

Industrial Policy: The Japanese

By Keiichi Konaga

Director-General of the Industrial Policy Bureau, Ministry of International Trade and Industry

Japan's industrial policy is now a subject of growing interest, especially in the United States. There, the question previously was studied mainly by scholars on Japan; but now it is creating strong interest also among members of the Congress, government officials and businessmen. Proponents say the United States should integrate and improve America's industrial policies along the lines of Japan's, while some opponents accuse Japan of following a "targeting policy." The "targeting policy" is variously defined by the critics, and it is not always clear what is being criticized about Japan's industrial policy.

On April 18, Sadanori Yamanaka, the then Minister of International Trade and Industry, issued remarks explaining the basic thinking on Japan's industrial policy, in the hope that people in Japan and abroad would gain a correct perception of it. On April 28, Mr. Yamanaka and U.S. Trade Representative William Brock agreed in Brussels to set up a joint committee to exchange views on industry-

related U.S. and Japanese policies and actions and their effects on trade. More recently, on May 14 and 16, the first session of the Joint Japan-U.S. Committee on Industry-Related Policies and Their Effects on Trade was held in Tokyo. This article attempts to explain the basic thinking on Japan's industrial policy that was revealed in the minister's remarks.

By no means unique to Japan

Not a few people think that Japan's industrial policy is something very special and peculiar. They are wrong. The government of any country has the responsibility of developing its economy and thereby promoting the economic well-being of its people. Since industrial activity provides the basis for national economic development, it is only natural that governments should be concerned and should conduct various policies related to indus-

trial activities. In fact, industrial policies are practiced in all countries under different names and forms according to the stage of economic development, geography, history, culture, etc. Japanese industrial policy is only one form of such universal government involvement in industrial activity, or just one type of industry-related policy. Japan, of course, is not a centrally planned socialist economy but one of the industrial democracies in which the principle of free competition is fully respected under the market mechanism.

Its scope and aims

Industrial policies may be broadly defined as government activities that directly relate to the development and adjustment of various industries, whereas macroeconomic policy has rather indirect relations to them. But industrial policies and macroeconomic policies, or fiscal and monetary policies, are closely interrelated. Both are complementary. For example,



se Version of a Universal Trend

adjustment of the business cycle by macroeconomic policies sets conditions for the application of industrial policies. On the other hand, industrial development and adjustment by means of industrial policy supports macroeconomic policies through, for example, stable expansion of tax revenues.

Under this complementary relationship, industrial policies as they are practiced today in Japan serve several objectives:

First, improving the standard of living and the welfare of the people in response to the needs of society.

Second, promoting international division of labor through transfer of certain industries to developing countries and horizontal division of labor with developed countries by facilitating dynamic transformation of the industrial structure. Also, contributing to the development of the international community in a way commensurate with the status of the second largest economy in the non-communist world.

Third, ensuring economic security through stable, long-term supply of natural resources and energy.

Finally, harmonizing industrial activity and social requirements, such as environmental protection, in a small, densely-populated country.

These goals can be achieved by developing the vitality of the private sector which is essentially competition-oriented, without distorting the market mechanism, on the premise that the domestic market will be kept open. By doing so, overall industrial development and adjustment can be facilitated efficiently. Through such structural adjustment trade protectionism will be prevented.

Significance of industrial policy

Industrial development and adjustment are achieved primarily through the market mechanism. But it is necessary to comple-

ment the functions of the market by means of industrial policy—for the following reasons:

First, the market is not the perfect mechanism economic theories like to make out.

Second, the existence of external economies and diseconomies must be taken into account.

Third, from the viewpoint of long-term, dynamic industrial development the market does not and cannot provide accurate information, even though overall market performance can be improved by technological innovation, investment, and research and development on the part of individual businesses.

Finally, coordination between countries of international economic relations—in the areas of trade and investment, for example—cannot be left to market forces alone.

For these reasons the market mechanism leaves much to be desired, especially from the viewpoint of long-term, dynamic



industrial development. Therefore, it must be complemented or improved. This is precisely where industrial policy comes in.

Major tasks today

Industrialized nations, if they are to maintain the free trade principle, must expand the frontiers of their economies, on the one hand, and phase out their declining industries, on the other.

Products of traditional industries can be imported, allowing international division of labor, while the phase-out or restructuring of declining industries will make it unnecessary to restrict imports as a means of protecting them.

From this point of view, there are two broad tasks confronting Japanese industrial policy today:

(1) To facilitate the development of high technologies

High technologies can revitalize the world economy and expand the frontiers of economic activity. For this reason, industrialized nations have the great responsibility of promoting high-technology development.

In an address delivered in San Francisco last March, U.S. President Ronald Reagan said the United States was pushing R&D policies to enhance the competitiveness of American industry. The U.S. government, he added, will encourage industrial R&D through significant increases in basic research spending, improved science and mathematics education and reforms in the tax and antitrust policies. Research and development expenditures by the Defense Department and other government agencies like NASA, their spin-off effects and related government procurements reach enormous proportions. In France, President François Mitterrand said the basic cause of the French economic crisis lay in the lack of high-tech development efforts. As a result, the French government created a research and technology ministry and nationalized high-tech companies.

In Japan, the main thrust of technological development comes from the private sector. But the role of government is becoming more important, as elsewhere in the advanced countries, in those areas of R&D in which—despite strong social needs—long lead times, high risks and huge funding requirements inhibit private initiative.

(2) To encourage adjustment in industries facing structural problems

At present, a number of Japanese industries such as petrochemicals and aluminum smelting are in difficulty because of radical changes in the external economic conditions caused by the second oil shock. The task of industrial policy here is to

promote structural adjustment in these industries without recourse to protectionism, i.e. without preserving the status quo through import restrictions and other protective measures. Such adjustment, designed to ensure economic rationality in the medium- and long-term, involves, among other things, reduction of excess manufacturing capacity, business tie-ups for scale of economy and revitalization investment for technological development and energy conservation. This conforms to the thinking behind the Positive Adjustment Policy (PAP) agreed by the OECD member nations.

The governments of other industrialized nations provide huge subsidies and employ direct measures (e.g. import restrictions or nationalization) to assist depressed industries. In America, trade adjustment assistance and other forms of aid are provided under the Trade Act. In 1975–80 about \$278 million was provided in the form of loans and loan guarantees to private companies. In West Germany the steel industry is said to be subsidized by the government, which plans to spend

DM2–3 billion from 1982–85. In France, direct and massive support is offered to certain industries. As a result of nationalization in steel industry, 80% of the domestic market is occupied by nationalized enterprises in terms of production and sales.

By contrast, Japanese industrial policies consist of indirect or indicative policies and guidelines. The level of government support in Japan is much lower and policies are much more soft-handed than industry-related policies in the United States and West European nations.

Tools of industrial policy

Tools of industrial policy have changed over the years, as have its objectives, in response to the requirements of the times.

At the end of World War II, industrial activity in Japan was at a near standstill as most of its industrial facilities had been destroyed. Production of consumer goods was at only 30% of the prewar level and that of producer goods at a mere 10%.

During the difficult process of eco-

Table 1-1 Effective Average Tariff Rates (Post-Tokyo Round Implementation) (Mineral and industrial goods excluding oil)

| | | Japan | U.S. | EC |
|---------------|--|--------------|----------|----------|
| Dutiable item | General rate | 9.9% | 8.2% | 9.7% |
| | Effective rate (1976) | 6.9% | | |
| | Effective rate (Post-Tokyo Round Implementation) | approx. 5.5% | under 6% | over 7% |
| All items | General rate | 5.8% | 6% | 6.4% |
| | Effective rate (1976) | 3.7% | | |
| | Effective rate (Post-Tokyo Round Implementation) | approx. 3% | over 4% | under 5% |

(estimated from 1976 import value)

Table 1-2 Tariff Rates for Major Products (Base year—fiscal 1982)

| | Japan | U.S. | EC |
|-----------------------|-------|---------------------------------------|--|
| Motor vehicle | 0 | passenger car (2.8%) truck (4-25%) | passenger car (10.6-21.3%) truck (7-22%) |
| Parts | 0 | 1.3% (filter)— 16.3% (mirror) | 5.3% (gasket)— 12.3% (speedometer) 1980 levels |
| Computer (main frame) | 4.9% | 4.7% | 5.94% |
| (peripheral) | 6.0% | 4.7% | 11.62% |
| Semiconductor | 4.2% | 4.2% | 17% |
| Fiber-optics cable | 8.1% | 9.3% | 16.3% |
| Machine tool | 0 | 5-6% | 2-9% |

conomic reconstruction that followed, Japan had to restrict imports and promote exports—by means of corporate tax credit, for example. Such measures had been recognized by Western nations that were going through a similar process of economic reconstruction. They had also been accepted by GATT and the IMF for balance-of-payments reasons.

In 1960, however, the Japanese government worked out plans to liberalize trade and foreign exchange transactions. As a result of its strenuous liberalization efforts, Japan became an Article 11 nation of GATT in 1963 and an Article 8 nation of the IMF in 1964. Import restrictions were lifted successively, including those on carbon steel (1961), color TV sets (1964) and automobiles (1965). By the mid-1960s liberalization had been completed in the traditional, or heavy and chemical industries. Tax credits on export earnings were also abolished. Computers and semiconductors, high technology products that made their debut in later years, were exposed completely to the rigors of free trade by the mid-1970s. Today Japan firmly maintains an open-market system. The average tariff rate is now lower than those in the United States and European nations. (See Table 1.)

As far as Japan's industrial policy today is concerned, emphasis has shifted to more soft-handed measures. Taxational, financial, budgetary and legislative measures designed to complement the market mechanism serve only as a pump-priming for industrial development and adjustment. Thus their contributory effects are limited.

Following are the principal instruments of current Japanese industrial policy:

(1) Visions

In Japan's industrial policies, the visions are considered as the base for policy measures. There are various kinds of visions: some cover overall industrial structure, others relate to certain segments of industrial structure or specific problems such as energy and industrial adjustment. And there are also visions called "regional visions" which deal with the development of regional economies.

Visions on the overall industrial structure, such as "MITI's Policy Vision in the 1980s," are designed to:

1) Analyze changes in the economic society as it relates to industry (such as trends in the needs of the people and the state of technological innovation), and the current conditions of industry and the industrial structure as reflected in such changes, and clarify the problems involved.

2) On the basis of such an analysis, clarify emerging trends from such changes in the economic society and the industrial structure, and propose a desirable industrial structure to be aimed for.

3) Outline policy tasks for facilitating such an industrial structure and indicate the direction in which such policies will be implemented.

Visions are not formulated by the government alone. They are formulated through open discussions of councils composed of representatives from various quarters, including not just industries but also financial institutions, academia, journalism, labor, small business, consumers and local public entities. Daily exchange of views with corporate managers, careful analysis of industries and industrial structure, and opinions from the press, form the basis of discussions. Typical of such councils is the Industrial Structure Council. It should be emphasized that this process of council deliberation guarantees the openness of policy planning.

A vision thus prepared has these functions:

1) Presenting in a well-arranged form useful information pertaining to the industrial structure, and indicating the basic direction of medium- or long-term policy. Thus uncertainties inherent in the market economy can be alleviated so that private enterprises may demonstrate their vitality more fully. In this connection, the OECD pointed out in a report on the PAP that abrupt policy changes or uncertainties about the direction of government had obstructed the vitalization of private enterprises.

2) Providing a source of useful information that may be utilized by businesses in formulating their strategies. However, it is entirely up to them to interpret or utilize a vision. A vision does not indicate corporate strategy, which must be determined by each individual corporation on its own responsibility.

Various reports prepared by foreign governments and parliaments have functions and objectives similar to those of Japanese policy visions, in the sense that they analyze trends, present problems and indicate directions of policy, thus providing a source of valuable information to corporate decision-makers.

(2) Government financing

It is obvious that the best use must be made of the market mechanism, and that free and creative activity in the private sector forms the foundation of Japan's economic society. Obviously, too, funds for private investment projects are as a rule supplied by private financial institutions through the market mechanism.

In reality, however, private financing is often inadequate for large-scale investments that involve high risks and long lead times. Government financing may be necessary where such projects are deemed essential from the standpoint of the national economy. In other words, the government can supplement private fi-

ancing and support self-help efforts by private enterprises, in order to ensure an appropriate allocation of resources.

The Japan Development Bank (JDB), a representative government financing agency, supplies funds for a wide range of projects related not only to industrial development but also to urban development, environmental protection (e.g. pollution control) and energy development. Today, JDB loans for non-industrial projects carry far greater weight than those for industrial projects. (Since 1976, loans not directly related to industrial development have accounted for an average 89.3% of total JDB lending, against 10.7% for industry-related loans). Thus the proportion of industry-related financing has decreased while that of financing related to urban development, environmental and energy projects has increased. Industry-related loans represent only 0.5% of the bank's total lending for plant and equipment investment.

Many countries have government financing institutions. For example, in Europe, the Reconstruction Financial Corporation (Kreditanstalt für Wiederaufbau) in West Germany, National Bank (Credit National) in France, and various funds organized by the state governments in the United States. In the U.S., the amount of flotation of Industrial Revenue Bonds, used by local government as a means of financing private-enterprise projects, had reached \$8.4 billion in 1980, and the tax cut allowed to the purchasers of the Bonds is said to have totaled almost \$1 billion.

(3) Tax incentives

Tax preferences for private enterprises, or tax incentives, are kept to a bare minimum. They are granted to achieve certain policy goals, such as securing stable, long-term energy supplies, promoting economic cooperation with the developing countries and encouraging technological development. There are no preferential measures designed directly to promote exports or protect particular industries.

Such tax privileges have been curtailed or rationalized in recent years. (During fiscal 1976-82, for instance, about 90% of such incentives were either reduced or abolished). The loss of revenue from corporate tax preferences in the 1983 government budget is estimated at only 2.6% of total corporate income tax receipts. The corresponding figure is 32.5% in the United States and 64.6% in Britain, according to a MITI survey. Pollution control and energy development are the two major areas in which corporate tax privileges are granted. Small business accounts for about one-half of such measures.

(4) Budgetary appropriations

Budgetary appropriations related to

industrial policies are kept to the necessary minimum. MITI takes only 1.6% of the initial government budget for fiscal 1983. The ministry budget gives priority to measures related to small business and energy. Budgetary allocations to MITI excluding these measures account for only 0.4% of the total government expenditure for fiscal 1983. Government share of gross R&D expenditure (excluding defense) in Japan is the lowest (28%) compared with those of the U.K. (32%), the U.S. (33%), West Germany (41%) and France (47%). (See Table 2.)

Summary

There is concern in the United States that the international competitiveness of American industry in the field of high technology has diminished relative to that of Japanese industry. However, the United States dominates world markets for almost all high-tech goods, including semiconductors and computers, which represent two typical areas of high technology. Thus America remains the leader in the field of high technology. (It enjoys a

global market share of 60% for semiconductors and 80% for computers). Global enterprises such as IBM are going ahead with large-scale R&D projects within their respective organizations, and it is unlikely their technological superiority will be significantly reduced in the future.

Recently, Japan's industrial competitiveness has increased in certain lines of high-tech products, such as 64K DRAM (dynamic random access memory), causing friction in Japan-U.S. economic relations. Unfortunately, there are moves in the United States to attribute such friction

Table 2 Policies of the Advanced Industrialized Nations Fostering High Technology Industries

R&D Expenditures

| United States | West Germany | France | United Kingdom | Japan |
|--|--|--|--|---|
| 2.5 times greater than Japan's (excluding defense related spending) | Exceeds Japan's both in absolute amount and government share | Active government participation in total R&D spending amounts to nearly 60% as below | Ratio of government share exceeds Japan's (excluding defense related spending) | —Lower ratio of government share; directed primarily to basic R&D and academic research —Strong private initiative |
| 4 times larger (if defense spending is included) | | | | |
| Gross R&D expenditures | | | | |
| ¥13.9 tril. (FY80) | ¥4.3 tril. (FY79) | ¥2.2 tril. (FY79) | ¥1.5 tril. (FY78) | ¥5.2 tril. (FY80) |
| Gov't share in these expenditures | | | | |
| ¥6.6 tril. (FY80) | ¥1.9 tril. (FY79) | ¥1.3 tril. (FY79) | ¥0.7 tril. (FY78) | ¥1.46 tril. (FY80) |
| Excluding defense related expenditures | | | | |
| ¥3.6 tril. (FY80) | ¥1.7 tril. (FY79) | ¥0.8 tril. (FY79) | ¥0.4 tril. (FY78) | ¥1.44 tril. (FY80) |
| R&D budget for major agencies | | | | |
| Department of Defense ¥4.99 tril. (FY82) | Ministry of Research & Technology ¥0.66 tril. (FY79) | Ministry of Research & Technology ¥0.76 tril. (FY82) | Ministry of Defense ¥0.72 tril. (FY81) | MITI ¥0.1716 tril. (FY83) (12% of total government expenditures in this field) |
| NASA ¥1.64 tril. (FY82) | Ministry of Defense ¥0.22 tril. (FY79) | Ministry of Defense ¥0.67 tril. (FY82) | Ministry of Education & Science ¥0.35 tril. (FY81) | |
| Department of Energy ¥1.41 tril. (FY82) | Ministry of Economy ¥0.11 tril. (FY79) | Ministry of Post, Telephone & Telecom. ¥0.12 tril. (FY82) | Ministry of Industry ¥0.14 tril. (FY81) | |
| Health and Human Services (incl. National Institute of Health) ¥1.07 tril. (FY82) | Ministry of Education & Science ¥0.06 tril. (FY79) | Ministry of Transportation ¥0.09 tril. (FY82) | Ministry of Energy ¥0.1 tril. (FY81) | |
| National Science Foundation ¥0.29 tril. (FY82) | Ministry of Food & Agriculture ¥0.03 tril. (FY79) | Ministry of Industry ¥0.04 tril. (FY82) | Ministry of Agriculture, Fishery & Food ¥0.05 tril. (FY81) | |
| Ratio of government share (incl. defense) | | | | |
| 48% | 44% | 58% | 48% | 28% |
| Ratio of government share (excluding defense-related expenditures) | | | | |
| 33% | 41% | 47% | 32% | 28% |

Tax Measures for R&D

| | | | | |
|---|---|---|---|--|
| Economic Recovery Tax Act of 1981 R&D spending exceeding the average of the preceeding three years' is eligible for a 25% tax credit | — | R&D spending exceeding the previous year's is eligible for a 25% tax credit | Capital Allowance Act 100% capital allowance in the first year for R&D related equipment | R&D spending exceeding the highest previous level is eligible for a 20% tax credit |
|---|---|---|---|--|

Table 3 Examples of Industrial Cooperation with the U.S.

1. Semiconductors

(1) Technical exchange

| | | |
|--------------------|---|--|
| Hitachi | → | Hewlett-Packard: 64K DRAM technique offered |
| Toshiba | → | Zilog: fine processing technique for 16K DRAM (equivalent to 64K DRAM) |
| (technical tie-up) | | |
| Zilog | → | Toshiba: microprocessor technology provided |
| Oki | ↔ | National Semiconductor: 64K DRAM technique offered joint R&D |
| (technical tie-up) | | |

(There are many cross-licensing agreements between Japanese firms and such U.S. companies as Texas Instruments (T.I.), Motorola and Fairchild.)

(2) Local production

| | | |
|-------|---|---|
| Japan | → | U.S.: Rohm, Hitachi, NEC, Fujitsu, Toshiba |
| U.S. | → | Japan: T.I., Motorola, Analog Devices (also planned by Intel and Fairchild) |

2. Machine Tools

(1) Technical exchange, Capital cooperation, etc.

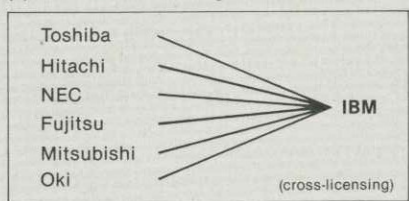
| | | |
|------------------------|---|--------------------------------------|
| Makino Milling Machine | → | LeBlond Makino: equity ownership |
| Okuma Machinery | → | Danly Machine: technical cooperation |
| Murata Machinery | ↔ | Warner & Swasey: joint venture |

(2) Local production

| | | |
|-------|---|--|
| Japan | → | U.S.: Yamazaki Machinery, Hitachi Seiki, Fanuc |
|-------|---|--|

3. Computers

(1) Technical exchange



(2) Local production

| | | |
|-------|---|------------|
| Japan | → | U.S.: Oki |
| U.S. | → | Japan: IBM |

4. Motor Vehicles

| | | |
|--|---|---|
| (1) Toyota | → | GM: joint venture |
| (2) New channel set up to distribute Ford-brand cars (produced by Toyo Kogyo) in Japan | | |
| (3) Production in U.S.: | | Honda (motorcycles and cars) Nissan (trucks) |

5. Nonmilitary Electronic Machinery

About 15% of color TV sets and nearly 10% of speaker systems produced outside Japan by companies affiliated with Japanese firms are manufactured in the U.S.

to Japan's industrial policy and to advocate trade countermeasures. It is wrong to blame bilateral problems on Japan's industrial policy. Moreover, such moves are potentially dangerous for these reasons:

First, industry-related policies are practiced in various countries, albeit under different names and in different forms. Japan's industrial policies conform to international rules such as those established by GATT. If one country were to be allowed to unilaterally determine the effects on trade of another country's policies or take protectionist measures on grounds of policy differences, that would give the protectionists a good excuse and eventually send the world economy down the unhappy road of protectionism.

Second, development of a free-enterprise economy depends primarily on ceaseless efforts by individual businesses to improve productivity and technology. Such efforts, however, would be discouraged should criticism of industrial policy lead to protectionism.

Third, criticism of R&D policies in other countries may dampen the will of their governments to promote basic research and development, thus depriving the world economy of needed opportunities to develop new frontiers of revival and development.

Japan, the United States and European nations should make joint efforts to promote free trade, technology and capital transfers, and development in the field of high technology. The common goal is industrial coexistence and co-prosperity.

In fact, active moves are now under way at the private level to step up industrial cooperation and technology and capital transfers (See Table 3). At the government level, studies are being made on ways to promote international high-technology cooperation. Proposals made on the basis of these studies provide guidelines for international cooperation through free trade in high technology, participation of foreign-affiliated companies in government subsidized research programs and joint research and development. Such collaboration offers the best way to revitalize the Western economies.●

Keiichi Konaga is the director-general of the Industrial Policy Bureau of the Ministry of International Trade and Industry. Konaga, 52, joined MITI in 1953 after graduating from Okayama University. He has held many MITI posts such as the deputy director-general of the Machinery and Information Industries Bureau and the Deputy Vice Minister for Administration before assuming his current post in 1982.