comments have been incorporated where appropriate.

Contents

Abbreviations

DRAM	dynamic random access memory
EC	European Community
ECU	European currency unit
GAO	General Accounting Office
GDP	gross domestic product
GNP	gross national product
JFTC	Japan Fair Trade Commission
MCC	Microelectronics and Computer Technology Corp.
MITI	Ministry of International Trade and Industry
NCMS	National Center for Manufacturing Sciences
NCRA	National Cooperative Research Act
OECD	Organization for Economic Cooperation and Development
OTA	Office of Technology Assessment
R&D	research and development
SBIR	Small Business Innovation Research
SEC	Securities and Exchange Commission
USTR	U.S. Trade Representative
VLSI	very large scale integration

Introduction

In the view of many observers, one of the most important problems that the United States confronts today is that of maintaining or enhancing the nation's economic competitiveness.

An accepted definition of competitiveness, at a national level, is the ability of the nation to achieve overall levels of productivity growth that can sustain a rising standard of living in a complex world economy. Although there is no single, universally agreed-upon way to measure "competitiveness," economic analysts use many proxies including trends in productivity increases, the condition of international trade balances, and rates of national saving and investment. In addition, the amount of innovation in high-technology areas is of concern when judging a nation's competitiveness.

Just as there are many measures of competitiveness, there are many explanations about what contributes to the nation's productivity and competitiveness. Concerns have arisen that government policies, corporate structure, and the financial and operating business practices of other nations are more favorable for enhancing productivity and competitiveness than those of the United States. Similar concerns exist about the effect that the U.S. government has on the business environment.

The Relative Economic Position of the United States, Japan, and Germany

Divergent views exist on the nature and magnitude of the U.S. competitiveness challenge. For example, Germany and Japan have a lower average standard of living than does the United States, but over the post-World War II period, Japan and Germany have made substantial progress in approaching the level of the U.S. standard of living. Since 1972, the U.S. standard of living has increased one-fourth as fast as West Germany's and one-seventh as fast as Japan's, although in absolute terms, the United States still has the highest standard of living.[1] The principal reason for this progress is that Japanese and German growth rates have exceeded those of the United States.

Some economic analysts argue that these growth patterns do not reflect a unique American problem, but simply reflect a basic mechanism of productivity convergence: lagging countries can enhance their productivity growth rates by adopting technology of more advanced nations. Several analysts suggest that the convergence of economic

[1]Martin C. Schnitzer, Contemporary Government and Business Relations (Boston: Houghton Mifflin Co., 1990).

performance and the gradual reduction in economic growth among the industrial nations since the 1970s mean that the rapid growth in the early postwar period was an aberration from historic growth patterns.[2] Another study notes that, while the convergence phenomenon removes any grounds for panic about the U.S. record of relative productivity growth, it does not by any means eliminate all reasons for careful consideration of productivity policy.[3]

Analyzing the data on economic performance and productivity provides an explanation for the divergent views. Macroeconomic indicators, such as levels and growth rates of national income and productivity, or trends in international trade activity, are generally used to compare economic performance across countries. In an earlier report we noted that, according to such indicators, the differences between the national performance of the United States and that of other major industrial economies have narrowed.[4] For example, in 1950, output per capita in the United States was almost 3 times that of West Germany and nearly 6 times that of Japan. When measured by gross domestic product (GDP) per capita, adjusted for differences in purchasing power parity when the exchange rates that are used reflect the purchasing power of the different national currencies, statistics show that, in 1990, West Germany's GDP per capita was 74.5 percent of the U.S. level, while Japanese GDP per capita was 80.7 percent of that level.[5] This change in relative performance reflects the fact that those economies had substantially higher average rates of output growth over that period than those of the United States.

Much of this convergence is due to higher productivity growth in Japan and Germany. U.S. labor productivity, defined as real GDP per employee, increased at a compound annual growth rate of 1.4 percent from 1950 to 1987, while the annual labor productivity growth in Germany and Japan

[2]Allan H. Meltzer, "Commentary: Macroeconomic Policy and Long-Run Growth," Policies for Long-Run Economic Growth (Federal Reserve Bank of Kansas City: 1992); Craig Elwood, "The Goal of Economic Growth: Lessons from Japan, West Germany, and the United States," Congressional Research Service, CRS-89-423E (Washington, D.C.: 1989); Robert Lipsky and Irving Kravis, Savings and Economic Growth: Is the United States Really Falling Behind? The Conference Board (New York: The Conference Board, Inc., 1987).

[3]William J. Baumol et al., Productivity and American Leadership: The Long View (Cambridge, MA: The Massachusetts Institute of Technology Press, 1989), p. 87.

[4]High-Technology Competitiveness: Trends in U.S. and Foreign Performance (GAO/NSIAD-92-236, Sept. 16, 1992).

[5]Science of Engineering Indicators - 1991, National Science Board, NSB-91-1 (Washington, D.C.: 1991), app. 6-1. Comparisons use purchasing power parity exchange rates from the Organization for Economic Cooperation and Development (OECD).

averaged 3.8 percent and 5.9 percent, respectively.[6] The rate of growth of U.S. hourly labor productivity for the business sector has declined during the last 3 decades. During the 1960s, the average annual rate was 2.9 percent, falling to 1.5 percent during the 1970s, and further declining to 1 percent during the 1980s.[7] Figures from the Bureau of Labor Statistics show that, in 1990 and 1991, hourly labor productivity grew by 0.3 percent, but increased to a 2.9-percent annual rate in 1992. Therefore, some observers conclude that the U.S. economy "turned a corner" in 1992, but others caution that 1 year's growth is not sufficient to demonstrate future growth.

Some economists claim that one reason for the higher rate of Japanese and German productivity is their greater rate of investment in civilian-based research and development (R&D) and plant and equipment. This relationship is particularly important because growth in productivity leads to growth in real incomes, which directly contributes to a rise in living standards. There is a close correlation between a country's level of investment and its growth in per capita income.

More recently, change in the U.S. balance in international trade has generated concern in the United States. Until 1982, the United States generally ran small surpluses, with occasional small deficits, in its current account, which is the broadest measure of international trade. Since then, the measure has shown a continuing trade deficit, peaking in 1987 at $163.5 billion. However, for many reasons, caution must be used in drawing conclusions from aggregate national statistics. Primarily, statistics are of varying quality, and trends in macroeconomic statistics reflect many factors. For example, the dramatic fall in the U.S. overall trade balance from 1981 through 1987 and its subsequent recovery in the last part of the decade is highly correlated with changes in the value of the U.S. dollar over that period. Also, measuring the change in some variables, such as the quality of U.S.-produced goods, in affecting trends in trade statistics is quite complicated.

With regard to manufacturing, in a 1992 report, the Office of Technology Assessment (OTA) concluded that U.S. manufacturing is falling behind the competition. It found that if Japanese companies were not such successful competitors in many important industries, America's competitiveness problem would be far smaller. According to OTA, U.S. companies are not

[6]Michael E. Porter, The Competitive Advantage of Nations (New York: The Free Press, 1990).

[7]Economic Report of the President 1993 (Washington, D.C.: U.S. Government Printing Office, 1993).

holding their own against foreign competition, at least in the most important sectors.[8]

There is no direct, single measure of U.S. manufactured goods as a share of global manufacturing output. However, in the broader category of merchandise trade (trade in physical commodities of all sorts), the United States has lost world market share. Combining data on U.S. shares of world imports and exports with figures on the proportion of U.S.-made goods in domestic consumption shows that the United States has lost world market share in merchandise.[9] It is not surprising that the United States lost market share as the world's developing and war-torn economies improved their performance after World War II. The spread of technology, among other factors, tends to lead to convergent levels of productivity. However, some observers argue that this proposition does not adequately explain the relative performance differences, especially with respect to Japan. Figures show that the U.S. share of OECD high-technology exports continued to decline from 34 percent in 1960 to 25 percent in 1980, and then to 19 percent in 1990.[10] At the same time, Japan has expanded its share of OECD high-technology exports from 6 percent in 1960 to 29 percent in 1990.[11]

Falling market share alone would not be proof of failing competitiveness if Americans had achieved a higher standard of living while producing a smaller share of the world output and domestic consumption. The concern, however, is that Americans may not be achieving a higher standard of living. For example, some economic analysts point to declining average real wages. The peak in average real wages, adjusted for inflation, was reached in 1973. By 1989, average real wages were below the level of 20 years earlier.[12]

Assessment of whether the U.S. standard of living has improved, or whether it is likely to do so in the future, is a subjective judgment. There is

[8]Competing Economies: America, Europe, and the Pacific Rim, Office of Technology Assessment, OTA-ITE-498 (Washington, D.C.: U.S. Government Printing Office, 1991), pp. 3, 5.

[9]Ibid.

[10]The OECD is an international group of 19 European countries, the United States, Canada, Japan, Australia, and New Zealand. Its mission is to achieve high economic growth and development, and financial stability among member nations and, thus, to contribute to the development of the world economy.

[11]Gary Clyde Hufbauer, U.S. Taxation of International Income: Blueprint for Reform (Washington, D.C.: Institute for International Economics, 1992).

[12]The Budget Deficit: Outlook, Implications, and Choices (GAO/OCG-90-5, Sept. 12, 1990).

no consensus list of all factors that contribute to the standard of living, nor is there agreement on the relative importance that different factors have or the standard by which to value nonmarket factors (such as environmental quality), among other problems. There are, however, widespread concerns about the modest growth in the U.S. standard of living over the last 2 decades, and about the ability to improve that performance in the future.

The Importance of Investment and Saving

Long-term improvements in living standards depend on increases in productivity. A nation will likely suffer diminished productivity growth if it saves too little and is unable to invest adequately. It must be recognized that a decrease in measured investment as a percentage of gross national product (GNP) is not proof of inadequate investment. The national income and product accounts' measure of "gross private domestic investment" includes producers' investment in structures and equipment, net changes in business inventories, and construction of residential structures. The investment measure fails to include any investment by government at all levels; investment in research and development, education, and training; or investment by consumers in consumer durables. Including these investments shows higher levels of U.S. investment and reduces the gap between U.S. investment efforts and those of other nations. Also, changes in technology and the economy may lower investment requirements. Advances in communication, such as fiber optics that cost less per unit of service, or the substantial fall in the quality-adjusted price of computers, may lower investment requirements for the aggregate economy. Also, the use of "just-in-time" supply relationships among businesses reduces investment in inventory, and the expanding service sector generally uses fewer capital goods per employee than manufacturing, transportation, or mining. Although the measurement of saving rates and the international comparability of the data are subject to considerable controversy, the differences are large.

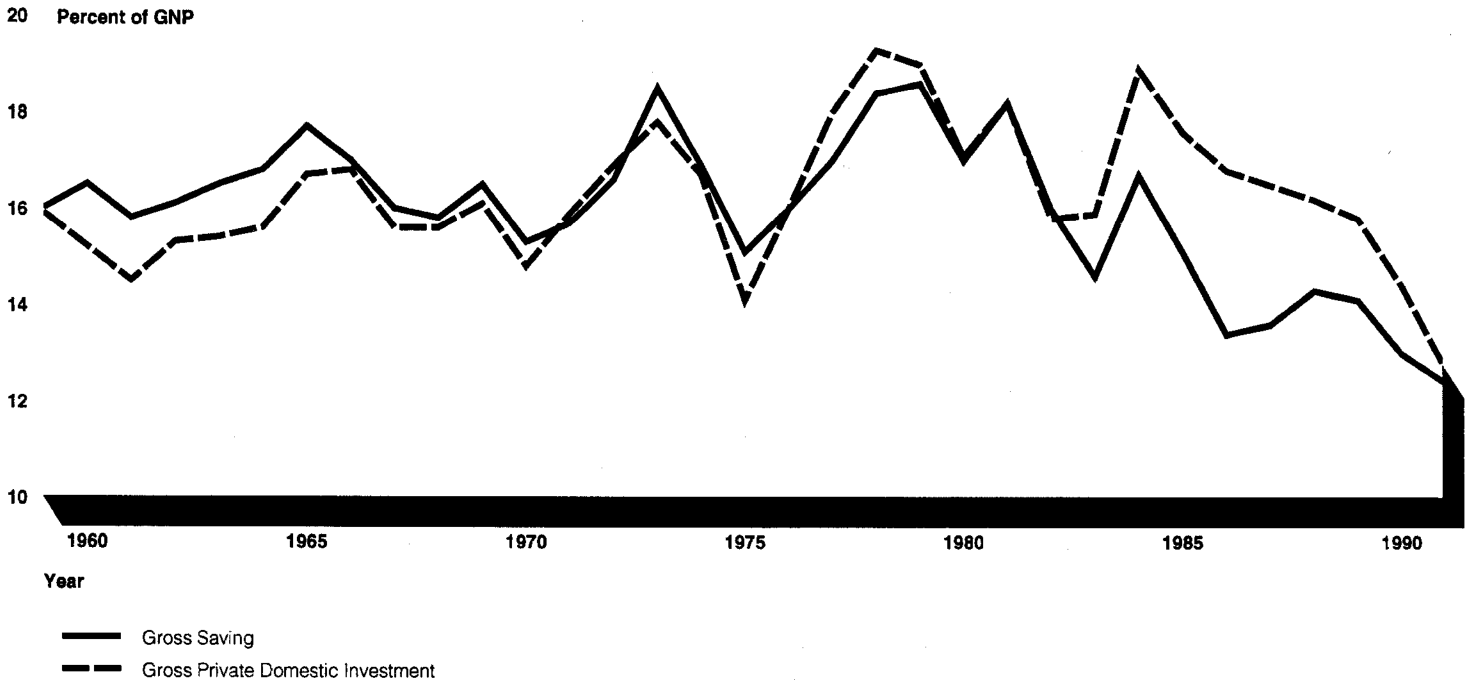
Among OECD countries, those with high saving rates also have high investment rates, while countries with low saving rates have low rates of investment. During the 1980s, U.S. gross saving was 16.3 percent of GNP, about half of the Japanese rate of 31.6, and about three-quarters of the German rate of 22.5 percent. For all three countries, average gross saving for the 1980s was a lower percentage of GNP than it had been during the 1960s. U.S. gross saving declined by 3.4 percentage points from the 1960s to the 1980s while Japanese and German gross saving declined by 2.9 and 4.8 percentage points, respectively.[13]

As we have previously reported, there is evidence that the U.S. economy is suffering from a syndrome of low saving, consequent low investment, and resulting low rates of growth.[14] In 1991, gross private domestic investment was only 12.7 percent of GNP, compared with 18.9 percent in 1984. But even this lower level of investment is more than domestic saving alone would have permitted, and this situation has been true for the last decade. The gap between gross saving and private domestic investment since 1982 has been bridged by capital inflows from abroad. Figure 1.1 shows this trend.

[13]Jorgan Elmeskov et al., "Savings Trends and Measurement Issues," OECD Economics and Statistics Department Working Papers, No.105 (Paris: The OECD, 1991).

[14]The Budget Deficit: Outlook, Implications, and Choices; Budget Policy: Prompt Action Necessary to Avert Long-Term Damage to the Economy (GAO/OCG-92-2, June 5, 1992).

Figure 1.1: Gross U.S. Saving and Gross Private Domestic Investment, 1959-1991



Source: Economic Report of the President, January 1993.

Although the optimal level of investment has not been established, it is clear that the United States has been in a prolonged period where saving has been less than investment. The portion of U.S. investment that could not be financed from U.S. saving was financed by foreign direct investment here, by sales of U.S.-owned financial and real estate assets to foreign investors, and by borrowing abroad. Without foreign investors, investment in the United States would have been lower, the growth of output would have been slower, and fewer jobs would have been created. The problem with investment financed from abroad is that the United States must ultimately pay dividends or interest to the foreign owners of the assets involved. Nevertheless, if net national saving is insufficient to take full advantage of the investment opportunities in the economy, it is helpful to have foreign investment fill the gap.

The willingness of foreign investors to invest here is a testimonial to American creditworthiness but has obscured and postponed the consequences of the low domestic saving rate. Furthermore, future foreign capital available for U.S. investment may be curtailed by recent developments in other parts of the world. These developments include (1) new investment opportunities in Eastern Europe and the former Soviet Union, which are commanding the attention of investors who might otherwise invest in the United States; and (2) the economic slowdown in Japan, which is reducing the ability and willingness of Japanese investors to invest here.[15]

The rate of U.S. private sector saving has been declining at the same time as large federal budget deficits have absorbed an increasing share of the saving available for new capital formation. Net national saving is the saving beyond that required for depreciation, which accounts for the consumption of the existing capital stock. Net national saving is available for new capital formation. Private sector saving from persons and businesses is augmented by saving from the government, if it is running a budgetary surplus, or it is reduced if the government is running a budgetary deficit.

There have been many proposals for changing U.S. tax and fiscal policies to encourage more saving. One recent report claims that current U.S. tax laws (1) make it more attractive for companies to go into debt than to increase investors' equity and (2) encourage households to borrow and spend money while discouraging them from saving. In addition, federal budget deficits divert the limited private savings pool away from productive investment to pay for public consumption. To encourage saving, the government needs to set the model with its spending and borrowing philosophies, the report concludes.[16]

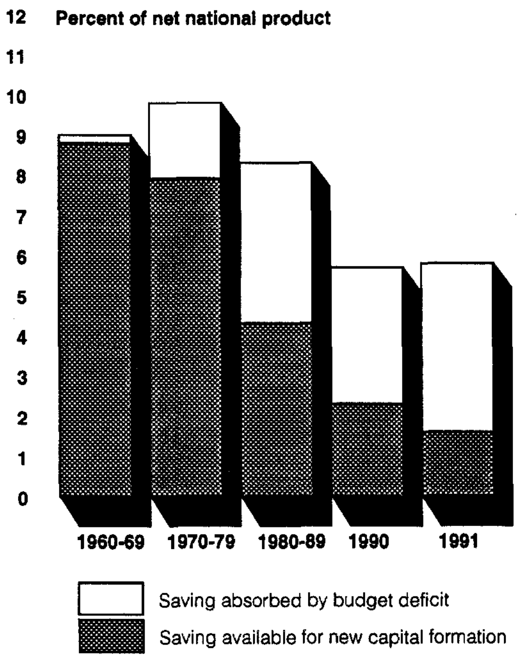
During the last 3 decades, state and local government contributed to net national saving, achieving budgetary surpluses, while the federal government budgetary deficits resulted in reduced net national saving. Since the 1960s, the federal budget deficit has absorbed an increasing share of the net saving generated by the private sector and state and local governments. (See fig. 1.2.) During the 1960s, the budget deficit absorbed approximately 2 percent of the net saving generated by these entities. During the 1970s, the federal deficit absorbed 20 percent of the net saving

[15]The CSIS Strengthening of America Commission (First Report) (Washington, D.C.: The Center for Strategic and International Studies, 1992).

[16]The CSIS Strengthening of America Commission (First Report).

of the private sector and state and local governments. By the 1980s, nearly one-half (48 percent) of that saving was needed to finance the federal budget deficit. This trend continues: In 1990, the deficit absorbed 59 percent of net saving from the rest of the economy, and 72 percent in 1991.

Figure 1.2: Effect of the Federal Budget on Net Saving, 1960-1991



Note 1: The bar, including both shaded and unshaded portions, equals saving of households, net business saving, and state and local government surplus.

Note 2: Gross saving minus depreciation equals net saving. Gross national product minus depreciation equals net national product.

Source: Economic Report of the President, January 1993.

The inability of U.S. saving to support current levels of investment is of even greater concern given that the U.S. rate of investment is significantly less than that of Japan and Germany. Over the last 3 decades, Japan and West Germany invested a greater portion of their GDP than did the United States in each year. As figure 1.3 indicates, Japanese fixed private investment ranged from 16.1 to 27.3 percent of GDP each year between

1962 and 1991. German private fixed investment ranged between 17.1 and 22.2 percent of its GDP during the same years. Annual U.S private fixed investment ranged between 14.2 and 17.5 percent of GDP between 1962 and 1991.[17]

Figure 1.3: Private Fixed Investment as a Percentage of Gross Domestic Product in the United States, Japan, and Germany, 1962-1991

Note: Private fixed investment excludes change in business inventories. It includes structures, producers' durable equipment, and residential structures.

Source: World Economic Service: Historical Data, The WEFA Group (June 1992).

Large differences in saving across countries are not easily accounted for. A ready explanation is that households in Germany and Japan are thriftier than those in the United States and hence save a greater proportion of their disposable income. However, to infer greater thrift, the households in

[17]World Economic Service Historical Data, The WEFA Group (Bala Cynwyd, PA: June 1992).

the three countries must face similar opportunities. If household access to credit markets is restricted, then consumers must save to buy automobiles and houses. Country differences in consumer credit systems, and government intervention in housing finance through home loan guarantees and tax deductibility of mortgage interest, may explain part of the household saving differential.

There has been considerable research into Japanese saving behavior, and researchers have given several additional reasons for Japan's high saving rate. Japan has one of the longest life expectancies and smallest ratio of aged to working age population relative to other developed countries. This situation results in a population more dominated by savers than exists in other countries; however, it will change in the future. One demographic projection predicts that Japan's saving rate will decline significantly in the next 40 years, falling to below the U.S. national saving rate in the year 2020.[18]

The Japanese system of lump-sum bonus payments may also enhance personal saving. One study using data from 1958 to 1978 concluded that the bonus system's contribution to aggregate personal saving would not be more than a few percentage points.[19] In the past, tax incentives, such as tax-exempt savings deposits and the exclusion of capital gains realized from sales of equities from personal income taxation, increased the after-tax return from savings. Japan's 1987 tax reform abolished tax-exempt savings accounts and instituted a capital gains tax from equity sales, but this change has not had an impact on household saving. The evidence of a cultural basis for thrift is mixed. Unlike Americans, who use credit cards to postpone paying for purchases, the Japanese more frequently use magnetic cards that allow them to prepay for purchases that are then deducted as payments are made. Some economic analysts note that the high Japanese saving rate is a post-World War II phenomenon, thereby leading them to question whether high saving is based in culture or is a response to economic conditions.

Cost of Capital

We believe that the federal budget deficit and low national saving appear to have contributed to high real interest rates that increase the cost of

[18]Allan J. Auerbach et al., "The Economic Dynamics of an Ageing Population: The Case of Four OECD Countries," OECD Economic Studies, No. 12 (Paris: the OECD, spring 1989).

[19]Tsuneo Ishikawa and Kazuo Ueda, "The Bonus Payment System and Personal Savings," The Economic Analysis of the Japanese Firm, ed. Masahiko Aoki (Amsterdam: Elsevier Science Publishers, B.V., 1984).

investment, decrease the accumulation of capital, inhibit economic growth, and ultimately reduce the standard of living.[20] If U.S. companies face a higher cost of capital than do their international competitors, they will invest less, and the planning horizon of their managers will be shorter than those of competitors with lower capital costs. If international competitiveness and productivity improvement require long-term investment, then the United States is disadvantaged if its cost of capital exceeds that of other nations.

The cost of capital with respect to an investment project is the minimum pretax real rate of return that an investment project of a firm must earn in order to pay the project's financing costs after tax liabilities. The cost of capital depends on the cost of funds, which are the required payments to a firm's debt and equity holders, the debt-equity mix used in financing the new investment, the economic depreciation of the investment, the tax treatment of depreciation and corporate earnings, and any fiscal incentives for investment. The real cost of debt and equity includes a risk premium that equity and bond investors require to hold risky assets rather than "riskless" government securities. Comparisons of the cost of capital among nations require that researchers make numerous adjustments to the data and make assumptions about corporate finance and investment practices. Researchers face serious estimation problems, and studies do not reach the same conclusions.

However, numerous studies have concluded that Japanese business enjoyed a lower cost of capital on average than did U.S. firms during the 1980s. [21] Most studies have confined themselves to comparing Japan and the United States. One study also included Germany and Great Britain, and it concluded that corporations in the United States and Great Britain were disadvantaged relative to Japan and Germany for the period 1977-88. The gap was attributed to the higher rate of household saving in Japan and Germany and the success of Japanese and German policies in maintaining stable growth and stable prices, respectively. Additionally, it found important international differences in bank-industry relationships and public policy response to corporate distress that lowered risk and hence

[20]Budget Policy: Prompt Action Necessary to Avert Long-Term Damage to the Economy.

[21]For example, see Robert E. Lippens, "The Cost of Capital: A Summary of Results for the U.S. and Japan in the 1980s," and Jeffrey A. Frankel, "The Cost of Capital in Japan: Update," in Business Economics, Vol. 26, No. 2 (Apr. 1991), pp. 19-31.

the cost of capital. The study rejected differences in income tax structure as an important determinate of the cost-of-capital gap.[22]

The methodology of these studies has been criticized in one analysis that concluded that for the 1980s there is not convincing evidence of a persistent U.S. cost-of-capital disadvantage relative to Japan that is attributable to differences in the national capital market.[23] It criticized other studies for not adjusting for differences in the riskiness of different nations' corporate sectors on the grounds that differences in capital costs due to risk should not be properly regarded as a true cost advantage or disadvantage. The study did recognize that non-capital-market differences in corporate governance and contracting practices may reduce risk and grant a Japanese firm effectively cheaper capital. This analysis presents the cost-of-capital gap as a managerial rather than capital market problem and is not inconsistent with the studies that find U.S. investment projects require a higher return than do Japanese projects.

Recent research has assessed the impact of the collapse of the Japanese stock market in 1990 on the cost-of-capital gap between the United States and Japan. The dramatic decline in the Japanese stock market and the increases in interest rates have left the cost of capital in Japan as high as in the United States, according to some studies.[24] Other researchers believe that Japan continues to enjoy a lower cost of capital than the United States in spite of the decline in the Japanese stock market.[25]

[22]Robert N. McCauley and Steven A. Zimmer, "Explaining International Differences in the Cost of Capital," Federal Reserve Bank of New York Quarterly Review (Summer 1989), pp. 7-28.

[23]W. Carl Kester and Timothy A. Luehrman, "Cross-Country Differences in the Cost of Capital: A Survey and Evaluation of Recent Empirical Studies," (publication forthcoming in Capital Choices: Changing the Way America Invests in Industry, Harvard Business School Press, Feb. 1994).

[24]Jeffrey A. Frankel, "The Cost of Capital in Japan: A Survey," Working Paper No. PB91-05, Federal Reserve Bank of San Francisco (July 1991); and Richard P. Mattione, "A Capital Cost Disadvantage for Japan?" (Tokyo: Morgan Guaranty Trust Company Advisory, Apr. 6, 1992).

[25]George N. Hatsopoulos and James M. Poterba, "America's Investment Shortfall: Probable Causes and Possible Fixes" (preliminary draft, Sept. 1, 1992).

The U.S. Approach to Technology Development Differs From the Japanese and German Approaches

The U.S. government has traditionally funded a higher proportion of the nation's R&D than have the Japanese or German governments. Much of this funding has gone to military R&D, but with the end of the Cold War, more efforts are being made to develop commercial applications for technology. Concern exists over U.S. investment levels in both tangible and intangible assets that contribute to competitive advantages for the country.

Research and Development Funding

Experts agree that during the past 50 years the federal government's contribution to the R&D base of the United States has been very important to U.S. national security, productivity, and economic growth. Military R&D has often resulted in commercial spin-offs, and, in some cases, government-sponsored basic science research has had significant commercial returns. However, a recent study has found that other governments approach science and technology with a more commercial focus than does the United States.[26]

Since the early 1980s, the U.S. federal R&D budget for civilian technology has stagnated, and U.S. companies have generally not made up the difference. Statistics show that U.S. company R&D expenditures since 1990 have remained flat, while those of Japanese companies have grown by 10 percent.

In certain cases, U.S. policies have responded to the fact that market incentives have not been sufficient to provide an adequate level of investment in basic R&D. In some cases, large-scale investments by the federal government have helped to reduce the risk of related private research efforts. For some major industries, the U.S. government has provided key support that has improved or certainly contributed to their overall competitiveness. The effectiveness of this strategy in promoting national competitiveness is less clear. (App. I has more information on U.S. federally sponsored R&D.)

On a per capita basis, Japan's investment rate is twice that of the United States in civilian R&D and in capital improvements. Japan's R&D is industry driven in that almost 80 percent of the funding comes from industry.[27] In recent years, the Japanese ratio of R&D and capital investment to GNP has

[26]The CSIS Strengthening of America Commission (First Report), p. 55.

[27]Martha Caldwell Harris, "Asymmetries and Potential Complementarities: Scientific and Technological Relations Between Japan and the United States," Japan's Economic Challenge: Study Papers Submitted to the Joint Economic Committee (Washington, D.C.: Oct. 1990).

surpassed Germany's to become the world's highest. According to the National Science Foundation, Japanese R&D expenditures grew at an annual rate of just over 9 percent between 1965 and 1985, while U.S. R&D expenditures grew at 2.5 percent during the same period. Starting from a low base in the mid-1960s, Japan's R&D expenditures increased to 2.8 percent of GNP in 1985, roughly matching the U.S. level. One economist calculated that, on the basis of nominal data, Japan out-invested the United States by over $110 billion in 1991 despite the fact that the size of Japan's economy is three-fifths that of the United States, and its population is half that of the United States.[28] Government-supported R&D has had mixed success on an industry-specific basis.

Germany invests more of its GNP than does the United States in R&D to develop commercial technologies. According to a Council on Competitiveness report, in 1988 Germany spent 2.6 percent of its GNP compared to 1.9 percent in the United States.[29] German industry is the main source of R&D funds, but small- and medium-sized firms do receive some government funds. German firms also supplement their own research by contracting with independent research facilities.

Concern Exists Over U.S. Investment Trends to Upgrade Technology

Many experts believe that competitiveness today depends on sustained investment not only in physical assets but also in intangible assets such as R&D, employee training, information systems, and closer manufacturer-supplier relationships. These intangible investments are the most difficult to quantify. In a 1992 report, the Council on Competitiveness asserts that the best available measures show that in many areas U.S. industry invests at a lower rate and on a shorter-term basis than do Japanese and German industry.[30]

In a 1992 report, GAO found no clear evidence about the trends in high-technology industries. While some aggregate measures suggest a decline in the U.S. leadership position in developing and marketing technology-intensive products, particularly relative to Japan, the evidence is not conclusive across all areas of high-technology activity. In examining 11 particular industries and technologies, GAO found that most exhibited

[28]Statement by Dr. Kenneth Courtis Before the Joint Economic Committee (Washington, D.C.: May 8, 1992).

[29]German Technology Policy: Incentive for Industrial Innovation, An Occasional Paper, Policy Studies Series, Council on Competitiveness (Washington, D.C.: June 1992).

[30]Michael E. Porter, Capital Choices: Changing the Way America Invests in Industry, Council on Competitiveness and Harvard Business School (Washington, D.C.: 1992).

some decline in the U.S. leadership position over the 1980s. The extent of that decline in leadership varies widely, however.[31]

In its 1992 report,[32] the Competitiveness Policy Council expressed concern about the manufacturing process in the United States, which, in the council's view, is the key to the successful commercialization of technological innovations in manufacturing. The council found that the United States has substantially devalued the importance of excelling at the manufacturing process. As a result, firms in other countries have frequently been able to make a commercial success of technologies originally invented in the United States. The often-cited example is videocassette recorder technology, which was created in the United States; however, no U.S. manufacturers currently produce this equipment in the United States.

The council views R&D, design and production, marketing, and customer service as essential elements in sustaining a competitive manufacturing system. Furthermore, the council believes that the U.S. workforce itself should be tapped for ideas on how to improve the manufacturing process, an approach that U.S. management in many companies has not effectively used. Moreover, the council notes, Japanese companies, some European firms, and a growing number of U.S. firms have demonstrated that synergistic labor-management relations can significantly help to improve productivity.

Objectives, Scope, and Methodology

In recent years, some major U.S. industries, such as automobiles and steel, that once epitomized U.S. industrial supremacy have lost significant market share to foreign competitors, both at home and abroad, thereby raising concern about U.S. competitiveness. In order to address this concern, the Chairmen of the Senate Committee on Commerce, Science, and Transportation, and its Consumer Subcommittee, asked us to examine the competitive implications of the government policies, the corporate structures, and the financial and operating business practices of the United States and two of its major competitors—Japan and Germany. In addition, we reviewed the effect governments can have and have had on the business environment in these countries.

[31]High-Technology Competitiveness: Trends in U.S. and Foreign Performance.

[32]First Annual Report to the President & Congress: Building a Competitive America, Competitiveness Policy Council (Washington, D.C.: Mar. 1, 1992).

Many people in the United States view the business environment here and in Japan as having important differences—differences that affect competitiveness. A key problem that we faced in this review is that their views of these differences vary widely, and there are arguments and evidence to support these divergent views. Thus, we sought to describe the business environments in the United States and Japan in a manner that recognized that there were both differences and similarities between the economic systems of the two nations. For this reason, we conducted an in-depth examination of corporate structures and business practices in both nations. Because Germany is one of the three major industrial powers in the world, and because of the historically strong bank-industry ties in Germany (a major difference from the United States), we also examined the business environment in that country. (Much of the historical material describing the German economic system applies to the preunification West Germany.)

To compare and contrast the differing business environments, we interviewed and obtained documentary information from government officials in the United States, Japan, and Germany. In the United States, these agencies included the Departments of State, Commerce, the Treasury, and Justice; the Federal Reserve Board; the Federal Trade Commission; and the Office of the U.S. Trade Representative (USTR). In Japan, we met with officials of the Ministries of International Trade and Industry (MITI), Finance, and Foreign Affairs; the Economic Planning Agency; and the Japan Fair Trade Commission (JFTC). In Germany, we met representatives from the Ministries of Finance and Economics. We met with bankers and antitrust experts in the United States, Japan, and Germany. We also met with European Community (EC) officials for internal market, competition, and financial institutions as well as antitrust experts in Brussels to determine how changes due to the European single market will affect the business environment in Germany.[33]

In addition, we interviewed bank analysts, academics, economists, financial market experts, trade association officials, and private sector representatives in the United States and Japan to obtain their views on the competitive implications of differing corporate structures and varying business practices.

We also reviewed a wide array of reports and economic analyses on the business environments in the three countries. In many cases, these studies

[33]The EC was created by the Treaty of Rome in 1957. It consists of 12 countries—Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.

reached strikingly different conclusions based upon the same historical record and other evidence. Although a synthesis of these divergent studies was not possible, much of this report is based on the information contained in these studies. We have sought to present the range of conclusions and opinions in this report to the extent that was feasible. We have not, however, sought to review or note every study nor present every viewpoint on business relationships in the three nations. We have sought to present the range of conclusions and opinions in this report to the extent that was feasible. Our purpose in this report is to summarize the contemporary discussion of the business environment in the United States, Japan, and Germany, but not to advocate any alternatives to the U.S. system. Consideration of any change would have to balance a variety of goals in addition to competitiveness as well as the effectiveness of any change within the U.S. context. In addition, the information in this report does not reflect original analysis of Japanese and German laws and regulations on our part but the views and interpretations of government officials, antitrust experts, and other secondary sources.

We did our work between April 1991 and June 1993 in accordance with generally accepted government auditing standards.

Because this report does not evaluate the programs or performance of any particular federal agency, we did not seek agency comments on it. Several experts from academic institutions reviewed a draft of the report. They generally agreed with GAO's work, and their comments have been incorporated where appropriate.

Historical Experiences and Government-Industry Relationships in the United States, Japan, and Germany

National competitiveness is determined by national productivity, which depends, among other things, on the complex interaction of government policies, financial relationships, features of corporate structures and governance, and business practices. This interaction affects the ability of businesses to employ and manage resources. Ultimately, however, no one of these influences explains national productivity. Understanding differences in national productivity, and thus competitiveness, requires understanding of differences in the interaction of the various elements of the national business environment and how each system has advantages and disadvantages.

This environment includes the shared national history and culture as well as industry's relationship to government. Because of the differences in the business environments of the United States, Japan, and Germany, the term "capitalism" does not mean exactly the same thing in each country. In all three, the private sector owns the primary factors of production and possesses the right to decide how to use those resources. Yet there are differences in the relationships within the private sector in these three countries, leading to a different interpretation of what capitalism means. Further, the relationships of the private sectors in these three nations with their governments are different, also contributing to different interpretations of capitalism.

The Influence of Historical and Cultural Differences

Many scholars have noted that U.S. history is characterized by a long-standing distrust of large concentrations of financial power. The belief in the diffusion of financial power is partly the by-product of the U.S. political system, which favors a distribution of power among major participants in the financial system, with some checks and balances. This arrangement tends to lead to more adversarial, rather than cooperative, relationships as each participant competes for its own interests. (See app. I for more information about business relationships in the United States.)

In contrast, observers note that Japan has a strong cultural inclination toward harmony, minimal dependence on foreigners, and a "catch-up" mentality. Japan's business environment operates more often than not by consensus. Building on cultural values, the Japanese stress loyalty, a commitment to long-term relationships, and self-identification as a part of a group. Since World War II, Japan and the Japanese people have sacrificed and struggled to be a world economic leader. Financial power is concentrated in a number of very large banks that hold shares of various Japanese companies. Many of these companies are members of industrial groups, known as "keiretsu," that have developed with the help of and are centered around these banks. (App. II has further material about Japanese business development.)

Since World War II, Germany has embraced the "social market economy," in which market competition and social protection are viewed not as antagonistic, but as reinforcing. German financial services are provided mainly through banks owned by state and local governments, followed by private sector and cooperative banks. Private banks perform typical U.S. banking activities, such as deposit taking and lending, as well as activities that are restricted in the United States, such as securities underwriting and trading. Through shareholdings in other companies, and by acting as agents for private shareholders who grant their voting rights to the bank, several large, private banks play important roles in corporate governance. (See app. III for material about German business relationships.)

The business environments in the United States and Germany are generally characterized as open to foreign direct investment. However, in an earlier report, we noted that certain aspects of the Japanese business environment acted as informal barriers to foreign investors.[1] Among these barriers are the infrequency with which Japanese companies are sold, the virtual lack of hostile takeovers in Japan, and the low percentage of a Japanese company's common stock available for sale on the stock market due to cross-shareholding among allied companies. These barriers tend to have the effect of thwarting foreign investment. In its 1993 National Trade Estimate Report on Foreign Trade Barriers, USTR said that the structural barriers to the Japanese market stem from particular features of the Japanese economic structure, business organizations, and relations between the Japanese private sector and the government.

The results of a 1991 study prepared for the American Chamber of Commerce in Japan indicated an improvement in the environment for both trade and investment for foreign companies in Japan over the previous 5 years. The study reported that most formal legal and regulatory barriers were gone, but such measures had ensured a protected home market for Japanese companies while they grew to world-class status. In addition, it found lingering effects of such protectionism as well as current targeting of selected industries through Japanese ministry guidelines, policies, and regulations that often lack transparency (i.e., would not be readily

[1]Foreign Investment: Aspects of the U.S.-Japan Relationship (GAO/NSIAD-90-203FS, July 31, 1990).

understood by an outside observer) or consist of oral directions, interpretations, and administrative guidance.[2]

Broad themes differentiate the underlying goals of business management in the three countries—a major factor contributing to the different business environments. In very general terms, the U.S. system advances the goals of shareholders interested in near-term appreciation of their shares.[3] In contrast, top management of large Japanese corporations often define the ultimate goal of corporate culture as being the enhancement of the welfare of the firm's employees.[4] Similarly, the goal of German companies has been described as involving more than maximizing return on investment—it is to satisfy the aims of owners, employees, customers, suppliers, and the general public.[5] The prime objective of Japanese and German companies is long-term survival.[6]

Government-Industry Relationships

Relationships between government and industry have a direct influence on national business environments. Observers generally consider government-industry relations in the United States as more adversarial than those in Japan and Germany, which are viewed as being more cooperative. In addition, changing government tax policy is a way in which government policy can affect business.

In many cases, the governments in all three nations have similar goals for their policies. Differences occur in how they execute policies to accomplish those goals and in how they decide among competing goals. All three nations, for example, seek to ensure the safety and soundness of their banks. In the United States, this goal has contributed to a significant degree of separation of banking from other financial services and to heavy reliance on insured deposits. Consumer protection and other policy goals were also relevant to the decision to separate banking from other financial services. Japan, similarly, has separated banking from other financial services, but relies much less on deposit insurance. Germany, on the other

[2]Trade and Investment in Japan: The Current Environment, A study for the American Chamber of Commerce in Japan prepared by A.T. Kearney, (U.S.A.: 1991).

[3]Michael E. Porter, "Capital Disadvantage: America's Failing Capital Investment System," Harvard Business Review, Vol. 70, No. 5 (Sept. 1992).

[4]Iwao Nakatani, "The Economic Role of Financial Corporate Groupings," Economic Analysis of the Japanese Firm, ed. Masahiko Aoki (Amsterdam: Elsevier Science Publishers, B.V., 1984).

[5]Ellen R. Schneider-Lenne, "Corporate Control in Germany," Oxford Economic Policy Review (publication forthcoming).

[6]Capital Choices.

hand, has not restricted bank powers; it also does not rely as heavily on a deposit insurance system as does the United States.

As a consequence, the differences in policy execution contribute to significant differences in the business environment of the three nations, despite the similarity of the policy objectives. As was noted at the beginning of this chapter, these differences in the business environment and the relationship of government and business have led to different interpretations of capitalism in the three nations.

The Nature of Government-Industry Relations Differs Across Countries

A recent study, among others, has concluded that U.S. businesses face major difficulties in their relations with government.[7] According to the study, the lack of a coordinated approach to economic policy-making and the reality of late and inadequate consultations between government and business about proposed government policies and regulations have hampered U.S. companies. As a result, the current policy-making process has caused U.S. business to view government more as an adversary than an ally.

In contrast, observers believe government-industry relationships in Japan are generally cooperative and involve close collaboration on shared goals. The system is less legalistic and regulatory than in the United States. Historically, the Japanese government has been seen as quite powerful by the Japanese people and firms, particularly because of the perceived ability of the government to exert influence through informal channels. USTR reported that government-business relations in Japan are closer and of a different nature than in the United States or in many other industrialized countries, resulting in special difficulties for foreign firms that do not have commensurate access to policy deliberations.[8]

German government-industry relationships are also cooperative, based on negotiation and consensus building. By law, German ministries are required to consult with industry and union representatives when drafting legislation. In addition, the German government and industry cooperate on labor force training by jointly funding programs.

The Impact of Tax Policies

Government policy can perform an important role in creating a stable business environment. An inconsistent business environment can create a

[7]The CSIS Strengthening of America Commission (First Report); Competing Economies.

[8]1993 National Trade Estimate Report on Foreign Trade Barriers, Office of the U.S. Trade Representative (Washington, D.C.: Jan. 1993).

climate of economic uncertainty and lead to lower long-term investment. Frequent changes in tax policy, regulatory structure, and other forms of government interaction with industry contribute to a greater degree of risk which, in turn, affects time horizons of organizations that depend on them. In our meetings with them, some U.S. business community associations, such as the Business Roundtable, and corporate finance analysts have contended that, in recent years, tax policy has been unstable, thereby creating too much volatility. Businesses often cite the R&D tax credit as an example of tax incentives that, if made permanent, would benefit them and enable them to plan ahead comfortably.

The tax laws have also been characterized as penalizing U.S. companies with international operations. For example, when the U.S. corporate tax is imposed on income earned abroad, the foreign operations of U.S. firms will shrink relative to competitors who do not pay such a tax because U.S. parent firms are burdened with higher costs than firms with parents of other nationalities.[9]

Much concern has also been expressed in the United States about corporate time horizons. Government tax policy particularly in the treatment of debt, and the cost of capital previously discussed, has an impact on these horizons. Some corporate finance experts claim that the U.S. tax code encourages debt and mergers and acquisitions, thereby providing incentives for companies to improve short-term performance rather than long-term growth.[10]

Despite a higher statutory tax rate on corporations than in the United States, the Japanese government provides long-term tax incentives for business to develop industries that it has deemed important for the nation's future. In recent years, the government has used tax incentives especially to promote high-technology industries such as semiconductors. Special tax measures, such as accelerated depreciation, have increased investment incentives in particular industries chosen as strategic by the Japanese government. In the view of one U.S. trade association representative in Japan, Japan's tax system lowers the monetary risks manufacturers take in creating new products.

As for Germany, its economic success in the 1950s and beyond can be attributed, in part, to a tax policy that favored investment over consumption. Since the early 1950s, the government has relied on

[9]U.S. Taxation of International Income: Blueprint for Reform.

[10]The CSIS Strengthening of America Commission (First Report).

incentives, such as depreciation allowances, benefits for reinvesting profits, and other tax breaks, to influence the supply of investment funds and their use. Tax concessions were used during the post-World War II period in Germany not merely to accelerate overall industrial recovery, but to discriminate purposely among industries. Steel, coal, iron ore mines, and electric power plants received special tax benefits throughout the 1950s. Tax concessions also favored shipbuilding and construction. These incentives were intended to raise industrial productivity levels and, by the time the incentives ended, they had achieved their purpose. The government also provided subsidies, low-cost loans, and tax allowances for selected industrial activities.

Corporate Structures and Governance in the United States, Japan, and Germany

Differences in corporate ownership or structure and governance affect the business environment by influencing the incentives for investors and the relationship between corporate management and stockholders. The structure and governance of Japanese and German corporations differ significantly from that of U.S. corporations. These differences are due in part to varied cultural and historical attitudes toward the development of business and the role of finance, and to dissimilar patterns of corporate ownership, and influence the manner in which corporations use resources available to them. Thus, these differences can contribute to differences in national productivity and competitiveness.

In the United States, corporate ownership is basically divided among large institutions and individual investors. Instead of owning large stakes in companies, U.S. investors tend to hold small stakes in many corporations. However, in Japan and Germany, large financial institutions and corporations are the primary stockholders and are relatively permanent owners.

Another important difference between U.S. and Japanese and German companies is the corporate goals of firms in these countries. An important goal of U.S. firms is to maximize the return to shareholders; in Japan and Germany a stronger emphasis is placed on maintaining and enhancing the long-term viability of the enterprise.[1] Some corporate finance analysts believe that the U.S. perspective has helped to create an environment within the investment community that is hostile to long-term investment. On the other hand, Japanese and German managers can more easily take a long-term strategic view when making investment decisions, since the short-term return to shareholders is not of primary concern.

During the 1980s, several important movements affected the structure and governance of U.S. corporations, including numerous hostile takeovers and increased demands from U.S. shareholders. There were also significant changes in Japan, including the crash of the stock market and signals that there may be modifications in the cross-shareholding networks.

Corporate Structure

The pattern of corporate ownership is one area in which the structure of U.S., Japanese, and German corporations differs. For example, in the United States, stock ownership has been historically widely distributed between individuals and professionally managed large institutional

[1]Capital Choices.

investors.[2] In the past, individual investors were the predominant owners of stock but, over the last 2 decades, institutional investors have increased their presence in the equity markets. Now, by some estimates, they account for over 50 percent of stock ownership. In a recent Council on Competitiveness report, U.S. stockholders were characterized as being "transaction oriented," because they are primarily concerned with the performance of their investments in terms of share price and their return on investment.[3] Conversely, the predominant Japanese and German investors—financial institutions and corporations—are less concerned with their return on investment and are more interested in developing long-term relationships and ensuring the continuing viability of the corporation.[4] (For more information about U.S. corporate stock ownership, see app. I.)

In Japan, keiretsu have been the dominant corporate structure during most of the post-World War II period. Basically, keiretsu are large corporate conglomerations that are linked through an extensive network of cross-shareholding and exchanges of personnel among keiretsu members. There are three basic types of keiretsu: bank-centered, production (also known as supplier), and distribution.

The bank-centered groups are horizontal alliances of firms in different industries linked by a system of cross-shareholding and clustered around a large bank. In all, cross-shareholding accounts for between 15 and 30 percent of keiretsu member companies' shares. When stable shareholding by other large institutions, many of whom are members of other keiretsu, is included, between 60 and 80 percent of keiretsu company shares are not traded.[5]

The production keiretsu consist of vertically linked companies—usually a manufacturer and its contractors and suppliers. Distribution keiretsu are vertically integrated wholesalers and retailers. Although not all Japanese firms are directly associated with a keiretsu, the keiretsu structure has had a considerable impact on the success of the Japanese economy.

[2] "Institutional investor" is a term used to describe a broad class of organizations that professionally manage money for individuals. There are different types of institutional investors with different purposes and goals. Some of the most common institutional investors are pension funds, insurance companies, mutual funds, and bank trust departments.

[3] Capital Choices.

[4] W. Carl Kester, "Governance, Contracting, and Investor Time Horizons," (publication forthcoming in Capital Choices: Changing the Way American Invests in Industry, Harvard Business School Press, Feb. 1994).

[5] Marie Anchordoguy, "A Brief History of the Keiretsu," Harvard Business Review, Vol. 68, No. 4 (July-Aug. 1990).

This format has both advantages and disadvantages. The advantages include greater organizational stability, lower transaction costs, and less likelihood that individual members will be able to exploit other keiretsu members. The disadvantages include a tendency to overinvest in declining industries and a reluctance to do business with nonkeiretsu members.[6] (App. II has more information on keiretsu structure.)

In a 1991 paper, Robert Lawrence separately tested the impact of keiretsu on exports and imports. He found that horizontal keiretsu are associated with a significant reduction in imports but have no effect on exports. By contrast, he found vertical keiretsu are associated with a significant reduction in imports, and a positive, moderately significant effect on exports. This export result indicates that there may be some efficiency gains resulting from this type of keiretsu, but this result could also support the view that protected home markets help subsidize and promote exports. Furthermore, Lawrence concluded that some part of the negative effect of vertical keiretsu on imports results not from improved efficiency, but from their discrimination against outsiders.[7]

In Germany, enterprises own over 40 percent of the outstanding shares of other corporations, with the rest distributed among individuals, foreign investors, banks, pension funds, and insurance companies. In many cases, banks are agents for individual owners and are allowed to vote these owners' shares during annual meetings. However, before the annual meeting, the bank must inform shareholders of how it intends to vote the shares unless the shareholder instructs the bank to vote differently. Most companies are not publicly traded. Statistics show that, as of 1991, 50 companies accounted for over 85 percent of the domestically traded shares. (App. III has more information about German corporate structure.)

Corporate Governance

Corporate governance systems—the mechanisms that dictate corporate control—also differ in the United States, Japan, and Germany. In the United States, direct control of corporations has been vested in corporate management, while the degree of management accountability to stockholders has varied historically among companies. In contrast, Japanese and German corporate governance systems generally feature a high degree of management accountability to a small number of large

[6]"Governance, Contracting, and Investor Time Horizons."

[7]Robert Z. Lawrence, "Efficiency or Exclusionist? The Import Behavior of Japanese Corporate Groups," Brookings Papers on Economic Activity, Vol. 1 (Washington, D.C.: The Brookings Institution, 1991).

shareholders. In Japan and Germany, most of the major stockholders of corporations are principals in that they have a substantial economic link to the companies whose shares they own. Japanese and German stockholders are more clearly identified as stakeholders of the companies they own and thus can assert their influence in different ways than stockholders of U.S. firms. For example, major investors in Japan and Germany will step in and attempt to change the way in which their companies are managed if they are not satisfied.

Because power is distributed among many investors in U.S. companies, outside of a takeover, it is difficult for a single group to acquire enough control to significantly influence corporate management. One reason for this diverse ownership is that U.S. law limits the amount of equity that bank holding companies can hold in individual companies. Furthermore, commercial banks are generally prohibited from owning equity in nonbank firms on their own account. Recently, some institutional investors have become more actively involved in corporate governance affairs and, instead of simply selling their shares when they are displeased with company performance, they are attempting to influence corporate policies to improve overall performance. (U.S. shareholder behavior is discussed further in app. I.)

Japanese companies have traditionally depended on the development of long-term relationships. The extensive cross-shareholding networks that are characteristic of keiretsu help to formalize these long-term relationships. Because the major stockholders are involved in business relationships with keiretsu firms, stockholders have access to insight and information about the day-to-day operations of those firms. Unlike U.S. firms, Japanese firms typically draw on insiders to serve on corporate boards. Over 90 percent of the boards of large Japanese firms are now composed of full-time managers, and better than two-fifths of all firms have no outside directors.[8] (For more information on Japanese stockholder relationships see app. II.)

The corporate governance system in Germany differs from that in the United States and Japan. Under the German corporate governance system, German companies are managed by three entities: the board of managing directors, the supervisory board, and the shareholders' general meeting. The board of managing directors is responsible for operating the firm. The supervisory board is essentially a controlling body that oversees the

[8]Michael L. Gerlach, Alliance Capitalism: The Social Organization of Japanese Business (Berkeley, CA: University of California Press, 1992), p.133.

activities of the managing board. It is not involved in directly managing the company. German law generally requires that whenever companies have 2,000 or more employees, half of the company's supervisory board must consist of representatives of the firm's employees. Representatives to the supervisory board are elected during the shareholders' general meeting. (App. III contains more information on German corporate governance.)

Investment Time Horizons

One of the major responsibilities of a company's corporate governance hierarchy is to determine the company's investment time horizons. Japanese and German companies have been characterized as having a steady base of permanent investors. These investors provide Japanese and German companies with a source of "dedicated" capital that is not commonly found in most U.S. firms. Long-term investment is an important component of competitiveness, since it provides the means for companies to continuously innovate and improve their products and services. According to several corporate finance analysts, in recent years U.S. companies have not provided an adequate amount of long-term investment. They attribute this lower amount of long-term investment in part to weaknesses in U.S. corporate structure and governance, such as a greater orientation toward short-term earnings than long-term growth. This orientation, in turn, is often attributed to managerial concern with the possibility of a hostile takeover supported by stockholders eager to seize the short-term returns offered by a takeover raider.

In many cases, the keiretsu business structure can be particularly conducive to long-term investments, because the risk of an investment is spread across all keiretsu members. In many cases, keiretsu members work together synergistically, and members are not only interested in the performance of their individual companies but also in the fortune of other keiretsu companies. In some cases, it appears that, if the governing executives of the keiretsu believe that a particular investment will bring long-term value to the keiretsu or will make them more competitive, they will generally make the investment. The risk for each individual company is minimized since member companies will come to the aid of those companies that have a temporary setback resulting from a particular investment. For instance, executives in Japan's automobile industry made significant investments in developing automobiles in the 1950s, a time when the U.S. automobile industry was preeminent and when it was almost inconceivable to think that Japanese auto manufacturers would become as globally competitive. Japanese semiconductor manufacturers also made substantial investments in high-technology facilities that severely hurt the U.S. semiconductor industry. (The semiconductor industry in Japan is discussed further in app. II.)

On the other hand, there are also examples where the Japanese have made substantial investments that are not currently profitable and for which the prospect of future profitability is uncertain. This situation was especially true during the years of the "bubble economy" of the late 1980s when Japanese companies spent large sums of money in such investments as new plants and real estate that are not currently making a profit. In the view of one Japan analyst, many of these investments made no economic sense from a shareholder perspective. During the bubble years, many small- to mid-size companies also engaged in what is called "zaitech," or risky financial transactions, in companies outside their sector. Many lost a considerable amount of money.

German corporations also operate in an environment that is supportive of long-term investment. Specifically, several aspects of the German corporate governance system help create the climate necessary for long-term investment. Because most members of the managing boards of German firms serve 5-year terms, they are not necessarily compelled to focus on short-term performance. Moreover, for companies with 500 employees or more, representatives of the firms' employees serve on the supervisory boards of German firms and are naturally concerned with preserving jobs and ensuring the long-term success of their firms. Finally, since shareholders are relatively permanent, it is natural for them to emphasize long-term capital gains over short-term fluctuations in share price.

Shareholder Involvement in Corporate Governance

Shareholder involvement in corporate activities may be changing significantly in the United States. There are also indications that there may be some changes in shareholder involvement in Japan and Germany, but not nearly as profound as those in the United States.

Many of the changes in the United States were responses to the dramatic increase in the frequency of hostile takeovers and leveraged buy-outs of corporations during the 1980s.[9] Some economists have argued that takeovers and leveraged buy-outs were an example of the "market for corporate control" taking effect. Economists who supported this view said that takeovers generally transpire when prevailing market conditions

[9]Leveraged buy-outs occur when a company's assets function as collateral for the debt used to finance a takeover of the company.

require the removal of a team of entrenched, ineffective managers or when corporations require a major restructuring of assets. On the other hand, takeovers were not without their detractors. During this period, there was a public outcry against the surge in takeovers by groups that claimed that takeovers were damaging the U.S. economy and causing managers to become overly concerned with the short-term performance of their companies. This public outcry led to pressure on politicians and regulators to curtail takeovers. As a result of this pressure, several state legislatures enacted antitakover laws and, in 1987, the Federal Reserve Board established restrictions on the use of debt financing for certain takeovers.[10]

Another important change in the U.S. business environment can be linked to the evolving role of institutional investors. Since 1981, institutional investors have increased their percentage of equity ownership from 38 to 53 percent of the outstanding shares of publicly traded stock in the United States.[11] Generally, institutional investors have not been very active in corporate governance affairs and have sold their shares when they were unhappy with corporate performance.

Recently, however, a growing number of institutional investors, led by a group of large public pension funds, have taken a more active role in monitoring firms and voicing objections to management behavior perceived as contrary to the long-term interests of the stockholders. They are demanding more accountability on the part of corporate boards. In the view of a high-level representative of Columbia University's Institutional Investor Project,[12] contributing to this change in attitude on the part of institutional investors is a renewed belief in the value of developing long-term relationships between shareholders and corporate hierarchies.

Much of the current activism on the part of institutional investors was, in part, precipitated by their displeasure with some of the antitakeover strategies of the target companies. In particular, a small group of state pension funds started to combat some of the antitakeover tactics that they

[10]Michael C. Jensen, "Takeovers: Their Causes and Consequences," Journal of Economic Perspectives, Vol. 2, No. 1 (Winter 1988).

[11]Carolyn Kay Brancato, "Institutional Investors—The Swing Vote in Corporate Governance—Who Are the Institutional Investors and What Do They Own?" (Institutional Investors—Monolithic or Diverse? Implications for Corporate Governance, A Panel Discussion Presented by the Ad Hoc Committee on Institutional Investors, Annual Meeting of the American Bar Association Section of Business Law (San Francisco, CA: Aug. 10, 1992).

[12]The Institutional Investor Project was formed in 1988 as a collaborative effort by the Center for Law and Economic Studies at the Columbia University School of Law and the New York Stock Exchange, to study the changing role of institutional investors in large publicly owned corporations.

perceived would lower stock values. It is too soon to tell, however, how widespread this new shareholder involvement in corporate governance will be or what the effects of this involvement will be.

In Japan, there have been some indications that the network of cross-shareholdings may be weakening. Due to the collapse in the values of the Japanese stock and real estate markets, financial deregulation, and new bank capital adequacy requirements, some keiretsu firms may be selling a portion of their cross-held shares. However, the extent of this selling of shares is currently unknown. Also, there are indications that some Japanese life insurance companies are starting to demand larger dividends, since they are no longer receiving the high capital gains that were prevalent before the decline in the Tokyo stock market.

In Germany, suggestions are made periodically to limit the activities of banks in nonbanking activities, but so far the allowable activities of banks have not changed substantially. Although there have been proposals to change the proxy voting system, these proposals have not found support. A German law professor attributed this lack of support to the uncertainty about who could and would control the management of big firms instead. Also, no one has devised an alternative on which all parties can agree.

Financial Issues and the Regulatory Environment

Financial relationships between banks and industry are shaped, in large part, by government regulation, which, in turn, is heavily influenced by the historical experiences of nations. In addition to the structure of financial relationships, access to and sources of capital have competitive implications for industry. Furthermore, in recent years, financial deregulation and market liberalization have had an impact on relationships between banks and industry both in the United States and abroad.

The Structure of Bank-Industry Relationships Differs Across Countries

The difference in the concentration of the banking industry is particularly apparent when the U.S. banking system is compared with that in Japan and Germany. In both Japan and Germany, the 10 largest banks have over half the total banking assets, while the 10 largest U.S. banks own less than 30 percent of total banking assets.[1] In 1990, there were 12,500 commercial banks in the United States, as compared with 154 in Japan and 263 in Germany.[2] Banks play a more active role in industry in Japan and Germany partially because of different government regulations and partially because of different historical experiences.

The United States

Since the Great Depression, banking and commerce activities have been kept separate in the United States, although the degree of separation has varied. In 1933, the Glass-Steagall Act generally separated banks' deposit-taking and lending activities from securities-underwriting activities. However, with the deregulation of banks and expanded bank powers in the 1980s and increased competition from other financial services providers, the distinctions between banks and these institutions have been blurring. The fact that banks have been subject to limitations on geographic expansion has resulted in the creation of a large number of banks in the United States. Also, the dual banking system in the United States, consisting of federal and state-chartered banks, has resulted in a decentralized regulatory structure. (App. I contains more information on the U.S. banking system.)

[1]Allan B. Frankel and John D. Montgomery, Financial Structure: An International Perspective, Board of Governors of the Federal Reserve System, Division of International Finance (Washington, D.C.: June 1991).

[2]Some bank analysts believe comparing U.S. bank holding companies—in which the parent company and all of its bank subsidiaries are combined—to foreign banks is a more accurate reflection of equivalent institutions. Bank holding companies are the dominant form of bank company in the United States. Bank holding companies accounted for approximately 93 percent of the assets in the nation's banking system as of September 1990. In 1992, there were 9,484 bank holding companies in the United States. As of September 1992, the number of U.S. commercial banks had dropped to about 11,500.

Japan

The position of banks as major financial players in Japan grew in part because of the undeveloped nature of capital markets and government regulation of financial institutions in Japan after World War II. For many years after the war, the Ministry of Finance and the Bank of Japan (Japan's central bank) worked together to provide stability and to foster economic development. The business environment created by these institutions resulted in a high rate of savings and created a surplus of funds in the regional banks that served consumers. The excess funds were lent to city banks, which, in turn, were responsible for lending the funds, at low rates, to growing industries.

In Japan, as in the United States, banking and commercial activities generally have been separate by law. However, in contrast to the United States, the commercial banking sector in Japan has traditionally been characterized by a high degree of specialization. The banking sector includes city banks, first- and second-tier regional banks, foreign banks, long-term credit banks, and trust banks. Japanese banks are distinguished from each other by their relative size, the maturity of their assets and liabilities, the extent of their operations, and the activities in which they engage. However, in recent years these distinctions have blurred, and competition between these institutions has intensified. (Banking relationships are discussed further in app. II.)

Germany

Although German banks have been providing capital to industry since the late 1800s, the modern role of banks in Germany was defined after World War II because at that time no capital market existed. Banks functioned as long-term lenders. Germany, unlike the United States or Japan, has a "universal" banking system. German banks engage in banking activities, such as deposit taking and lending, as well as in securities issuing and trading. Banks are divided into three broad groupings—private commercial banks, public sector banks, and cooperative banks. The private banking sector is dominated by three large private banks. Statistics show that the assets of the three largest German banks were equal to 36 percent of German GNP in 1990, while assets of the three largest U.S. banks were equal to 7 percent of U.S. GNP.[3] Due to their widespread activities, banks play a large role in German financial markets. (The German banking system is discussed in greater detail in app. III.)

[3]Mark J. Roe, "Some Differences in Corporate Structure in Germany, Japan, and America," The Yale Law Journal, Vol. 102, No. 8 (June 1993).

Banks' Activities

The activities of Japanese and German banks differ in several ways from those of U.S. banks. One of these differences involves "equity ties." Japanese and German laws allow banks in those countries to own shares (or equity) in businesses. In the United States, bank holding companies are permitted to hold up to 5 percent of a firm's voting shares, but the banks themselves are not permitted to own any shares. In practice, bank holding companies typically do not hold shares in firms primarily due to conflict of interest concerns. The Federal Reserve Board has determined that a bank holding company may not acquire as much as 5 percent of a company over which the bank holding company would have a controlling influence.[4] Japanese banks may own up to 5 percent of a firm's shares; while in Germany, bank permanent investments, including shareholdings, are generally limited to the amount of the bank's capital. Under EC single market initiatives, bank loans to any one firm will be limited to 25 percent of capital. This limit will be phased in over 15 years. Although opinions differ on the true significance of equity holdings by banks, a recent Council on Competitiveness report has recommended permitting U.S. banks to hold equity in companies as a way to strengthen their commitment to that company.[5] On the other hand, there are concerns about the implications of such activities for the U.S. bank deposit insurance system, conflicts of interest, and the implications for competition among different providers of financial services.

Another area in which bank activities in Japan and Germany differ from those in the United States involves the nature of the affinity between banks and firms. Banking in Japan and Germany has been characterized as "relationship" banking, while in the United States banking has been characterized as "transactional" banking. There are, however, elements of relationship banking in the United States and transactional banking in Japan and Germany, so the distinction is not a hard and fast one.

In Japan, the bank from which a company obtains the majority of its debt financing is known as its "main" bank. Traditionally, German corporations had a "house" bank with which they maintained a long-term, comprehensive business relationship. Although large companies in Japan and Germany are getting more of their external funding from the capital markets now than formerly, for a long time capital markets have been the primary source of external funds for large U.S. companies. For this reason,

[4] Pauline B. Heller, Federal Bank Holding Company Law (New York: Law Journal Seminars Press, 1990), Section 4.03[2].

[5] Capital Choices.

the U.S. companies are not as dependent on commercial banks for their funds.

Although bankers may sit on company boards of directors in all three countries, the nature of the relationship is different in the United States than in Japan and Germany. Legal barriers affecting relationships of banks and corporations have tended to reduce the value of having bankers on company boards in the United States. In Japan, bankers from a firm's main bank can sit on the firm's board of directors; however, this practice is not very common unless the company is having financial difficulties. Also, in Japan, top bankers will meet other keiretsu member heads at the Presidents' Council meetings.[6] In Germany, bankers from banks with equity ties to the company, as well as bankers from banks without equity ties, are elected to company boards. It is not unusual for bank representatives from several German banks to sit on the same company's board.

One advantage that Japanese and German banks derive from their close relationships with corporations is access to what might be considered insider information in the United States. In the case of Japan, empirical studies have found that firms with close keiretsu affiliations improve their access to capital because of the quality of information obtained by banks.[7] Many corporate and financial industry analysts we spoke with believe that having access to this information as well as having long-term ties, enables banks in these countries to act more quickly to assist a company in financial difficulty. It is possible that access to this information might also affect a bank's willingness to help a company because of the bank's knowledge of the company's true financial position. For example, information flow is facilitated by senior bankers, formally retired from lifelong careers at the bank, who are sometimes placed by the bank in "second careers" as senior officers and directors of the bank's borrowing clients.[8]

Banks in all three countries arrange financial assistance packages to aid companies in financial difficulty; however, this practice is more prevalent in Japan and Germany than in the United States. According to industry analysts, differences in bankruptcy laws enable Japanese and German banks to organize efforts at an earlier stage than in the United States.

[6]Presidents' Councils are regularly scheduled meetings of the executive officers of the core keiretsu companies.

[7]Alliance Capitalism, p. 12.

[8]W. Carl Kester, "Japanese Corporate Governance," Japanese Takeovers: The Global Quest for Corporate Control (Boston: Harvard Business School Press, 1991).

When overseeing such assistance in Japan, the main bank may send bank representatives to help manage the company. In Germany, if the amount of funds needed is relatively small, the house bank will provide the funds itself. If the firm requires major financial assistance, the house bank will arrange a consortium of banks to provide the needed funds. Because banks in both Japan and Germany often have equity ties with, as well as loans to, a company, they are willing to give this assistance to protect their own investment in the company. In addition, they feel public pressure to provide the assistance. In the case of Japan, analysts have said that the banks would lose credibility if they did not do so.

German banks have a dominant position in the process of capital formation, leaving the capital market relatively undeveloped. Representatives from one U.S. bank in Germany told us that the German bank authorities are reluctant to encourage the use of new products such as asset-backed securities. Moreover, although large German firms are tapping foreign financial markets, German bankers told us that the structure and opacity of smaller German companies make it difficult for them to get credit ratings to tap into the market for funds, so many German firms will continue to be dependent on banks for their external funds.

Although the nature of the relationships is expected to change as business conditions and regulations evolve, experts we interviewed, including government officials, financial industry analysts, and economists in all three countries, said that both Japan and Germany will be likely to keep their banking relationships (main and house) as "insurance policies" in the future. In fact, the current economic downturn in Japan has demonstrated to Japanese companies the value of having a main bank. Japanese banks continue to function as lenders of last resort. In Germany as well, strong bank-industry ties are expected to endure. Although there is evidence in both countries that some of the shareholding by banks is being reduced, none of the experts we spoke with expected the nature of the shareholding relationships to change dramatically in the near future.

Access to and Sources of Capital Are Becoming More Uniform Across Countries

Although banks have been a principal source of external funds for companies in the United States, Japan, and Germany, in recent years direct access to capital markets and to other sources of capital has increased, especially for large firms, in these countries. This increase is due in part to the globalization of financial markets that has coincided with national deregulation and technological advances. At the same time, however, the capital markets in the United States are the most sophisticated of the three countries, and large U.S. companies are the least dependent on banks for financing. Nevertheless, small- and medium-sized firms in all three countries still rely primarily on banks, rather than on capital markets, when they need outside funds.

One major difference between sources of finance in the United States and in Japan and Germany is the availability of "venture capital" in the United States. The U.S. venture capital market has been characterized as the best in the world. Japanese and German financial experts told us that the U.S. venture capital market is more developed than in either of those countries. According to a recent study, the nature of business in Japan and Germany makes the establishment of a venture capital market more difficult in those countries than in the United States. One reason for this difficulty is that few Japanese or Germans are willing to leave their companies to start new ventures.[9]

Firms in all three countries use forms of internal financing to provide them with the funds they need. Most major U.S. firms finance investments through retained earnings. Similarly, Germany uses internal financing (retained earnings, depreciation, and pension funds) as a primary source of enterprise investment. Some Japanese firms are also financing what they need internally through retained earnings. In addition, German companies can use internal pension funds for self-financing purposes.

Regulatory Changes Are Having an International Impact

Deregulation at home and capital market liberalization in other countries are expanding the access of Japanese and German companies to those markets. In addition, deregulation in Japan and Germany is also making the capital markets at home more useful to Japanese and German companies. For example, during the 1980s, Japanese firms reduced their bank borrowing and increased their use of the bond market to acquire capital. To a certain extent, the fact that companies in these countries now have access to global capital markets is accelerating market deregulation at home.

With financial deregulation, Japanese firms have gained access to other sources of finance besides banks. Analysts have differing views, however, on the significance of this access for bank-industry relationships. One U.S. economist, for example, believes that this financial liberalization will encourage some convergence with the U.S. financial system, where

[9] William A. Sahlman, "Insights From the American Venture Capital Organization," (publication forthcoming in Capital Choices: Changing the Way America Invests in Industry, Harvard Business School Press, Feb. 1994).

competitive forces determine what choice of financing method companies make.[10] On the other hand, another analyst argues that, in contemporary Japan, even securities markets are mediated by large institutions linked through a complex set of strategic relationships with corporate users of capital. Into the late 1980s, over 90 percent of total capital flows continued to be mediated by financial institutions. Because of their central role as providers of both loan-based and securities-based capital, the analyst concludes that Japanese banks remain the main source of external capital for most major Japanese corporations.[11]

Some financial analysts predict that the economic downturn in Japan may force Japanese banks to liquidate some of their equity holdings to maintain adequate cash balances and to meet bank capital adequacy requirements. For example, one business analyst believes that this development in Japan may push Japan's financial system to further resemble the U.S. system.[12]

In addition, global market liberalization is allowing financial institutions to provide more services to their clients. For example, a banking law amendment passed in 1992 (effective in 1993), allows all Japanese banks to go into the securities business through subsidiaries. Under U.S. banking law, certain subsidiaries of bank holding companies can function as investment banks, subject to certain limitations, by engaging in securities underwriting. Beginning in 1987, the Federal Reserve Board began approving applications to allow wholly owned bank holding company subsidiaries to perform such activities on a case-by-case basis. In Europe, German universal banks will be able to expand EC-wide. In addition, foreign banks, including U.S. and Japanese banks, that have subsidiaries in Germany can act as "universal" banks there. Through the EC single license, these institutions will now be able to operate in all EC countries.

[10]David Hale, "Japan After the Stock Market Crash," International Economic Insights, Vol. 3 (July/Aug. 1992).

[11]Alliance Capitalism.

[12]"Capital Disadvantage."

Operating Business Practices and Antitrust Regulation

It is difficult to determine empirically the implications of each individual difference in the methods by which the United States, Japan, and Germany conduct and regulate business; however, there is consensus that some of the differences, such as financial relationships, are significant and do have an impact on corporate performance in these countries. Other differences, such as labor practices, long-term relationships, and cooperative activities between businesses as well as between government and business, also have an effect on competitiveness and may further competitive advantages for Japanese and German firms. Although antitrust law is similar in the United States, Japan, and Germany, enforcement and interpretation of the law vary. In recent years, several new developments, such as the convergence of management styles and changes in the business focus in the United States and Japan, are beginning to reduce the contrasts between systems. It is important to note that historical and cultural differences as well as different legal traditions in the countries mean that what works in one country will not necessarily work or be acceptable in another. However, there appears to be a growing awareness among U.S. businesses that some foreign practices are effective and can serve to improve the U.S. system.

Business Practices Differ in All Three Countries

The fundamental way in which business operates in the United States differs from some business practices in Japan and Germany. These differences have a profound influence on investment decisions. In the United States, business agreements are often "arm's-length" transactions that are governed by the Uniform Commercial Code and may be documented in contracts. Disagreements that arise are pursued through arbitration or legal means. In contrast, transactions in Japan are based largely on relationships that are long-standing. Japan observers view loyalty to the relationship, maintenance of a sense of trust, and an agreement to operate by consensus as important features of Japanese business practices.

The following material is based on work done by W. Carl Kester.[1] The corporate governance system in Germany has been described as positioned between Japan and the United States. Germany is similar to Japan in that a key element of corporate governance is maintaining stable business relationships. Trust and loyalty have been cited by some German executives as being of paramount importance. German businesses employ many of the same practices as do businesses in Japan, such as

[1] "Governance, Contracting, and Investor Time Horizons."

cross-shareholding and close relationships with financial institutions, but not to the same extent.

Japan and Germany rely on a number of noncontractual safeguards to develop and maintain long-term business relationships. Chief among the safeguards employed are close relationships with large financial institutions that are major equity owners as well as lenders. Because of their multifaceted relationship, these institutions are able to exert considerable influence through board representation and, at times, direct intervention into operating management. This level of influence is viewed as a significant difference between Japan and Germany on one side, and the United States on the other. In addition, shareholding, extensive information sharing, and reliable and stable business relationships are important factors in the Japanese and German business environment.

Although there are some differences in business practices between Japan and Germany—information sharing is less institutionalized in Germany, and cross-shareholding is not as widespread in Germany as it is in Japan—these differences are said to be more a matter of degree. The effectiveness of the German and Japanese contractual governance systems in sustaining stable yet flexible business relationships may help explain the lower frequency of large-scale takeovers in those nations.

The Role of Trade Associations

Trade associations play a much greater role in Japan and Germany than they do in the United States. U.S. trade associations have become more politically active over the years, but, according to a comparison of the impact of trade associations in the United States and Japan, those in the United States are neither as well financed nor as connected to the government as those in Japan.[2]

In Japan, trade associations have been formed in all sectors of Japanese industry, and the level of participation is extremely high. Associations build intra-industry consensus and function as a communication mechanism between the government and industry. MITI oversees most of the trade associations in manufacturing and provides industry with "administrative guidance" and policy positions through such associations. The most prominent Japanese association is the Keidanren—the Japan Federation of Economic Organizations. Formed in 1946, it is composed of

[2]Organizing Business: Trade Associations in American and Japan, American Enterprise Institute for Public Policy Research (Washington, D.C.: 1988).

major firms and trade associations and is dominated by senior executives from various industries.

In Germany, all firms are members of business associations. German law requires that firms belong to a chamber of commerce and industry or a chamber of artisans. Membership in an industry association is voluntary, but, as in Japan, participation is extremely high.

Labor-Management Relations

The U.S. labor market has undergone significant changes over time. Since the beginning of the 1980s, there has been a structural shift in the types of jobs available to U.S. workers, with the elimination of about 1.4-million manufacturing jobs and the creation of 4.6-million jobs in the nonmanufacturing sector. According to one labor market analyst, this structural shift coincided with an increased amount of workplace turbulence due to plant closings and corporate downsizing that changed long-standing labor relationship practices and lessened human resource training systems.[3] However, the Competitiveness Policy Council, in a 1992 report, noted that a growing number of U.S. firms have demonstrated that synergistic labor-management relations can be an important source of productivity improvement.[4]

Japanese labor-management relations have been characterized as being relatively cooperative. It is said that a strong work ethic, ethnic homogeneity, group orientation, and conformist tendencies all contribute to remarkably consensual labor relations. It was not always this way, however. The present system of labor relations in Japan evolved in the aftermath of a period of intense labor-management conflict in the late 1940s. In that episode, the Japanese labor movement emerged greatly weakened from a confrontation in which its leadership was opposed simultaneously by employers, the Japanese government, U.S. Occupation authorities concerned about communist influence in the unions, and many of its own members.

The system of lifetime employment, while only covering approximately one-third of the total workforce, has fostered the principle of job security and is credited with playing a pivotal role in labor relations in Japan. Regular job rotation is a typical part of the lifetime employment system:

[3]Peter Doeringer, "Flexibility and Equality: The American Experience," European and American Labor Markets: Different Models and Different Results (Washington, D.C.: National Planning Association, 1992).

[4]First Annual Report to the President and Congress: Building a Competitive America, p. 23.

Workers are trained to perform a variety of tasks and can be moved easily from one job to another as market conditions dictate.[5]

Several economic and industry analysts have said that the Japanese system is currently under stress because of increasing dissatisfaction among younger Japanese. There are signs that they may be less willing to accept the inflexibility of lifetime employment and the long hours expected under such a system. It is too soon to tell, however,

Germany has a well-established apprenticeship system that trains approximately 65 percent of the country's workforce. The primary purpose of this system is to develop high-quality, skilled workers. German government and industry investment in its labor force, plus national social policies that are favorable to workers, helps to foster cooperative management-labor relations.

Antitrust Laws Affect Business Practices and the Business Environment

According to antitrust experts, antitrust legislation in the United States, Japan, and Germany does not differ greatly; however, its interpretation and enforcement allow for significant differences in business practice. When most of the statutes dealing with antitrust were established in Japan and Germany, they were based on U.S. statutes. However, some notable differences exist in terms of what types of business behavior are allowed in Japan.

Antitrust Policies

Although antitrust statutes in the United States, Japan, and Germany are similar, considerable differences exist in interpretation and enforcement. The implications that these differences have is a matter of debate.

Some antitrust analysts believe that U.S. antitrust laws are designed to enhance competition rather than competitiveness. They note that, although U.S. antitrust rules have been relaxed for some forms of joint R&D, U.S. firms still operate under much more stringent antitrust rules than their Japanese counterparts.

According to several Japanese antitrust analysts, interpretation of the Japanese antitrust law reflects the influence of the industrial policies pursued by the various ministries. Hence, analysts and observers have said that interpretation of the law in Japan tends to benefit the producer more than, or as well as, the consumer. Since 1989, the U.S. government, under

[5]Alan S. Blinder, "More Like Them?" The American Prospect, No. 8 (Winter 1992).

the auspices of the Structural Impediments Initiative, has been negotiating with the Japanese government to improve enforcement of Japan's antitrust statutes. U.S. government officials and some Japan antitrust analysts believe that stricter enforcement of the Antimonopoly Law could be of significant benefit to foreign businesses seeking to operate in Japan's market.

On the other hand, some legal commentators observing the German business environment believe that antitrust enforcement in Germany is more rigorous than in the United States. German competition policy and regulation have coexisted with those of the EC for over 30 years. EC law prevails in cases in which a corporate practice or agreement violates EC law regardless of whether such a practice violates German law.

Other economic analysts see stringent policies providing advantages to business. For example, in The Competitive Advantage of Nations, Michael Porter argues that competitiveness in global markets relies heavily on strong competition and rivalry within national or regional markets. Such competition, with demanding local customers, provides immediate information to businesses about their ability to make and market products, spurring them to rapidly improve and innovate. It also provides the basis for development of related industries, such as suppliers, that world-class industries need. An antitrust policy that fosters a competitive environment and promotes constant business efforts to innovate and improve their products could contribute to enhanced productivity and national competitiveness.[6]

Impact of Antitrust Law on Cartels, Consortia, and Joint Ventures

Cartels are permitted for specific reasons in all three countries. For example, in the United States, there are cases where limited exemptions from antitrust laws can be made for certain conduct in export trade. These exemptions are allowed provided, among other things, that the activities do not substantially restrain trade within the United States. (App. I has more information about U.S. antitrust law.) Different types of cartel arrangements are allowed in Japan. Japanese cartels used in declining industries are viewed by the Japanese as a good way to eliminate excess capacity, because it allows troubled companies to cooperate in solving their mutual problems. (See app. II for more information about Japanese antitrust law.) German antitrust law also allows certain types of cartels for the purpose of promoting efficiency and productivity. (See app. III for more information about German antitrust law.) Critics argue that these

[6]The Competitive Advantage of Nations, p. 662 ff.

arrangements have negative consequences as well. Cartelized industries are some of the least competitive and most protectionist in Japan and Germany.

While it is difficult to analyze the effects of various rules or their interpretations, numerous business representatives and industry analysts have indicated that U.S. antitrust law has had a "chilling" effect on the willingness of U.S. firms, both large and small, to engage in cooperative activities. The enactment of the National Cooperative Research Act (NCRA) in 1984 did, however, provide a greater level of comfort to firms considering doing joint research. With regard to suits covered by the act, the statute also limited recourse only to actual damages, (i.e., not treble damages)[7] as well as interest at a rate specified by the statute, and costs including reasonable attorneys' fees for registered joint R&D projects. Some Justice Department officials believe U.S. businesses' concern with antitrust in the United States is overblown and that NCRA only clarified activities that were already permitted rather than changing U.S. antitrust law.

Legislative efforts to extend NCRA to joint production were successful recently. In June, Public Law 103-42, the National Cooperative Production Amendments of 1993, was passed. This act amends NCRA with respect to joint ventures entered into for the purpose of production.

After passage of NCRA, the Antitrust Division of the U.S. Justice Department established a procedure whereby companies interested in forming joint ventures provide the department with advance notification of their intentions. If the alliance is later found to violate antitrust laws, the prior registration lessens the amount of damages that can be assessed. The registration applies only to the specific facts in that particular joint venture. It does not, however, set a precedent for other possible future joint ventures. Nevertheless, in a book comparing U.S. and Japanese antitrust strategies, one analyst notes that this review procedure provides scant comfort to U.S. firms because the enforcement and interpretation policy can change with new administrations, and firms that have satisfactorily completed the Justice Department's review procedure may still be in danger of a private lawsuit.[8] A congressional study noted that the

[7]Treble damages are damages given by statute in certain cases consisting of the single damages found by the jury, actually tripled in amount.

[8]Kozo Yamamura, "Joint Research and Antitrust: Japanese vs. American Strategies," Japan's High Tech Industries: Lessons and Limitations of Industrial Policy, Hugh Patrick, ed. (Seattle: University of Washington Press, 1986).

law is unclear, and penalties for misinterpreting it can be severe.[9] Private lawsuits, regardless of their merit, are costly and time consuming to fight.

More efforts are being made in the United States, Japan, and Germany concerning the formation of consortia and other alliances. Industries are recognizing the need for firms to work together to share costs and take advantage of emerging technologies. Such cooperative ventures limit the risks involved when the capital investment required is high. Following passage of NCRA in 1984, more U.S. firms have formed alliances to cooperate on research in the precompetitive stages of generic technology development. Many U.S. and Japanese firms have formed joint ventures to acquire technology and manufacturing skills to improve their competitive position in world markets. In a report to the President and Congress,[10] an industry advisory committee noted that, in the past, some U.S. firms have not supported cooperative research in the early phases. Such early efforts were viewed as proprietary, and U.S. firms did not want to share the results with competitors or suppliers. The report says that this adversarial atmosphere created inefficiency and redundancy.

The Japanese have used a number of consortia to develop technologies. The most important role of Japanese cooperative research is to signal the importance of emerging technical areas and stimulate proprietary firm research, not to achieve efficiencies in R&D.[11] One Japanese consortium in the late 1970s, the so-called VLSI (very large scale integration) project, is considered by U.S. industry representatives to have been instrumental in the Japanese drive to capture world semiconductor market share. In the view of one business analyst, cooperative projects succeed in Japan because they involve technologies directly related to industry concerns, the cooperative project is only a small part of firms' overall research efforts, powerful and neutral representatives from the ministries mediate conflicts, and intense domestic rivalry in Japan ensures little threat to competition.[12]

The German government is active in various European R&D efforts by providing funds and encouraging German firms to participate. For example, German firms collaborate under the EUREKA program—the

[9] Making Things Better: Competing in Manufacturing, Office of Technology Assessment, OTA-ITE-443 (Washington, D.C.: U.S. Government Printing Office, Feb. 1990).

[10] Strategic Industry at Risk, Report to the President and the Congress from the National Advisory Committee on Semiconductors (Washington, D.C.: Nov. 1989).

[11] The Competitive Advantage of Nations.

[12] Ibid.

European high-technology initiative. Ideally, several competitors from a nation should be involved even if firms from other nations are participating. The European consortia, which in many cases involve only one dominant and often protected firm from each nation, may play a role in catching up in areas of basic technology but have uncertain prospects for creating and successfully commercializing new technology.[13]

Although the success or failure of many of these projects is open to debate, collaborative efforts continue to be pursued by various industries in all three countries.

New Developments Will Have an Impact on Competitiveness

Significant changes are occurring in all three countries, at the national level and in the business environment. These changes include, among other things, financial deregulation, recessions, budget deficits, and increasing global trade pressures. While differences in business environment and practices will continue to exist among the three countries, there are indications that businesses in all three countries are operating more by global rules and making decisions based more on economic rationale than on previously accepted practices. It is also clear that there are some strategies and practices employed by foreign firms that can be adopted in each country to complement their existing culture.

The United States

Within the past decade, numerous studies and reports have analyzed the reasons for the decline in U.S. competitiveness. Whether the studies conclude that the decline was caused by macroeconomic factors out of the control of management or by business practices and management philosophy, it appears that many U.S. businesses are adopting some strategies and practices from other countries that have proven effective and that can be incorporated in the American business environment. Such practices include reducing the number of suppliers and working more closely with those chosen, paying more attention to quality by building it into the product instead of doing inspections after completion, and establishing ownership ties among business partners.

Business and financial analysts believe that what seems to be emerging is an "enterprise" model that borrows certain practices from Japan's keiretsu, specifically reliance on cooperation among a group of manufacturers, suppliers, and finance companies. For example, during the 1980s, competitors in many U.S. industries began pooling resources to do

[13] The Competitive Advantage of Nations.

precompetitive research on technologies; some manufacturers are now asking their strategic suppliers to participate in new product design programs at the outset; some companies are taking equity positions in strategic suppliers or in startups that are working on promising technology; and many manufacturers are giving single-source contracts to strategic partners. These contracts set strict cost, quality, and delivery goals.

Japan

Ironically, while U.S. and other countries' firms are trying to incorporate certain Japanese practices, it is possible that some of the Japanese practices will become less prevalent in Japan. A 1990 OTA report on competitiveness stated that changes may be occurring in Japan between firms and their suppliers.[14] It noted that some large companies are encouraging their suppliers to seek other customers. However, the report said that the bonds of those long-term relationships that have been built up over time will continue to exist. The same has been said about cross-owning of shares—that while some companies and banks may be selling some of their long-held cross-shareholdings, these sales are not occurring in large numbers and are not expected to affect the system as a whole.

During the 1980s, unlike many of their American counterparts whose decisions were mainly motivated by short-term profits, some Japanese companies pursued long-term market share gains over short-term profits. The wave of corporate restructuring that occurred during the 1980s in the United States had no counterpart in Japan, for instance.

Economic and industry analysts have concluded that Japanese firms often viewed their holdings as a way to cement business relationships rather than to earn financial returns on their holdings. However, with the 1990 Japanese stock market decline, the higher costs of capital, the demands of shareholders for bigger dividends, and the future labor shortages, pressures are now building for Japanese business leaders to rethink global strategy. There is talk that Japanese firms are trimming investment, paring down their product lines, and focusing more on profit. Some observers believe that U.S. and Japanese capital costs have converged, so Japanese firms no longer have a distinct advantage in terms of capital costs. Thus, the competitive environment may be more equal.

[14] Making Things Better: Competing in Manufacturing.

Germany

As a member of the EC, Germany will be able to take advantage of changes due to the European Single Market initiatives, or EC 1992 program. The aim of the program is to remove barriers blocking the free flow of people, goods, services, and capital among EC member states. Many observers view EC 1992 as a new stage in the EC's efforts toward greater unity. While not all initiatives were completed by the end of 1992, the EC is well on its way to creating a single market. With removal of these barriers, it is more difficult for individual EC countries to continue to create special advantages for their own firms. Considerable consolidation is taking place in many industries as firms try to become more efficient in order to compete in the larger market created by EC 1992. Single market initiatives are enabling German companies to compete more readily within Europe while making it easier for others to compete with German firms in Germany itself.

In addition, although Germany is currently facing structural adjustment problems in its integration of the East German economy with that of the West, the German economy as a whole is expected to regain its strength.[15]

[15]Herbert Giersch et al., The Fading Miracle: Four Decades of Market Economy in Germany (Cambridge, England: Cambridge University Press, 1992).

The Business Environment in the United States

The business environment in the United States is largely determined by the country's cultural norms, macroeconomic factors, government policies, corporate structure and governance, financial relationships, and business practices. Government-industry relationships in the United States are generally seen as adversarial. As for corporate ownership and governance, they have undergone important changes throughout U.S. history. In addition, the role of banks in corporate finance has also undergone major changes over the years. However, generally, banks maintain an arm's-length relationship with U.S. corporations. Further, the government enforces laws against certain corporate practices that may restrict trade.

Introduction

The development of the business environment within the United States has been heavily influenced by the nation's cultural and historical experiences. Additionally, the business environment is greatly affected by the macroeconomic environment, such as the cost of capital, particularly in terms of financing new investments.

Cultural Background

The United States is a diverse country that has historically emphasized individual achievement over group harmony. The United States has also long believed in the benefits of free-market economics over government planning and intervention. Although many U.S. government policymakers have eschewed government involvement in the activities of the market and disliked strategies such as industrial targeting, for many years the government has been instrumental in the development of certain industries.

Macroeconomic Factors: Cost of Capital

One factor affecting a firm's ability to finance new investments is the cost of capital. When the cost of capital is high, firms have a tendency to invest in projects with a relatively short payoff period. If U.S. firms are competing with companies that have access to cheaper sources of capital, however, then it is conceivable that U.S. firms would be out-invested by their competitors' investments over the long run. It is also conceivable that U.S. firms would forgo investments that might produce value in the long run.

For about 2 decades, Japanese and German companies have been investing more in civilian research and development (R&D) and plant and equipment as a percentage of gross domestic product (GDP) than U.S. firms. This situation has led numerous observers to suggest that the cost of capital within Japan and Germany was lower than in the United States, which may have given firms in Japan and Germany a competitive advantage. In fact, several major economic studies done in the 1980s concluded that during the late 1970s until the late 1980s the cost of capital in Japan and Germany was lower than in the United States.

Most of the studies that examined the differences in the cost of capital between the United States, Japan, and Germany used different methodologies to reach their conclusion. Therefore, they had varying results in terms of the degree of difference in the cost of capital among the three countries. These studies typically attributed the cost-of-capital differences either to foreign government intervention or the different corporate structures in Japan and Germany. These structures seem to be more favorable for long-term investment than those that are prevalent in the United States.

It is important to point out that economists do not universally agree that the cost of capital was consistently higher in the United States than in Japan and Germany in the 1980s. A study by one group of economists criticized the methodology of most of the studies that claimed that the cost of capital was lower.[1] These economists determined that the evidence was not sufficient to reach the conclusion that the cost of capital was higher in the United States. However, these same economists concluded that even if the cost of capital were not significantly lower in Japan or Germany, the fact that they invested significantly more than the United States in important areas suggests that firms in these countries behaved as if their cost of capital were lower.

Government-Industry Relationships

The United States has had a long-standing belief in the principles of free-market economics and the superiority of market forces over government planning and intervention. However, the government has been directly involved in many industry-related activities, particularly in terms of providing funds for basic R&D.

Federally Sponsored R&D

For many years, the U.S. government has provided key support to major industries in helping to develop new technologies of commercial interest. For example, the U.S. Department of Agriculture has sponsored R&D efforts to develop agricultural techniques and products that probably

[1]W. Carl Kester and Tim Luehrman, "Cross-Country Differences in Cost of Capital: A Survey & Evaluation of Recent Empirical Studies" (publication forthcoming in Capital Choices: Changing the Way America Invests in Industry Boston: Harvard Business School Press, Feb. 1994).

could not have been developed independently by individual or corporate farmers. In addition, the National Institutes of Health has conducted basic research that has benefited the pharmaceutical and medical industries, and substantial investments by the federal government have helped to reduce the risk of related private research efforts.

In some cases, government support has helped create leading world industries. For instance, the development of the U.S. aircraft industry is due in part to government support through defense-related procurement and R&D efforts. According to some industry analysts, government-funded research in the aerospace industry has also led to the creation of numerous technologies with civilian applications.

Traditionally, federally supported R&D has focused on basic scientific research or on military applications. According to a former government official, the government is also attempting to expedite the flow of information from federally funded labs and research projects to private industry. In the view of another industry analyst, however, the government needs to focus more on developing commercially viable products than on pursuing purely scientific research. One government program that is designed to assist small businesses in transforming R&D results into new products is the Small Business Innovation Research (SBIR) program. One purpose of this program is to increase private sector commercialization of innovations derived from federal R&D. In 1992 we reported that, even though many SBIR projects have not yet had sufficient time to achieve their full commercial potential, the program is showing success.[2]

Corporate Structure and Governance

Corporate ownership within the United States has experienced a number of important changes throughout its historical development. The structure of U.S. corporations has also undergone a series of alterations over the years. During the 1980s, a wave of hostile takeovers and leveraged buy-outs swept through corporate America as a means of enacting managerial change and of restructuring corporations, many of which had become large diversified conglomerates. Now, in an effort to hold managers more accountable, some larger investors are starting to become more actively involved in corporate affairs.

[2]Federal Research: Small Business Innovation Research Shows Success but Can Be Strengthened (GAO/RCED-92-37, Mar. 30, 1992).

Corporate Ownership

Until the late 1800s, corporate ownership was tightly held by a few individuals who were active participants in management. Beginning in the early 1900s, however, companies became larger in size in order to benefit from economies of scale, and this ownership started to become more dispersed among individuals who bought small equity stakes. Boards of directors were created to serve as the elected representatives of shareholders and, in theory, function as fiduciaries for the stockholders. As fiduciaries, these directors are responsible for ensuring that companies function in a manner that best serves the interests of the stockholders. Additionally, as ownership became more dispersed, corporate control shifted from owners to managers who were less accountable to the stockholders. Numerous shareholders themselves generally do not own enough of the corporation to exert significant influence over management. In recent years, individual investors have lost some of their power in the equity markets while institutional investors have increased theirs. Currently, according to several studies, institutional investors now control over half of equity ownership in the U.S. stock markets (see table I.1).

Table I.1: U.S. Equity Ownership Held by Institutional Investors, 1990

Type of institution	Equity holdings ($ in billions)	Percentage of total equity market
Pension funds	$961.8	28.2
Mutual funds	245.8	7.2
Insurance funds	235.7	6.9
Bank trust departments	314.0	9.2
Foundations/ Endowments	61.7	1.8
All institutions	**$1,819.0**	**53.3**

Note: Total amounts are estimated for 1990, and asset allocation breakdown is based on most recently available 1989 allocations.

Source: Brancato and Gaughan, Columbia University Institutional Investor Project, cited in Institutional Investors—Monolithic or Diverse? Implications for Corporate Governance, A Panel Discussion Presented by the Ad Hoc Committee on Institutional Investors, Annual Meeting of the American Bar Association Section of Business Law (San Francisco, CA: Aug. 1992), table 4.

According to a number of corporate finance analysts, many institutional investors have highly diversified portfolios, making it costly to constantly monitor corporate boards. Generally, it is easier to sell shares than get involved in governance issues. Further, according to several financial industry analysts, many institutions are diversifying their portfolios in ways that correspond to the composition of major stock market indexes, which causes institutional fund managers to concentrate more on market averages than on the performance of individual companies.[3] Finally, because institutional fund managers also have fiduciary responsibilities to the investors (or beneficiaries) of the fund, those responsibilities might conflict with a commitment to long-term share ownership and active participation in the management of companies in their portfolios.

History of U.S. Corporate Structure

After World War II, it was thought that by forming conglomerates, corporations would be insulated from economic downturns because they would be involved in varied activities—thus, if one division were not performing well, another division might be able to compensate. According to some authorities, some advocates of diversification believed that successful companies prospered due to the quality of their management rather than their industry expertise. However, during the 1970s and 1980s, many companies started to divest themselves of poorly performing divisions and began to return to those original core businesses that had made them profitable enterprises.

During much of the post-World War II period, many U.S. politicians supported programs to develop small businesses due to fears of excessive concentration of economic power. Between 1954 and 1978, the sales of the Fortune 500 companies as a percentage of GDP increased from 37 percent to 58 percent of GDP. However, during the 1980s, such sales declined to 42 percent from their 1979 peak of 58 percent.

Corporate Governance Issues

In recent years, a number of important events have affected the operations and future course of many U.S. corporations. These events include the issue of the lack of a long-term time horizon for investments in some U.S. corporations and the wave of hostile takeovers and leveraged buy-outs during the 1980s that set the stage for a debate surrounding corporate control. This debate has centered on what the proper role of corporate management, corporate boards, and stockholders should be.

Investment Time Horizons

One of the issues surrounding the debate about the competitiveness of U.S. companies involves the question of maintaining a short- versus a long-term perspective on corporate returns. According to some observers, corporate executives are concerned that shareholders, many of which are institutional investors, have concentrated on short-term profits rather than long-term performance. Some corporate executives say that investors are

[3]Stock indexing is an investment strategy that attempts to mirror the performance of a major stock index, such as the Standard & Poor's 500.

impatient and will sell shares when short-term earnings do not meet expectations.[4] They add that this short-term perspective has prevented companies from making adequate long-term investments that might ultimately benefit their investors. But institutional investors have a different reason for seeking short-term profits. Some fund managers say that their first concern is their fiduciary responsibility and that selling shares is their only recourse when corporate performance does not meet expectations.

Corporate Takeovers

During the 1980s, a dramatic surge occurred in the number of corporate takeovers in the United States. According to some corporate finance experts, takeovers were useful for ensuring efficiency in the marketplace and supplanted the diminished power of stockholders to remove ineffectual corporate managers. While takeovers did result in changing corporate control, some observers believe that takeovers were too expensive and inefficient.

Shareholder Activism

The wave of corporate takeovers during the 1980s precipitated important changes in the practices of some institutional investors. In particular, certain public pension funds began to take a second look at some of the corporate governance activities of companies held in their investment portfolios, in particular certain antitakeover measures practiced by some companies such as "poison pills"[5] and "greenmail" payments.[6] Observers called this new attitude on the part of institutional investors "shareholder activism." Much of this activism reflected institutional investors' displeasure with various defensive tactics used by corporations to fend off hostile takeovers.

Institutional investors are also starting to exert their influence as shareholders in part because they believe their fiduciary responsibility requires them to vote their proxies instead of relinquishing their shareholder votes. By doing so, institutional investors hope to influence corporate management to improve corporate performance and increase the value of the company.

[4]Franklin Edwards and Robert Eisenbeis, "Financial Institutions and Corporate Investment Horizons: An International Perspective," (publication forthcoming in Capital Choices: Changing the Way America Invests in Industry Boston: Harvard Business School Press, Feb. 1994).

[5]Poison pills are issues of stock by a target corporation to prevent a hostile takeover attempt.

[6]Greenmail payments occur when a company buys off a potential raider by paying an above-market price for the raider's shares to avert a hostile takeover.

To further strengthen their voting powers, several alliances of institutional investors, under the leadership of various organizations representing institutional investors, joined together in an attempt to reform proxy disclosure rules.[7,8] Before the Securities and Exchange Commission (SEC) enacted rule changes in 1992, whenever 10 or more investors in the same company wished to communicate about an imminent shareholders' meeting or another corporate governance matter, they were required to disclose their intentions to SEC. In October 1992, SEC made it easier for shareholders to contact each other regarding company performance and other issues requiring shareholders' votes. SEC also (1) eliminated restrictions on how shareholders can exercise their voting rights and (2) improved disclosure to shareholders regarding proxy solicitations and reporting voting results.

Institutional investors are also concerned about elections to corporate boards of directors. According to a study examining the rising influence of institutional investors in the equity markets, in the past institutional investors usually supported the choices of management in selecting board members.[9] However, some corporate finance analysts contend that institutional investors should do more than merely help choose board members. They say that these investors should hold management more accountable for poor performance. By serving as monitors of corporate performance, these analysts also say, institutional investors could contribute to increased company effectiveness, thus helping to improve the overall competitiveness of companies.

Financial Issues and the Regulatory Environment

A key component of the competitiveness of a nation's economy is the ability of firms to raise money in the various capital markets. Traditionally, banks have been a major source of outside funds for firms, but their role in corporate finance has changed over the years. Small- to medium-sized firms have asserted that banks have been reluctant to lend to them, thus making it more difficult for them to obtain financing. Nevertheless, the U.S. capital markets have been good at providing capital to start-up firms, according to some corporate finance analysts.

[7] A proxy allows stockholders to transfer the right to vote their shares to another shareholder for a corporate decision that requires the vote of stockholders.

[8] Bruce Alan Mann, "Legal Constraints on the Activities of Institutional Investors," (Institutional Investors—Monolithic or Diverse? Implications for Corporate Governance, A Panel Discussion Presented by the Ad Hoc Committee on Institutional Investors, Annual Meeting of the American Bar Association Section of Business Law (San Francisco, CA: Aug. 10, 1992).

[9] Martin Lipton and Jay W. Lorsch, "A Modest Proposal for Improved Corporate Governance," Business Lawyer, Vol. 48 (Nov. 1992).

Bank-Industry Relationships

The United States has a long history of maintaining a separation of banking from commerce activities, although the degree of separation has varied over time. The current limitations on the activities of commercial banks in the securities industry are the direct result of congressional action following the stock market crash of 1929 and the subsequent bank failures during the Great Depression (primarily the early 1930s). At the time, there was a widespread belief that the securities affiliates of commercial banks were engaging in various unethical practices, which contributed to a loss of confidence in the banking system. To correct these apparent deficiencies, Congress passed the Glass-Steagall Act of 1933. The Glass-Steagall Act generally prohibited commercial banks from underwriting or purchasing securities for their own account, along with other restrictions that distanced commercial banking relationships from the securities industry. A significant remaining connection that commercial banks were allowed to retain to the securities industry was through bank trust departments.

During the 1950s, some banks started to reincorporate as bank holding companies, which permitted them to get involved in interstate branching to circumvent restrictions that prevented interstate banking by banks themselves. Bank holding companies owned individual banks within different states. Bank holding companies were also allowed to own securities, unlike traditional commercial banks. In 1956, Congress passed the Bank Holding Company Act, which allowed bank holding companies to own up to 5 percent of the voting shares of a nonbank company;[10] however, they rarely do due to conflict of interest concerns. The Federal Reserve Board has determined that a bank holding company may not acquire as much as 5 percent of a company over which the bank holding company would have a controlling influence.[11]

The Bank Holding Company Act was passed because of rising congressional concern that the existence of holding companies would undermine the historic separation of banking and commerce, create conflicts of interest, and potentially result in a concentrated banking system.

According to an industry analyst, the legal doctrine of "equitable subordination" has been recognized as making creditors reluctant to take

[10]For purpose of this report a "nonbank" company refers to any company not directly affiliated with the banking industry.

[11]Pauline B. Heller, Federal Bank Holding Company Law (New York: Law Journal Seminars Press, 1990), Section 4.03[2].

an obvious and active role in control of the corporation for fear of losing their creditor rights should bankruptcy occur. Under this doctrine, where the creditor controls the corporate debtor by having voting control of its stock, the creditor may have a fiduciary duty to the firm. This duty may provide a basis for the subordination of its claims against the debtor, or even the imposition of statutory liability. The doctrine has been cited in numerous cases that have resulted in the creditor's rights being subordinated because of active and obvious control over management decisions.[12]

Access to Capital

In order to remain competitive, most firms must periodically raise capital for various types of investments. These investments can be for a variety of purposes including financing R&D and buying or updating plant and equipment. As table I.2 demonstrates, private sector U.S. enterprises rely most heavily on internal sources of funds. When raising capital externally, the most common ways are by taking out bank loans or by issuing debt-related securities (bonds), equity-related securities (stocks), or a combination of both debt and equity. Small- to medium-sized firms are generally more dependent on banks for financing than are larger firms. Large firms do not rely so strongly on bank loans for financing, since many have other sources of financing and can also raise capital by selling commercial paper.

Table I.2: Percentage Distribution of Sources and Uses of Funds by Private Sector Enterprises for the United States, 1989

Source of funds	Percentage
Internal sources	
Retained earnings (funds from profits)	7.0
Depreciation	61.2
Other	5.6[a]
External sources	26.2
Total	**100.0**

[a]Note: "Other" is undefined in source.

Source: "Financial Institutions and Corporate Investment Horizons: An International Perspective."

The downturn in bank lending during the early 1990s has led some financial industry analysts to claim that there is a "credit crunch";

[12]Stephen D. Prowse, "Institutional Investment Patterns and Corporate Financial Behavior in the United States and Japan," Journal of Financial Economics, No. 27 (North Holland: Elsevier Science Publishers, B.V., 1990), p. 50.

that some borrowers have difficulties in obtaining loans, which is not surprising given the number of bank failures that have occurred, the number of problem banks that still exist, and the state of the economy. Recent evidence, however, suggests that problems with lending restrictions, particularly relating to commercial and industrial loans, vary by geographic regions and by banks' financial condition.[14] Primarily as a result of increased regulation due to the crisis in the savings and loan industry and of new bank capital adequacy standards that became effective in December 1992,[15] many banks are purchasing more government securities to improve their balance sheets. Government securities, such as Treasury notes, do not require banks to hold as much capital to offset risk as do other holdings. We recently reported that bank investments in U.S. government securities have grown to the point that, for the first time in 27 years, they exceed the level of commercial and industrial loans.[16]

According to a Treasury Department official, the current downturn in lending is more of a cyclical phenomenon and is a natural result of the easier availability of credit during the 1980s. However, in the view of the same official, this downturn is more serious than previous ones. Recently, according to one study, there has been some evidence that the availability of loans is improving, but it will be at least several years before access to credit will approach the level it reached during the 1980s.[17] In addition, a 1992 survey of small business conducted on behalf of the National Federation of Independent Business did not show any unusual or widespread lack of credit availability to small businesses, nor do Federal Reserve studies of banks show a reluctance to lend to creditworthy borrowers.[18]

[13]The term "credit crunch" has traditionally been used to describe a limited supply of loanable funds compared to the demand for credit.

[14]Bank and Thrift Regulation: Concerns About Credit Availability and Regulatory Burden (GAO-T-GGD-93-10, Mar. 17, 1993).

[15]Bank capital adequacy standards are minimum requirements to ensure that banks have sufficient funds to support their activities. For more information, see International Banking: Implementation of Risk-Based Capital Adequacy Standards (GAO/NSIAD-91-80, Jan. 25, 1991).

[16]Banks and Thrifts: Safety and Soundness Reforms Need to Be Maintained (GAO-T-GGD-93-3, Jan. 27, 1993).

[17]David D. Hale, "Can the United States Revive Employment Growth Without Helping Small Business?" Economic Review (Chicago: Kemper Securities, Inc., Aug. 11, 1992).

[18]Banks and Thrifts: Safety and Soundness Reforms Need to Be Maintained.

Venture Capital

Many corporate finance analysts believe that the U.S. venture capital industry has done well in funding high-risk start-up firms on a long-term basis and in providing capital to newly forming industries. In fact, the U.S. venture capital industry has been characterized as the best in the world. Nevertheless, venture capital investments traditionally have been highly risky and tend to have long investment time horizons. During the 1980s, availability of venture capital financing was high, peaking in 1987. Over this period, venture capital was abundant: It was relatively easy to get credit because many investors were willing to fund more chancy investments in return for higher yields. Recently, however, there has been a downturn in venture capital financing, partially due to investors' losses on such ventures and their desire to avoid such losses in the future.

Business Practices and Government Regulation

Government regulations influence the type of business practices that companies are permitted to employ in their efforts to compete effectively in their respective industries. Now that companies are competing on a global level, government regulation has more wide-ranging effects: Companies based in countries other than the United States may not have to conform to similar regulations. Moreover, as companies attempt to be more competitive worldwide, they tend to grow larger relative to other firms in the industry within the United States. Since many observers believe that some U.S. firms must get larger relative to their foreign competitors to compete effectively, they question the relevancy of current U.S. antitrust regulations.

Further, in an attempt to increase their competitiveness, many companies are participating in federally sponsored R&D efforts and are forming joint ventures with both U.S. and foreign firms in an effort to create better products and expand into other markets. Finally, many U.S. companies are also beginning to adopt Japanese practices, such as developing long-term relationships with suppliers and using total quality management techniques such as the just-in-time delivery system for supplies.

Antitrust Regulation

Antitrust law has been a factor in the U.S. business community for more than a century. The Sherman Act of 1890 makes illegal any contract, combination, or conspiracy that results in a restraint on trade or commerce among the states or with foreign nations. As interpreted by the courts, the act prohibited price fixing, the allocation of market share among competitors, deliberate boycotts of third parties, and tie-in sales. U.S. courts use two modes of analysis of agreements that potentially violate the Sherman Act: the rule of reason and the application of per se rules. The basic conceptual difference between the rule of reason approach and per se rules under U.S. law is that with the former, the courts will embark upon a careful factual inquiry to determine whether on balance competition is suppressed, where a suppression of competition is automatically presumed for practices falling within the bounds of per se proscriptions. Per se violations include, for example, price fixing and bid rigging. The act also prohibited monopolization, as well as attempts, combinations, or conspiracies to monopolize.

The Clayton Act, passed in 1914, supplemented the Sherman Act. Section 7 of this act prohibits mergers that may substantially lessen competition or tend to create a monopoly.[19]

Antitrust enforcement in the United States has been less aggressive since the early 1980s, according to an earlier GAO report.[20] During this period, interpretation of antitrust law by the courts became less stringent, as different economic and legal philosophies toward antitrust developed. The Justice Department did vigorously pursue "horizontal" antitrust violations like price fixing, bid rigging, and the allocation of market share among competitors.[21] However, some observers considered the Reagan administration's enforcement of laws against "vertical restraints" and predatory pricing as too lenient.[22]

Cooperative R&D Arrangements and Consortia

As R&D costs have risen for many U.S. industries, a number of firms have started to form joint cooperative R&D efforts in order to lower costs and improve competitiveness. Many high-technology industries, like the semiconductor industry, require investments in complex manufacturing facilities and techniques that take a long time to pay off and that require huge capital expenditures. These requirements are a major barrier for smaller companies and are becoming a significant problem even for very large firms. Cooperative R&D efforts often consist of collaborations among competitors. Current regulations require that these cooperative arrangements be limited to the development of basic technologies to avoid antitrust sanctions.

[19] Justice Department: Changes in Antitrust Enforcement Policies and Activities (GAO/GGD-91-2, Oct. 29, 1990).

[20] Ibid.

[21] Horizontal practices occur among competitors.

[22] Vertical restraints typically occur in affiliations between manufacturers and suppliers or distributors.

Various manufacturing consortia have formed over the last decade. One example of these consortia is SEMATECH. Congress, believing that fostering semiconductor manufacturing technology is in the nation's economic and security interest, appropriated funds to match those provided by SEMATECH's member companies. SEMATECH is a not-for-profit U.S. R&D consortium of computer and semiconductor manufacturers. It was created to counter Japanese companies that had gained significant market share in the world semiconductor markets. In a 1991 study of SEMATECH's efforts, we reported that several industry executives agreed that the project had made progress in doing so.[23]

According to an Office of Technology Assessment (OTA) report, there are several benefits to cooperative arrangements and consortia.[24] Members of consortia gain access to the research and the skills of scientists and engineers at other companies that under normal circumstances would not be possible. Also, R&D consortia help basic research efforts develop into marketable products and processes. By participating in consortia, companies can better guarantee that they will be able to use the results of R&D and prevent the companies' exclusion from participating in new developments within their industry. Consortia also facilitate the development of intra-industry alliances that improve the competitive position of domestic industries. For example, the Microelectronics and Computer Technology Corp. (MCC) was created in 1982 by leaders of the computer industry in response to the perceived competitive threat of the Japanese Fifth Generation computer project. MCC was the first U.S. consortium in a nonregulated industry; its funding is almost entirely private. The purpose of the effort was to share resources and risks and to undertake mid- to longer-term R&D. Today, MCC conducts numerous projects tailored to the needs of its members, especially the needs of smaller companies. MCC is also putting efforts into technology transfer.[25]

In The Competitive Advantage of Nations, Michael Porter outlines some conditions under which cooperative projects should be undertaken in order to be beneficial. First, they should be on basic product and process research or to catch up to the state of the art, not on subjects closely connected to a firm's proprietary research. Second, cooperative efforts should constitute only a modest portion of a firm's overall research in a

[23]Federal Research: SEMATECH's Efforts to Develop and Transfer Manufacturing Technology. (GAO/RCED-91-139FS, May 10, 1991).

[24]Making Things Better: Competing in Manufacturing, Office of Technology Assessment, OTA-ITE-443 (Washington, D.C.: Government Printing Office, Feb. 1990).

[25]Ibid.

field. Third, cooperative research should take place through separate and independent entities to which the majority of industry participants have access such as university laboratories, centers of excellence, and other quasi-independent research institutes in order to minimize risks to rivalry. Fourth, the most useful cooperative projects often involve fields that impinge on a number of industries and that require a substantial R&D investment. In Porter's view, all cooperative projects should include a number of firms that are active rivals rather than be restricted to a few dominant or favored firms.[26]

National Cooperative Research Act of 1984

In 1984, Congress passed the National Cooperative Research Act (NCRA). The act was designed to lessen the risks of joint cooperative R&D arrangements. However, smaller companies have been reluctant to join such arrangements for fear of violating antitrust provisions. According to an OTA report, the vagueness of antitrust law before NCRA and the potential severity of associated damages, had chilling effects on many firms.[27] NCRA, however, required courts to use the "rule of reason" when evaluating cooperative research efforts among competitors. It further stipulated that only actual damages, not treble damages, would apply to any arrangement subsequently found by a court to be illegal provided that the companies had promptly registered the arrangement for protection under the act with the Department of Justice and the Federal Trade Commission for publication in the Federal Register. In addition, the act also allowed for interest at a rate specified by the statute, and costs, including reasonable attorneys' fees, to be awarded. OTA reports that, although the rule of reason standard probably would have been applied to these arrangements before the act was passed, this provision of NCRA was intended to remove some of the ambiguity that may have prevented companies from joining cooperative arrangements. A recent Congressional Research Service report noted that over 200 joint research ventures have filed with the Department of Justice since passage of this legislation.

One consortium registered under NCRA is the National Center for Manufacturing Sciences (NCMS). NCMS began in 1987 and included over 100 manufacturing firms, both large and small, by 1990. According to OTA, although antitrust concerns have gradually lessened, it is not clear whether the consortium would have been created without NCRA; even with the act, antitrust has been a major concern for both current and prospective members. NCMS has shown that the R&D concerns of its

[26]Michael E. Porter, The Competitive Advantage of Nations (New York: The Free Press, 1990).

[27]Making Things Better.

members have considerable overlap and that cooperative R&D can yield substantial savings.[28]

Legislative efforts to extend NCRA to joint production were recently successful. In June, Public Law 103-42, the National Cooperative Production Amendments of 1993, was passed. This act amends NCRA with respect to joint ventures entered into for the purpose of production. Under this act, production joint ventures will be judged by the rule of reason standard, with damage exposure reduced to actual damages rather than treble damages, if the ventures are registered with the Department of Justice and the Federal Trade Commission. In addition, to receive the benefits of the act, the principal facilities of the venture must be located in the United States.

New Developments: Recent Trends to Improve Competitiveness

Many U.S. firms are now responding to the challenge of foreign competition by changing the way they conduct business and by adopting some foreign business practices. In some cases, firms are forming joint ventures with foreign companies as well. Companies are also beginning to forge long-term relationships with suppliers to take advantage of synergies that may develop from these efforts.

Joint Ventures and Cross-Border Alliances

Some U.S. firms have formed cross-border alliances to gain access to different technologies. Joint ventures with foreign firms have also been useful in giving U.S. companies a foothold in foreign markets. For example, many U.S. firms have been willing to trade technology to Japanese firms as a price of admission to the Japanese market. Additionally, joint ventures have provided a means for companies to share the risks and costs of expensive and technologically sophisticated R&D efforts. For example, three companies within the computer industry based in the United States, Japan, and Germany have formed a joint venture to develop a larger-capacity computer memory chip.

There is, however, some concern that international joint ventures and other types of cross-border alliances expose U.S. companies to the possibility of technology loss to foreign firms. Also, joint ventures must reconcile the distinctive, and sometimes clashing, corporate and national cultures that could weaken the ventures themselves.[29]

[28]Making Things Better.

[29]Dorothy B. Christelow, "U.S.-Japan Joint Ventures: Who Gains?" Challenge, Vol. 32, No. 6 (Nov.-Dec. 1989).

In spite of these possible disadvantages, evidence indicates that both U.S. and Japanese firms have benefited from forming joint ventures. Some industry analysts have argued that overall joint ventures tend to be more useful than threatening as long as firms are vigilant in protecting their interests throughout the duration of joint venture relationships.

Manufacturer-Supplier Relationships

U.S. firms do not have a lengthy history of forming long-term relationships with suppliers. Instead, they have tended to emphasize price when choosing suppliers. While price will always be an important consideration, in recent years some U.S. manufacturing firms have started developing closer long-term relationships with major suppliers. For example, an Apple Computer strategic planner explained to us that, due to such constraints as limited resources and high R&D costs, Apple has been looking at creating an "informal keiretsu" in the United States. Apple management believes the only way the company will survive is to create a group around Apple with third-party developers of hardware and software. Apple would enter into technology agreements, license technology, and make some funding available to those companies that become part of its group.

Total Quality Management

According to an earlier GAO report, some U.S. companies have adopted the "total quality management" model in running their businesses as a result of more intense foreign competition. [30] Total quality management techniques contributed to rebuilding many of the war-torn industries in Japan following the postwar devastation. Companies that adopted total quality management techniques achieved better employee relationships, improved product quality, lowered costs, achieved greater levels of customer satisfaction, and increased market share and profitability.

[30] Management Practices: U.S. Companies Improve Performance Through Quality Efforts (GAO/NSIAD-91-190, May 2, 1991).

The Business Environment in Japan

The business environment in Japan is largely determined by the country's cultural norms, macroeconomic factors, government policies, corporate structure and governance, financial relationships, and business practices. Government-industry relationships in Japan are generally seen as cooperative. For several decades, the Japanese government has targeted and assisted export-oriented industries and promoted the development of key technologies. Japanese business has been dominated by large industrial groups that maintain long-term relationships that are cemented by owning each others' shares. Japanese banks and industry also maintain close relationships, although deregulation and the globalization of financial markets are beginning to change the nature of these ties. In addition, Japanese business practices enhance the long-term relations between business, banks, and the government.

Introduction

The conduct of business in Japan is governed to a large extent by the cultural norms of harmony and consensus that characterize Japanese society. Cooperation is also a strong component of relations between government and industry. Because of their preference for working in groups, much of Japanese business and industry is conducted within the structure of "keiretsu"—groups of firms that maintain close ties through the cross-holding of corporate shares and the exchange of personnel. This structure, and the nature of relationships within it, has been viewed by many Japanese and by numerous outsiders as benefiting Japan's competitiveness. Within keiretsu, the firms often share the costs of the most risky investments. Typically, however, a keiretsu is represented by at most one member company in a given industry. Thus, cooperative relations within the keiretsu do not preclude fierce competition within an industry.

Furthermore, because of several macroeconomic factors and of government policy, such as the high national savings rate and government grants, low interest-rate loans, and tax breaks, Japanese firms enjoyed a low cost of capital through most of the 1980s. This situation enabled them to focus on gaining long-term market share at the expense of short-term profits. Finally, government policy has generally been supportive of Japanese business and has contributed to the success of much of Japanese industry.

Cultural Background

Japan is a very homogeneous country: Over 90 percent of its population consists of ethnic Japanese. In addition to having a strong work ethic, harmony is an important cultural characteristic in Japan. Thus, to promote such harmony, business decisions are often made by consensus. Other important characteristics that reflect the culture in Japan are a strong sense of loyalty and a commitment to long-term relationships.

Over the past several decades, Japan has become an economic powerhouse, producing and exporting a wide range of high-quality, reasonably priced goods. Since World War II, when its economy was weak, Japan and the Japanese people have worked toward becoming a world economic leader. The achievement of this goal was the result of a complex set of factors, many of them unique to the Japanese culture and many of them a reaction to changes in the world economy.

Macroeconomic Factors: the Cost of Capital

Many economists and industry analysts believe that Japan enjoyed a lower cost of capital during the 1980s than did its major competitors. They note that this advantage was due to many factors, including business structure, close relationships between business and financial and other institutions, and government policies that were beneficial to businesses.

One major factor that enabled Japanese firms to enjoy a lower cost of capital has been the high national savings rate. In the past, the Japanese responded to incentives to save because of their willingness to postpone gratification and their belief that their economic position was equitable. Indeed, until recently, there was scant evidence of large disparities in income between workers and management. This belief served to contain consumer spending and to bolster industrial development.

However, according to several economic and industry analysts, some Japanese are now questioning why this economic success has not translated into a better quality of life. As a result of Japanese public pressure, as well as concerns of the United States in the Structural Impediments Initiative talks,[1] the government is planning to encourage consumer spending and to improve the standard of living. Through developing the infrastructure, ensuring better housing, encouraging shorter working hours, and promoting economic deregulation, Japan hopes to effect change.

Many economists who believed that Japan had a cost-of-capital advantage over the United States during the past decade now say that the rise in

[1]The Structural Impediments Initiative was a series of meetings between the United States and Japan from 1989 to 1992 to identify and solve structural problems in both countries that stand as hindrances to trade. Its goal was also to reduce the imbalance of trade between the two countries.

interest rates in Japan and the fall in the stock market have virtually eliminated the difference in the cost of capital between the two countries. There are, however, a few noted economists who maintain that Japan still enjoys a significantly lower cost of capital. They cite the high national savings rate, supportive government policies, and close business and financial community relationships as the key reasons for the lower cost of funds.

Government-Industry Relationships

Most Japan experts view relationships in Japan between the government and industry as generally cooperative and often involving close collaboration on shared goals. The government in Japan is considered by many Japan experts to be quite powerful, and its bureaucrats are highly regarded. Since the cultural norm encourages harmony and consensus, the system in Japan is less legalistic and regulatory than in the United States. Policy goals and specific actions may not always be written down and are often communicated to industry in the form of "administrative guidance." Such communications are not legally binding and are used by the government as an alternative to the legislative process. However, according to one Japanese corporate group analyst, because of the enormous power and influence wielded by the ministries, industry usually follows such directives despite their seemingly informal status.

Japan experts have described the Japanese government's policy toward industry as unfettered by a strict adherence to the ideology of the market mechanism. The government monitors industries, and when it decides that the market is not leading to the desired outcome or if there is "excessive competition," it provides guidance to and coordinates policies toward targeted industries. These practices may include regulating interest rates, granting major tax concessions for export income, and placing restrictions on imports. It should also be noted that some industries, such as high-tech ceramics, have moved forward without support from the Ministry of International Trade and Industry (MITI), and some industries, such as autos and telecommunications, have advanced in spite of MITI's expressed opposition to their actions.

Ministries also monitor and guide industries more directly through a practice known as "descent from heaven." Retiring top-level ministry officials often "descend" from the government and obtain positions in industry or trade associations. The Japanese believe this practice improves the communication flow between government and business and fosters industry cooperation.

It is generally agreed by analysts who study Japanese industry that, at least since the 1950s, the Japanese government has had an industrial policy of targeting and assisting some export-oriented industries and promoting the development of key technologies. It also has had policies to facilitate the exit from world markets of inefficient industries. Its motivation for doing so was to ensure that Japan would gain economic security and would be positioned to become a formidable world competitor, particularly in high-tech industries. In order to accomplish these goals, the Japanese government provided incentives and assistance through regulatory and financial policy. It also maintained relatively closed markets to protect infant industries from outside competition.

According to a former U.S. Trade Representative (USTR) official, one example of how the Japanese government promotes and protects important industries is in the semiconductor industry. To foster competitiveness in the international market, in the 1970s the Japanese government provided promotional funds to large, established electronics firms and discouraged entry by smaller firms. It also urged the large producers to collaborate on R&D. This official has stated that the Japan Fair Trade Commission (JFTC) did not investigate such collaboration despite the low level of imports from competitive foreign suppliers as well as complaints from the U.S. government.

Corporate Structure and Governance

Historically, Japan has been dominated by large industrial groups that have covered a range of industries. Since World War II, different types of industrial groups—keiretsu—have arisen. These groups have enhanced the competitiveness of the various industries by providing stable and less risky environments and by making it difficult for outsiders to enter into the groups. Implicit in most Japanese business relationships is the notion of sharing risk. Keiretsu members maintain close and reciprocal ties and facilitate such risk-sharing by providing structure and continuity. In each of these structures, long-term relationships exist that provide multiple benefits to all parties involved. In many cases, long-term relationships are enhanced by the owning of each others' corporate shares. Keiretsu allow companies to be flexible in adapting to and being competitive in new technologies because they provide reliable and "patient" (long-term) capital. Such stable and secure relationships have enabled Japanese firms to pursue a continuing investment strategy of focusing on gaining market share dominance. These firms believed that this practice, in turn, would then contribute to increased future profitability.

The Keiretsu

There are three basic types of keiretsu—bank-centered keiretsu, production keiretsu, and distribution keiretsu. Different sorts of keiretsu are not mutually exclusive. For example, a production keiretsu centered on an electronics or automobile manufacturer could be part of (or overlap with) a larger, bank-centered keiretsu to which the manufacturer belongs.

Bank-centered keiretsu are horizontal alliances of firms spanning several industries. Usually only one company represents each industry in each group. The financial institutions in the groups are the leading sources of capital not only to core firms but also to the smaller companies as well. By providing security and stability, these groups promote risk taking and long-term investment. They collaborate on research for new technologies that can have multiple applications; in this way, they reduce the costs to any one firm. There are six bank-centered keiretsu—Mitsui, Mitsubishi, Sumitomo, Fuyo (Fuji), Sanwa, and Dai-Ichi Kangyo—the first three being former members of the prewar zaibatsu. (See p. 85 for a further explanation of zaibatsu.)

One of the ways that firms in a bank-centered keiretsu strengthen their ties, exchange information, and obtain consensus is through regularly scheduled meetings of their corporate leaders. These groups that meet are called "Presidents' Councils" (or Clubs). The chief executive officers of the core companies meet to identify mutual interests, exchange information, discuss problems with member companies, and build trust. Because discussions within these meetings are never disclosed, opinions differ on their impact. Some observers believe they engage in anticompetitive behavior, while others view their function as more social. The council meetings underscore membership in the group and also serve as a forum for discussing the strategic interests of the group.

Japan analysts use President Council membership as a way to identify keiretsu members. In a recent book,[2] one expert in Japanese business structure reports that, in 1989, the 188 companies affiliated with the six bank-centered keiretsu represented only slightly over 0.01 percent of the estimated 1.7 million firms in Japan and just over 10 percent of the 1,700 firms listed on the Tokyo Stock Exchange. However, 56 council members are among the largest 100 industrial firms in Japan, while 34 more are among the next 100. Another nine firms are subsidiaries or affiliates of council members. In total, about one-half of Japan's 200 largest industrial firms maintain a clear affiliation with a group. In addition, all five of

[2]Michael L. Gerlach, Alliance Capitalism: The Social Organization of Japanese Business (Berkeley, CA: University of California Press, 1992).

Japan's largest commercial banks are at the center of their own groups. Collectively, the 188 core members of the 6 groups controlled 23.5 percent of all stocks held in the Japanese corporate sector in 1986.

The production keiretsu are a pyramid of subsidiaries, contractors, and subcontractors, headed by a giant manufacturer, often an auto or consumer electronics maker. All of the contractors and subcontractors are integrated into the manufacturer's production process and receive extensive technological, managerial, and financial support. One drawback to this arrangement is that the smaller firms are often pressured by the manufacturer to accept lower-than-desired prices. However, these smaller firms are said to be willing to accede to such demands in order to maintain the stability of their long-term relationships. Manufacturers and their contractors/subcontractors are tied by reciprocal obligation—the manufacturer to providing a steady flow of financial and technical resources and the contractor to ensuring high quality and low costs.

Distribution keiretsu are found mainly in industries producing automobiles and electrical and electronic appliances. Such keiretsu developed because in the 1950s and 1960s these industries did not have sufficient distribution systems to match their mass-production capabilities. To correct that situation, the distribution keiretsu vertically integrated wholesalers and retailers by providing them with capital and organizational expertise.

A U.S. Japan scholar believes that distribution keiretsu constitute a significant barrier to the entry of foreign imports into Japan. The various distribution keiretsu form close alliances with a manufacturer, and then they restrict price competition and prevent newcomers (foreign or domestic) from participating in the network, he says.[3]

Intense Competition

Japanese society has long been based on group identity rather than individual identity. The keiretsu system has to be understood in this context. Some Japan experts have noted that this tendency to group identity has a functional purpose—it is a way of dealing with and fostering intense competition.

Most industry analysts agree that competition among Japanese manufacturing firms is extremely strong. In some industries, such as consumer electronics, a large number of Japanese companies compete against each other. The competitive edge is often determined by the price

[3]Chalmers Johnson, "Keiretsu: An Outsider's View," Economic Insights, Vol. 1 (Sept.-Oct. 1990).

of the finished product, so Japanese companies are forced to reduce the price of their products by squeezing profit margins. Then, to enhance their overall profits, Japanese companies must sell their products in large volumes. This situation leads to a focus on gaining ever more market share. According to one economist, a distinguishing feature of Japanese firms, when compared to those in other leading industrial nations, is their low level of profitability. However, their low capital costs during the 1980s enabled them to pursue market share aggressively.

Another reason why Japanese companies have been able to pursue market share is their willingness and ability to funnel back into the firm whatever excess profits they earn, thereby funding investment for future growth. One of the reasons Japanese companies have been able to reinvest most of their profits is because in the past, shareholders did not demand high dividends.

For example, foreigners often first become aware of Japanese group dynamics when they try to invest or sell goods in Japan and face the exclusive nature of business dealings. In the global market, this situation can lead to what one analyst has called "mindless competition," in which Japanese companies battle intensely for overseas market share by continually providing new products and cutting prices so that foreign competition is severely hampered. This strategy worked well for Japanese firms when labor and capital were cheap and plentiful. However, the decline in Japanese asset prices since 1990, including the decline in real estate values, and the increasing demands of shareholders for larger returns, have signalled a need for change. There is also some fear of future labor shortages as the workforce shrinks and younger employees demand shorter working hours. Consequently, debate has increased over whether Japanese firms can maintain such aggressive competition or become more aligned with their global partners in focusing on profit rather than on market share. There are signs that some Japanese firms are focusing more on profits.

Some economists believe that there is a fundamental shift occurring in the Japanese economy. Financial deregulation has led to higher interest rates and increased the cost of equity capital. Real estate values have significantly declined since 1990, and the Tokyo stock market crash in 1990 decreased the value of many stocks. In turn, the decreased value of the stock portfolios of some Japanese banks affected their ability to meet capital adequacy requirements by the March 1993 deadline; however, according to press estimates, all city banks surpassed the 8 percent requirement. Some Japanese business executives and financial industry analysts acknowledge that change is inevitable for Japan now that capital is more expensive and foreign pressure is mounting for Japan to compete on a level playing field in the global market.

History of the Keiretsu

For approximately 300 years, until the end of World War II, the Japanese economy was dominated by 10 large industrial groups called "zaibatsu." Companies belonging to these large conglomerates were vertically integrated and owned by families or holding companies. Although zaibatsu members bridged a wide range of industries, the most powerful tended to be banks and trading companies. These entities controlled the financial operations and the distribution of goods in the groups. After World War II, the Allied Occupation Forces dissolved the zaibatsu to promote equality and foster competition, distributing their stock to the Japanese public. During this period, however, the private sector had little funding capacity, and corporations found themselves unable to raise the capital they needed. At that point, the practice of raising funds through bank loans became widespread.

In the course of the postwar economic recovery, capital accumulated in the private sector while share prices remained low, rendering corporations vulnerable to takeovers. Moreover, the Antimonopoly Act of 1947 prohibited Japanese banks from owning more than 5 percent of another firm's stock and made holding companies illegal.[4] According to a former Japanese government official, those reforms made it difficult for corporations to find stable shareholders and further exposed them to takeovers. Because of this situation, corporations decided to invest relatively equal amounts in each other, thereby creating stable shareholders with no money changing hands. With the liberalization of capital transactions in the 1960s as a result of Japan's joining the Organization for Economic Cooperation and Development (OECD), cross-ownership accelerated due to fears of foreign takeovers. The increase in cross-ownership renewed ties among prewar zaibatsu firms and created new keiretsu groups.

The keiretsu groups played an important role in rebuilding the Japanese economy after World War II. They helped develop Japan's infant industries at a time when the Japanese economy was highly regulated and was isolated from the international markets. Group banks were the major source of funds for member firms when capital was in short supply.

[4]In the 1950s, the Japanese Diet, or Parliament, raised the maximum ownership level from 5 to 10 percent; however, the Antimonopoly Act was then revised again in 1977, reducing the upper limit to 5 percent—to be achieved by 1987.

Because the government controlled domestic interest rates at that time, capital was supplied to industry at interest rates well below those available from international capital markets, according to one expert on Japan.

Pros and Cons of Keiretsu

Japan's economic well-being is affected to a large extent by the keiretsu groups. Although the six major corporate groups, or bank-centered keiretsu, accounted for less than 1 percent of the total number of corporations (excluding financial institutions) in 1989,[5] they controlled approximately 28 percent of the country's gross national product (GNP).[6] While industrial groups are not unique to Japan (Germany, South Korea, Spain, and France have similar groups), the bank-centered industrial groups in Japan are larger.[7] In the late 1980s, these keiretsu earned 18 percent of the total net profits of all Japanese business, had nearly 17 percent of total sales, held over 14 percent of total paid-up capital, and employed almost 5 percent of Japan's labor force.[8]

Opinions vary on the importance of the keiretsu. Some Japan experts have noted that the keiretsu are exclusionary (because business is conducted based on long-term relations) and that they overinvest in declining businesses (because of close reciprocal ties). Other Japanese corporate group analysts say that whatever the drawbacks of the keiretsu, they have an economic rationale. These analysts believe that the long-term relationships within the keiretsu, reinforced by cross-shareholding, have many advantages. These advantages include being able to share investment risks with other firms within the keiretsu, and having a guaranteed market for new and possibly untested technology. It should be noted that the practice of doing business based on long-term relationships and mutual trust is fundamental to business dealings throughout Japan and is not limited to dealings among keiretsu firms.

Corporate Governance

The cross-shareholding system in Japan has a major impact on corporate governance. Because Japanese firms do not have to be concerned about

[5]FTC/Japan Views: Information and Opinion from the Fair Trade Commission of Japan, No. 13 (Japan: June 1992).

[6]Kenneth S. Courtis, Perspectives on the Japanese Keiretsu, Notes for an Address to the National Advisory Board on Science and Technology Symposium (Toronto: Mar. 1-2, 1990).

[7]Hesna Genay, "Japan's Corporate Groups," Economic Perspectives, Vol. XV, Issue 1 (Federal Reserve Bank of Chicago: Jan.-Feb. 1991).

[8]Marie Anchordoguy, "A Brief History of Japan's Keiretsu," Harvard Business Review, Vol. 68, No. 4 (July-Aug. 1990).

hostile takeovers since a large portion of their shares are cross-held, many Japanese corporate group analysts believe cross-shareholding is one of the factors that enables firms to take a long-term view of investment strategies. Until the recent economic downturn in Japan, this system had also allowed Japanese firms to seek maximization of their market share without maximization of profits.

Cross-Shareholding

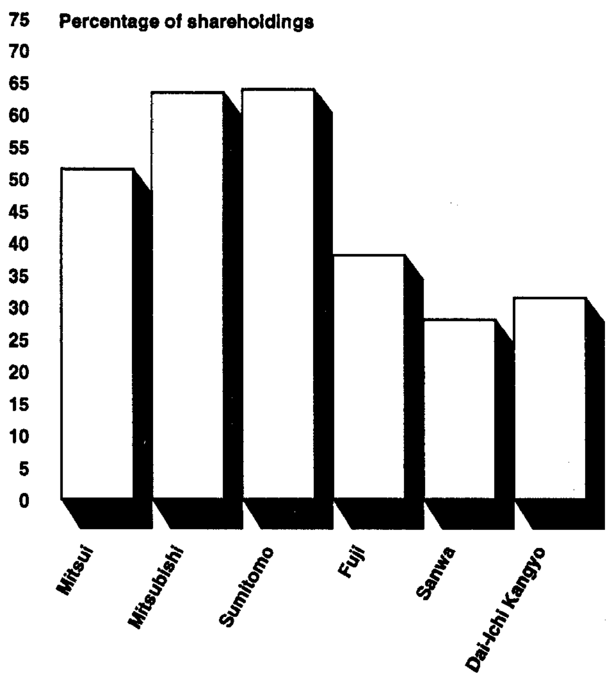
Long-term relationships, which are key to Japanese business practices, are maintained and enhanced by a web of cross- (or reciprocal) holdings of corporate shares. Japanese corporate group analysts believe that the system of cross-shareholding provides stability and allows managers to take a long-term perspective despite various risk factors that may be involved. Their concern with gaining long-term market share at the expense of short-term profits is possible because of the support they receive from other member firms as well as from the Japanese government. Many economic analysts consider this support to be a key reason for Japanese corporate success in the global market.

Cross-shareholding also facilitates the innovation of high-quality products and the commercialization of those products by reducing risk and fostering the exchange of information. Additionally, the structure and the relationships within a keiretsu provide a ready customer base for newly emerging technologies.

Firms within a keiretsu tend to own a small percentage of each of the other companies' shares. Although one firm may own, on average, less than 2 percent of another firm's shares, when added to all the other member firms' cross-holdings, this amount is significant enough to provide mutual interdependence. Such stable shareholders, when taken together as a group, hold about 70 percent of all outstanding shares on the Tokyo Stock Exchange, yet account for only about 10 percent of total transactions on Japanese stock exchanges. According to one financial analyst, the shares that are actively traded in the Japanese stock market are owned by outsiders such as individuals, foreigners, and speculator groups. One expert on competitiveness issues believes that the nonpermanent owners in Japan engage in high-velocity "churning"—meaning that they buy and sell stocks more frequently than do most owners in the United States—while basing their investment decisions on even less information than is available in the United States. So despite the fact that approximately 70 percent of Japanese stock is held for the long term, the remaining 30 percent is traded at such a rapid frequency that the average rate of trading in Japan is similar to the rate of trading in the United States.

Japanese shareholder structure is more concentrated than that of the United States. An analysis of the 200 largest industrial and 50 largest financial firms found that their top 10 shareholders held around 38 percent of total issued equity in 1986. Figure II.1 shows the extent of intrakeiretsu shareholdings among major firm shareholders in the Presidents' Councils of the six bank-centered keiretsu in 1986. Shareholding ranges from a high of almost 64 percent in the Sumitomo group to 28 percent in the Sanwa group. For example, among the members of Mitsui keiretsu's Presidents' Council, those same members held 51.4 percent of the shares accounted for by the largest 10 shareholders of each of these firms.

Figure II.1: Extent of Intrakeiretsu Shareholdings Among Major Firm Shareholders, 1986



Note 1: Analysis of shareholdings based on the 84 largest keiretsu-affiliated industrial firms and 17 largest keiretsu-affiliated financial firms. Keiretsu affiliation was based on membership in a President's Council.

Note 2: Percentages calculated for intrakeiretsu holdings for the top 10 shareholders of each firm. Aggregation based on the number of shares.

Source: Michael L. Gerlach, Alliance Capitalism: The Social Organization of Japanese Business (Berkeley: University of California Press, 1992).

Many financial analysts believe that Japanese shareholders (both long-term ones and others) traditionally have been more interested in the growth of the company and the potential capital gains from higher share prices than in higher dividends. However, with the Japanese stock market down significantly from its apex during the late 1980s, there are indications that shareholders, including some long-term ones, are demanding higher dividends in place of the capital gains increases they were receiving earlier. A senior Japanese economist has stated that life insurance companies began in mid-1991 to complain of the low rates of return of many well-established Japanese firms whose shares they had been holding for the long term. This economist noted that insurance companies were willing to unload some poorly performing assets in order to realize profits.

Several financial and industry analysts in Japan told us that because of the collapse of the "bubble" economy in the early 1990s and its concomitant effects (the severe drop in the Tokyo Stock Exchange and the decline in land values), along with financial deregulation, bank capital adequacy requirements, and other factors, some keiretsu firms may be selling off some of their cross-held shares. However, it is not yet clear to what extent this practice is occurring. According to one economist, asset deflation, including the stock market crash, has contributed to an increase in the level of nonperforming (nonpaying) loans at Japanese banks. Many of the loans were made to other keiretsu firms. This economist believes that these banks may need to sell some of their cross-held shares to offset their loan losses.

Several financial analysts have noted that if keiretsu firms are selling some of their cross-held shares, these sales are based on a new awareness that business must be transacted on an economically rational basis rather than on a "relationship" basis. However, no one we spoke with anticipated major changes in the cross-shareholding structure in the near future.

Table II.1 shows share ownership for all listed companies in Japan by type of investor in 1991.

Table II.1: Japanese Shareholder Structure, 1991

Entity	Percentage of stock held
National and local governments	0.6
Financial institutions (excluding investment trusts)	41.6
Investment trusts	3.6
Securities companies	1.7
Business corporations	25.2
Individuals and other	23.1
Foreigners	4.2

Note: Figures are based on an annual shareownership survey conducted by the Japanese National Conference of Stock Exchanges.

Source: Tokyo Stock Exchange 1992 Fact Book.

Investment Time Horizons

As noted earlier, Japanese firms can take a long-term view of investment strategies because of their supportive and interdependent structure, their long-term business and financial relationships, and their "patient" capital. It is this business environment, for example, that enables a leading Japanese electronics executive to declare that his company is prepared to take losses for 5 or 6 years in order to gain market dominance for a particular product.

The semiconductor industry provides a good example of how Japanese firms invest for the long term. In the mid-1970s, the Japanese decided to heavily invest in a key semiconductor product—the dynamic random access memory (DRAM) chip—at a time when the United States held close to 100 percent of the market. According to the U.S. National Advisory Committee on Semiconductors, DRAMs are key components that drive technological advances in a broad range of manufacturing areas. The committee has noted that as U.S. industry loses global technology and market position, this loss reduces R&D and capital spending and leads to a further decline in market share. The committee further contends that once technological leadership is lost, it is very difficult to regain. According to its statistics, Japan went from having a market share of zero in 1970, when the first integrated circuit memory was being sold, to having nearly 80 percent of the world market for DRAMs in 1988. This growth in Japan's market share created a significant shift in technological leadership.

To facilitate the development of Japan's semiconductor industry, MITI coordinated business-government policies and actions. While the domestic industry was being nurtured, foreign imports were excluded. However, according to a U.S. economic research firm, between 1985 and 1987 the Japanese semiconductor industry suffered cumulative losses of about $4 billion. During the same period, the U.S. semiconductor industry lost about $2 billion. In the United States, thousands of workers were laid off from their jobs, capital and investment spending was drastically cut, and several companies left the business. In Japan, by contrast, no semiconductor producers left the business, and no workers were laid off. In fact, capital and R&D spending actually increased during this time. Japanese firms in the semiconductor industry believed that such spending was important, and other members of the keiretsu viewed semiconductors as a critical industry. A result of such decisions is that today the United States is struggling to increase its share of the semiconductor market in

Japan.[9] In its 1992 report to the President and the Congress, the National Advisory Committee on Semiconductors warned of a disturbing decline in the world market share for U.S.-owned electronics manufacturing since 1985. It noted that, as U.S. electronics manufacturers lose market share, the semiconductor firms that supply them also lose market share. This loss, in turn, decreases the ability of U.S. firms to make technology investments out of retained earnings.

Market Share

Japanese firms have often sought to maximize their market share in whatever markets they choose to enter—domestic or foreign. Several economic analysts have noted that market share ensures future profits. Japanese firms do not evaluate every investment project as a discrete and incremental addition to their business; instead, they treat respective investment projects in R&D, expansion of production capacities, and market development efforts as integral parts of the overall business.[10]

Market share enhancement, rather than profit maximization, has been a well-known characteristic of Japanese business behavior. Economists have noted that this strategy was possible when capital costs were low, but may be more difficult now that capital costs are higher, the stock market is stagnant, and financial institutions are more cautious in their lending.

Financial Issues and the Regulatory Environment

Business and financial relationships in Japan are notably different from those in the United States. In Japan, banks and other financial institutions own considerable amounts of corporate shares. This situation encourages banks and other financial institutions to monitor closely firms they do business with and to assist them when needed. However, many keiretsu firms that once were dependent on their banks for loans, services, and assistance are now less reliant on them. Deregulation of financial markets in Japan and the globalization of capital markets have changed the situation. Although Japanese firms now have more choices in financing methods, macroeconomic and other factors have increased the cost of capital for these firms to a point where they are reviewing past investment strategies.

[9]In June 1991, Japan and the United States concluded a new "U.S.-Japan Semiconductor Arrangement" that came into effect on August 1, 1991, and replaced the 1986 Semiconductor Arrangement. In this agreement, Japan affirmed it would provide improved market access for U.S. and foreign semiconductors, with a goal of establishing more than a 20-percent foreign market share of the Japanese market by the end of 1992. USTR reported that, in the fourth quarter of 1992, U.S. and other foreign manufacturers had reached a 20.2 percent share of the Japanese semiconductor market.

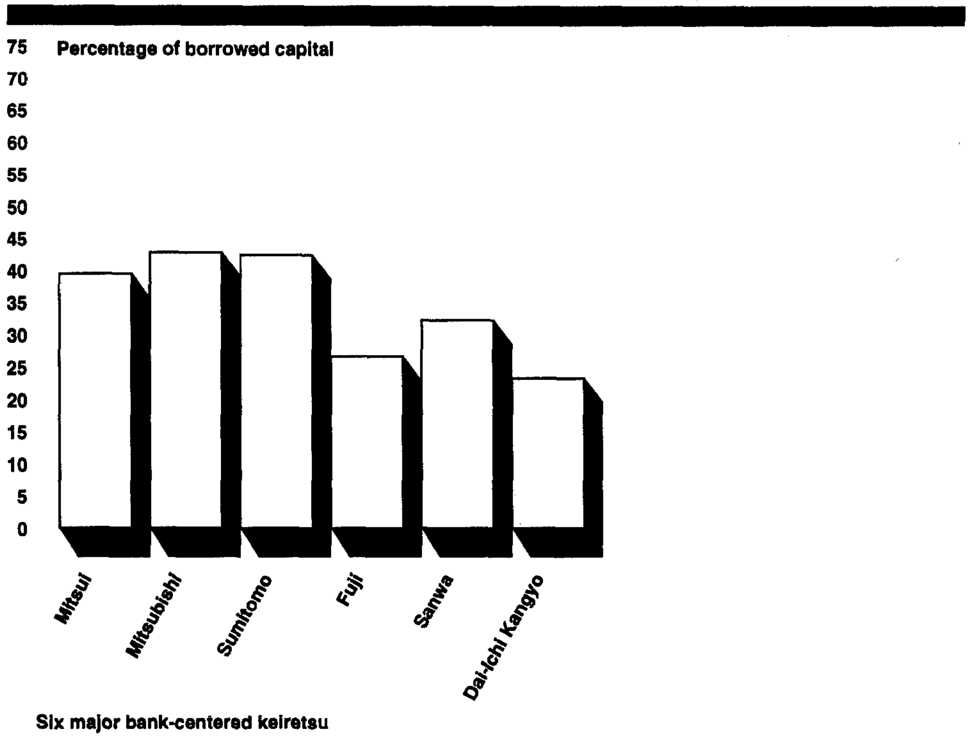
[10]Yoshi Tsurumi, "From Zaibatsu to Keiretsu: Japan's Industrial Groupings Are not Exclusive Cartels," Pacific Basin Quarterly (Summer/Fall 1990).

Bank-Industry Relationships

A key aspect of the Japanese business environment is the close relationship between business and the financial sector. In bank-centered keiretsu, all companies in that group are affiliated with the "main bank," which plays a central role. The main bank provides the majority of the group firms' bank loans and also holds significant amounts of equity in the member firms. In production keiretsu, all companies are typically affiliated with a select group of banks. Such relationships are cemented by the cross-owning of shares between the banks and the firms. Japanese law permits Japanese banks to own up to 5 percent of a firm's outstanding shares.

Figure II.2 shows borrowed capital from keiretsu financial firms by fellow keiretsu industrial firms for the six bank-centered keiretsu in 1986. Intrakeiretsu capital proportions range from about 23 to 43 percent. Most of the remaining debt capital for the groups comes from independent financial institutions such as smaller commercial banks, insurance companies, and long-term credit banks.

Figure II.2: Percentage of Borrowed Capital From Keiretsu Financial Firms by Fellow Keiretsu Industrial Firms, 1986



Note 1: Analysis of borrowed capital based on the 84 largest keiretsu-affiliated industrial firms and 17 largest keiretsu-affiliated financial firms. Keiretsu affiliation was based on membership in a President's Council.

Note 2: Percentages calculated for intrakeiretsu borrowing for the top 10 largest lenders of each industrial firm. Aggregation based on value of borrowing.

Source: Michael L. Gerlach, Alliance Capitalism.

The largest lender to a firm is the one that assumes the role of "main bank" among the major lender banks. The long-term relationship that develops allows the main bank to obtain significant information about the firm. This information is then relayed to the other banks, thereby reducing the monitoring costs of the other banks. The main bank monitors the borrower's corporate performance and takes an active strategic role in financing the borrower's investments. This stable relationship brings benefits to the lender and borrower alike: The bank minimizes the costs of reviewing and monitoring corporate performance, and the borrower can obtain credit at reduced interest rates, thanks to lower risk premiums.

The main bank also performs as lender of last resort if the borrower experiences extreme financial difficulties. It has been said by corporate finance experts that a Japanese main bank would lose credibility if the corporation to which it lent were to fail. In exchange for this assurance of help, the main bank has the right to impose tough conditions on the borrower and to send some management personnel to assist in the financial reconstruction of the ailing firm. The main bank generally is the one responsible for coming to the aid of a troubled company because it is usually the largest lender and has quicker access to greater information than most other equity-owning stakeholders. Japanese banks assume responsibility for assisting an ailing firm from the outset and take far-reaching, early steps to limit the damage caused by the firm's financial difficulties. One economist has noted that when a shock hits a group-affiliated firm, the main bank will provide emergency finance or interest payment deferrals and exemptions. The main bank provides this assistance in conjunction with close monitoring of and possible direct intervention in the management of the firm.

Access to Capital and the Regulatory Environment

Since 1984, the globalization of capital markets and the deregulation of interest rates have allowed for diversification of financing methods for Japanese firms. Financial analysts believe that this development has fostered greater competition among banks and made the relationship between Japanese banks and corporations more fluid. Studies show that some corporations, mainly larger ones, have therefore become less dependent on bank loans. Big corporations also have been able to obtain capital by tapping into their retained earnings. On the other hand, some financial analysts say that the liberalization of markets has increased the need for timely and accurate information, which the banks can often provide. In addition, banks are able to offer firms numerous other services. Several financial analysts told us that Japanese firms will continue to rely on banks as an "insurance policy" to mitigate any future risk they may face. For all of these reasons, corporations are likely to maintain close ties to their banks.

For many years, the Ministry of Finance and the Bank of Japan (Japan's central bank) have worked together to provide stability and to foster economic development. During that time, the business environment consisted of regulated interest rates on deposits, restricted investment opportunities for individuals, undeveloped capital and short-term money markets, and unavailable consumer goods. These circumstances resulted in a high rate of savings and created a surplus of funds in the regional banks that served consumers. The excess funds were lent to city banks, which, in turn, were responsible for lending the funds, at low rates, to growing industries.[11]

Besides promulgating regulations or policies to assist industries, such as tax breaks for certain industries, the Japanese government also has signalled to financial institutions and industry representatives the appropriateness of financing a particular technology or industry. An example of Japanese government assistance is shown in the semiconductor industry, where the government decided in the early 1970s to provide funding for R&D and to encourage the formation of consortia.

Until the late 1970s, regulations severely restricted the size of the corporate bond market in Japan. As a result, banks were the major providers of external funds for corporations. This pattern of financing, however, changed in the 1980s. Beginning in 1978, with the relaxation of interest-rate ceilings on corporate bonds, the government has steadily loosened many of the restrictions that had made it difficult for firms to raise capital in the bond markets. As a result of deregulation of both foreign and domestic bond markets during the 1980s, Japanese firms reduced their bank borrowing and increased their use of the bond markets to acquire capital. Also during the 1980s, businesses took advantage of inflated stock and real estate values by using these items as collateral to raise capital for expansion. But by 1989, the government was concerned that the bubble economy had grown too large, so the Bank of Japan began pushing up interest rates to squeeze credit. As a result, nominal interest rates in Japan have now reached the levels found in the United States. In addition, Japan has experienced a significant drop in its stock market and its real estate values.

Business Practices and Government Regulation

Besides the existence of close, long-term relationships between firms, financial institutions, and business partners, and the bond that cements them—cross-shareholding—other specific business practices characterize Japanese corporate behavior. These practices include maintaining long-term ties with a limited number of suppliers, espousing "lifetime employment," and exchanging personnel between manufacturers and supplier firms. According to antitrust experts, the Japanese Antimonopoly Law, while based on U.S. antitrust statutes, has been interpreted in such a

[11]There are now 11 city banks, including the Bank of Tokyo. They are said to play an influential role in the economy, supplying around 20 percent of large private-sector corporations' credit requirements. Regional banks are small to medium in size, and their clientele consists of small- and medium-sized companies.

way as to provide only limited restrictions for most Japanese businesses. In addition, private lawsuits are rare in Japan, and even in cases where they are successful, only actual, not treble, damages are awarded.

Business Practices

The practice most common in the production keiretsu is a close working relationship with a limited number of suppliers. This practice entails not only an agreement between the manufacturer and the supplier to work with each other on a continuing basis but also an implicit guarantee on both sides that the relationship will be ongoing. Business agreements in Japan are to a large extent verbal and adhered to as a matter of honor. Conflicts that may arise are resolved through compromise and consensus.

The continuity and assurance involved in the manufacturer-supplier relationship carries with it a cost savings to the parties involved. In production keiretsu and in other similar arrangements, the close and continuous communication between the manufacturer and the supplier enables the supplier to provide the parent company with "just-in-time" inventory deliveries. By arranging for frequent deliveries of supplies in small amounts when needed, a business can minimize inventory costs and thereby lower prices.

Furthermore, cooperative linkages between inventors and users of technology can facilitate innovative research. Such collaboration between the parent company and a limited number of suppliers produces joint development of new products. This collaboration can increase the speed with which products are brought to market. Also, production and cost data that normally might be considered proprietary are shared. Although the parent company places high demands on its suppliers in terms of quality, service, and timeliness, it provides financial and technological assistance in return.

Another practice that strengthens the long-term relationships between banks and business partners is the exchange of personnel. Such exchanges facilitate information sharing. In addition, firms may dispatch one or more of their directors to the boards of other group members.

Labor Practices

Large firms in Japan maintain a combination of permanent employees and temporary workers. One labor practice in Japan that is often discussed is "lifetime employment." Workers hired under this system have their promotions, wages, and benefits tied to their age. However, this system covers only the core employees of the large corporations and involves only about one-third of the total workforce. Some reports indicate that under this system, subsidiaries and suppliers are required to accept retiring employees from the lead manufacturer. However, some economic and industry analysts are saying that the lifetime employment system may be changing as firms struggle to deal with lagging demand and decreased profits. There is also the prospect that, as the workforce ages, maintaining such a system may become less productive and more costly.

Nevertheless, the lifetime employment system has played a pivotal role in labor relations in Japan. Although relations between labor and management were tumultuous before and immediately after World War II, Japan has experienced little conflict between labor and management in recent years. For many years, the Japanese system has provided stability to workers and engendered their loyalty to a firm. Lifetime employment has been advantageous to firms because the system provided flexibility to train and transfer employees as needed. Also, since employees were more likely to identify themselves with a firm and planned to remain for their careers, they were inclined to act in ways that benefited the firm.

However, according to recent news reports and some Japan analysts' accounts, workers' attitudes appear to be changing. Some Japanese may be turning away from a lifelong commitment to and identification with a firm, as well as rejecting the implicit requirement to work long hours. Economic realities, such as the current business recession, and social pressures, such as the workers' desire to improve their quality of life, have the potential to alter significantly the current pact between workers and management in the top firms. Adding to these changes, the government has developed a "Five-Year Plan," beginning with fiscal year 1992, that has a stated goal of improving the quality of life for Japanese consumers and workers. Among its provisions is one that will reduce working hours by moving toward a 40-hour work week.

Trade Associations

Trade associations play an important role in Japan in communicating overall industry interests to its member firms and in mobilizing industry action. They exist in all sectors of Japanese industry, and the level of participation by Japanese companies is said to be extremely high. According to a State Department official in Japan, foreign membership in associations is still low, partially, because of the reluctance by Japanese firms to let foreign companies join, the requirement that firms be incorporated in Japan and have a manufacturing or R&D presence, and the simple lack of awareness among foreign firms of the benefits of association membership.

Associations build intra-industry consensus and function as a communication mechanism between the government and industry. They also provide a useful conduit through which government policy can be relayed to member firms. According to a State Department official in Japan, these associations often have the inside track on information such as new MITI loan programs and major projects, and they even receive advance notice of regulatory changes. MITI oversees most of the manufacturing trade associations and frequently uses administrative guidance to pursue industrial policies. Another way MITI maintains its close ties with trade associations is by placing retired MITI officials in top association positions.

The State Department also found that, in the past, trade associations have restrained competition by providing a forum for members to coordinate and restrict the activities of members and by reducing the business opportunities of nonmembers. JFTC is responsible for monitoring the activities of Japanese trade associations under the Antimonopoly Act. JFTC has charged the associations with conspiring to fix prices, adjust production, and allocate market share. Over one-third of the cases decided by JFTC involved trade associations and their members. To date, however, there have been no criminal cases involving associations.

Antitrust Regulation

As described by a former USTR official, Japanese antitrust policy and enforcement are meant to benefit the producer, not the consumer. This official believes that Japan's legal system tends to reinforce its policy of industrial promotion, while the U.S. system reinforces its less interventionist policy.

Before World War II, Japanese government strategy favored the formation of industrial cartels. After the war, U.S. occupation authorities sought to democratize the Japanese economy and therefore banned the formation of cartels. However, when the occupation ended in 1952, Japan began to pass laws exempting certain activities in specific industries from provisions of the Antimonopoly Act.

The Japanese statute dealing with antitrust matters is the "Law Relating to the Prohibition of Private Monopoly and Methods for Preserving Fair Trade," better known as the "Antimonopoly Law." Passed in 1947, it was based in large part on provisions of U.S. antitrust statutes, such as the Sherman, Clayton, and Federal Trade Commission Acts. Early on, it was more stringent than its U.S. counterpart. The law reflected U.S. thinking on the dangers of concentrated economic power, such as existed with the prewar zaibatsu.[12] However, after the occupation, many Japanese business groups pressured the government to relax the law in several areas; in 1953, cartels were again allowed in certain circumstances.[13]

In 1948, JFTC was established as an independent quasijudicial agency charged with promoting fair competition in Japan. Due to a variety of political and cultural factors, JFTC has been a relatively weak agency, according to some scholars and representatives of the U.S. government. Over the years, JFTC has at times been opposed by other Japanese ministries and politicians when it tried to challenge anticompetitive arrangements that others in the Japanese government considered normal business practices. Also, some Japan antitrust analysts believe that Japanese antitrust policy has been considerably circumscribed by the influence of the industrial policy pursued by those ministries that have jurisdiction over Japanese industry.

It is widely believed that Japan has laxly enforced its Antimonopoly Law. This belief is supported by trends in numbers of actions. For example, the average number of actions taken by JFTC against monopolistic and anticompetitive business practices dropped from an average of over 30 cases in the 1960s and 1970s to under 10 cases in the 1980s. Fines levied on companies found violating the antitrust laws also diminished in the 1980s.[14]

Private antitrust lawsuits are rare. Moreover, the Japanese have a cultural aversion to litigation. In addition, no provision for treble damages exists in the law, and private litigants are not allowed to bring a lawsuit until after JFTC has done so. The use of "discovery"[15] is much more limited in Japan than in the United States, and the legal system prohibits "class action"[16] suits for damages.

[12]Phase I: Japan's Distribution System and Options for Improving U.S. Access, U.S. International Trade Commission, USITC 2291 (Washington, D.C.: June 1990).

[13]Leonard H. Lynn and Timothy J. McKeown, Trade Associations in America and Japan (Washington, D.C: American Enterprise Institute for Public Policy, 1988).

[14]Raymond J. Ahern, "Antitrust Enforcement," in Japan-U.S. Relations, a Briefing Book, Congressional Research Service, CRS-90-233F (Washington, D.C.: 1990).

[15]Discovery procedures are the pre-trial decrees that can be used by one party to obtain facts and information about the case from the other party in order to assist the party's preparation for trial.

[16]A class action provides a means by which, in a large group of persons interested in a matter, one or more may sue or be sued as representatives of the class without needing to have every member of the class join in the lawsuit.

Since 1989, the U.S. government, under the auspices of the Structural Impediments Initiative, has been negotiating with the Japanese government to improve enforcement of Japan's antitrust statutes. U.S. government officials and some Japan antitrust analysts believe that stricter enforcement of the Antimonopoly Law could be of significant benefit to foreign businesses seeking to operate in Japan's market. The U.S. government is seeking the following changes in Japan's enforcement of this law: increased enforcement measures, enhanced disclosure, increased administrative fines, more criminal penalties, and greater facilitation of private rights of action.

JFTC issued a report in June 1992 stating that in order to steadily increase its actions against Antimonopoly Law violations, it was hiring more staff. This step, along with other enforcement actions, is viewed by some Japanese officials as improving the competitive climate in Japan. Some U.S. officials have indicated, however, that more actions are needed, particularly with regard to increasing penalties and fines, reducing barriers to litigation for private remedies, and taking action on criminal enforcement.

Cooperative Activities

Some industry analysts have noted that the Japanese have used a number of consortia to develop critical technologies in certain targeted industries. Japan has a tradition of continuing government efforts to promote cooperation between competing firms. Many of these collaborative efforts include various agencies of the Japanese government. These agencies provide financial incentives for participating in joint R&D efforts. These incentives include providing loans whose repayment is contingent on the success of the venture, allowing rapid depreciation of equipment, permitting R&D tax credits, and giving outright grants. Industry analysts believe that cooperative research projects help to spread risk and share information among companies involved in precommercial, generic technology.

According to OTA, cooperative research ventures are common in Japan, but they do not usually involve government participation. Many such efforts are simply two-firm contracts between users and suppliers. Only one-fifth of total industry R&D is between rival firms and, in most of these cases, government participation is very common. For example, MITI directed the very large scale integration (VLSI) project from 1976 to 1979. The emphasis of this project was on the manufacturing process, and its goal was to help Japanese companies master the technology for making the newest generation of semiconductors. The Fifth Generation Computer Project succeeded VLSI. It was a 10-year project focusing on artificial intelligence and other leading-edge computer technologies.[17]

Japanese industry has also been active in its use of joint ventures with other companies to acquire technology and manufacturing skills and improve or defend its competitive position in world markets.

[17]Making Things Better - Competing in Manufacturing, Office of Technology Assessment, OTA-ITE-443 (Washington, D.C.: 1990).

The Business Environment in Germany

The business environment Germany is largely determined by the country's cultural norms, macroeconomic factors, government policies, corporate ownership and governance, financial relationships, and business practices. Government-industry relationships are generally cooperative, and the German government works with industry to provide labor force training. Large firms dominate many German industries. Banks play a significant role in corporate governance by acting as proxy agents for shareholders. In addition, German banks provide firms with a broad range of services and, in many cases, hold portions of company stock. However, financial market deregulation may change the way firms raise capital in the future. German business organizes its cooperative activities taking antitrust law considerations into account.[1]

Introduction

The development of the business environment within Germany has been heavily influenced by the nation's cultural and historical experiences. Additionally, West Germany has experienced periods of rapid economic growth; however, it now faces a considerable economic challenge in integrating the East German economy with that of the West.

Cultural Background

Germany is the most populous country in Western Europe, with 80 million people. The population of Germany is primarily German; however, Germany has a substantial number of guest (foreign) workers and their dependents. Germany is comprised of 16 states that retain a significant degree of autonomy and are represented in the Bundesrat, one of the two houses of parliament.

Postwar Germany has become a broadly middle-class society. The industrial workforce in Germany has been characterized as disciplined and moderate. The workforce is also highly skilled as a result of education and training. Worker participation in management has a long tradition in Germany as does a comprehensive social welfare system. There is a social partnership between labor and management in Germany, and employer-employee relations continue to be regulated through an extensive framework of labor and social security laws.

[1]The discussion of German law here is derived from academic reviews of German law, as well as official translations of German law and interviews with German government officials and academic experts; the discussions in this report are not intended to be authoritative statements of German law.

The German Economic System

The German economic system is generally described as a "social market economy" that fosters competition and free enterprise. However, the German government does intervene in the economy through subsidies to selected sectors and the ownership of some segments of the economy. Exports have traditionally been a key element in German macroeconomic expansion.

Since World War II, West Germany has experienced periods of rapid economic growth and sustained improvement in the standard of living. Germany has generally benefited from a high-skill/high-wage economy and has been a successful exporter. During the 1980s, however, the German record was less impressive than that of the previous 2 decades.

German economic performance has been very strong in the post-World War II period, with Germany having rapid growth, low inflation, and low unemployment. Recent trends have been more negative, however. Productivity growth has fallen while wage demands have increased significantly in the early 1990s. German reunification requires large investment in and income transfer to the East, and taxes have risen, as has deficit spending. Moreover, recently, West German productivity growth has lagged. For the period 1980 to 1989, the average annual labor productivity growth rate for Germany in manufacturing was 1.5 percent, down from a rate of 3.7 percent during the 1970s and 5.7 percent during the 1960s. German economic performance was very strong during the 1960s when Germany had low inflation and unemployment compared with other industrial states. But Germany's economic performance fell behind that of Japan during the 1970s, though it retained its lead over the United States. From 1973 through 1988, Germany lagged in terms of growth dynamics; however, it grew at a rapid 6.8-percent annual rate from 1988 to 1990.[2]

Germany faces a considerable challenge in integrating the East German economy with that of the West. This integration is taking place during a time when West Germany already has had difficulty adjusting to structural change. The structural challenge facing Germany is how it can supplement its traditional manufacturing base with cutting-edge technologies and counter the growing sophistication of low-cost exporters. It is no longer enough to be a high-quality exporter; today a country must also be a low-cost producer. Germany has excelled at innovation in traditional industries such as chemicals and machine tools; however, few if any

[2]Herbert Giersch et al., The Fading Miracle: Four Decades of Market Economy in Germany (Cambridge, England: Cambridge University Press, 1992).

German companies are world leaders in computers, telecommunications, electronic media, biotechnology, or fiber optics. Germany's successful exports are concentrated in automobiles, machinery and equipment, chemicals, and other capital goods at a time when the global economy is increasingly based on innovation and information. These industries are now experiencing considerable difficulties largely due to the economic downturn in Europe. A recent GAO survey of U.S. competitiveness in 11 industries and technologies identified an improved European world market position only with respect to civilian aircraft.[3]

German unification has required large increases in public sector and private borrowing. Budget deficits in the public sector are projected to continue both for the federal government and for the state governments and local authorities. The scale of government borrowing and the fear that such borrowing would cause inflation has caused the Bundesbank (Germany's central bank) to keep nominal interest rates at high levels. Recently, the German central bank has kept short-term nominal interest rates at their highest level in postwar history.

Government-Industry Relationships

The relationship between German industry and government is cooperative, i.e., based on negotiation and consensus building. In terms of a policy "style," the German system is collaborative and seeks to accommodate group pressures. German ministries are required to consult with industry and union representatives when drafting legislation. In addition, key "summit," or "peak" industry organizations have official status in consultations with the government. Examples of these organizations are the Federation of German Industry, which unites some 34 national industry associations representing about 80,000 firms, and the Federation of German Employers' Associations, which contains several hundred employer associations. Furthermore, industry groups play a direct role in administering public programs of industrial relevance. For example, government program applications and state subsidies are sometimes administered by trade associations. Government and industry cooperation is particularly noteworthy in providing labor force training. In this field, jointly funded programs are organized closely around industry requirements. The pattern whereby most German youths enter apprenticeship programs following their compulsory full-time schooling is

[3]High-Technology Competitiveness: Trends in U.S. and Foreign Performance (GAO/NSIAD-92-236, Sept. 16, 1992).

a system that developed naturally through industry, union, and government collaboration.[4]

The government's policy toward helping industries adjust during an economic crisis outlines the limits of government-industry cooperation. Beginning in the late 1960s, the government's industrial crisis policy operated under five formal principles that limited government cooperation with industry: (1) structural intervention was allowed only to aid a sector experiencing lasting economic change, not a particular badly performing firm; (2) responsibility for the adaptation plan was given to the private sector; (3) government support was limited to bolstering measures of industry "self-help"; (4) special government aid for a sector was possible if the crisis was acute and generated "undesirable economic and social consequences"; and (5) government aid, in most sectors (e.g., excluding agriculture and coal), was limited to temporary measures that would not cripple the competitive process. Government practice, however, often violated these principles.

By the 1970s, changes in the international economy led to government concern over the structure and mix of industries in the German economy. The government was interested in the modernization of industry and extended support to high-technology industries through a new ministry established to support industrial innovation and technology. To do so, the government adopted a framework to aid industries experiencing a sectoral crisis, sometimes spending large sums on industrial subsidies while private parties worked out a consolidation.

In 1970, 66 percent of German federal government subsidies and allowances were spent on declining industries, according to statistics. In 1989, German government subsidies as a percent of GDP were about 2 percent, more than twice U.S. and Japanese subsidy rates. Subsidies go to the coal industry, the farm sector, public housing, shipbuilding, Airbus, and some regions. Currently, the German government is using subsidies to encourage corporate investment in the former East Germany, offering as much as 50 percent of the total investment as an incentive. German state and local governments also provide subsidies.

As in other nations, tariff and nontariff trade barriers protect some German producers from competition, while the government uses subsidies and tax incentives to promote other selected sectors. A 1988 report that

[4]Training Strategies: Preparing Noncollege Youth for Employment in U.S. and Foreign Countries (GAO/HRD-90-88, May 11, 1990).

studied Germany's subsidization policy found that there were no coherent guidelines behind the policy. Specifically, the report said that subsidies did not pick the winners; rather they seemed to support declining industries and aid traditional industries. The declining industries that mainly benefited from protection were agriculture, coal, steel, shipbuilding, and textiles, while the new industries supported were electronic data processing and aerospace.[5] The coherence of government technology policies and subsidies has been cited as evidence of an industrial policy.

In addition to providing subsidies, the German government plays a direct role in the economy through its ownership of firms. The railroad and postal service are publicly owned, and the government also has an ownership stake in some of the country's largest corporations, including Volkswagen and Lufthansa. In 1991, the government had a stake in 381 corporations. The government does not use this ownership to accomplish political goals, and hence it is not central to government policy.[6] This lack of political intervention is evident in Volkswagen's recent decision to drop plans to build an engine plant in the former East Germany, instead choosing to construct the plant in Hungary.

Even though the government has, in some cases, allowed "crisis cartels" and supported declining industrial sectors, industrial rescues by the government have been the exception. Some commentators have suggested that the close and complex German bank-industry nexus has insulated the government from having to monitor and respond to the economic adjustment of the big industrial corporations. The German government has intervened to "bail out" particularly large troubled firms after concessions were made by the firm, shareholders, banks, and unions.

Research and Development Funding

Over the last 3 decades, West Germany invested a greater portion of its GDP than did the United States in each year. German private fixed investment has ranged between 17.1 and 22.2 percent of its GDP each year since 1962, with 20 percent of GDP invested in 1991. U.S. private fixed investment ranged between 14.2 and 17.5 percent since 1962 and was 14.3 percent of GDP in 1991. West German expenditures on R&D were 2.9 percent of GNP in 1989, while U.S. expenditures were 2.7 percent of GNP. If defense R&D is excluded, West Germany spent 2.8 percent, and the

[5]Frank D. Weiss et al., Trade Policy in West Germany, Kiel Institute for World Economy, Vol. 217, (Tubingen: J.C.B. Mohr (Paul Siebeck), 1988).

[6]Peter J. Katzenstein, Policy and Politics in West Germany: The Growth of a Semisovereign State (Philadelphia: Temple University Press, 1987).

United States spent 1.9 percent of GNP on R&D. German industry is the main source of R&D funds. German firms supplement their own research by contracting with independent research facilities, and small- and medium-sized firms receive government monies. The Fraunhofer Society, the main facility for applied research in Germany, receives half of its funds from industry and half from government contracts. Priorities are set by industry to do applied research, and the government money is provided on a matching-funds basis.

Corporate Structure and Governance

Historically, German industry has been dominated by large firms. Over 40 percent of company shares are held by enterprises. German corporations are governed by the managing and supervisory boards of directors, and shareholders' general meetings are held. German corporate culture involves employees in the decision-making of the firm. Many of the household-owned company shares are held and voted by banks, thereby giving banks control over more shares than they themselves hold.

Industrial Structure

Large firms dominate many German industries. The German Monopolies Commission found that for 1984, 37.3 percent of the value added in manufacturing came from industries where the largest three firms contributed at least 50 percent of the industry's output for each industry. Before reunification in 1990, West Germany had about 500,000 companies that employed workers in addition to the owner. Of these firms, 0.2 percent, or 4,200 companies, generated 50 percent of these firms' taxable revenues. Also, statistics show that the 10 largest industrial companies account for about 10 percent of total sales of all German companies. These companies include Daimler-Benz, Volkswagen, Siemens, Veba, BASF, Hoechst, Bayer, and Thyssen. As of October 1992, Germany had about 2,700 domestic joint stock corporations, of which 521 were listed on the stock exchange. Many of the unlisted joint stock corporations are family owned or too small to go public. Widely held and traded companies are relatively few. In 1991, 85 percent of all domestic share trading involved only 50 companies.

Corporate Ownership

German shareholder structure differs from that of other countries where institutional and individual investors dominate. Table III.1 shows German shareholder structure in 1990.

Table III.1: German Shareholder Structure, 1990

Entity	Percentage of stocks held
Private households	17
Enterprises	42
Banks	10
Foreigners	14
Insurance companies and pension funds	12
Government	5

Source: Deutsche Bundesbank Monthly Report, Oct. 1991. Cited in Ellen R. Schneider-Lenne, "Corporate Control in Germany," Oxford Review of Economic Policy, Vol. 8, No. 3 (Autumn 1992).

Government ownership in 1990 was reduced from earlier decades, when it exceeded 10 percent. Many of the household-owned shares are held and voted by banks. The Deutsche Bundesbank reports that 14 percent of total shares are owned by individuals but held and voted by German banks.[7] The combination of proxy shares and direct holdings suggests that banks control about 24 percent of total shares.

Some of the international differences in stock ownership structure can be explained by variations in household savings strategies and retirement funds. In Germany, a "pay-as-you-go" government pension system has reduced the demand for private pension and life insurance schemes. Additionally, German companies retain as an unfunded long-term liability about two-thirds of the funds earmarked for the payment of corporate pensions, with only one-third invested outside the firm.

Bank stock holdings in industrial companies date from the beginning of German industrialization, when Germany lacked a developed capital market and banks assumed the role of granting credit and injecting equity capital into firms. Often equity was acquired when a firm was in trouble and a bank converted loans into equity. For example, a portion of Deutsche Bank's holding of Daimler-Benz is the result of such a rescue operation. For German banks, these holdings are financial investments that help stabilize profits and reduce risk through asset diversification. They may also enhance bank business. These direct stock holdings are carried on the banks' books at their value when acquired, not their current value. Thus they give the banks a "hidden reserve" relative to computed bank capital. According to bank officials, because banks would have to

[7]Cited in Michael E. Porter, Capital Choices: Changing the Way America Invests in Industry (Washington, D.C.: Council on Competitiveness; Boston: Harvard Business School, Washington, D.C., 1992), p. 42.

pay a capital gains tax on the stock if their shares were sold, banks continue to hold the shares, even though German banks face public and political criticism of their stock holdings. Additionally, income from holdings of 10 percent or more is exempted from certain taxes.

An analysis of the extent of bank influence over industry must consider both the direct and indirect ways that banks interact with industrial firms. Direct shareholdings by German banks could establish bank control of individual firms. The German Monopolies Commission studied ownership groupings for 1988 and found only 3 cases among the 100 largest German firms in which more than half of the firm's shares were held by banks and insurance companies. As table III.2 indicates, of the 100 largest German firms, 58 had more than 50 percent of their shares held by shareholders from a single shareholder category, excluding small investors. From 1978 to 1988, the number of the largest firms effectively "controlled" by small investors nearly doubled.

Table III.2: The Number of the 100 Largest German Firms for Which a Single Shareholder Category Held More Than 50 Percent of Firm Shares, 1978 and 1988

Shareholders	1978	1988
Individuals and families	16	20
Banks & insurance companies	6	3
Other firms among the 100 largest	8	3
Public sector	7	12
Other investors	1	4
Foreign owners	3	16
Small investors	19	29
Total	**60**	**87**

Source: Monopolies Commission data reprinted in Christian Harm, The Relationship Between German Banks and Large German Firms, Policy Research Working Paper Series, No. 900 (Washington, D.C.: The World Bank, May 1992), tables 1a and 1b.

Families, individuals, foreigners, and government entities were the most important groups among majority shareholders, controlling almost half of the 100 largest firms. As a group, banks and insurance companies held a majority of shares for a small and declining number of large German firms in 1988. Furthermore, a recent investigator of bank shareholdings concluded that the belief that "German banks own German industry" was wrong, but the statement that "the three largest German banks held significant shares in 13 of the largest 100 firms" was correct. A survey of stock exchange-listed firms in late 1988 showed that banks held about 8 percent of the total listed shares.

Corporate Governance

German corporate governance for joint stock companies consists of three elements: the managing board of directors, the supervisory board, and the shareholders' general meeting.

The managing board of directors is directly responsible for running and representing the firm. Members are appointed for a maximum of 5 years by the supervisory board and can be reappointed. The stated goal of a German company is not simply maximizing the return on investment, but rather satisfying the goals of owners, employees, customers, suppliers, and the general public. Nevertheless, according to a Council on Competitiveness report, the prime objective of the company is perpetuity.[8] When the existence of the company is not threatened, the company strives for compromise in an effort to achieve internal and external consensus.

The supervisory board, as a controlling body, oversees the activities of the managing board of directors. The supervisory board appoints members of the managing board, but does not itself assume any daily management responsibility. Shareholder representatives on the supervisory board are outsiders, i.e., not employees of the company, and no managers are allowed on the supervisory board. The board selects a chairman and a deputy. The legal structure does not assure absolute equality between capital and labor, but the chairman will normally come from the shareholder side and the deputy chairman from labor. In cases of deadlock, the chairman's vote counts twice. Members of the managing board of directors who run the firm are selected by the supervisory board with a two-thirds majority. If this majority is not achieved in one round of voting, then a second round allows a simple majority to prevail, where the chairman's two votes give the shareholders' representatives effective control.

The general shareholders' meeting elects shareholder representatives to the supervisory board, where they are joined by representatives of the firm's employees if firm employment exceeds a certain threshold. Fundamental to German corporate culture is "co-determination," a process under which employees have a right to take part in entrepreneurial planning and decisions through representation on the supervisory board. By law, for companies with more than 2,000 workers, half of the members of the supervisory board represent the firm's employees: Two-thirds of those members are firm employees, and the other third external trade union representatives. For firms with 500 to 2,000 employees, one-third of the board members must represent the workers.

[8] Capital Choices, p. 54.

For several reasons, German companies take a long-term perspective in corporate decision-making. Managing board members serve 5-year appointments and thus need not emphasize investments that give immediate returns. Many German shareholdings are semipermanent, and the tax system encourages individuals to hold shares for more than a brief period. Capital gains from shareholding are subject to personal income tax only if the shares are held for less than 6 months. Also, labor representatives on the supervisory board seek to preserve jobs and thus want continuing company success. Additionally, the process of trying to achieve consensus decisions may itself contribute to a long-term orientation.

Corporate Governance Issues: Proxy System Gives Banks Considerable Influence

Issues of corporate control do not play an important role in German public debate and, in fact, there is no equivalent common phrase for "corporate control" in German. The focus of the German debate has not been the efficiency or inefficiency of the German system, but rather on the "power of the banks" in the economy. The largest banks are sometimes even accused of controlling German industry.

German banks can play a significant role in corporate governance by acting as proxy agents for individual shareholders. The influence banks possess as the proxy voters for individuals, and the position of bank personnel on firm supervisory boards, exceeds the amount of their influence exerted through direct shareholdings. For example, individuals deposit their shares at the bank where they may also have bought the shares and can sign over their voting rights to that bank. The bank may then vote the shares in the annual shareholders' meeting. Before the annual meeting, however, the bank informs the shareholder how it intends to vote unless the shareholder instructs it to vote differently. If instructed, the bank votes according to the shareholder's wishes; otherwise, the bank votes the proxy shares as it desires as well as those shares it owns directly. This system may effectively place a firm under the control of bankers if the firm has significant shares held by banks or by small investors.

One analysis has determined that, although between 1963 and 1976 banks only owned between 5 and 7.5 percent of circulating corporate stock, with the proxy votes banks controlled about 60 percent of stock market value. Representing 60 percent of all circulating stock does not, however, translate into proportional control of many firms, as the top 10 firms account for much of that value. Bank influence was concentrated among the largest firms. As firm ownership by small investors increases, the potential role of proxy voting by banks becomes more important. For many of Germany's largest firms, banks can function as a source of effective corporate control external to the firm. A study of the ownership structure of the 100 largest firms showed that banks, with the proxy of small investors, could possibly have dominated 34 of these firms in 1975 and 39 in 1988.[9]

Bankers' roles in influencing corporate control are also manifested in bank participation on the supervisory boards of firms. According to Monopolies Commission statistics reported in a 1992 World Bank working paper, bankers serve on the boards of a larger number of joint stock companies than on those in which they have significant equity holdings.[10] This fact implies that bank shareholding is not a prerequisite for bank participation on supervisory boards. In 1988, private bank representatives held 104 of almost 1,500 supervisory board positions in the 100 largest German enterprises, while labor representatives and trade unions held 729 board positions. Of the board positions allocated to capital, private banks held 13.6 percent, compared to 50.2 percent occupied by representatives of other firms. Private bank board representation was less in 1988 than in 1986, when private banks were represented on 59 of the top 100 largest firms and held 15.2 percent of capital's seats.

Although banks have greater representation on supervisory boards than their direct shareholdings would warrant, this representation is lower than the full voting power of the banks would justify when proxy votes are included. This situation means that the small investors who rely on the banks to act as their agent in shareholder meetings do not receive their proportional representation on supervisory boards. Companies often have representatives of competing banks on their supervisory boards. For example, the firm Daimler-Benz, of which Deutsche Bank is the largest shareholder (28.5 percent), includes a Deutsche Bank representative as well as members from Germany's other two largest private banks on its board, even though they have no equity stake in the firm.

Whether the banks have a controlling role on the boards is uncertain, but they clearly are influential. According to officials of one of Germany's largest private banks, the most important role played by board members from banks is in choosing the members of the managing board of directors who actually run the firm. One study has suggested that bankers may often

[9]The Relationship Between German Banks and Large German Firms.

[10]The Relationship Between German Banks and Large German Firms, p. 17.

hold the presidency of the supervisory board because they are in a position to arbitrate a consensus between the interest of capital and labor that must be reconciled on the supervisory board. Bank officials stress the benefit to the firm of the banks' expert knowledge and comprehensive view and suggest they serve a consultancy role. Moreover, an econometric analysis using data from the early 1970s did find a significant and positive relationship between leading industrial firms' profitability and banks' participation.[11]

Nevertheless, German debate over bank influence has concentrated on the potential negative aspects of banks' involvement with firms. As a result, the Monopolies Commission has proposed limiting the shareholdings of individual credit institutions in nonbanks to a maximum of 5 percent. The Commission's reason for this proposal was its conclusion that the concentration and accumulation of influence among the large banks and the largest firms have diminished free competition in the marketplace. In response, the banks claimed that the large firms had sufficient bargaining power with respect to the banks and that competition between banks for business ensured that the role played by banks was not a negative one.

Financial Issues and the Regulatory Environment

The German banking system is "universal," meaning that both commercial and investment bank activities are carried out by the same entity. In addition to private banks, Germany also has a large number of public sector and cooperative banks. Traditionally, German corporations had a "house" bank with which each corporation had a long-term relationship. The nature of the bank-industry relationship is changing as German firms have access to more sources of capital, but the house bank continues as the firm's "insurance policy."

Bank-Industry Relationships

The German financial sector differs significantly from that of the United States in terms of structure, organization, and concentration. The German banking system is "universal," with banks performing both "banking" activities (i.e., deposit taking and lending) and "nonbanking" activities such as securities issuing and trading. Some German banks also market insurance and real estate through subsidiaries, hold shares in other companies, and serve as agents for private shareholders who grant their voting rights to the bank. Unlike in the United States, big German banks operate nationally and are significantly larger relative to the German

[11]John R. Cable, "The Bank-Industry Relationship in West Germany: Performance and Policy Aspects," Industry Structure and Performance, ed. Joachim Schwalbach (Berlin: Edition Sigma, 1985).

economy than are U.S. banks to the U.S. economy. In 1990, the assets of the three largest German banks were a value that amounted to 36 percent of German GNP, while the assets of the three largest U.S. banks amounted to 7 percent of U.S. GNP.[12]

The German universal banking sector can be divided into three main groupings: private commercial banks, public sector banks, and cooperative banks. Mortgage and other specialized banks also exist. One feature of German finance is considerable market segmentation such that small banks finance small firms, and large banks finance large firms.

Private commercial banks account for 25.5 percent of the aggregate business volume of the total banking system. This group of about 340 banks, with almost 6,700 branches in 1991, includes Deutsche Bank, Dresdner Bank, and Commerzbank. These three banks together account for more than one-third of private commercial bank business volume. They operate on a nationwide basis. Two other large regional banks, Bayerische Hypotheken- und Wechsel-Bank and Bayerische Vereinsbank, have recently developed into major national banks. Foreign banks, including U.S.-owned banks, are also part of the private commercial bank group.

Public sector banks numbered almost 750 in 1991, with over 19,000 branches. They accounted for 36.5 percent of the aggregate business volume of the total banking system. They operate in limited geographical areas, where they are sponsored (guaranteed) by local authorities, municipalities, or district authorities. Their lending activities concentrate on house-building and community projects, but also now serve regional industry. Through their supply of loans to industry and holdings of corporate shares, the public banks are a conduit for the German states to influence industry.[13]

In 1991, the over 3,100 cooperative banks, with more than 17,000 branches, accounted for 15 percent of aggregate business volume of the total banking system. These banks mainly take deposits and make short- and medium-term loans to members.

[12]Mark J. Roe, "Some Differences in Corporate Structure in Germany, Japan, and America," Yale Law Journal, Vol. 102, No. 8 (June 1993).

[13]Richard E. Deeg, "Banks and the State in Germany: The Critical Role of Subnational Institutions in Economic Governance," unpublished dissertation (Cambridge, MA: The Massachusetts Institute of Technology: June 1992).

The remaining 23 percent of total aggregate business volume of the German banking system was accounted for by mortgage and other specialist banking institutions.

Germany's financial sector has experienced increased competition since interest rate controls were abolished in 1967, and the number of financial instruments available to investors, savers, and borrowers has grown significantly. In addition, foreign banks, including U.S. banks, have introduced new services and probably bolstered innovation among the banks. Also, the advent of the European Community (EC) single market may increase financial sector competition in Germany from non-German banks. Conversely, German banks may also more easily compete in the banking sector of other EC members. The Second Banking Directive, the key to the single market for financial services, was adopted by the EC Council, the EC's main decision-making body, in December 1989. The directive establishes the key principles upon which the EC bases its regulatory framework. It grants a single banking license to authorized credit institutions to freely branch or offer services across EC borders.

Traditionally, German corporations had a "house bank" with whom they maintained a long-term, comprehensive business relationship. Because a single German bank can offer a broad array of financial services, the relationship is not focused on individual transactions. Many firms regard the "house bank" relationship as an "insurance policy" that requires the corporation to pay a premium in good times in return for receiving a bank's protection when the firm has financial problems.

This "house bank" relationship is no longer typical of German corporate finance, however. The relationship still exists between small firms and banks, but large- and medium-sized firms use a number of "core" banks instead. German bankers told us that, in times of crisis, one bank may still serve as the leader in organizing a rescue package for firms of all sizes, so the traditional "house bank" continues to have some relevance in the economy.

Banks in Germany can aid firms in a financial crisis, and they can forestall a hostile foreign takeover. For example, when the Italian firm Pirelli tried to gain control of Continental (Germany's largest tire manufacturer), Deutsche Bank, which had a top executive serving as chairman of Continental's supervisory board, organized a group of shareholders to block the takeover. Other corporate shareholders of Continental's stock who had interlocking directorates with Deutsche Bank cooperated.

Daimler-Benz, whose own supervisory board was chaired by the chief executive of Deutsche Bank, was also drafted to buy shares to block the Pirelli takeover. These efforts succeeded in preventing such an event.

Access to Capital and the Regulatory Environment

Although banks may provide firms with a broad range of services, statistics show they furnish less than 20 percent of business investment funds. Industrial business financing in Germany has three main sources: self-financing from earnings, credit from banks, and internal funds from pension schemes. Self-financing by using retained profits and depreciation is the primary source of enterprise investment in Germany. During the 1980s, large multinational German firms increased their liquidity, reduced their bank liabilities, and even became significant financial investors. From 1960 to 1989, self-financing supplied 63 percent of the gross investment of German enterprises in physical and financial assets compared to bank borrowing, which supplied 18 percent. If financial investment is excluded and only physical investment is counted, then firms financed 79 percent of their investments internally and relied on bank borrowing for 12 percent.

An important component of enterprise self-financing is the funds carried on company books for employee pensions. For the period 1960 to 1989, employee contributions to pension schemes accounted for 4 percent of net investment, or about 33 percent of the value of bank borrowing for investment. For the firm, these funds are available on a long-term basis as a reliable source of finance, almost as if they were equity capital. One study concluded that the limited role of bank lending as a source of investment, and the fact that this lending has declined in importance over the last 3 decades, means that the banks have at best very limited influence over German investment and corporate strategy through controlling the lending process.[14]

Changes and innovations in Germany's capital markets may alter the way firms raise capital in the future. Government regulation of financial markets has been loosened to allow innovations. Commercial paper, a new financial instrument for Germany, has been introduced. Now, well-capitalized companies can raise short-term funds at similar or even somewhat lower interest rates than banks, since companies do not have to maintain a minimum capital reserve, as banks must. Large companies with good credit ratings are also tapping foreign financial markets for funds.

[14]Jeremy Edwards and Klaus Fischer, "An Overview of the German Financial System," Cambridge University, Centre for Economic Policy Research Project, Prepared for the National Economic Development Office Conference, RAC Club, Pall Mall, London (Nov. 21-22, 1991).

Furthermore, although foreign banks' share of the domestic German market is very small, the banks have introduced many financial innovations from abroad.

A recent analysis concluded that, in Germany, small banks finance small firms. [15] Small firms do not have publicly held shares; hence, banks cannot exert direct control through equity holdings, proxy voting, and positions on the supervisory board. The relationship between small firms and banks is long term, and often these firms rely on the traditional "house bank" even though no institutionalized control mechanism exists.

In addition, the German government relies on banks to pass subsidies and benefits on to small firms. State governments use interest subsidies, sometimes at a state-owned bank, to support young and/or small firms. The state governments may also reimburse firms for investment projects and consulting expenses especially if undertaken in connection with R&D and environmental projects. In this process, the house bank of a small business makes the application to the federal or state bank, which will only finance a share of the investment. The default risk of the loan is carried by the house bank, which must therefore monitor firm performance. The program results in a cost of funds for small- and medium-sized firms that is equal to or less than that of large corporations. The federal government also uses two federal banks, Kreditanstalt fur Wiederaufbau and Deutsche Ausgleichsbank, to channel loans to small business.

Business Practices and Government Regulation

The labor market and social environment in which German firms operate resulted from Germany's historical experiences and originate in the country's educational systems, job training organization, and investment levels. German firms are required to belong to business associations that facilitate their ability to organize cooperative efforts and their interaction with the government. German antitrust law, like U.S. antitrust law, assumes that free competition is in the public interest. German antitrust regulation now interacts with EC competition policy.

Labor and Training

German firms operate in a different type of labor market and social environment from that of the United States and Japan. Differences in the U.S. and German labor markets originate from variations in the country's

[15] Christian Harm, The Financing of Small Firms in Germany, Policy Research Working Papers, 899 (Washington, D.C.: The World Bank, May 1992).

educational systems, job training organization, and investment levels for human capital. Germany spends slightly more than the United States, as a percentage of GDP, for preprimary through secondary education. However, Germany spends only about two-thirds of the percentage that the United States lays out when higher education expenditures are also included. Using data from the mid-1980s, one analyst estimates that German companies invest twice as much for worker training as do U.S. firms, with investment almost equally divided between apprenticeships and further training.[16]

German students are separated into three discrete curricular paths that lead to different segments of the labor market after age 10 or 11. In a 1990 study we found that, in 1986, 39 percent of students were in programs leading primarily to blue-collar apprenticeships, 29 percent in higher-level programs with many graduates entering white-collar apprenticeships, and 28 percent in programs leading to university admission. At age 15 or 16, most students enter a 3-year apprenticeship program that provides training on the job and part-time schooling.[17]

The German training system is rooted in the Middle Ages tradition whereby journeymen toured the country for 3 years, trading handiwork for lodging and food. The modern training system involves government, industry, and unions, who develop apprenticeship curricula, examinations, and certification procedures at the national level. About 400,000 firms—nearly one-fourth of all firms in the country—sponsor apprentices. Employers pay training and wage costs, and small firms may receive some government funds. Apprentices are paid about 20 to 25 percent of the salary of a certified program graduate, about $500 to $800 a month. Their pay quadruples after certification. In 1991, the net training cost paid by industry was $10,500 per apprentice.

The joint government-industry apprenticeship program trains 65 percent of the country's workforce in 375 occupations. Businesses pay 2 percent of their payroll into the program even though they are not guaranteed that any particular apprentice will work for them after training. The government pays 60 percent of the cost of maintaining training schools.

The primary purpose of the German apprenticeship system is to develop a high-quality, skilled workforce. German investment in labor force

[16]Margaret Hilton, "Shared Training: Learning from Germany," Monthly Labor Review, Vol. 114 (Mar. 1991).

[17]Training Strategies: Preparing Noncollege Youth for Employment in the U.S. and Foreign Countries.

development is also evident in its national social policies, which include a family allowance based on the number of household children, and a universal health insurance plan. Investment in the worker continues once a worker is employed: Employers support continuing training, and the government provides training subsidies for workers who lose their jobs.

Business Associations

Germany's ability to organize cooperative efforts between government and business in areas such as training and R&D is further enhanced by firms' membership in business associations. German law requires that firms belong to a chamber of commerce and industry or a chamber of artisans. Membership in an industry association is voluntary. Statistics from the 1970s show that voluntary associations are heavily subscribed. Ninety percent of all industrial establishments belong to the Federal Association of German Industry, and 80 percent of eligible members belong to employers' associations that represent business in collective bargaining and setting social policy. German business negotiates with unitary labor unions that represent all the blue-collar and white-collar workers in an industry. Thereby, employers avoid having to negotiate with several, sometimes competing, unions.

Antitrust Regulation

German business organizes its cooperative activities taking into account antitrust law considerations. The German government is active in European R&D efforts such as EUREKA,[18] the high-technology initiative. German firms collaborate under this program, which receives public funds. The German government supports cooperative industrial research, while at the same time protecting competition with laws against restraints of competition and against unfair competition.

Before World War II, Germany was known in Europe as the traditional "country of cartels." Germany ended World War II with over 6,000 legal cartels and during the 1950s experienced a bitter political fight over legislation banning cartels. In 1957, the Cartel Act was passed after 7 years of fierce resistance. German antitrust law has been characterized as following the American assumption that free competition is in the public interest. The bill finally enacted prohibited cartels, albeit with numerous exceptions, but did not control mergers or achieve economic deconcentration. In this way, industrial concentration was tolerated under

[18]EUREKA is an independent research program that concentrates on civilian R&D and is supported by some 20 countries, including the 12 members of the EC.

some circumstances even while competition was also accepted as the organizing principle of the economy.

The Cartel Act also prohibited "abusive practices" by market-dominating enterprises as defined under the act. The Federal Cartel Office, with its semijudicial function, enforces the law and has the power to block restraints of competition but cannot balance these against competing social or economic goals. The prescribed exceptions to the law are granted by the Minister of Economic Affairs. The general prohibition of cartel agreements is similar to the U.S. Sherman Act, section 1. However, the German prohibition of abusive practices differs from section 2 of the Sherman Act. The German approach has used a control of market performance, including price regulation by the Federal Cartel Office in cases in which the office presumes abusive practices have occurred.

One difference between U.S. antitrust and EC competition law on the one hand, and German cartel law on the other hand, is that the German legislature made central decisions of competition law itself and thus limited the discretion and role of the courts in developing the law as compared to American or EC law. The German statute permits nine types of legal cartels. The stated purpose of allowing some cartels is to promote efficiency and productivity, leading to reductions in cost and risk and to advancement of technological change. Federal Cartel Office statistics show that, in 1986, there were 321 legal cartels in Germany. Of these, 136, or 42 percent, were "cooperation" cartels whose purpose was generally to improve the competitive standing of small- and medium-sized firms by allowing them to combine advertising, procurement, sales, marketing services, and facilities under certain circumstances, if the cartel agreement does not substantially impair competition.

The other primary cartels present in 1986 were "export" cartels (56); "condition" cartels (50) that establish uniform terms of business, delivery, and payment; "specialization" cartels (44) that limit the production of participants to certain product lines; and "rationalization" cartels (20) that increase the efficiency and productivity of the firms and hence lower consumer prices. In 1986, legal cartels were most frequent in the stone and clay, food, textile, and nonelectrical machinery sectors, a distribution that resembles the 1926 cartel distribution. One study examined the economic effects of the legal rationalization cartels on individual products and found that prices were higher and output lower as a result of cartelization. It also noted that, at least in the short run, cartels provided consumers with few benefits.[19] Other scholars have concluded that the significance of any exemptions is rather small.

The Cartel Act also prohibits vertical restraints on competition in principle, although there are exceptions for exclusive dealerships. According to a German legal scholar, the treatment of vertical restraints in German law is in sharp contrast to American practice, which has moved toward accepting the legality of pure vertical restraints. German firms that are in a dominant market position are not allowed to abuse their status; they also face requirements that do not apply to other firms. Hindrances to competition, such as tie-in agreements, some discounting practices, predatory pricing, and sales below cost in trade, are prohibited to such firms. In addition, a market dominator faces price controls, but these are limited to use in extreme cases and are most readily applied in the pharmaceutical field. The cartel law also protects buyers and sellers from discrimination that places them at an unjustified disadvantage to their competitors.

Merger control, though not part of the original Cartel Act, was added in subsequent amendments. If large enterprises plan to merge, they must notify the Federal Cartel Office; it then evaluates what effect the merger will have on competition. A merger must be prohibited if it will likely create or strengthen a market-dominating position. One element of the analysis considers the financial strength of the potential merger. This element gives the Cartel Office a way of addressing conglomerate mergers. A conglomerate merger may strengthen an existing market-dominating position by increasing the financial strength of a company. However, a merger has to be allowed if the participants prove that the merger results in improvements in competition conditions that outweigh the disadvantages of market domination. Also, the Federal Minister of Economics may authorize a merger that has been prohibited by the Federal Cartel Office if the benefits to the overall economy outweigh the restraint of competition or if the merger is deemed to be in the public interest. This ministerial authorization is rare. The "public interest" can include job preservation, military necessity, public health promotion, or other political interests. For example, in the case of the Daimler-Benz takeover of MBB in 1988, the German Cartel Office disallowed the acquisition, but the Economics Ministry permitted it.

[19]David B. Audretsch, "Legalized Cartels in West Germany," The Antitrust Bulletin, Vol. 34 (Fall 1989), pp. 579-600.

Legal commentators have widely found that German antitrust law today is more rigorous than U.S. law. They attribute this situation to changes in U.S. policy during recent years. In their view, German law has been consistent, while U.S. practice has changed. In the area of vertical and conglomerate mergers, U.S. law has become less restrictive than German law. As in the United States, German competition policy is also enforced at the state level. Private parties may also initiate proceedings before the cartel authority. In contrast to the United States, violators of the statute are only liable for single private damages, not treble damages, although the German cartel authority can levy significant fines. Private lawsuits play a limited role in German competition policy.

Separate from the Cartel Act is an older act, the Act Against Unfair Competition (1909). This act establishes a framework of "honest practices" that has evolved between market operators and is accepted as fair and equitable by the legal community. This law prohibits unfair business practices including false or sensational advertising, disclosing trade secrets, hiring away employees, and imitating a competitor's name.

New Developments: EC Regulation

German competition policy and regulation have coexisted with those of the EC for over 30 years. Article 85 of the 1957 Treaty of Rome that established the EC prohibits agreements and concerted practices intended to restrict competition and impair intra-Community trade. Examples include price fixing and setting production quotas. However, article 85 allows the EC Commission[20] to grant exemptions to the cartel ban if the production or distribution of goods is improved or if technological or economic progress is facilitated. This exemption is subject to the condition that the agreement only imposes restrictions that are indispensable and that competition remains, while allowing consumers a fair share of the benefit. Article 86 of the treaty prohibits abuse of a market-dominant position in intra-Community trade. EC merger control became effective in 1990 and applies to large mergers or those that would impede competition in the common market.

EC law prevails in cases in which a corporate practice or agreement violates EC law regardless of whether such a practice violates German law. However, there is more uncertainty regarding practices that violate German law but do not violate EC competition rules. Most German courts have taken the view that corporate activity must be lawful under both

[20]The EC Commission is the executive branch institution of the EC. It drafts and proposes legislation and enforces the implementation of EC law.

German and EC law to be allowable. Such a rule allows German law to take priority over EC law where German law is more stringent.

Somewhat different rules apply to mergers, however. The EC's Merger Regulation that went into effect in 1990 established a "one-stop" rule for merger review. One article of that regulation provides that no member state shall apply its national legislation on competition to any consideration that has an EC dimension. If the merger passes at the EC level, it does not have to be reviewed by any national government. The regulation pertains to a merger where the aggregate worldwide turnover (or sales) of the companies was at least 5 billion ECU (European Currency Unit),[21] and the aggregate EC-wide turnover of at least two of the parties concerned was at least 250 million ECU. Additionally, the merger must meet a transnationality criterion for EC jurisdiction. If two-thirds of the turnover of each of the companies concerned is in the same country, then the transaction does not fall under EC regulation. In addition, cases can be turned back from the EC to the member state if the EC deems the distinct market to be limited to the local market. Germany opposed this principle because it feared that large mergers in Germany that qualified for EC review based on their size would be held to more permissive EC rules, while small mergers in Germany would be subject to stricter criteria.

[21]For 1991, the ECU was valued at $1.24.

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Selected Bibliography

Books

Baumol, William J., et al. Productivity and American Leadership: The Long View. Cambridge, MA: The Massachusetts Institute of Technology Press, 1989.

Cable, John R. "The Bank-Industry Relationship in West Germany: Performance and Policy Aspects." Industry Structure and Performance, ed. Joachim Schwalbach. Berlin: Edition Sigma, 1985.

Cohen, Stephen D. Cowboys and Samurai: Why the United States is Losing the Industrial Battle and Why it Matters. New York: Harper Business, 1991.

Doeringer, Peter. "Flexibility and Equality: The American Experience," European and American Labor Markets: Different Models and Different Results. Washington, D.C.: National Planning Association, 1992.

Edwards, Franklin, and Robert Eisenbeis. "Financial Institutions and Corporate Investment Horizons: An International Perspective," forthcoming in Capital Choices: Changing the Way America Invests in Industry. Boston: Harvard Business School Press, Feb. 1994.

Eli, Max. Japan Inc.: Global Strategies of Japanese Trading Corporations. New York: McGraw-Hill, 1990.

Gerlach, Michael L. Alliance Capitalism: The Social Organization of Japanese Business. Berkeley, CA: University of California Press, 1992.

Giersch, Herbert, et al. The Fading Miracle: Four Decades of Market Economy in Germany. Cambridge, England: Cambridge University Press, 1992.

Heiduk, Gunter, and Kozo Yamamura, eds. Technological Competition and Interdependence - the Search for Policy in the United States, Germany, and Japan. Seattle: University of Washington Press, 1990.

Heller, Pauline B. Federal Bank Holding Company Law. New York: Law Journal Seminars Press, 1990, Section 4.03[2].

Hiroshi, Iyori. "Antitrust and Industrial Policy in Japan: Competition and Cooperation," Law and Trade Issues of the Japanese Economy: American and Japanese Perspectives. eds. Gary Saxonhouse and Kozo Yamamura. Seattle: University of Washington Press, 1986.

Hufbauer, Gary Clyde. U.S. Taxation of International Income: Blueprint for Reform. Washington, D.C.: Institute for International Economics, 1992.

Ishikawa, Tsuneo, and Kazu Ueda. "The Bonus Payment System and Personal Savings," The Economic Analysis of the Japanese Firm, ed. Masahiko Aoki. Amsterdam: Elsevier Science Publishers, B.V., 1984.

Katzenstein, Peter J. Policy and Politics in West Germany: The Growth of a Semisovereign State. Philadelphia: Temple University Press, 1987.

Kester, W. Carl, and Timothy A. Luehrman. "Cross-Country Differences in the Cost of Capital: A Survey and Evaluation of Recent Empirical Studies," forthcoming in Capital Choices: Changing the Way America Invests in Industry. Boston: Harvard Business School Press, Feb. 1994.

Kester, W. Carl. "Governance, Contracting, and Investor Time Horizons," forthcoming in Capital Choices: Changing the Way America Invests in Industry. Boston: Harvard Business School Press, Feb. 1994.

Kester, W. Carl. "Japanese Corporate Governance," Japanese Takeovers: The Global Quest for Corporate Control. Boston: Harvard Business School Press, 1991.

Lipton, Martin, and Jay W. Lorsch. "A Modest Proposal for Improved Corporate Governance," forthcoming in Capital Choices: Changing the Way America Invests in Industry. Boston: Harvard Business School Press, Feb. 1994.

Lynn, Leonard H., and Timothy J. McKeown. Trade Associations in America and Japan. Washington, D.C: American Enterprise Institute, 1988.

Meltzer, Allan H. "Commentary: Macroeconomic Policy and Long-Run Growth," Policies for Long-Run Economic Growth. Federal Reserve Bank of Kansas City, 1992.

Nakatani, Iwao. "The Economic Role of Financial Corporate Groupings," Economic Analysis of the Japanese Firm, ed. Masahiko Aoki. Amsterdam: Elsevier Science Publishers, B.V., 1984.

Politics and Productivity: The Real Story of Why Japan Works, Chalmers Johnson, Laura D'Andrea Tyson, and John Zysman eds. Cambridge, MA: Ballinger, 1989.

Porter, Michael E. The Competitive Advantage of Nations. New York: The Free Press, 1990.

Sahlman, William A. "Insights From the American Venture Capital Organization," forthcoming in Capital Choices: Changing the Way America Invests in Industry. Boston: Harvard Business School Press, Feb. 1994.

Saxonhouse, Gary, and Kozo Yamamura. Law and Trade Issues of the Japanese Economy: American and Japanese Perspectives. Seattle: University of Washington Press, 1986.

Scherer, F.M., and David Ross. Industrial Market Structure and Economic Performance. Boston: Houghton Mifflin Co., 1990.

Schnitzer, Martin C. Contemporary Government and Business Relations. Boston: Houghton Mifflin Co., 1990.

Weiss, Frank D., et al. Trade Policy in West Germany, Vol. 217. Kiel Institute for World Economy. Tubingen: J.C.B. Mohr (Paul Seibeck), 1988.

Yamamura, Kozo. "Joint Research and Antitrust: Japanese vs. American Strategies," Japan's High Tech Industries: Lessons and Limitations of Industrial Policy, ed. Hugh Patrick. Seattle: University of Washington Press, 1986.

Papers/Reports

Auerbach, Allan J., et al. "The Economic Dynamics of an Ageing Population: The Case of Four OECD Countries." OECD Economic Studies, No. 12 (Spring 1989).

Brancato, Carolyn Kay. "Institutional Investors—The Swing Vote in Corporate Governance—Who Are the Institutional Investors and What Do They Own?" Institutional Investors - Monolithic or Diverse? Implications for Corporate Governance. A Panel Discussion Presented by the Ad Hoc Committee on Institutional Investors, Annual Meeting of the American Bar Association Section of Business Law, San Francisco, CA: Aug. 10, 1992.

Borrus, Michael, Laura D'Andrea Tyson, and John Zysman. How Government Policies Shape High Technology Trade. Berkeley, CA: Berkeley Roundtable on the International Economy, October 1984.

Cohen, Stephen. Geo Economics: Lessons from America's Mistakes. Berkeley, CA: Berkeley Roundtable on the International Economy, December 1990.

Courtis, Kenneth. Statement Before the Joint Economic Committee. Washington, D.C.: May 8, 1992.

Courtis, Kenneth S. Perspectives on the Japanese Keiretsu. Notes for an Address to the National Advisory Board on Science and Technology Symposium, Toronto: March 1-2, 1990.

The CSIS Strengthening of America Project, First Report. Washington, D.C.: The Center for Strategic and International Studies, 1992.

Deeg, Richard E. Banks and the State in Germany: The Critical Role of Subnational Institutions in Economic Governance. (unpublished dissertation) The Massachusetts Institute of Technology, June 1992.

Edwards, Jeremy, and Klaus Fischer. An Overview of the German Financial System. Cambridge University, Centre for Economic Policy Research Project. Cambridge, England: Nov. 21-22, 1991.

Elmeskov, Jorgan, et al. "Savings Trends and Measurement Issues," OECD Economics and Statistics Department Working Papers, No. 105 (1991).

First Annual Report to the President and Congress: Building a Competitive America. Washington, D.C.: Competitiveness Policy Council, March 1, 1992.

The Five-Year Economic Plan: Sharing a Better Quality of Life Around the Globe. Japan Economic Planning Agency, 1992.

FTC/Japan Views: Information and Opinion from the Fair Trade Commission of Japan, No. 13 (June 1992).

German Technology Policy: Incentive for Industrial Innovation. Council on Competitiveness, Policy Studies Series. Washington, D.C.: June 1992.

Harm, Christian. The Relationship Between German Banks and Large German Firms. The World Bank, Policy Research Working Paper Series, No. 900. Washington, D.C.: May 1992.

Harm, Christian. The Financing of Small Firms in Germany. The World Bank, Policy Research Working Papers Series, Vol. 899. Washington, D.C.: May 1992.

Hatsopoulos, George N., and James M. Poterba. America's Investment Shortfall: Probable Causes and Possible Fixes. (preliminary draft) September 1, 1992.

Japan and International Capital Flows: - Major Contrasts Between the '80s and '90s. Nomura Research Institute, Ltd. Japan: April 1992.

Kearny, A.T. Trade and Investment in Japan: The Current Environment. American Chamber of Commerce in Japan, 1991.

Koo, Richard C. High-Quality Products but Low Profitability: Why Japanese Investors Are Increasingly Rejecting This Time Honored Formula. Nomura Research Institute. Japan: February 1992.

Lawrence, Robert Z. "Efficiency or Exclusionist? The Import Behavior of Japanese Corporate Groups." Brookings Papers on Economic Activity, Vol. I. Washington, D.C.: The Brookings Institution, 1991.

"Legal Constraints on the Activities of Institutional Investors," Institutional Investors—Monolithic or Diverse? Implications for Corporate Governance, A Panel Discussion Presented by the Ad Hoc Committee on Institutional Investors, Annual Meeting of the American Bar Association Section of Business Law, San Francisco, CA: August 10, 1992.

Lipsky, Robert, and Irving Kravis. Savings and Economic Growth: Is the United States Really Falling Behind? New York: The Conference Board, 1987.

Mattione, Richard P. A Capital Cost Disadvantage for Japan? Tokyo: Morgan Guaranty Trust Company Advisory, April 6, 1992.

Organizing Business: Trade Associations in America and Japan. Washington, D.C.: American Enterprise Institute for Public Policy Research, 1988.

Porter, Michael E. Capital Choices: Changing the Way America Invests in Industry. Washington, D.C.: Council on Competitiveness; Boston: Harvard Business School, 1992.

Sheard, Paul. The Economics of Interlocking Shareholding in Japan. Stanford: Center for Economic Policy Research, 1991

Statement of the Fair Trade Commission on the Antimonopoly Act Guidelines Concerning Distribution Systems and Business Practices. Japan Fair Trade Commission, July 11, 1991.

A Strategic Industry at Risk. Washington, D.C.: National Advisory Committee on Semiconductors, Nov. 1989.

World Economic Service Historical Data. Bala Cynwyd, PA: The WEFA Group, June 1992.

Journal Articles

Anchordoguy, Marie. "A Brief History of the Keiretsu." Harvard Business Review, Vol. 68, No. 4 (July-Aug. 1990).

Aoki, Masahiko. "Toward an Economic Model of the Japanese Firm." Journal of Economic Literature, Vol. 28 (Mar. 1990).

Audretsch, David B. "Legalized Cartels in West Germany." The Antitrust Bulletin, Vol. 34 (Fall 1989).

Besher, Arseny. "All For One: Some Observations on Japan's Industrial Groups." Japan Update, No. 12, (Summer 1989).

Blinder, Alan S. "More Like Them?" The American Prospect, No. 8 (Winter 1992).

Christelow, Dorothy B. "U.S.-Japan Joint Ventures: Who Gains?" Challenge. Vol. 32, No. 6 (Nov.-Dec. 1989).

Corbett, Jenny. "International Perspectives on Financing: Evidence from Japan." Oxford Review of Economic Policy, Vol. 3, No. 4 (1987).

Courtis, Kenneth S. "Japan's Economic Transition Will Create a Tougher Global Competitor." Japan Economic Survey. Vol. 16, No. 10 (Oct. 1992).

Hale, David. "Japan After the Stock Market Crash." International Economic Insights, Vol. 3 (July-Aug. 1992).

Hale, David D. "Can the United States Revive Employment Growth Without Helping Small Business?" Economic Review (Chicago: Kemper Securities, Inc., Aug. 11, 1992).

Hilton, Margaret. "Shared Training: Learning from Germany." Monthly Labor Review, Vol. 114 (Mar. 1991).

Jensen, Michael C. "Takeovers: Their Causes and Consequences," Journal of Economic Perspectives. Vol. 2, No. 1 (Winter 1988).

Johnson, Chalmers. "Keiretsu: An Outsider's View." Economic Insights, Vol. 1 (Sept.-Oct. 1990).

Karatsu, Hajime. "Quality Control: An Export with Great Potential," Economic Eye, Vol. 13, No. 3 (Autumn 1992).

Lippens, Robert E. "The Cost of Capital: A Summary of Results for the U.S. and Japan in the 1980s," and Jeffrey A. Frankel, "The Cost of Capital in Japan: Update." in Business Economics, Vol. 26, No. 2 (Apr. 1991).

Makino, Noboru. "The Advantages of Japan's Management Strategy," Economic Eye, Vol. 13, No. 3 (Autumn 1992).

Morita, Akio. "A Critical Moment for Japanese Management," Economic Eye, Vol. 13, No. 3 (Autumn 1992).

Morse, Ronald A. "A New Architecture for U.S.-Japan Political Relations," The JAMA Forum, Vol.9, No. 2 (Jan. 1991).

Nakatani, Iwao. "Offering a Challenge to the Theory of Capitalism," Economic Eye, Vol. 13, No. 3 (Autumn 1992).

Porter, Michael E. "Capital Disadvantage: America's Failing Capital Investment System." Harvard Business Review, Vol. 70, No. 5 (Sept. 1992).

Prowse, Stephen D. "Institutional Investment Patterns and Corporate Financial Behavior in the United States and Japan," Journal of Financial Economics, No. 27 (1990).

Roe, Mark J. "Some Differences in Corporate Structure in Germany, Japan, and America." Yale Law Journal, Vol. 102, No. 8 (June 1993).

Schneider-Lenne, Ellen R. "Corporate Control in Germany." Oxford Review of Economic Policy, Vol. 8, No. 3 (Autumn 1992).

Sheard, Paul. "The Economics of Japanese Corporate Organisation and the "Structural Impediments" Debate: A Critical Review." Japanese Economic Studies, Vol. 19, No. 4 (Summer 1991).

Shimada, Haruo. "Japanese Capitalism: The Irony of Success," Economic Eye, Vol. 13, No. 3 (Autumn 1992).

Shoichiro, Irimajiri. "Highlighting the Contrasts in Japanese and American Business," Economic Eye, Vol. 13, No. 3 (Autumn 1992).

Tsurumi, Yoshi, and Hiroki Tsurumi. "Value-Added Maximizing Behavior of Japanese Firms and the Roles of Corporate Investment and Finance." Columbia Journal of World Business (Spring 1985).

Tsurumi, Yoshi. "From Zaibatsu to Keiretsu: Japan's Industrial Groupings Are Not Exclusive Cartels." Pacific Basin Quarterly (Summer/Fall 1990).

Ueda, Kazuo. "A Tale of Two Systems." Look Japan (Oct. 1992).

Viner, Aron. "The Dark Side of Japanese Corporate Governance." The Corporate Board, (May-June 1992).

Yoshitomi, Masaru. "Keiretsu: An Insider's Guide to Japan's Conglomerates." Economic Insights, Vol. 1 (Sept.-Oct. 1990).

U.S. Government Publications

Ahern, Raymond J. "Antitrust Enforcement," Japan-U.S. Relations, A Briefing Book. Congressional Research Service, CRS-90-233F. Washington, D.C.: 1990.

Competing Economies: America, Europe, and the Pacific Rim. Office of Technology Assessment, OTA-ITE-498. Washington, D.C.: U.S. Government Printing Office, 1991.

Economic Report of the President. Washington, D.C.: U.S. Government Printing Office, 1993.

Elwood, Craig. The Goal of Economic Growth: Lessons from Japan, West Germany, and the United States. Congressional Research Service, CRS-89-423E. Washington, D.C.: 1989.

Frankel, Jeffrey A. The Cost of Capital in Japan: A Survey. Working Paper No. PB91-05. Federal Reserve Bank of San Francisco, July 1991.

Frankel, Allan B., and John D. Montgomery. Financial Structure: An International Perspective. Board of Governors of the Federal Reserve System, Division of International Finance. Washington, D.C.: June 1991.

Genay, Hesna. "Japan's Corporate Groups." Economic Perspectives, Vol. XV, Issue 1. Federal Reserve Bank of Chicago (Jan.-Feb. 1991).

Harris, Martha Caldwell. "Asymmetries and Potential Complementarities: Scientific and Technological Relations Between Japan and the United States." Japan's Economic Challenge: Study Papers Submitted to the Joint Economic Committee. Washington, D.C.: Oct. 1990.

McCauley, Robert N., and Steven A. Zimmer. "Explaining International Differences in the Cost of Capital." Federal Reserve Bank of New York Quarterly Review (Summer 1989).

Making Things Better: Competing in Manufacturing. Office of Technology Assessment, OTA-ITE-443. Washington, D.C.: 1990.

Nanto, Dick K. Japan's Industrial Groups: The Keiretsu. Congressional Research Service, CRS-90-609E. Washington, D.C.: 1990.

1993 National Trade Estimate Report on Foreign Trade Barriers. Office of the U.S. Trade Representative. Washington, D.C.: Jan. 1993.

Phase I: Japan's Distribution System and Options for Improving U.S. Access. U.S. International Trade Commission, USITC 2291. Washington, D.C.: June 1990.

Science of Engineering Indicators. National Science Board, NSB-91-1. Washington, D.C.: 1991.

Related GAO Products

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High-Technology Competitiveness: Trends in U.S. and Foreign Performance (GAO/NSIAD-92-236, Sept. 16, 1992).

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Management Practices: U.S. Companies Improve Performance Through Quality Efforts (GAO/NSIAD-91-190, May 2, 1991).

International Banking: Implementation of Risk-Based Capital Adequacy Standards, (GAO/NSIAD-91-80, Jan. 25, 1991).

The Budget Deficit: Outlook, Implications, and Choices (GAO/OCG-90-5, Sept. 12, 1990).

Justice Department: Changes in Antitrust Enforcement Policies and Activities (GAO/GGD-91-2, Oct. 29, 1990).

Foreign Investment: Aspects of the U.S.-Japan Relationship (GAO/NSIAD-90-203FS, July 31, 1990).

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