

JAPANESE ECONOMIC SUCCESS: INDUSTRIAL POLICY OR FREE MARKET?

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Introduction

The advocacy of an "industrial policy" or a more extensive "government-business partnership" has come into vogue in recent years in the United States, particularly among political leaders. Indeed the idea that the United States must move in that direction appears to have become almost conventional wisdom in Washington.

Although it is not clear precisely what an "industrial policy" might entail, or how a "business-government partnership" would benefit this country's economic growth, it is quite apparent why these ideas are so widely promoted and so favorably received. American political and business leaders believe that the prime reason for Japan's phenomenal economic growth rate and industrial success since World War II has been the Japanese government's extensive involvement in economic activities. To those who are concerned with American competitiveness in the international market, it seems logical for the U.S. government to assume a similar, major role in directing this nation's economy; in other words, to formulate an American "industrial policy."

The basic question is: Is it possible for *any* nation to generate and ensure its economic vitality by having its government play a major role in directing economic activities?

Most businessmen and economists would answer this question by stating that, in general, heavy government involvement in a nation's economic activities is detrimental to economic vitality. Yet many others, particularly politicians and political scientists, either disagree or tend to consider Japan a fascinating exception. Chalmers Johnson

of the University of California at Berkeley—himself a political scientist—argues in his best-selling book, *MITI and the Japanese Miracle* (1982), that the Ministry of International Trade and Industry (MITI) has been instrumental in promoting Japan's economic growth.

Before Americans accept the policy of greater government intervention, based on hasty conclusions about the role Japan's industrial policies have played in achieving economic success, there are some legitimate questions that should be addressed. This brief paper is an attempt to provide at least some answers to the following questions:

1. How and to what extent has the Japanese government been involved in the economy through government expenditures, capital formation, financial sources, the ownership of corporations, and research and development (R&D) funds?
2. Is there clear evidence that certain manufacturing industries were significantly targeted by the Japanese government (through measures such as import protection, special privileges, financial aid, special tax policies)? If so, have these heavily "targeted" industries been successful in terms of economic efficiency and international competitiveness?
3. Have the bulk of the thousands of private entrepreneurs in Japan with their diverse interests in a highly competitive environment invested their capital, hired their employees, selected new technology, or developed their marketing strategies after consulting government officials?
4. Is there any evidence that an invigorated postwar market economy in Japan deserves major credit for that nation's economic success and for the maintenance of Japan's economic competitiveness through the two oil crises of the 1970s?

The Government's Role in the Japanese Economy

In order to correctly perceive the relative importance of the government's economic role, it is important to analyze the macro aspects of the Japanese economy.

One of the conspicuously positive contributions of the government, especially during the 1950s and 1960s, was its tax and expenditure policies. Government officials were determined to keep a tight lid on the growth of expenditures and to maintain small deficits until the early 1970s.

By keeping its spending for social welfare, quality-of-life, and national defense programs minimal, Japan was able to restrain the rate of spending growth relative to the rate of overall economic

growth. Because tax revenues increased with economic growth, the government could afford not only to maintain balanced budgets (even surpluses in some years) but to reduce taxes every year.

As a result the tax burden on Japanese citizens was kept low and is still the lowest among developed nations. In 1980, tax revenue was 26 percent of GNP in Japan, 31 percent in the United States, 36 percent in England, 37 percent in West Germany, and 42 percent in France (OECD 1983, p. 60). There is little doubt that this tax policy has enhanced entrepreneurial incentives and encouraged savings and corporate investment in Japan. Moreover, Japan's policy of small and balanced budgets has provided a favorable business climate, and allowed the private sector to make first claim on investable capital resources.

The fact that the government was spending less than it took in tended to have a deflationary effect on Japan's economy, thereby helping to curb the inflationary tendency of the 1950s and 1960s. This, in turn, encouraged greater capital investment. The low tax burden and the government's spending restraint (before the 1970s) also explain why the Japanese government's economic involvement was minimal and much smaller than most industrial nations.

The limited nature of government involvement in Japan is further demonstrated by the figures on capital formation and lending sources. The private sector clearly accounts for the dominant share of total capital formation in Japan. During the period of most rapid expansion, 1961 to 1970, the share of private investment in machinery and equipment amounted to nearly 75 percent of the total capital formation. With regard to lending, nearly 90 percent of outstanding loans in Japan have been handled by private financial institutions, largely by city and regional banks, and only 10 percent have been provided by government financial institutions.

Some other straightforward ways of gauging government involvement in the Japanese economy are to determine the level of government funding on R&D, and the number and importance of state-owned-and-run enterprises.

The government's role in funding R&D has been very limited in Japan, especially when compared to that of industrialized nations of the West today. By the late 1970s the government share of gross R&D expenditures (including defense) was 58 percent for France, 48 percent for England, 48 percent for the United States, 44 percent for West Germany, and 28 percent for Japan (*Journal of Japanese Trade and Industry* 1983).

Likewise, state ownership of enterprises is very limited in Japan, especially in comparison to European countries. For example the

Japanese government does not own any manufacturing industries with the exception of cigarettes. However almost all European governments own and operate major manufacturing industries such as iron and steel, automobile, aircraft, and, in France, even high-tech products.

Moreover an important aspect of Japanese government ownership is that state corporations do not have business monopolies. The Japanese government permits private-sector competition with its own enterprises. For example private railway companies and private bus lines are competing for the nation's transportation services with the governmentally owned Japanese National Railways (JNR) and municipally owned bus systems.

In addition to the fact that government involvement in overall economic activities was limited, especially prior to the 1970s, there are at least two other factors that explain how the Japanese government contributed to that country's economic growth. One factor is the government monetary policy. Shortly after the war, Japanese officials, realizing that private banks would be a primary source of ample credit for industrial operations and expansion, decided to maintain an artificially low and stable rate of interest. Furthermore they adopted a lenient position on the "overloan" practice by city and regional banks, which provided most of the nation's financial needs. This monetary policy was not greatly changed, especially before the early 1970s, except when the nation's balance of payments appeared at certain times to approach a deficit. Regardless of the pros and cons of this policy, the point is that Japanese monetary authorities were obviously very supportive of Japanese entrepreneurs and the business sector's need for capital investment.

A similar attitude can be seen in the priority of government spending. Although small in absolute terms, government spending, especially during the 1950s and 1960s, emphasized the nation's infrastructure in the form of roads, flood-control projects, harbors, airports, and basic industries such as hydroelectric power. These investments were seen as more useful than, and so took precedence over, spending on social welfare programs or environmental programs.

During the 1970s this general policy of creating a favorable environment for the Japanese private sector was profoundly changed by the government policies. The government not only abandoned its previous policy of balanced budgets but began to issue bonds to cover the deficits in its revenues. The volume of the bond issues increased substantially every year after 1972, partly because of more government spending on social welfare and other transfer payments, and partly because of the much lower economic growth that resulted.

As a result, by 1982 Japan's annual deficit amounted to nearly 30 percent of its budget, and interest payments on the national debt accounted for 14.3 percent of the annual budget (compared with 12 percent in the United States).

With its budget deficits, the Japanese government has become a strong competitor in the nation's capital markets and for the nation's savings. Although the government's large deficits alone have not been responsible for the country's stagflation and lower rate of economic growth in the 1970s and early 1980s—the oil shocks of 1974 and 1978 had a dramatic effect on the Japanese as well as world economy—it is clear that government overspending and heavy borrowings have contributed to the much lower growth rate in recent years and have dampened future prospects.

Government Targeting

Financial Aids

Considering the relatively restricted budget the Japanese government officials had to deal with, at least until the early 1970s, and the severe, sometime vicious, political infighting for shares of that budget by the different ministries and political leaders of various regions and interest groups, it is difficult to see how any single group, particularly manufacturing, could have repeatedly secured a large portion of Japan's annual budget. As a matter of fact, in terms of its ability to gain a slice of the small budget pie, the Japanese manufacturing sector has been one of the country's least effective political groups.

Consider the situation following World War II. Because food was scarce, and because more than 50 percent of Japan's population was engaged in agriculture in 1947, the government's main priority was to increase agricultural production and support farmers politically. In subsequent years this support for the agricultural sector has not diminished, but rather has intensified in terms of both relative and absolute amounts of government expenditures. Considering that only 16 percent of Japan's land is arable, government spending of about \$10 billion in 1982 indicates very large subsidies for Japanese farmers. The amount was about 54 percent of Japan's total farm income.

Also emphasized after the war were the national railway system, ports, roads, airports and other so-called infrastructure projects. The continued large deficit of the JNR, accounting today for some 18 percent of the nation's annual budget (see Drucker 1982), is evidence that a large portion of Japan's budget has been allocated perennially for the nation's infrastructure.

Regional development programs, especially for backward places on Kyushu, Shikoku, and Hokkaido islands, have always been well-funded because of political considerations that emerged immediately after World War II. Small-business groups, such as retail shopowners, have also enjoyed strong political bases and have received substantial government support.

In view of the pressure from various politically powerful groups, it was almost impossible for government officials to provide any appreciable amount of direct financial support to the manufacturing sector, especially from the general account budget. MITI received only 1.6 percent of the initial government budget for fiscal 1983. Manufacturing has been one of the least powerful political lobbies and one of the least committed to government aid.

The Fiscal Investment and Loan Program

Apart from the general account budget, the Japanese government uses what is known as the Fiscal Investment and Loan Program (FILP) in order to invest in both government enterprises and selected private industries.

The principal sources of FILP (about 80 percent in 1981) are the government's postal savings and postal insurance systems, with other government insurance activities making up the balance. The allocation of FILP funds is spread roughly among three areas: local government (about 20 percent), public investment (about 30 percent) and policy-implementation financing (about 50 percent). Needless to say, the funds for local government and public investment have little connection to the targeting or development of certain manufacturing industries.

The appropriate question is how the so-called policy-implementation financing has been allocated. Nearly 75 percent of these funds were disbursed for small business loans, housing loans, agricultural and forestry loans, overseas economic cooperation funds, and other miscellaneous uses. It seems clear that most of the funds disbursed by policy-implementation financing institutions are allocated by political or social considerations, rather than for consciously planned targeting of specific manufacturing industries. Of course this is typical of governments everywhere.

The only loans of this type that could be said to have any connection to Japan's industrial policy are the funds disbursed to the Export-Import (Ex-Im) Bank and the Japan Development Bank (JDB). Even so, the Ex-Im Bank and JDB receive only 15 percent and 10 percent respectively of the total policy-implementation financing funds.

It is plausible that Japan's Ex-Im Bank, by financing export promotion, has been quite helpful for certain manufacturing industries, particularly those with heavy industrial products such as merchant ship industries. Yet, considering the relatively small amounts involved, Ex-Im bank loans cannot be a significant force either for Japan's industrial development or in its exporting. Moreover, practically every industrial nation subsidizes export finance, some to a far greater degree, so Japan's Ex-Im bank is not unique.

It is true that MITI has targeted certain industries with the relatively few funds allocated to the JDB (about 10 percent of policy-implementation financing institutions). But it is highly significant to learn the kind of industries MITI has targeted over the last 30 years. Although there is a variance depending on the stage of Japan's economic growth, Table 1 shows that until the early 1970s, the majority of JDB's low-interest loans went to the development of ocean shipping (including shipbuilding), resources and energy-related industries (coal mining, hydroelectric plants and oil refineries, LNG power generating plants, and nuclear plants), and development loans. In the last ten years the JDB has emphasized investment for environmental quality control and urban development, in addition to energy and regional development.

Although it may be argued that these investments have produced worthy benefits for the Japanese society and economy as a whole, it is extremely difficult to show how any of them have been responsible for the high growth of Japan's manufacturing companies.

Table 2 gives a detailed distribution of the JDB's loans among nonmanufacturing and manufacturing industries during 1976 to 1980. There is no evidence that manufacturing industries in general, or any particular manufacturing sector, have been targeted by the JDB. In fact the share of loans that manufacturing industries have received from the JDB is less than 30 percent.

In summary, under restricted government expenditures, the overwhelming bulk of government financial support in Japan has been distributed to politically powerful groups and to those areas appearing to exhibit the greatest need, such as agriculture, fishing, forestry, the infrastructure, and regional development. Even those funds of the JDB that were designated explicitly for targeting private industries have been disbursed mostly to nonmanufacturing sectors of the economy. In other words there is simply no evidence that the Japanese government's "vision" or "administrative guidance" was followed by any significant financial assistance for the development of manufacturing. Virtually all of the investment capital used by the

TABLE 1
PROJECT AREA SHARES OF NEW LOANS BY THE JAPAN DEVELOPMENT BANK
(Percent)

Project Area	1951-55	1956-60	1961-65	1966-70	1971-75	1976-80	1984 ^a
Resources and Energy	42.8	39.0	16.8	11.5	10.6	25.6	38.4
Development of Technology	0.4	4.5	8.4	11.0	11.5	11.2	7.1
Ocean Shipping	23.4	27.3	30.0	35.4	17.7	7.2	10.0
Urban Development	0.6	1.8	4.1	11.0	17.2	16.7	18.2
Regional Development	—	3.4	18.1	15.9	15.3	14.8	11.5
Improvement of Quality of Life	0.3	0.2	0.5	1.3	21.7	19.7	11.1
Other Development Loans	32.5	23.8	22.1	13.9	6.0	4.8	3.7

^aOutstanding loan shares as of March 31, 1984.

SOURCE: Japan Development Bank, *Facts and Figures About the Japan Development Bank*, 1981 and 1984.

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TABLE 2
JAPAN DEVELOPMENT BANK LOANS BY INDUSTRY

Industry	New Loans (10 ⁹ Y) ^a		Distribution (%) 1976-80
	1980	1976-80 ^b	
Nonmanufacturing			
Agriculture and Fisheries	4.0	9.3	0.44
Mining	9.8	31.6	0.73
Construction	2.6	20.7	0.48
Wholesale and Retail Trade	9.9	84.6	1.95
Real Estate	30.7	287.5	6.62
Transportation and Communication	216.8	803.3	18.51
Electricity, Gas, Thermal, and Water Supplies	419.7	1,511.9	34.83
Services and Other Nonmanufacturing	72.9	364.0	8.39
Subtotal	766.4	3,122.9	71.95
Manufacturing			
Foodstuffs and Beverages	6.9	58.0	1.34
Textile Products	7.8	39.3	0.91
Pulp, Paper, and Related Products	7.5	47.7	1.10
Chemical Products	29.0	271.1	5.00
Petroleum Refining	47.0	220.6	5.08
Ceramic, Stone, Clay, Glass, and Related Products	29.8	87.3	2.01
Iron and Steel	33.7	258.0	5.94
Nonferrous Metals	10.4	61.0	1.40
Fabricated Metal Products	6.7	26.3	0.61
General Machinery and Apparatus	3.8	15.8	0.36
Electrical Machinery and Apparatus	14.7	42.6	0.98
Transportation Machinery and Equipment	4.2	68.7	1.58
Other Manufacturing	5.5	75.4	1.74
Subtotal	207.0	1,217.8	28.05
Total	973.4	4,340.7	100.00

^aIn billions of yen.

^bLoans for the 1978-80 period are cumulative: They reflect the total amount of new loans for these fiscal years.

SOURCE: Japan Development Bank, *Facts and Figures About the Japan Development Bank*, 1981.

rapidly growing manufacturing sectors of Japan were provided by private financial institutions.

Tax Policy

If Japanese manufacturing firms received no significant financial support directly from government, or from government financial institutions, is it possible that they received some favorable tax policies that helped them to compete and grow?

As discussed earlier, Japan was determined for several decades to keep a tight lid on government spending. As a result the nation has been able to maintain the lowest ratio of taxes (national and local) to national income of all the countries belonging to the Organization for Economic Cooperation and Development (OECD). Thus tax policy has been clearly oriented toward economic growth, which some might see as indirectly supporting industrial development, particularly that of manufacturing industries.

The question is, first, did the Japanese government target specific manufacturing industries or companies with special tax measures? And second, if so, did the special tax treatment really help these industries?

During the early 1950s there were some special tax measures passed with the intention of promoting economic growth. These did not last, however, mainly because other entrepreneurs who were not benefiting from them invariably demanded similar measures. Consequently the government was gradually forced either to distribute all such tax benefits equally to all industries, large or small, or to end them completely (Patrick and Rosovsky 1976, p. 353).

In conclusion, it is very difficult to show how special tax measures have played a significant role in Japan's overall economic growth and industrial development. A Hudson Institute report on *Japanese Industrial Development Policies in the 1980s* (Wheeler et al. 1982, p. 104) concluded:

[T]he total benefits provided by such narrowly targeted measures are small compared with other, less narrowly targeted special tax measures. Moreover, total estimated tax losses from special taxation measures are much less than comparably estimated tax losses from the promotion of saving and investment through such general measures as the exclusion from taxation of interest income on postal savings and of capital gains income on securities transactions.

Import Protection

In addition to government-provided low-interest loans and special tax measures for targeted manufacturing industries, import

restrictions on foreign goods in key industries have often been alleged to be the reason for that nation's growth. During the 1950s and early 1960s, the Japanese government did exercise strict control over international trade and currency exchange. In 1962, for example, Japan had 492 different products under the import quotas. But Japan's policy was not exceptional during this period. Western Europe and the United States also imposed quantitative restrictions on many items and sometimes discriminated directly against Japanese manufacturing products.

The pertinent question for this paper, however, is whether the Japanese government imposed tariffs, quotas, and other restrictions in order to foster targeted manufacturing industries. There seems to be no clear evidence that favoring specific manufacturing industries was a main objective of exercising strict control over foreign trade and exchange dealings, especially during the 1950s and most of the 1960s. Rather the main consideration for the Japanese government was maintaining the value of the yen and a favorable balance of payments.

Because, in the postwar era, the country had to import almost all its raw materials and agricultural goods, and had no international reserves or many products to export to pay for raw materials, there seemed, to officials at that time, no alternative to restricting imports. Later in the 1950s and early 1960s, as industrial production and consumer incomes grew rapidly, the demand for fuel, industrial materials, technology, industrial machinery, and consumer goods from abroad grew much faster than export capability. This resulted in a chronic balance-of-payments deficit.

In 1955 Japan was readmitted to the international "club," the General Agreement on Tariffs and Trade (GATT). Because government officials wished to regain respectability in the international monetary and trade communities, they adamantly committed themselves to maintaining the value of the yen (reestablished in 1949) at the fixed-exchange rate, instead of constantly devaluating the yen. Also, because government officials were reluctant to borrow significant amounts of money from abroad, the government was overly sensitive to the nation's balance-of-payments disequilibrium. In other words the Japanese government slowed down the rate of growth of its economy through monetary policy, not because of domestic inflationary pressure, but because of perceived balance-of-payments problems.

The Brookings Institution's study (Patrick and Rosovsky 1976, p. 219) pointed out that "Japanese recessions have been the direct and deliberate result of monetary policy action taken to slow down

a rate of growth considered too fast because it had created or threatened to create balance-of-payments problems." The Japanese government rightly or wrongly chose to maintain selective import restrictions or to substitute imports of manufacturing goods as much as possible, rather than be forced to frequently apply a restrictive monetary policy which might slow the expansion of aggregate demand and GNP, while creating recession and uncertainty in the business community.

Many economists believe that, had Japanese officials not been overly concerned about a negative balance on current account or so concerned about controlling imports, Japan might have enjoyed a even faster rate of economic growth during the 1950s and 1960s (Patrick and Rosovsky 1976, p. 171). To put it simply, government protectionist policies on imports, while of great benefit to some industries, were probably not a positive factor in Japan's overall economic and industrial development.

Needless to say, when Japan's international competitiveness had improved and the nation began experiencing chronic surpluses in its balance of payments, Japan's policies of import restriction were drastically reduced, although Japanese officials were still concerned about the balance-of-payments situation. Professor G. C. Allen wrote in *How Japan Competes* (1978, p. 48):

Foreigners who fasten their eyes on Japan's present huge surplus forget that for the first 25 years after the war her recovery and expansion were constantly under threat from the precarious state of her balance of payments. This weakness had its source in the failure of her export trade to keep pace with her industrial growth. It is only within the last 10 years that she has earned a substantial surplus on her current account. Even in that period, as a result of the sudden rise in oil prices, her account for two years showed a large deficit. . . They are aware that a change from surplus to deficit may occur unpredictably and suddenly in a world of rapid technical progress, capricious markets and political instability.

Targeted Industries

It would be wrong to claim that no Japanese industries have benefited from subsidies, low-interest loans, or import protection. There are numerous industries that have capitalized on the opportunities provided by these policies. Nonetheless a more pertinent question in this instance is whether or not the industries that have been most heavily targeted, supported, and protected by the government really have prospered in the long run as much as industrial-policy proponents have claimed.

Agricultural Industry

As discussed earlier, for both social welfare and political reasons, the Japanese government has heavily subsidized farmers with higher prices and income supports, and has provided substantial protection for agricultural products from import competition. Today Japanese agriculture is by far the largest and most inefficient industry in Japan, and the most conspicuous contributor to the large budget deficit of the nation.

Coal Mining Industry

Coal mining is another industry to which the government has allocated relatively large amounts of low-interest loans through the JDB. Before World War II Japan's coal mines and hydroelectric plants supplied nearly all the power required domestically. It was, therefore, a logical policy for the Japanese government to emphasize the production of coal after the war. Also, of course, the coal mining industry was politically powerful.

Yet, despite the government's positive support during the 1950s and 1960s, the output of domestic coal decreased sharply from 54 million metric tons in 1962 to 19 million metric tons in 1978. The coal mining industry has been gradually phasing down.

Petroleum Refining and Petrochemical Industries

Petroleum refining and petrochemical production have had the special advantage of direct government assistance and protection. They have received favorable tax treatment for the licensing of foreign technology, foreign-exchange allotments for purchasing equipment, indirect subsidies through tariff schedules, and the provision of land at nominal prices in the postwar period, particularly in the early 1960s.

These government interventions and an administrative-guidance in the lucrative oil refining business (including production of naphtha) and petrochemical production (mainly production of ethylene) occurred without careful market, financial, competitive, or other economic considerations. The excessive capacity of these industries today results, at least in part, from government control and intervention.

The government-backed oil refining industry of Japan has had a guaranteed market selling naphtha products to the government-protected petrochemical industry at a price higher than the world market. When the Japanese economy was growing rapidly and the industry was relatively competitive in world markets, the Japanese petrochemical industry appeared to be very successful. However, when the price of oil rose and the world petrochemical market become

more competitive, Japanese petrochemical production become uncompetitive. The petrochemical industry demanded that the government allow a much larger quantity of cheaper naphtha to be imported in order to make ethylene more competitive. The government's dilemma has been that allowing an increase in imports would deny the protected Japanese oil refining industry any market, domestic or international. On the other hand the Japanese petrochemical industry will not be able to survive without cheaper naphtha from international sources.

Shipbuilding Industry

In the 1950s, recovering from a military defeat and rejoining the international market, Japan established various forms of special supports for its shipbuilding industry in the form of tax benefits, low-interest and deferred loans, and financing through the Ex-Im Bank and the JDB. These government subsidies were continued for most of the 1960s, and by 1970 shipbuilding in Japan appeared to be very competitive in world markets.

With the first oil shock of 1973, however, the government-supported shipbuilding industry began to exhibit its real character. Facing serious problems of excess capacity, along with the decline of world demand, particularly for oil tankers, and the growing, very severe competition from developing nations, Japanese shipbuilders were forced to scale down by shedding 46,000 workers after 1977. Today the industry has had to reduce its operating ratio to 35 percent of total capacity, with some 19 companies failing between 1975 and 1978 (Wheeler 1982, pp. 165-70).

In conclusion the Japanese government, like other governments, has tended to support both politically powerful sectors (such as agriculture) and comparatively disadvantaged sectors (such as energy-oriented industries) without considering their efficiency or competitiveness. In other words Japanese government officials, many of whom are able bureaucrats, have not solved domestic industrial problems through the political process. Even in Japan, government attempts to allocate capital resources have created inefficiency and excess capacity in the private sector.

In stark contrast to the above-mentioned industries, Japan's most successful and internationally competitive industries have received relatively much less financial assistance and/or much less protection from the government.

Computer-Related Industry

The computer-related industry (including semiconductors) is often cited as a model case in which Japanese industrial policy has worked

well in recent years. Yet it is very difficult to point out unusual government support in terms of government expenditure, JDB loans, or tax advantages. For example the Japanese government's R&D expenditures in the semiconductor field have been far less than half of the U.S. government's expenditures in the same area. According to the *Journal of Japanese Trade and Industry* (1983), Japan spent \$127 million in the 1976–82 period while the United States allocated \$279 million in the shorter 1978–82 period. The JDB's low-interest loan (about 1 percentage point below the commercial bank rate) of ¥10 billion in 1982 was equivalent to less than 0.5 percent of the total plant investment by the electronic machinery industry.

Automobiles and Consumer Electronics Industries

Automobiles and consumer electronics, two of Japan's most visible and successful industries, have enjoyed "practically" no special government favors. The *Nippon Keizai Shimbum* (*Japan Economic Journal*) reported in July 1983 that the automobile industry (mainly parts makers) received about ¥77.9 billion (\$327 million; ¥240 = \$1) in long-term loans from the JDB in the last 25 years.

Government and Business Cooperation

It is true that in Japan government officials engage in an extraordinary amount of consultation, communication, and mutual discussion with business groups. It is also true that Japanese businessmen respect government officials. However this does not in any way mean that the thousands of Japanese entrepreneurs and corporate executives invest their capital, hire their workers, select new technologies, or adopt new marketing strategies by consulting government officials. Nor do they operate their businesses according to any government-proposed vision or administrative guidance.

The majority of business executives in Japan could not afford to operate their businesses by close consultations with government officials, since there exists fierce competition and rivalry for their market shares, both domestically and internationally. Large and small firms, and groups of affiliated firms, fight hard to increase their market shares and industry rankings. Naturally, firms that are not at the top are intensely motivated.

Japanese entrepreneurs are also well aware that government officials do not possess knowledge about future economic changes that is superior to that of the private sector. Indeed they recognize that the ability of Japanese bureaucrats to plan or manage enterprises is not better than that of those in the marketplace, nor is it better than that of other governments, including socialist nations.

In judging the managerial ability of government, one should consider the governmentally owned JNR. Even though officials who manage the JNR are as bright and as talented as other officials in government, such as at MITI, JNR, Japan's largest employer (with over 400,000 workers), is very overstaffed. It has several times as many employees per revenue mile as any other railroad system in the industrial nations. It cannot handle the most combative and strike-prone labor union in Japan; and its deficit accounted for 18 percent of Japan's 1980 budget. Most private railway systems in Japan, on the other hand, have been very well managed and profitable.

In addition to the government's apparent lack of managerial skill in its own enterprises, government officials have had to deal with the fact that most private businessmen (especially Osaka businessmen) are suspicious of government authority. They tend to avoid government assistance, and even avoid contact with government officials as much as possible. Unless government intervention has happened to be in their business interests, the business community has strongly resisted government pressure. For example throughout the 1960s, MITI, concerned about the lack of competitiveness in the automobile industry, tried to consolidate many automobile companies into a few large companies. Only strong resistance by Mazda (Toyo Kogyo), Honda, Mitsubishi, and others forced MITI to drop the attempt. The fact is the Japanese government has not been free to intervene heavy-handedly in the private sector.

Administrative guidance by MITI has been effective only when MITI has had the power to provide considerable financial benefits to the industry or when all companies in the industry have reached some kind of consensus. For example, when the oil refining industry was under MITI's control through the price-cartel system and the quota system for imported crude oil, it tended to follow government guidance. Yet government officials have faced difficulties in dissuading all the firms from expanding their refining capacity.

Moreover, in recent years, deep conflicts of interest among different industries have emerged. Often, government officials have been caught in the middle between these conflicting interest groups, such as in the cases of yen revaluation (*import-oriented versus export-oriented industries*), pollution control laws (*clean industries versus polluted industries*), voluntary restriction of exports (*government or foreign policy versus industries*), and others. In democratic societies such clashes of interests have always been the source of tension and real obstacles to the building of any national consensus. This has been as true in Japan as anywhere else.

The Market Mechanism in Operation

How then did Japan accomplish its phenomenally high economic growth rate after World War II? The "secret" of Japan's growth can be stated in the simplest terms—a basically free-market economy, functioning effectively with minimal government intervention since the war. With the collapse of Japan's traditional feudal society, and the emergence of a more open society, came a dramatic unleashing of creative energy and dynamic forces. Japan now has a freer and more democratic political and economic environment than in the prewar period. It has freedom of occupation, free speech, freedom of investment and pricing, and protection of other fundamental human rights. Individuals freely can seek to maximize their capital, talents, choices, and ideas. Under the American occupation, many of the old leaders were purged and the old order was reformed. Cartels, such as *Zaibatsu*, were dissolved, and private businesses were substantially freed of government control and intervention. For the first time practically any Japanese, regardless of age, class, or family background, could venture into business, and succeed if the elements of hard work, imagination, willingness to take risks, and luck were present. Not only did established businesses prosper under fresher and younger management in this freer environment but thousands of entirely new enterprises, such as Honda, Yamaha, Sony, and Suzuki, to name but a few, were born in this new climate.

In Japan's free society nationwide competition and sometimes fierce rivalries were preserved, requiring corporate executives to make forward-looking investments to keep equipment and technology up to date. In macroeconomic terms these competitive investments by private entrepreneurs created demand and called forth yet more investment. Japan took a huge leap in economic expansion, and a high ratio of capital investment to national income was established. Moreover the fierce domestic competition led to the refinement of management techniques and higher quality goods. In short, individual entrepreneurs invested in capital goods and equipment, not because MITI officials suggested it, but because they foresaw the potential for future profits by besting their competition in both domestic and foreign markets.

Through the market process—hundreds of thousands of private entrepreneurs' individual decisions and energy—rather than by the government's calculated direction, Japan's industrial structure has shifted to high value-added manufacturing industries.

Naturally, economic growth never proceeds without some industrial disequilibrium. In the 1950s Japan lacked technology and

capital, but with an abundance of cheap labor, the labor-intensive manufacturing industries—textiles, ceramics, woodworking, food-stuffs and beverages—accounted for over 35 percent of output (value-added) in the manufacturing sector. These industries employed about half of the total labor force employed in Japan's manufacturing industry, and were also responsible for the exports (about 50 percent of total export trade) in the mid-1950s that brought precious foreign currency into the country. Such exports were vital for the acquisition of raw materials, foreign technology, and managerial know-how, all of which enabled other kinds of manufacturing to evolve and grow.

Even during the 1960s, these industries played an important role in production and trade. But during the same period, capital-intensive and high-productivity industries began to emerge. They grew quickly as new firms entered and older firms deliberately shifted resources into more capital-intensive products. Through this market mechanism, Japan's industrial structure was transformed as older industries—though continuing to grow in absolute terms with fewer companies than before—were replaced by new, high value-added manufacturing industries, which produced such products as cameras, television sets, motorcycles, and automobiles.

Obviously the success of Japan's economy could not have been achieved without certain favorable international conditions, such as the existence of inexpensive raw materials (especially petroleum), stable and open world markets for Japanese goods, and readily available foreign technology. But it should be emphasized again that it was not the Japanese government or MITI that created these conditions. Nor can MITI claim more than occasional credit for the successful exploitation of preexisting conditions. Rather, Japan's success in international markets was the work of thousands of private firms, especially the trading companies. These private firms aggressively entered world markets as importers of raw materials, exporters of Japanese products, and negotiators for advanced technologies and know-how. Vigorous private traders, not government officials, have been a major source of Japan's economic strength both in the world market and at home.

In addition to favorable domestic and international environments for Japanese entrepreneurs, it is important to remember the abundant and well-educated labor force of Japan. These workers (including well-trained engineers and devoted managers, and competent technicians, well-equipped to assimilate and apply the know-how imported from abroad) have been a key ingredient in the success of Japanese economic growth and manufacturing industries today. These workers are disciplined and hardworking, adapt easily to new technology,

and are both willing and able to help management develop new ideas and techniques. They also save approximately 20 percent of their income, thereby fueling future investments in their country's progress.

The question often arises as to why Japanese employees should exhibit these traits. The answer is, in large part, the same as for the entrepreneurs: An environment was created after World War II in which millions of individuals, regardless of their social backgrounds, could by their own efforts achieve better, more prestigious positions in society, and, at the same time, enhance their own material well-being.

Competition for obtaining a good position and advancement is fierce, and those who acquire the highest quality education possible (mainly by attending Japan's finest universities) have the best chance to get ahead. Most parents are willing to pay the high price of preparing their children for the entrance examinations. Because such preparation is expensive, they tend to put away regularly a large percent of their income for their children's future. Thus the twin goals of a better educated labor force and greater national savings are served.

Another important motive for savings could well be the inadequacy of the government's social security, welfare, and public housing programs. This inadequacy forces individuals and families in Japan to provide for their own security after retirement and during illness and unemployment, and to secure their own housing.

The drive of individuals to provide for their own and their children's security and housing helps explain why, once recruited by a company, they are likely to devote themselves to that company for life (around 55 to 60 years old). The workers also know very well that their present and future well-being depends on the success of their employers in what are usually highly competitive markets. Consequently they are eager to contribute their energy to the corporation, and are very willing to focus on long-term benefits rather than short-term gains from labor negotiations.

By the same token, loyal and talented workers are just as indispensable as equipment to their companies. So Japanese entrepreneurs are motivated, for purely economic reasons, to invest in the development of their human resources. In order to recover the maximum worth from this investment in human capital, companies generally try to retain workers instead of discharging them, even when under economic stress. But even in Japan, unskilled workers are not awarded lifetime contracts. They are discharged according to the

economic situation. Close labor-management cooperation, therefore, cannot be explained solely by Japan's cultural traditions, and certainly not by active government involvement. It is a result of clear-sighted economic practicality and a free labor market.

Not unrelated to this successful labor-management cooperation—and, indeed, to the export success of Japanese products—is the fact that Japanese entrepreneurs, beginning early in the 1950s (when “Made in Japan” was still an epithet), have had a firm commitment to quality control. American experts in statistical quality control, such as Dr. W. Edwards Deming, have had far more success with the top management of Japanese manufacturing firms than they ever had with corporate executives in the United States. In fact, for over 25 years, the annual Deming Prize, offered to the companies that achieved the most progress in this area, has been one of the most prestigious and sought-after industrial awards in Japan.

This commitment to statistical quality control by both top management and labor has had deep implications. Exacting specifications by companies selling consumer or industrial goods means that suppliers to those companies are also required to practice and achieve statistical quality control. As a result such methods, which are far more effective and significant than simply sorting final assembly-line products, are common practice in Japan and, along with some labor-management techniques such as “quality circles,” are now being touted for the United States.

In Japan the concept of statistical quality control generally means not only quality assurance but also cost reduction and higher productivity. Most competitive and successful companies in Japan are deeply committed to reducing their production costs and to improving their productivity and quality through a company-wide statistical quality control (also called total quality control) method.

The implementation of this method was initiated solely by private businessmen. It has been intensified under the great difficulties perceived by Japanese entrepreneurs since 1970, namely a more than 30 percent appreciation of the yen after the “Nixon shock” of 1971 and the two oil shocks of 1973 and 1978. This almost fanatical commitment to high productivity and quality control by Japanese entrepreneurs could be a major reason why Japanese manufacturing goods are still competitive in the international market. It also may explain why Japan again has a trade surplus today, despite the fact that Japan's terms of trade have deteriorated greatly because of the steep rise in oil prices.

Conclusion

It is true that the Japanese government contributed to the enormous economic success of Japan after World War II, especially during the 1950s and 1960s. Ironically, however, the government contribution is based not on how much it did for the economy but on how much it restrained itself from doing. Its interference in the economy was sporadic and slight, including efforts aimed at industrial development.

But by maintaining a small and balanced budget, fairly low and stable interest rates, relatively low rates of taxation, stable prices, brief and mild recessions, minimal defense and social welfare expenditures, the Japanese government helped provide an exceptionally favorable economic environment for private enterprise. Moreover, by maintaining the political stability necessary to promote private investment, the government contributed even further to increased economic growth.

To be sure, international factors aided Japan's economic success, but credit must go to those who capitalized on this favorable environment and spurred the country's economy into much higher economic growth than Japan ever experienced before the war. These were the hardworking, educated, imaginative, private entrepreneurs in cooperation with millions of workers. Together they developed efficient, productive, and competitive manufacturing industries. G. C. Allen wrote in *The Japanese Economy* (1981, p. 91): "The chief function of the bureaucrats and politicians was to provide a congenial environment for the enterprise of private firms. The state may have built the furnaces; private entrepreneurs (companies, groups and individuals) supplied the fuel. It was these entrepreneurs that, in large measure, determined Japan's economic future."

In the field of industrial development, the Japanese government, mainly MITI, has extended special supports—mainly low-interest loans and import protections—to certain industries for balance-of-payments, political, and national security reasons, especially during the 1950s and 1960s. Although some of these industries appeared to be successful under favorable international conditions, they are in fact not competitive in world markets. In recent years they have shown themselves to be depressed industries in a competitive international environment. The government is currently helping these depressed industries. But the government is not trying to keep them all alive with high government expenditures or stiff import protections.

Because of the two oil shocks and a recent worldwide recession, many businesses in Japan have been facing the same difficulties as

those government-aided industries. However, these private companies are confronting reality with the full cooperation of their workers. They have striven to reduce energy consumption, to improve productivity, and to enhance the quality of their products without government assistance. It is these manufacturing industries that are maintaining Japan's competitive strength in international markets and, as in the past, providing a source of economic growth.

During the last 10 years the Japanese economic growth rate fell drastically (by 4 to 5 percent). At least partial responsibility for this lies with the two oil shocks. In addition the relative shortage of technology, greater difficulties in recruiting a young labor force, and the transformation of the daring and aggressive entrepreneurs of the 1960s into the more staid and conservative business leaders of the 1980s could be additional reasons for Japan's slower growth rate.

One of the most negative influences on Japanese economic vitality since 1970 has surely been the vast expansion of government expenditures, complete with huge budget deficits. This government involvement in the financial market today will likely produce a very unfavorable economic environment for the private sector in the future. This will be an environment in which economic growth will be slow at best, especially when the government is forced to raise taxes or inflate the currency to cover the nation's accumulated deficits.

In a market-oriented economy like Japan's, government support in the form of subsidies to targeted industries is rarely a vital ingredient in the nation's general economic growth, even though it may be temporarily beneficial to the favored industries. In such an economy, government policies in the macroeconomic area tend to influence economic growth far more profoundly than does any selective industrial policy.

History reveals an unblemished record of failure by governments to improve on the market. While Japan's economic success over the past 30 years has indeed been accompanied by activities aimed at promoting industry, it would be a very serious mistake to conclude that there must have been some critical cause-and-effect relationship. As the facts demonstrate, Japan's success has been in spite of, rather than because of, government tinkering.

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“JAPANESE ECONOMIC SUCCESS”: A COMMENT

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Japan's industrial policy has been the subject of an impressive amount of recent commentary in the United States. Most of the comment has attributed Japan's economic success in whole or in large part to the application of industrial policy measures. Views diverge, however, when the implications of industrial policy are assessed. One camp enthuses over the discovery that a democratic government seemingly is able successfully to guide, direct, and manage a big, modern economy in a detailed fashion. Another group is in a state of alarm about the grave threat that industrial policy in Japan is believed to pose for the American commonwealth.

Katsuro Sakoh (1984) has taken still a third position, which is one of broad skepticism about the influence and accomplishments of industrial policy in postwar Japan. I associate myself with Dr. Sakoh, for I have long believed that the microeconomic role of the civil service in Japan's postwar miracle has been greatly overstated. There are a large number of reasons for this, one being that some of the claims made for industrial policy offend common sense. Dr. Sakoh's paper raises several fundamental considerations that are commonly ignored both by enthusiasts for industrial policy and by those who consider Japanese policy to be a mortal danger.

Thus he takes exception to the view that a cadre of civil servants have been able to steer Japan's captains of industry into lines of endeavor that would otherwise somehow have been overlooked. The influence of Japan's bureaucracy is not to be dismissed, to be sure, for law and tradition have invested officials with greater authority and claim to respect than we would think necessary or justified. But Japan's is an extremely large and varied economy. If all major decisions in the private industrial sector had had to wait on consultation

with the relevant Ministry of International Trade and Industry (MITI) bureau chiefs, the economic miracle would have had a short life indeed. Dr. Sakoh remarks, as did the late William Lockwood, by far the wisest of the foreign students of Japan's economic development, that Japan's private businessmen typically will resist or evade unpalatable government directives. Where the government has favors to offer, on the other hand, bureaucratic intervention can be accepted or adapted to. The bargaining and compromises that go on between business and government are part of Japan's market economy. And in the end, the specific choices as to where, when, and how productive resources are to be used are made by the private sector.

Another of Dr. Sakoh's points has to do with the official subsidies that reputedly are lavished on Japan's industries. One should not be misled by talk of billions of yen, which translate into a small number of millions of dollars. The facts are easily come by. Japan's budgets are public documents. Subsidies to the private sector go overwhelmingly to agriculture, small business, and in recent years to various kinds of energy projects. The Japanese National Railways, as Dr. Sakoh notes, are a fourth and voracious claimant for public monies.

After these more or less irresistible demands have been met, the fiscal watchdogs in the Ministry of Finance's Budget Bureau are not given to excesses of generosity for others. MITI had a budget authority in 1980 of about 650 billion yen—say, \$3 billion—to cover its personnel costs, its laboratories, its share of the energy program, and everything else. The Ministry of Agriculture's budget was 3.8 *trillion* yen, of which rice subsidies alone came to 955 billion yen, almost half again the size of MITI's allocation.

Subsidies include publicly financed research and development (R&D). Japan is not only the most niggardly of all the big industrial powers in spending on R&D but it also directs a larger fraction of what it does spend to grants to universities with relatively few strings attached. It also devotes a larger share of its R&D budget to agriculture than do other industrial nations.

A third point which emerges from Dr. Sakoh's paper has to do with the proposition, implicit in much of the industrial policy literature, that in Japan noneconomic or vulgarly political considerations never intrude on the decision-making process. What has been said about subsidies should pretty well dispose of that piece of mythology. A government focused narrowly on economic efficiency would never have made rice growing a highly remunerative occupation or allowed to survive unaltered an overmanned and heavily loss-making railway system.

The allocation of direct subsidies to politically sensitive sectors is one thing. Tax policy, similarly, is not aimed, in rifle-like fashion, at a few carefully selected, highly promising industrial targets. Rather tax benefits are scattered widely over the economic scene. One of the principal recipients is the medical profession, which is the beneficiary of about 14 percent of what the Ministry of Finance calls revenue losses. The reason: The doctors in their organized manifestation have pursued with much vigor a grievance over the low fees paid under the national health insurance program. Small business is favored, as are investors in depressed areas and coal mining regions. Japanese airlines get special depreciation allowances for planes, none of which are produced in Japan. Here and there, of course, one finds among the special tax measures benefits for a new or emerging industry, robotics for example. In the main, nonetheless, the tax system tends like our own to be responsive to a wide range of large and small political requirements. This should be surprising only to those who forget that Japan is among other things a lively political democracy.

The putative devotion of the bureaucracy to purely economic objectives is questionable otherwise. Industrial or microeconomic policy in Japan has always been infused with a strong flavor of quite narrow nationalism. Restrictions on foreign direct investment persisted well into the 1970s, based ostensibly on balance of payments considerations. The record makes it clear, however, that to a substantial extent the policy reflected a not especially reasoned fear of having a foreign economic presence in Japan. MITI's unusually detailed interventions in the affairs of the petroleum refining industry had somewhat related origins. Similar attitudes have been evident in other industrial nations but nowhere with so heavy an impact on economic policy. This near-wholesale rejection of foreign investment could not have been economically costless, whatever the psychic gains it provided.

It seems to me that a closer look at what happened and is happening in Japan should help to dispel the mixture of admiration and fright that pervades American discussion of Japanese industrial policy. The sources of Japan's remarkable economic achievements after World War II's military debacle are numerous. Dr. Sakoh's emphasis on the favorable environment for private enterprise touches on an absolutely basic point. Luck plus a dedicated adherence to a dogma that suited Japan's special situation helped to make macroeconomic policy work exceptionally well, until a panic response to the forced yen revaluation coupled with the world commodity inflation upset everything. Edward Denison has described and analyzed better than

anyone else the fundamental supply-side forces that made possible the 1951–73 growth miracle. Extensive intervention by MITI, principally in *one* economic sector, manufacturing, was certainly a part of the total story, but relative to the magnitude of the Japanese accomplishment the resources devoted to so-called industrial policy have been extremely modest. Even if one supposes that the bureaucrats were always wiser than reason and the evidence would allow, it is difficult to accept that industrial policy should be credited with a principal contribution.

Belief in the efficacy of industrial policy is fostered by arguments *from the particular*. The Japanese automobile's industry successes, which are wrongly attributed to industrial policy anyway, sometimes seem to be taken to represent circumstances in all of Japan's industrial economy. Or the purported effectiveness of one cooperative research project among semiconductor producers is held up as the general case. No similar attention is given, however, to the instance of the video tape recorder, production of which grew from 119,000 units in 1975 to 13 million in 1982, mostly for export. MITI, rightly enough, takes no credit for this truly spectacular development.

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