Journal of Economic Perspectives—Volume 18, Number 1—Winter 2004—Pages 27–50

Competition in Japan

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Japan registered a remarkable 6.5 percent rate of economic growth from 1955 to 1990, catching up with high-income western countries in its level of economic development. During the 1950s, 1960s, 1970s and into the 1980s, Japan's share of world exports rose dramatically, from 2.9 percent in 1960 to 6.1 percent in 1970, 8.2 percent in 1980, and a peak of 9.8 percent in 1985 (Porter, Takeuchi and Sakakibara, 2000). Japanese firms were increasingly successful internationally in large, visible industries such as automobiles, semiconductors and consumer electronics. The striking economic success of Japan was widely attributed to a set of economic institutions and policies that encouraged collaboration and limited competition. The Japanese case, then, called into question many of the bedrock assumptions of competition thinking. It seemed to show that there was a different path to economic prosperity.

This article begins by examining competition in Japan and the supporting policies and institutions during the twentieth century. Many factors seem to suggest that competition in Japan has been less intense, but there is an awkward complication—the empirical evidence about the intensity of competition in Japanese industry does not support the conclusion. The story, clearly, is more complicated. We seek to reconcile the apparent differences between policy and institutional circumstances and the empirical evidence by examining the types of competition that prevail across Japanese industries and the underlying causes. Japan indeed pursued an array of policies that limited competition, but these policies were not applied throughout the economy. In fact, those industries in which competition

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was restricted prove to be those where Japan was *not* successful internationally. In the internationally successful industries, internal competition in Japan was invariably fierce in spite of Japan's peculiar institutional setting. When examined in this light, the Japanese case does not reveal a new and more effective form of capitalism, but instead confirms the striking positive relationship between competition and prosperity.

We conclude by exploring the role of Japanese competitive practices in the serious economic difficulties in Japan's last decade. Many of Japan's anticompetitive policies and practices have been scaled back or eliminated since the late 1980s, due to a combination of foreign pressure and a growing appreciation within Japan of the benefits of competition. While the level of competition in Japan is rising and competition is spreading to formerly protected parts of the economy, Japan's economic prosperity is still hindered by continuing distortions in the prevailing type of competition in many industries.

A History of Industrial Structure and Competition Policy in Japan

Japan's industrial history is marked by the concentration of economic power, central coordination of economic activity and by collusion. One of the most pronounced characteristics of Japanese industrial organization has been the presence of business groups today known as keiretsu. The word keiretsu has been used in many ways, but here we focus on so-called horizontal keiretsu, or more precisely *kigyo shudan* (enterprise groups).

Japan's Industrial Structure before World War II

The precursors of keiretsu, called zaibatsu, had origins dating back to the Meiji era (1868–1912). Zaibatsu were organized around a holding company that held shares in and exerted significant operating control over an array of industrial, financial and trading subsidiaries. Zaibatsu reached the height of their power from the 1930s through World War II, contributing significantly to Japan's colonial activities and its war effort (Hadley, 1970). Zaibatsu had banks as member firms, but the holding company, not the bank, exercised financial control in the group. The zaibatsu banks did not have a dominant position in the banking industry. Patrick (1967) reports that the so-called Big Five zaibatsu banks—Mitsui, Dai-Ichi, Sumitomo, Mitsubishi and Yasuda—held just 20.5 percent of the deposit market and 17.7 percent of the loan market in 1912, and many banks were comparable to the Big Five in size. Moreover, banks were not the dominant providers of funds prior to the 1930s, with equity financing more important than either bank or bond financing (Hoshi and Kashyap, 2001).

Antitrust regulation was absent in Japan before World War II. The large companies that spearheaded Japanese development prior to 1920 often dominated their respective markets. With little need for collusion, only three known formal

cartels predated 1920.[1] Cartels became more common in Japan during the 1920s and 1930s due to the Depression and the onset of a long period of militarization. Cartels were legalized in 1925 by legislation that mandated compulsory adherence by members. In 1931, a law was enacted authorizing the government to compel all firms in an industry to join a cartel when more than two-thirds requested it. Wartime controls instituted in 1938 dictated compulsory cartels under government supervision, and 1,538 "control organizations" were in operation by the end of the war. Wartime cartels covered the entire economy, including zaibatsu subsidiaries. During the years of operating in a cartelized economy, many of Japan's business leaders came to appreciate this way of doing business, as did government bureaucrats (Hadley, 1970).

While Japan's securities and bond markets were quite developed prior to the 1930s, new regulations during the 1930s made banks the dominant financing source for industrial firms involved in the World War II effort. Particular banks were designated to finance each militarily important firm. Beginning in 1937, new private stock and bond issues were suppressed by law in favor of government war bond issues. Exchanges suspended trading in 1945 and remained closed until 1949 or later. This period marked the beginning of the bank-centered financing model that was an essential feature of Japan's economy in the post–World War II period (Hoshi and Kashyap, 2001).

Japan's Industrial Structure after World War II

The structure of Japanese industry was an early target of the Allied Occupation Command after World War II. The Antimonopoly Law, a landmark Japanese antitrust law, was enacted in 1947. The goal of the law, which was stricter in some respects than contemporary U.S. laws, was to break up the zaibatsu, which were seen as obstacles to competition and democratization in postwar Japan. As the Allied Occupation Command returned authority to Japanese officials, however, the new law was relaxed in 1949 and 1953. Though the zaibatsu and some large companies were broken up and cartels were banned, the return to competition was blunted in various ways. Japan's government maintained control over a large part of the economy to manage the economic recovery. Government provided a series of incentives to encourage companies in heavy industries to invest in new plant and equipment. Major banks solidified their status as dominant providers of capital.

After Occupation ended in 1952, three of the leading zaibatsu—Mitsui, Mitsubishi and Sumitomo—began to reassemble themselves in a looser structure known as keiretsu. Three other keiretsu later emerged—Fuji, Dai-ichi and Sanwa. Keiretsu-type business groups play a significant role in the economies of most developing countries (Granovetter, 1994). Such business groups are formed for a

[1] There were pre-Meiji trade associations that resembled medieval guilds, engaged in setting quality standards, joint programs for insurance, training facilities and welfare programs as well as price fixing. As industrialization proceeded during the Meiji era, the papermakers' and spinners' associations took on the aspects of a modern cartel (Hirschmeier and Yui, 1975). However, Ramseyer (1993) concludes that the cotton spinning cartels failed to restrict industry output or earn monopoly rents.

variety of reasons: to exercise market power; to utilize common resources such as technology, plants, brand names or distribution systems that might not be efficiently exploited in market transactions; to compensate for informational imperfections in capital and labor markets; and to seek favorable treatments from government (Ghemawat and Khanna, 1998). Ties among Japan's keiretsu firms have been looser than in business groups in emerging economies such as Korea's chaebol, which typically involve family ownership and control. Instead, Japan's keiretsu firms were linked through equity cross-ownership and personnel exchange. By 1965, the six largest Japanese keiretsu accounted for 30 percent of large corporation assets (including government corporations) in Japan (Caves and Uekusa, 1976). At the core of each keiretsu was a bank that provided financial resources and a general trading company that served as an intermediary for transactions of member firms.

The main-bank system evolved during this period; each firm looked to a single bank to take the lead in organizing its financing and provide the majority of its other banking needs. Through the 1990s, it was common for banks to have equity ownership in their customer firms, and the dual status of main banks as lenders and shareholders lessened the conflicts of interest typically present between providers of debt and equity (Prowse, 1990). The main bank monitored companies, though it only became involved in corporate decisions if a company ran into financial difficulty.

Up through the late 1970s, Japanese capital markets were heavily regulated. Bank lobbying blocked the formation of bond markets until the late 1970s and maintained the ban in the Foreign Exchange Law on issuing bonds abroad until the 1980s (Karp and Koike, 1990). Thus, through the 1970s, the main banks were effectively the only source of external capital (Hoshi and Kashyap, 2001). The bank system of financing favored large firms. During the 1956–1971 period, the largest class of firms paid a third less for debt capital than did firms in the smallest class (Caves and Uekusa, 1976).

Shareholders other than banks had limited power. Outsiders were uncommon on boards of directors; the few outside directors were normally bank nominees. Financial disclosure rules were lax. The market for corporate control was virtually nonexistent, partly because regulations made takeover bids quite difficult. The combination of cross-shareholdings and interlocking directorates among member firms, loans and monitoring by group banks, and transactions among keiretsu-affiliated companies served as coordination mechanisms that could limit competition. Cross-shareholding shielded Japanese companies from capital market pressure (Sheard, 1991), and Lawrence (1993) presented evidence that the cross-stockholdings of horizontal keiretsu worked as barriers to foreign acquisition of Japanese firms and impeded foreign direct investment.

The interfirm relationships among keiretsu were seen as a barrier to entry into the Japanese market. Keiretsu companies traded within groups and could engage in anticompetitive practices by excluding trade with outsiders (Lawrence, 1991). For example, Fung (1991) found that keiretsu groups had a negative impact on the U.S.-Japan bilateral trade balance.

Post–World War II Competition Policy

Chalmers Johnson (1982, p. 19) defines industrial policy as "a concern with the structure of domestic industry and with promoting the structure that enhances the nation's international competitiveness." Japan's approach to industrial policy, which encompasses competition policy, was relatively interventionist, targeting particular industries for development and involving extensive government guidance to industry. The government, the ruling party and large Japanese firms all considered weak antitrust enforcement as beneficial to economic development. The widespread belief was that industries needed to be protected and nurtured, especially in their "infant stage," and antitrust policy only complicated such efforts. It is not surprising, then, that Japanese antitrust policy differed in a number of important respects from U.S. practice.

First, many industries were exempt from antitrust rules, including (but not restricted to) small- and medium-sized companies and depressed industries in need of restructuring.

Second, cartels were legalized in a variety of circumstances, including recessions; when industry-wide cost reduction or quality enhancement were deemed necessary; small- and medium-sized companies, where collective bargaining power to cope with large buyers or sellers was seen as desirable; and exporting, when it was necessary to discourage "dumping" of Japan's exports in other countries at low prices by smaller companies.

Third, the Japanese Fair Trade Commission (FTC) was weak, enforcement of antitrust policy was lax (Takigawa, 1996) and criminal and civil sanctions in Japan were light. By 1989, the Japan's FTC had initiated only six criminal prosecutions in the 42-year history of the Antimonopoly Law. In contrast, between 1946 and 1989, the U.S. government filed 2,271 antitrust cases (First, 1995). Studies of other types of antitrust enforcement also show modest impact. Based upon data on 451 manufacturing firms between 1975 and 1994, Ariga, Ohkusa and Nishimura (1999) found that nonpunitive FTC actions were associated with lower markups in the targeted markets, while formal injunctive measures (*kankoku shinketsu*) had no impact on markups.

Fourth, other parts of the Japanese government, especially the Ministry of International Trade and Industry (MITI), sometimes intervened in business conduct in ways that limited competition. Beginning in the 1950s, for example, MITI was involved in setting production volume in industries such as textile, paper and pulp, chemical fertilizer and steel. MITI allowed companies in these industries to form cartels to facilitate the implementation of government "administrative guidance," a phrase used in Japan to refer to government intervention not backed by specific laws. The Fair Trade Commission was silent about this practice until the 1970s, when it declared that such cartels would be prosecuted even if formed under MITI guidance (Kisugi, 1995, 1999).

Fifth, a provision of Japanese Antimonopoly Law limited private suits unless the Japanese FTC took formal action, at least in the form of a preliminary finding of a violation and recommendation of remedial action. Thus, the Japanese FTC could eliminate the private right of action either by not becoming involved or by treating a matter informally through warnings or guidance rather than through a

formal proceeding (First, 1995). Japanese private parties filed only seven antitrust damage suits by the mid-1980s. The plaintiffs in two of these cases settled; all others lost. The lack of private litigation also reflects in part the general institutional barriers to litigation in Japan, including the shortage of lawyers and considerable delays in the judicial system. However, private damage actions have played a critical role in antitrust enforcement in countries such as the United States, so that this dimension of Japanese practice has further limited antitrust enforcement (Ramseyer, 1985).

In addition to weak antitrust, legalized cartels and intervention to set capacity in particular industries, Japanese government policy also limited competition in the 1950s, 1960s and early 1970s through barriers to trade and foreign investment. To protect domestic companies after World War II, government imposed restrictions on imports and on inward foreign direct investment. Trade liberalization proceeded in stages from 1961, and by 1975 import restrictions remained for only 27 classes of goods, compared with 474 classes of goods subject to import restrictions in 1961. Liberalization of FDI started in 1967 and was largely completed in 1973 (Tsuruta, 1984). While the official barriers to FDI were removed, some have argued that the institutional barriers from the keiretsu structure remained (Lawrence, 1993).

Based on the combination of keiretsu, main banks, cartels, weak antitrust enforcement and government encouragement of collaborating firms, it would appear that Japan's industrial structure was not very competitive compared to other countries like the United States. But a surprising complication arises. Most of the empirical studies comparing the intensity of competition in Japan to the United States and other countries fail to reveal the expected differences.

Empirical Evidence on Competition in Japan

The degree of competition in Japan's economy can be measured in a number of ways: standard concentration measures like four-firm ratios or the Herfindahl-Hirshman Index; relative profitability; the rate of erosion of profits; relative profits for certain groups of firms such as keiretsu-affiliated firms; and profitability in industries involving government-allowed cartels or government targeting. Empirical evidence in these areas during the decades of Japan's rapid economic growth from the 1950s through the early 1980s does not reveal less competition in Japan than in other industrialized economies.

The common impression is that Japanese industry is more concentrated than in other countries. Using 1963 data, however, Caves and Uekusa (1976) compared concentration levels in 512 Japanese and 417 U.S. manufacturing industries and found that the weighted average four-firm concentration ratio was 40.9 percent for U.S. industries, 35.4 percent for Japanese industries (the unweighted figures were 38.3 percent and 37.5 percent, respectively). They found no substantial difference between the two countries.

If Japanese competition is limited, Japanese firms could presumably earn higher profit margins. However, little evidence exists that the profitability of Japanese firms is higher. Overall, Japanese firms registered *lower* profitability than

firms from other advanced nations, especially the United States. For example, Jacquemin and Saez (1976) compared the profitability of large Japanese and European firms and found that Japanese firms had an average return on sales about 1 percent lower than the European firms in 1972. Hatsopoulos and Poterba (1993) found that Japan's return on assets for all manufacturing companies was roughly half that of the United States between 1973 and 1991. Blaine (1993) concluded that Japanese firms showed lower profitability than American firms during the 1985–1989 period even after adjusting for differences in tax rates, accounting practices and debt levels between the United States and Japan. The average annual return on assets for American firms was 6.3 percent versus 4.3 percent for Japanese firms; return on equity, 11.5 percent for the United States versus 10.6 percent for Japan; operating margin, 10.2 percent for the United States versus 5.4 percent for Japan.[2] Capital productivity in Japanese firms was also markedly lower. Borsch-Supan (1998) found that Japanese capital productivity during 1991–1995 was 66 percent of the U.S. level. Shinjo and Doi (1989) found that the estimated welfare loss that is attributable to price deviations from marginal cost in Japan in the 1960s and 1970s ranged between 1 and 2 percent of national income, similar to the order of magnitude reported for the United States and European countries.[3]

In a competitive economy, excess profits and losses should quickly regress to normal levels (Mueller, 1990; Geroski, 1990). In an economy characterized by collusion, the speed of profit adjustments should be slower because price levels of profitable industries will be maintained and the decline of existing inefficient companies will be slower. Yamawaki (1989) found that short-run excess profits and losses eroded at a similar rate in Japan and the United States over the 1964–1982 period. Odagiri and Yamawaki (1990) found that the persistence of profitability was similar in Japan, Canada, France and the United States for the same period.

Even if higher profits are not the case for all Japanese firms, perhaps they are for keirestu firms. If keiretsu firms are more collusive, they should achieve higher profitability than independent firms. Caves and Uekusa (1976) found that keiretsu-affiliated firms earned, on average, about 1 percent lower return on total assets and 1.5 percent lower return on equity for the period 1961–1970 than independent companies. Nakatani (1984) examined the period 1971–1982 and found keiretsu firms grew at a slower pace and tend to have lower profits than independent firms. He also found that the variation of growth and profit rates over time is significantly less for keiretsu firms, suggesting that keiretsu affiliation appears to stabilize

[2] One might argue that the lower profit levels for Japanese firms are due to their lower cost of capital. Though many empirical studies find that the cost of capital is higher in the United States than in Japan, Poterba (1991) discusses methodological difficulties associated with these studies, and Kester and Luehrman (1992) argue that there is no significant difference between the two countries if the cost of capital is measured as the sum of a risk-free interest rate and a risk premium, an index that circumvents methodological problems.

[3] Odagiri and Yamawaki (1990) found that the proportion of companies that survived over the 1964–1984 period was 87 percent in Japan, much higher than 58 percent in the United States, 11 percent in the United Kingdom and 46 percent in France, consistent with more muted competition in Japan. However, this is due primarily to a far lower number of mergers and acquisitions in Japan, while liquidation rates are quite similar across countries.

corporate performance at the cost of a lower performance level. Weinstein and Yafeh (1995) examined data on 994 Japanese manufacturing firms in 1988 and tested whether keiretsu firms colluded to set output levels and enhance price-cost margins. On the contrary, they found that keiretsu firms tend to have lower price-cost margins. They interpret their results as evidence that, due to the pressure from banks, keiretsu firms used more than the profit-maximizing level of capital, resulting in overproduction and fiercer competition than non-keiretsu firms.

Empirical evidence also often contradicts the view that keiretsu worked as entry barriers to foreign firms. Ueda and Sasaki (1998) showed, in an analysis of 561 firms in 1993, that after controlling for industry-specific effects, keiretsu firms did not import less than independent firms. On the contrary, they found some evidence that firms in traditional zaibatsu groups imported more than other firms. Indeed, the value of imports by a leading keiretsu trading firm, Mitsubishi Corporation, was an astounding 3 trillion yen (about $30 billion) in 1999.[4]

In general, Japanese trade patterns are found to be generally consistent with Heckscher-Ohlin theories of trade and comparative advantage; that is, Japan's overall trade structure can be explained by Japan's pattern of factor endowments as a country with high population density, relatively little arable land, limited natural resources, highly skilled workers and a high level of capital investment (Leamer, 1984, 1988; Saxonhouse, 1983). Weinstein (1997) argued that the levels of foreign direct investment into Japan were less out of line with international levels than was widely believed, after adjusting for data problems. He pointed out that Japanese government statistics on inward foreign direct investment underrepresented the true figure because of poor coverage of the firms surveyed, a narrow definition of foreign direct investment and the lack of price adjustments to stocks of foreign direct investment. By using more reliable private data, Weinstein concluded that the level of foreign direct investment in Japan could be six times higher than indicated by the official statistics. This adjustment put foreign firms' share of the Japanese market at 6 percent—lower than the U.S. figure by a factor of two, not ten.

Another indication of the nature of competition is the incidence of cartels. In both Japan and the United States during the 1960s and 1970s, illegal cartels tended to appear in industries with high concentration ratios, slow growth, high capital intensity and cyclical demand or profitability (Asch and Seneca, 1975; Hay and Kelley, 1974; Yokokura, 1977, cited in Uekusa, 1982), suggesting that the inducements to collusive behavior are similar in both countries.

Finally, there is a question of the extent to which interventions by the Japanese government discouraged competition. Weinstein (1995) studied the impact of administrative guidance and cartels to coordinate reductions in sales and capacity and encourage higher prices during the 1957–1988 period. He found that, in general, these cartels led to only small positive changes in prices and had no impact on margins. Dick (1992) analyzed export cartels during the 1950–1985 period and

[4] These empirical findings do not prove that keiretsu firms do not collude. We agree with Saxonhouse (1993) that the failure to find keiretsu effects might be due to measurement errors or other econometric limitations. But the evidence for collusion among keiretsu firms is quite weak.

found them more likely to reduce prices and increase quantities than the reverse. Ito and Maruyama (1991) and Nishimura (1993) compared the United States and protected Japanese distribution, wholesaling and retailing sectors and found that gross margins in the two countries were quite similar. There is also evidence that government-organized cooperative activity was beneficial when it did not induce collusion. Branstetter and Sakakibara (2002) found that government-sponsored R&D consortia increase research productivity of participating firms when consortia participants were not direct competitors in the product market.

The empirical evidence, then, seems to indicate that the level of competition in Japan was similar if not higher than that of other industrialized economies in the 1960s and 1970s, at the height of the period during which Japan's supposedly interventionist industrial policy seemed to be ascendant.

Reconciling Practices and Evidence

How can we reconcile the unmistakable differences in Japanese industrial structure, policies and competitive practices with the empirical evidence? First, looking at average levels of competition obscures major differences among various parts of the Japanese economy. As it turns out, the parts of Japan's economy with more competition have dramatically stronger economic performance. Second, the *types* of competition prevalent in Japanese industries are different in important ways from those prevailing in the United States and other advanced countries. These differences help to explain why a nation so internationally successful could have fallen on such hard times in the 1990s even though many of the most obvious barriers to competition had been lifted.

Two Japans

A closer look at competition in the Japanese economy reveals two starkly different groups of industries. One group of industries, including automobiles, consumer electronics and robotics, is highly competitive and internationally successful. The other group, including traded industries (such as chemicals, civil aircraft, consumer packaged goods and software) and virtually all nontraded domestic industries (such as construction, retailing and transportation), has much lower levels of productivity. The traded industries in the latter group have never been internationally successful. The large, unsuccessful portion of the Japanese economy has been a chronic drag on overall productivity, elevating the cost of living and the cost of doing business in Japan (Porter, Takeuchi and Sakakibara, 2000). Tables 1 and 2 summarize the international position of selected internationally successful and unsuccessful industries, the nature of domestic rivalry and the role of government.

In the internationally successful group of industries in Table 1, the level of local competition and the intensity of local rivalry is extremely high. Numerous firms compete in each industry, often because of imitative entry by keiretsu. Interventionist industrial policies ascribed to Japan are almost entirely absent.

Table 1
Local Japanese Rivalry and the Role of Government on Competition in Internationally Successful Industries

Industry	*Japanese position*	*Local Japanese rivalry, role of government on entry and rivalry in the postwar period*
Electronics		
Car audio	World leader	• 12 independent car audio manufacturers in 1987 (and 8 in 1997) from various backgrounds and with varying strengths led to innovation. • No government intervention.
Facsimile machines	Dominate world production and world export share (just under 100 percent)	• Rivalry among 13 competitors (as of 1976) resulted in improved product quality and falling prices. • No government intervention.
Home audio equipment	World leader in the production and export of many home electronics products	• Intense rivalry among 25 Japanese firms producing branded audio equipment. • No government intervention.
Microwave and satellite communications equipment	World leader in satellite communications products	• Local rivalry among five Japanese companies. • No official entry restriction but "NTT family" companies received favorable treatment.
Semiconductors	World leader in the early 1990s	• 15 rivals in 1997 competed fiercely. • Import and foreign investment restrictions were abolished in 1974.
Typewriters	World leader	• 8 rivals in 1997, intense domestic rivalry with the advent of electronic typewriters. • No government intervention.
VCRs	Dominate world production and world export share (just under 100 percent)	• 9 rivals in 1997. Fierce domestic competition between the VHS and Beta camps led to constant innovation and upgrading. • No government intervention.
Leisure products		
Musical instruments	World leader	• Yamaha and Kawai, both headquartered in Hamamatsu, competed fiercely with each other. • No government intervention.
Machinery		
Home air conditioners	World leader by the early 1980s	• High levels of competition among 13 key players forced constant product upgrading. • No government intervention.
Sewing machines	World leader in the production and export of industrial sewing machines	• Intense rivalry among numerous Japanese competitors (20 in home sewing machines alone). • Import restrictions in the early postwar period.
Robotics	World leader	• Intense local competition among producers (280 in 1987 and 190 in 1997). • No government intervention.
Materials		
Carbon fiber	Share the leading position with the United States	• Intense local rivalry among seven Japanese rivals. • No government intervention.

Table 1—continued

Industry	*Japanese position*	*Local Japanese rivalry, role of government on entry and rivalry in the postwar period*
Continuous synthetic weaves	World leader	• More than 5,000 Japanese producers in 1986. • Attempt to scrap-and-build capacity in the mid-1980s led to capacity expansion since newer looms generally were of higher capacity than old looms.
Optical and precision instruments		
Cameras	Dominate world production and world export share (just under 80 percent)	• 15 rivals in 1987 and 13 in 1997. Fluctuations of market share among leading firms signal aggressive local rivalry. • Recession cartel to limit production volume in 1965 lasted nine months. Firms directed their efforts to exports.
Prepared foods		
Soy sauce	World leader	• Intense local rivalry among thousands of Japanese soy sauce companies (2,500), encouraged continuous product and process upgrading. • No government intervention.
Software		
Video games	World leader	• Intense local rivalry among many Japanese developers (more than 500 third-party software developers provide game software to Sony). • No government intervention.
Transportation equipment		
Automobiles	World leader	• Nine automakers competed vigorously across multiple product segments. • Government's efforts of industry consolidation failed.
Forklift trucks	World leader	• Intense domestic rivalry among eight Japanese rivals spurred efforts for constant cost reduction, product improvement and export. • Import barriers were lifted in 1964–1965, spurring improvement by Japanese competitors.
Tires for trucks and buses	Share leading position with the United States	• Fierce domestic competition among five Japanese companies. • Recession cartel in 1965, which restricted production volume and allocated market share. Government "guidance" encouraged reduction in the number of tire varieties from 167 to 58. Encouraged revision of the production system in 1965.
Trucks	World leader	• Intense domestic competition among 11 Japanese rivals. • Import prohibition was lifted in 1961. Few imports occurred because of the low domestic price and different local needs (small trucks).

Source: Adapted from Porter, Takeuchi and Sakakibara (2000).

Either these industries were left alone by policymakers or they rejected government guidance. In automobiles, for example, MITI tried in the early 1960s to reduce the number of automobile assemblers by forming three groups, with two to three firms

Table 2

Local Japanese Rivalry and the Role of Government on Competition in Internationally Unsuccessful Industries

Industry	*Japanese position in 1998*	*Local Japanese rivalry, role of government on entry and rivalry in the postwar period*
Manufacturing		
Civil aircraft	Less than 1 percent of world export share. Huge trade deficit in civil aircraft	• Licensing requirements for manufacturers and repairers. • All aircraft and engine development projects since 1953 are collaborative with predetermined work allocation. No rivalry developed.
Chemicals	6 percent world of export share. Accounts for 14 percent of total world production, mostly for the protected home market	• Intensity of rivalry was limited by government influence on production levels and capacity (see below). • Petrochemicals: entry approval (1956–1972). Though virtually all the applications were ultimately approved, this policy hindered competition. A minimum scale was set for the approval, but many plants did not achieve economies of scale. • Chemical fertilizers: price control (1946–1989) and supply control (1946–1989). Delayed the chemical sector's shift to petrochemicals. • Petrochemicals—approval of capacity expansion, promotion of joint investment (1956–1987). • Recession cartels for petrochemicals (1972, 1982), synthetic resin (1959, 1966, 1972, 1977, 1982) and fiber (1975, 1978–1979, 1981). • Excess capacity scrap by petrochemicals (1978–1988), synthetic fiber and chemical fertilizers (1978) through cartel formation, with favorable loans and tax incentives. • Promotion of mergers, joint production and sales.
Services		
Securities	Lagged behind the United States and Europe in areas such as financial advisory services, derivatives and venture capital. International involvement is overwhelmingly based on the low interest rates and serving the offshore needs of Japanese companies. Marred by fraud and bankruptcies.	• Entry restrictions (Registration system from 1948 to 1965, licensing system by the line of business since 1965) and other regulations (see below) by the government limited firms' ability to innovate and upgrade. • Fixed brokerage and underwriting commissions until the mid-1980s limited rivalry. • A comfortable oligopoly of four (now three) powerful firms was encouraged. • Branch office licenses were not granted to foreign firms until 1971. • Tokyo Stock Exchange membership was not granted to foreign firms until 1986. • Allocation of corporate bond underwriting shares since 1951. • Allocation of government bond underwriting shares (1965–1977). • Approval or guidance for setting up new branches, mergers, entry to new businesses since 1965. • Fixed pricing scheme for bond issues. • Division of work between banks and securities firms since 1948. • No "Chinese Walls" to separate underwriting from brokerage until 1988. Encouraged the sales-driven nature of the business and contributed to stock price manipulation.

Table 2—continued

Industry	*Japanese position in 1998*	*Local Japanese rivalry, role of government on entry and rivalry in the postwar period*
Software	Not a single Japanese firm is included in global top 20 software vendors list	• Very few significant competitors in applications software except in video games, the one segment where Japan is successful. • MITI represented computer makers in negotiating with IBM for licensing agreements in return for allowing IBM production in Japan in 1960. Government approval requirements delayed IBM's full-fledged entry to the Japanese market.
Consumer goods		
Detergents	Kao and Lion hold 70 percent of the Japanese market, but have virtually no international presence	• Competition was limited primarily to two Japanese companies. • The complex distribution system worked as a barrier to entry. • Restriction of inward foreign direct investment until 1970. • Abolition of the Resale Price Maintenance System in 1973. Invited price reduction, made the industry even less profitable.
Apparel	Less than 1 percent of world export share. Huge trade deficit in apparel	• Major rivals competed to acquire licensing rights of overseas brands, foregoing the development of new designs and new fashion concepts. • No government intervention.
Prepared foods		
Chocolate	Less than 0.1 percent share of world exports	• Very little differentiation among the leading 5 competitors, which constantly imitated one another's products. • Import quota abolished in 1974. • 35 percent tariff since 1974—reduced to 20 percent in 1983 and to 10 percent in 1988.

Source: Adapted from Porter, Takeuchi and Sakakibara (2000).

in each, that would specialize in different product categories. Companies refused to follow the guidance and net entry actually occurred, including Honda Motor Company, Fuji Heavy Industries (maker of Subaru) and Toyo Kogyo Company (now Mazda) (Tsuruta, 1984).

In the internationally unsuccessful industries in Table 2, government policy and private efforts to limit competition were widespread. For example, telecommunications, petroleum, banking, securities and broadcasting experienced regulatory entry barriers. The chemical industry experienced heavy "administrative guidance" under which entry and capacity expansion were coordinated and joint investment was promoted. Electricity, pharmaceuticals and securities brokerage all operated under price controls. Construction had extensive price fixing and bid rigging.

Import barriers and unfair trade practices in the 1970s and 1980s were heavily concentrated in the internationally unsuccessful group. Beason and Weinstein (1996) examined the use of industrial policy tools such as tariffs and quotas,

subsidies and corporate tax breaks and government loans over the 1955–1990 period. Their results are summarized in Table 3. They found that a disproportionate amount of Japanese targeting occurred in low-growth sectors and sectors with decreasing returns to scale. This finding was the opposite of the conventional wisdom at the time that Japan targeted high-growth, emerging sectors. Such sectors, by and large, were bypassed by government targeting. Part of the impetus for the government to enhance competition and reduce barriers in high-growth sectors came from the desire to export, which required quid pro quo reductions of trade barriers on the import side.

Much empirical evidence reveals these stark differences in the level of competition across Japanese industries—and the consequences of these differences. Sakakibara and Porter (2001) examined the determinants of export performance in a broad sample of 77 internationally traded products between 1973 and 1990. They regressed the lagged export performance, measured by the share of a Japanese industry's exports of total world exports averaged over 1991–1993, on measures of domestic rivalry. The intensity of domestic rivalry was calculated as the sum of the absolute value of the annual percentage-point changes in domestic market share for market leaders between 1973 and 1990. They found that the intensity of domestic rivalry is strongly and positively associated with world export position.[5] Internationally successful industries were those where there was a high level of domestic competition. In the same study, a measure of the incidence of cartels had a significant negative effect on world export share. Limits on rivalry reduced world export share rather than enhancing it.

Similarly, Porter, Takeuchi and Sakakibara (2000) examined all of Japan's government-sanctioned cartels from 1953 to 1994. They found virtually no cartels in Japan's highly successful industries, while cartelized industries such as petrochemicals, chemical fertilizers, textiles and cement were largely unsuccessful internationally. Compartmentalized collusion between trade associations, politicians who worked for special interest groups (*zoku*-politicians) and bureaucrats preserved trade protection for these heavily cartelized industries (Aoki, 1988). Trade associations played an effective lobbying function (Schaede, 2000). Tilton (1996) argued that the inefficiencies in Japan's basic materials industries were preserved by cartels in these industries.

Nishimura, Yasushi and Ariga (1999) found further evidence that intense competition was present in industries that succeeded internationally, while competition was limited in others. They examined 24 industries over the 1971–1994 period and found that internationally successful industries such as automobiles and industrial machinery had lower markups than other industries.

Industries in the internationally successful group experienced active entry, while entry was suppressed in the internationally unsuccessful group. Yamawaki (1991) found that during 1980–1984, industries such as electric equipment, electronic equipment and communication equipment registered high rates of net

[5] There is a debate about whether competition leads to economic growth or growth stimulates competition. For a discussion in the case of Japan, see Odagiri (1992).

Table 3
Growth, Economies of Scale and Targeting in Japan (1955–1990)

	Annual growth rate	*Scale parameter*	*Relative levels of targeting (ranking in parentheses)*			
			Government loans	*Subsidies*	*Tariff*	*Tax break*
Electrical machinery	12.17	1.01	1.32 (8)	−2.28 (9)	−5.9 (8)	−0.403 (8)
General machinery	11.39	1.04	0.75 (12)	−1.34 (4)	−8.4 (11)	−0.403 (8)
Transport equipment	10.76	1.08	1.82 (7)	−2.54 (11)	1.4 (4)	−0.403 (8)
Fabricated metal	10.07	1.07	1.02 (10)	−1.51 (6)	−9.3 (12)	−0.069 (7)
Petroleum and coal	9.78	—	13.05 (2)	−15.56 (13)	−4.8 (7)	−0.009 (3)
Precision instruments	9.33	—	0.40 (13)	−2.46 (10)	−4.4 (6)	−0.403 (8)
Ceramics, stone and glass	8.66	—	3.14 (5)	−1.79 (8)	−7.2 (9)	−0.009 (3)
Pulp and paper	7.66	0.604	2.25 (6)	−1.38 (5)	−8.1 (10)	−0.891 (13)
Chemicals	7.64	0.960	4.85 (3)	−1.57 (7)	−2.6 (5)	−0.009 (3)
Basic metals	7.17	0.893	3.77 (4)	−0.99 (2)	8.5 (3)	−0.069 (6)
Processed food	6.29	0.730	1.11 (9)	−10.67 (12)	44.7 (1)	−0.736 (12)
Mining	3.83	0.671	15.95 (1)	0.25 (1)	−20.9 (13)	6.658 (1)
Textile	2.73	0.556	0.95 (11)	−1.24 (3)	17.0 (2)	0.719 (2)

Notes: Annual growth rate: Average annual rate of growth calculated as the difference of logs of real gross output.
Scale parameter: Estimated. One implies constant return to scale, less than one implies decreasing returns, more than one implies increasing returns.
Government loans: The share of borrowing that was obtained at a subsidized rate.
Subsidies: Net transfers (subsidies less indirect taxes) to the industry as a percentage of output.
Tariff: Effective rates of protection in terms of the deviation from the average level.
Tax break: Overall effective tax rates minus receipts of corporate taxes divided by taxable income.
Ranking: The degree of support received under each policy (1: most assisted, 13: least assisted).
Source: Adapted from Beason and Weinstein (1996).

entry. The entry rate tended to be negative or low for textile and wood products, both subject to cartels and intervention.

Collectively, the findings suggest that where Japan's economy has had healthy competition, it has also experienced strong productivity, innovation and international success. Where competition has been absent, Japan has paid a steep price. Studies that fail to account for these differences across industries in level of competition can be highly misleading.

The Nature of Competition in Japan

The nature of competition in Japan is distinctive in a number of ways: the corporate goals, rapid imitation, internal diversification, me-too entry and barriers to exit. In some cases, these distinctive characteristics have offered advantages to Japanese firms vis-à-vis foreign rivals. Overall, however, the prevailing types of competition in Japan have contributed to the problems of Japan's internationally unsuccessful industries. They have also extracted a toll on the internationally successful industries, especially after western firms imitated Japan's total quality practices in the 1980s and 1990s. We will consider the differences in the types of competition in turn.

The *corporate goals* of Japanese firms rank size, growth and market share ahead of profitability. This lack of emphasis on profits typically occurs because main banks provide most new capital and cross-shareholdings are extensive, limiting governance pressures for profit maximization. In particular, the main bank does not appear to look out for shareholder interests. Weinstein and Yafeh (1998) examine 686 firms between 1977 and 1986 and find that prior to the liberalization of financial markets in Japan, banks could use their monopoly power to squeeze their clients' profits through interest payments. Morck and Nakamura (1999) find that entertainment spending—a proxy for perks consumption—does not fall subsequent to banker appointments to boards in bank group firms but does so in other firms, suggesting that bank oversight is an imperfect substitute for shareholder oversight.[6]

Japanese firms place some emphasis on profits. Several studies have shown that chief executive officers (CEOs) of Japanese firms do lose their jobs over poor performance. For example, Kaplan (1994) argues from 1980–1988 data that the relations between Japanese CEO turnover and firm performance are similar to those for the U.S. counterparts. Abe (1997) showed, from the data of 1,112 firms between 1974 and 1990, that while CEO turnover in Japan is related to long-term firm performance including stock returns and income growth, poor growth of sales or employment in the short term also increases the probability of turnover for the top executives.[7] But instead of a sole focus on profit maximizing, corporate management decisions of Japanese firms place a dual emphasis on shareholders and on the interests of employees (Aoki, 1988). Blinder (1993) shows that inclusion of employee welfare in the objective function along with profits leads a firm to maximize revenue rather than profits. In his model, a firm chooses both the amount of labor input and wage, with labor the only variable input. The firm maximizes the sum of profits and worker utility, which is a function of the product of labor input and wage. Since workers only care about total worker utility, the firm is free to lower wage and raise labor input as long as it keeps the product of labor input and wage constant. It will be profitable to do so as long as marginal revenue is positive. This pattern is consistent with the lower average profitability in Japanese industry than in other advanced nations, notably the United States.

The peculiar Japanese accounting system also helped managements to perpet-

[6] Morck and Nakamura (1999) argue from the study of 383 manufacturing firms during the 1981–1987 period that Japanese banks act primarily in the short-term interests of creditors when dealing with firms outside bank groups. Since banks are increasingly serving this type of customer, this finding implies that corporate control mechanisms other than bank oversight are necessary.

[7] Empirical evidence on whether Japanese firms maximize long-term market share by sacrificing short-run profits is mixed. Brown, Soybel and Stickney (1994) find that the cost of goods as a percentage of sales is significantly higher for Japanese firms than it is for U.S. firms. They interpret this result as evidence of Japanese firms' low pricing strategy to achieve high market share. On the contrary, Langlois (1997) found that Japanese big four automakers—Toyota, Nissan, Honda and Mazda—enjoyed equal or higher margins over the cost of goods as a percentage of sales than their Big Three rivals in the U.S. market in the 1980s. She also found the pricing strategy of Japanese automobile makers is compatible with short-run profit maximization, not with a low pricing strategy that sacrifices profitability. In the case of foreign direct investment, Caves (1993) surveyed literature on Japanese investment in the United States and concluded that Japanese behavior is fully explicable by the microeconomic behavior that other countries' foreign investors have exhibited.

uate themselves. Up until the early 1990s when real estate values and stock markets collapsed, Japanese firms had unrealized capital gains on land and stock that had been typically recorded at a very low book value. These gains provided a cushion allowing managements to satisfy stakeholders without achieving high operating profits: providing job stability and wage increases to employees, assuring stable dividend payments to shareholders and servicing loans to banks.

Japanese firms exhibit a strong tendency *to imitate each other's strategy* (Abegglen and Stalk, 1985; Cooper, 1995; Porter, Takeuchi and Sakakibara, 2000). There is rapid imitation of successful new products; for example, Cohen, Goto, Nagata, Nelson and Walsh (2002) find that the imitation lag of nonpatented product innovations in Japan is 1.98 years, shorter than the 2.80 years in the United States (see also Asaba, 1999). Capacity expansion (Miyagawa, Wakabayashi and Uchida, 1996), foreign direct investment (Head, Ries and Swenson, 1995) and diversification into similar product lines and new business areas (Porter, Takeuchi and Sakakibara, 2000) often happen simultaneously for many firms. Seeking growth and market share, Japanese firms have a tendency to enter virtually all segments and offer all possible product features. The presence of keiretsu groups also fosters breadth and product proliferation because companies are prone to attempt to serve the needs of all keiretsu group-affiliated companies (Porter, Takeuchi and Sakakibara, 2000). Indeed, one reason for the low profitability of Japanese companies is that they tend to exhaust all the growth possibilities by entering businesses where they may not have any distinct advantages.

Imitation rather than strategic uniqueness is also encouraged by the nature of Japanese consumers. Japan is a homogenous society with limited immigration, similar educational levels, a uniform curriculum up through high school, exposure to the same media messages via dominant national newspapers and TV stations, similar living conditions (like small houses) and a relatively equal income distribution. As a result of these factors, Japanese consumers tend to develop similar tastes. Acceptance and penetration of new products and services, once it begins, is often very rapid in the Japanese market.

The active entry into internationally successful industries is typically dominated by *internal diversification* by keiretsu seeking growth opportunities and enjoying superior access to capital (Yoshihara, Sakuma, Itami and Kagono, 1981), rather than by new company formation (Imai and Kawagoe, 2000).[8] Since market entry through acquisition of an existing company has been limited by cross-shareholdings, the only way to enter a new market is to start a new company through internal diversification. Keiretsu firms have less severe financial constraints than independent firms, and so they tend to grow into any business segment even if they do not have any specific competitive advantage in the segment. Entry by keiretsu further

[8] Imai and Kawagoe (2000) found that the rate of new company formation in Japan in the late 1990s was 4 to 5 percent, much lower than 9 to 14 percent in the United States, 11 to 12 percent in Germany, 11 percent in France and 13 percent in the United Kingdom. However, the protracted Japanese recession may have affected new company formation rates in Japan during this period.

accelerates the tendency for competition to take place on the similar dimension in both successful and unsuccessful sectors.

The combination of size and market share as corporate goals together with the tendency toward imitation and internal diversification leads Japanese firms to practice considerable "*me-too entry*," where entry occurs in industries even if many rivals are already in place and profit prospects are modest. We observe a large number of Japanese rivals in industries where entry is not restricted. In 1997, for example, there were 190 robotics companies, 20 sewing machine companies and 20 fax machine makers (Porter, Takeuchi and Sakakibara, 2000). Many, but not all, of these entries were the result of internal diversification by large corporations. Profitability is thus depressed.

Finally, *barriers to exit* have perpetuated unsuccessful rivals, prevented successful firms from earning attractive profits and accentuated the convergence of strategy. The combination of the bank-centered financing system of Japanese firms, relatively weak pressure from capital markets and the underdeveloped market for corporate control allow weak firms to stay in the market. When firms have institutional source of capital such as main banks, firms are buffered from the selection pressures of capital markets (Levinthal, 1992). As a result, a firm may be in a vulnerable position in product markets but still survive for a considerable period of time.[9] Although there is a debate on the performance of the Japanese model of corporate governance, summarized in Yafeh (2000), there are clear signs that the costs of bank-centered financing have come to outweigh the benefits (Hoshi and Kashyap, 2001). Main banks tend to prolong the life of nonviable firms. Indeed, Japan's government often pressures banks to save troubled borrowers. While banks have been the beneficiaries of protective governmental regulation in the postwar period, they have been constrained in their ability to jettison unwanted clients (Milhaupt, 1996).

The Japanese legal system adds to exit barriers. Legal precedent supports lifetime employment, which has been the typical practice of large companies, and places substantial constraints on a company's ability to dismiss workers. Japanese courts have formulated a standard that any dismissal not "objectively reasonable and socially appropriate" is void. Courts have strictly construed the standard in favor of employees, forcing employers to bear the burden of proof. The courts have applied a strict standard that limits the rights of employers to dismiss workers even where workforce reductions are motivated by economic necessity (Araki, 1994).

The Japanese bankruptcy rules work as yet another exit barrier. The Japanese legal structure was initially formed under German influence that favors liquidation, but was then modified with a U.S.-type reorganization law (*Kaisha Kosei Ho*) after World War II. In the 1990s, only about one-eighth of bankrupt firms utilized legal

[9] From banks' viewpoint, Petersen and Rajan (1995) show that when credit markets are concentrated, as in Japan, banks are more likely to finance credit-constrained firms because it is easier for these banks to internalize the benefits of assisting the firms. Hoshi, Kashyap and Sharfstein (1990) show that Japanese firms that have strong ties to a main bank invest more and sell more after facing financial distress than firms without strong bank ties.

procedures, likely due to the high transaction costs of court-adjudicated procedures.[10] Out-of-court procedures involve negotiations with creditors to forgive debts and/or to form restructuring plans. Main banks typically play a central role in the negotiation of workouts. Heavy dependence on out-of-court procedures sometimes allows gangsters (*yakuza*) to intervene in the process of negotiation, driving up social costs (Imai and Kawagoe, 2000).

The types of competition that are common in Japan help explain why some Japanese firms can be innovative and highly successful in world export markets in certain products and yet earn consistently low rates of profitability. The types of competition also help explain why Japanese firms would be vulnerable to the catch-up of firms from other countries, because firms from other countries can adopt practices such as total quality control and lean production, but then will not practice the excessive diversification and me-too entry or accept the low profits characteristic of Japanese firms. Once Japanese firms are equaled in efficiency, they do not have much else to offer because they have lacked distinctive company strategies. The successful and innovative Japanese firms are also vulnerable because they are dragged down by the inefficiencies of other parts of the Japanese economy because of little competition and heavy government intervention. Many successful Japanese firms have diverted most investment abroad to avoid the high costs of the local market.

Reform of Japanese Competition Policy

Meaningful efforts to reduce the role of government in competition began in 1981. A turning point in Japanese competition policy came in the middle 1980s, when trade disputes with the United States and Europe became a major political issue and Japanese industrial policy was criticized as protectionist and unfair. In a highly visible report issued in 1983, the U.S. Semiconductor Industry Association criticized Japanese industrial policy. A series of trade disputes occurred in various large industries, including automobiles and steel. The so-called "Revisionist School" condemned Japanese practices, including Fallows (1989), Prestowitz (1988) and van Wolferen (1989).

Major Japanese firms were privatized, such as Nippon Telegraph and Telecommunications in 1985, or broken up, such as the Japanese National Railways

[10] Among filings of legal procedures, *Hasan Ho* (Bankruptcy Law—one of two liquidation procedures) accounts for 85 percent and *Wagi* (Composition Law—one of three reorganization procedures) for about 10 percent. Use of *Kaisha Kosei Ho* (Corporate Restructuring Law) was rather rare, despite occasional reports of filings by large companies in the press. Problems of *Kaisha Kosei Ho* include its lengthy procedure that takes about two years from its formal start to the court's approval, and it is subject to the discretion of judges unsympathetic to restructuring. While *Wagi* provides for a smoother procedure, it has its own problems, such as excessively severe requirements for filing and unanimous decisions for restructuring plans. In April 2000, *Wagi* was replaced by a new scheme, the Private Rehabilitation Law (*Minji Saisei Ho*), which aims to provide more efficient reorganization by easing requirements for filing and setting up a debtor-in-position procedure (Imai and Kawagoe, 2000).

Corporation in 1987, among other steps. In the late 1980s, the U.S. government identified lax antitrust policy as a structural problem that limited foreign entry into the Japanese markets, making antitrust policy a main issue in the Structural Impediment Initiative talks between the U.S. and Japanese governments in 1989–1990. The Japanese government began to take measures to strengthen antitrust policy in the 1990s (Kisugi, 1995, 1999). Measured by the number of cases brought by antitrust agencies, antitrust enforcement in Japan in the early 1990s began to approach that in the United States (First, 1995).

The deregulation of Japan's capital and foreign exchange markets started in the 1980s. Large firms began substantially reducing their dependence on bank financing by issuing bonds and seeking capital abroad. Banks started lending to small and medium companies. The bank-led system started to crumble (Hoshi and Kashyap, 2001). As a result, the role of the main bank as the primary corporate governance vehicle was weakened substantially without corresponding improvements in other corporate governance mechanisms, which may have contributed to the excesses of the so-called "bubble era" of overinvestment in Japan in the late 1980s.

The pace of opening the Japanese economy to competition accelerated from the mid-1990s. For example, entry restrictions were reduced in telecommunications, financial services, taxis, electricity generation and petroleum. Price controls were abolished in industries such as trucking, airlines and brokerage. The policy initiatives of the Koizumi administration in 2001–2003 have continued this trend and aim to go beyond what past governments have attempted. Corporate governance reforms were implemented in the early 2000s, including a stronger role for auditors and more transparent financial reporting. The widespread call for change motivated the acceleration of government policy to enhance competition. Voters have become disenchanted with the old status quo politics.

The level of competition in the Japanese economy has also increased in recent years due to foreign entry and changing industrial composition. Foreign direct investment has grown and penetrated traditionally protected service industries such as banking, life insurance, retailing and restaurants. The employment share of the highly protected agricultural sector has been shrinking rapidly.

However, Japan's economy has proved resistant to change, and many practices still stand in the way of healthy competition. Corporate governance remains muted. Managements remain prone to attempting to preserve unprofitable businesses and maintain employment rather than focus on business and products where they can offer unique competitive advantages. More Japanese companies are turning to mergers in industries including banking, steel, construction, pulp and paper, general trading and airlines, but these mergers are concentrating major industries without leading to meaningful restructuring, so that excess capacity still remains in these industries. Japan's government has continued to attempt to preserve failing companies and avoid radical restructuring through its approach to the bad-loan problem in Japanese banks. Large corporations have contributed to these policies through their political influence. For example, in October 2002, the Program for Financial Revival was introduced, which was intended to accelerate the disposal of

nonperforming bank loans. However, banks responded by raising capital to meet their capital adequacy ratios through issuing high-cost preferred securities, thus eroding the quality of their core capital, rather than by addressing their nonperforming loans. The establishment of an Industrial Revitalization Corporation (IRC) in 2003 to restructure troubled companies could be a constructive step, but the IRC will be subject to influence from vested interests and lobby groups, creating the risk that the selection of the companies will be politicized. It could end up being yet another means of avoiding real changes.

Regulatory distortions remain common and blunt productivity and competition in many industries. For example, entry restrictions remain in industries such as telecommunications, medical services, education and agriculture. Public procurement from small- and medium-sized companies is limited. Supermarkets and convenience stores still cannot obtain licenses to sell alcohol. Full deregulation of licensing was scheduled to start in 2003, but was postponed due to the opposition of mom-and-pop stores.

Antitrust enforcement remains timid. Japan's FTC is understaffed, and enforcement in industries such as telecommunications and energy is absent. Finally, the development of more flexible labor markets to absorb laid-off workers and managers has been slow.

While competition has long been vigorous in many Japanese industries and has been noticeably opened in the last decade, serious distortions and impediments to competition remain. Until Japan addresses these issues more frontally, the period of Japanese economic stagnation will be unnecessarily protracted. Almost all discussions of the cause of current Japanese stagnation concentrate on macroeconomic issues: a lack of aggregate demand, deflation and nonperforming loans held by banks. We agree that macroeconomic issues are important, but macroeconomic adjustment alone will not restore economic vitality. Japan's problem is rooted in microeconomics, in how companies compete and distortions to competition. These microeconomic structures reduce productivity, lower the return on new investment, drive companies offshore and artificially elevate local prices. A more flexible economy in which competition is truly open will increase productivity and create new business opportunities. A stimulus to aggregate demand will not be effective unless attractive goods and services are available at attractive prices. Disposing of nonperforming loans must be accompanied by policies that encourage new investment and the formation of new companies to which capital and labor can shift.

■ *We would like to thank Masahiko Aoki, Takahiro Fujimoto, Ryozo Hayashi, Thomas Hellmann, Takeo Hoshi, Michael Hutchison, Sandy Jacoby, Hugh Patrick, Hideki Yamawaki, the editors, and participants of the 22nd Annual International Conference of the Strategic Management Society and the West Coast Japan Economic Seminar at UCSD for helpful suggestions. We are grateful to Tatsuo Ushijima, Natarajan Balasubramanian and Jeongsik Lee for their excellent research assistance.*

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