

Working Together for Tomorrow's World

-Japan Promotes Industrial Cooperation-

By Masuo Shibata



Internationally important

Helped by last year's lower oil prices and falling inflation, the world economy, led by the U.S. economy, has begun to perk up. The economic recovery in the advanced countries, with its decisive impact on global economic trends, is being sustained primarily by private consumption and housing investments. Yet structural problems, such as slack growth in industrial productivity due to sluggish equipment investment and technical development, have yet to be resolved. Moreover, continuing high unemployment rates are fueling protectionism in some European countries and the United States.

In view of the significant role played by free trade in the development of the world economy, it is essential that the advanced countries sustain and strengthen the free trade system in order to ensure continued world economic growth, without getting caught in the pitfall of protectionism. Japan, which attained its own rapid growth under the free trade system after World War II, has a special responsibility to contribute vigorously to the sustenance and expansion of a free world economic order as a member of the trilateral Japan-U.S.-EC relationship, the central pillar of the world economy and trade today.

In this regard, the significance of industrial cooperation in terms of Japan's international contribution has increased greatly in recent years. Japan's industry is performing much better than that of European countries and the United States, and it is only fitting that the nation should have greater interchange with these countries not only in trade but in capital transactions, technology and know-how. While the three regions work to complement each other's activities through mutual interchange in a wide variety of fields, Japan must do all it can to help Europe and the United States resolve their structural problems, revitalize their industries and establish a harmonious international division of labor.

Forms and effects of industrial cooperation

The term "industrial cooperation" refers to interchange among industries of different countries in the wide range of fields mentioned above. Concretely, it can be broken down into (1) investment exchange, that is, making direct investment overseas and receiving direct investment from abroad, (2) technology exchange, technical tieups between enterprises and joint technological development in the form of technology exports, imports, and cross-licensing contracts, and (3) cooperation in third-country markets in connection with the construction of industrial plants, and OEM (Original Equipment Manufacturing) contracts for producing goods under the importer's brand name.

The effects of these three forms of industrial cooperation are as follows.

First, investment interchange. Direct investment overseas has the immediate effect of solving supply bottlenecks and expanding employment in the host country. Japanese direct investment in other countries created an estimated 600,000 jobs in other countries in fiscal 1980 in the manufacturing sector alone. Jobs created by Japanese direct investment in European countries and in the United States increased more than 10-fold from 6,600 in fiscal 1971 to 70,000 in fiscal 1980 (Table 1).

Furthermore, in the medium and long term, direct investment contributes to solving structural problems in the supply sector through upgrading the host country's technical skills, and to stimulating the host's industry. Direct investment overseas not only accelerates the internationalization of Japanese industry but makes it possible for Japanese industry to undertake production and marketing which it could not do single-handed. At the same time, it deepens mutual understanding and Japan's relations with other nations, while helping further much-desired international division of labor.

Table 1 Local Employees Hired by Locally Incorporated Japanese Subsidiaries

	FY 1971		FY 1980		Average annual growth rate	
	All industries		All industries		All industries	
		Manufacturing industry		Manufacturing industry		Manufacturing industry
North America	16,335 (6.8)	3,238 (1.7)	78,612 (11.2)	52,473 (8.8)	19.1	36.3
Europe	7,550 (3.1)	3,332 (1.7)	31,588 (4.5)	17,535 (2.9)	17.2	20.3
All regions	241,597 (100.0)	193,401 (100.0)	700,854 (100.0)	599,207 (100.0)	12.4	13.4

Remarks: 1. The number of local employees represents total employees of locally incorporated Japanese subsidiaries minus staff sent from Japan.

2. Figures in brackets represent percent of total local employment.

Source: MITI, "Overseas Business Activities of Japanese Enterprises"



A color TV plant of Japan's leading manufacturer, in California, U.S.A. Industrial cooperation is underway in almost every industry.

Direct investment in Japan by other countries, on the other hand, helps foreign enterprises expand their access to the Japanese market. By utilizing Japan's great technical capabilities and skilled labor force, foreign enterprises can engage in efficient production and marketing activities. At the same time, Japan benefits from the influx of sophisticated technology and know-how. As foreign enterprises acquire a better understanding of economic systems and commercial practices in Japan, friction arising from misunderstanding is alleviated. Moreover, the siting of foreign plants in Japan's rural areas can invigorate regional economies. These are some of the merits of foreign direct investment in Japan.

Secondly, technical exchange. The mutual exchange of technologies between advanced countries contributes greatly to upgrading technical capabilities and raising productivity in the industries involved. In due course, it also revitalizes the economies of the advanced countries. Promotion of joint research and development in high technology through sharing the risks and costs involved enables both Japan and Western countries to expedite the development of sophisticated technologies.

Thirdly, cooperation in third-country

markets. This not only improves industrial infrastructure and invigorates industries in third countries, most of which are developing nations, but contributes also to boosting efficiency by coordinating the complementary capabilities in which the various countries excel. At the same time, cooperation in a third country market makes it possible for the partners to disperse the financial burden and risk, which become correspondingly bigger the larger the industrial project. OEM contracts, too, are significant in that they not only supplement the supply capacity of the foreign partner but lay the foundations for stepped-up cooperation in the future.

Major trends in industrial cooperation

As interdependence between Japan and other advanced countries grows, industrial cooperation is also making steady progress, primarily in investment and technical exchanges. A recent survey by the Ministry of International Trade and Industry (MITI) covering principal exporting enterprises found that industrial cooperation is underway in almost every industry. Of the respondent companies, 43% were planning to make direct investment overseas after 1983 (Table 2).

Principal examples of recent industrial cooperation are given in Table 3. This table shows that industrial cooperation is most advanced in the high-technology fields, such as semiconductors, VTRs, automobiles and machine tools.

(1) Trends in Japanese direct investment overseas

The form of industrial cooperation most desired by the United States and European countries is investment interchange. Japan's direct investment overseas has increased steadily since the 1970s. It expanded rapidly after 1972 when direct investment overseas was to all intents and purposes completely liberalized. Statistics on direct overseas investment by major

Table 2 Industrial Cooperation by Type and Industry

(Unit: %)

Type Industry	Direct Investment		Technical Exchange						Cooperation in Third-country Market		OEM Contracts	
			Technology Exports		Technology Imports		Cross-licensing		Actuals	Planned	Actuals	Planned
	Actuals	Planned	Actuals	Planned	Actuals	Planned	Actuals	Planned				
Textile	37.5	0	50.0	50.0	75.0	42.9	57.1	28.6	0	14.3	25.0	14.3
Chemical	66.7	36.4	93.1	83.3	96.3	79.2	63.2	35.3	11.8	35.3	16.7	22.2
Ceramic, earthenware, stoneware	80.0	37.5	77.7	77.7	90.0	50.0	42.9	16.7	14.3	0	0	0
Steel	30.0	30.0	84.6	50.0	78.6	55.6	33.3	12.5	50.0	60.0	14.3	0
Nonferrous metals	70.0	83.3	92.3	81.8	86.7	90.0	72.7	55.6	42.9	50.0	33.3	50.0
General machinery	76.0	50.0	62.5	42.1	88.0	63.2	26.3	17.6	33.3	29.4	42.9	57.9
Electric machinery	70.7	58.6	73.7	64.5	88.1	72.4	60.6	60.7	34.6	31.8	90.7	88.6
Transport machinery	47.1	35.7	84.2	73.3	89.5	81.3	33.3	30.8	53.8	66.7	81.3	64.3
Precision instruments	87.5	100.0	83.3	100.0	66.7	50.0	57.1	50.0	0	0	100.0	100.0
Others	64.7	43.0	77.9	67.4	87.8	69.2	49.6	38.7	29.5	34.3	56.2	53.6
Companies responding to survey	167	123	172	141	181	133	137	119	122	108	146	125

Remarks: 1. Ratio of firms involved in item concerned to the total number of firms from each industry responding to the question regarding said item.

2. Date of survey: February, 1983

Source: MITI, "Questionnaire Survey on Commerce and Trade Environment and Others"

Table 3 Recent Japanese Industrial Cooperation

	Consumer Electronics	Computers, ICs, Communications Gear	Industrial Machinery	Motor Vehicles	Aircraft	Others
United States	I ... Color TV sets, microwave ovens, audio equipment, refrigerators O ... VTRs	I ... ICs, telephone switchboards, data processing equipment T ... Cross-licensing of communications gear, OCR manufacturing technology	I ... Machine tools T ... Robot technology and joint development	I ... Motorcycles, small cars, small trucks	T ... Joint development of civil aircraft Note: Joint undertaking by Japan, U.S. and Italy	I ... Car air-conditioners, head lamps, car tire tubes T ... Space industry technology, ion exchange membrane cross-licensing O ... Ultrasonic diagnosis equipment
Britain	I ... Color TV sets, VTRs	I ... ICs T ... Computer technology O ... Semiconductor push-button telephones	I ... Robots T ... Robot technology	T ... Passenger car technology O ... Batteries, forklifts	T ... Joint development of jet engines for civil aircraft Note: Joint undertaking by Japan, U.S., Britain, West Germany, and Italy	I ... Video tape T ... Sintered silicon carbide products manufacturing technology M ... Hydroelectric power plant, fertilizer project
West Germany	I ... VTRs	I ... ICs O ... Computers	I ... Machine tools, ceramic conductors T ... NC equipment technology	T ... Cooperation in passenger car field	T ... Joint development of helicopters	T ... Nuclear fuel waste processing technology and electromagnetic valve technology M ... Cold rolling mill, dam, port and harbor facilities
France	I ... Audio equipment T ... Pick up tube, VTR technology		I ... Machine tools	T ... Motorcycle technology		I ... Video cassette tapes, carbon fibers M ... Thermal power plant, oil refinery
Italy		T ... Semiconductor design technology, joint development of logic circuits	T ... MC technology	I ... Small passenger cars, motorcycles T ... Technical tieups for passenger car assembly and manufacture		T ... Polypropylene molding machine technology M ... Gas pipeline
Netherlands	I ... VTRs					I ... Sheet glass, film T ... Soda plant technology
Belgium						I ... Glass, sheet glass T ... Carburetor manufacturing technology M ... Thermal power plant, fertilizer project

Remarks: 1. I Investment interchange

T Technical exchange

M Cooperation in third-country market

O OEM contracts

2. Investment interchange refers to local production by Japanese manufacturers, and joint ventures with makers in the host country.

3. OEM contract refers to a contract under which a Japanese maker manufactures and exports products in the brand name of a firm in the importing country

4. The cases of industrial cooperation listed above were undertaken between fiscal 1978 and the end of fiscal 1982.

Source: MITI Survey

advanced countries reveal that Japan's balance was \$45.4 billion (on authorization and registration bases) at the end of fiscal 1981 (ended March 31, 1982). Although this was relatively small compared with America's \$227.3 billion and the Britain's \$79.4 billion, Japan still had the highest growth rate among the advanced countries. Along with West Germany, it ranks as a rapidly rising investor country (Table 4).

One characteristic of Japan's direct overseas investment is that investments in manufacturing and resources development are made primarily in the developing countries of Asia and Latin America, while a major proportion of investment in commerce and service industries goes to North America and Europe (Fig. 1). There are a number of reasons behind this pattern.

For one, the expansion of the Japanese economy created labor shortages, strongly motivating such labor-intensive industries as textiles and electric appliances to invest in developing countries with abundant low-cost labor in order to maintain their competitive edge. At the same time, the developing countries' positive policy of inviting in foreign capital greatly encouraged investment by these industries.

Second, resource-poor Japan had to invest in resource-rich countries in order to ensure a stable supply of raw materials for its industries.

And third, Japan lagged behind Western countries in its stock of "management resources," such as technology and know-how concerning production, sales, and business management, as well as the ability to raise funds. Given the relatively higher cost of labor in advanced countries, Japanese manufacturers found no attraction in investing there. In the advanced countries, investment was primarily in commerce and service industries,

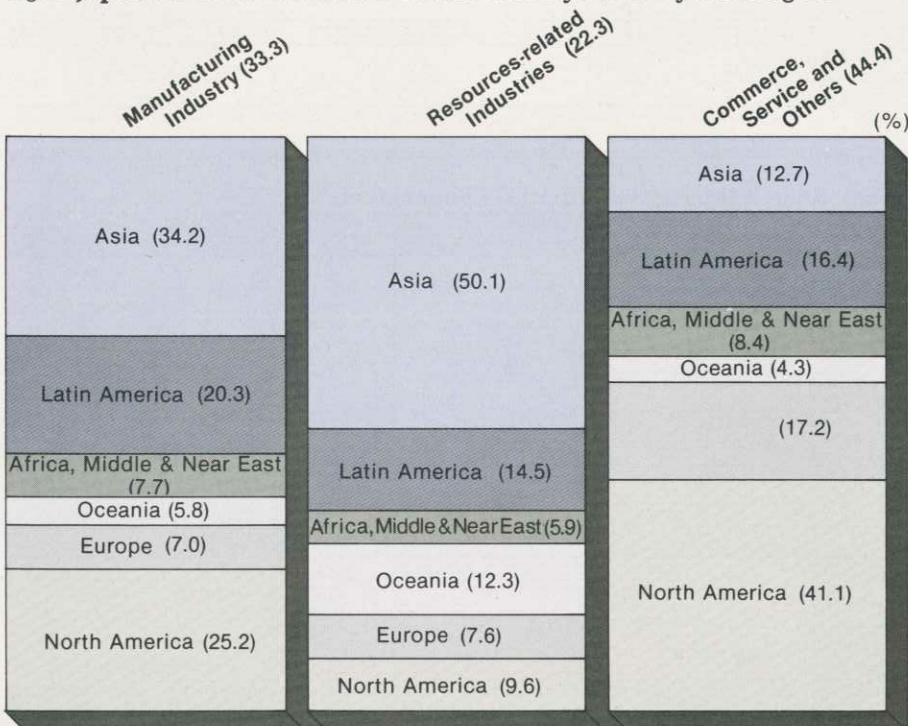
Table 4 Overseas Direct Investment by Major Countries (Units: \$1 billion, %)

Country	1971	1975	1981	Average annual growth rate 1971-1975	Average annual growth rate 1975-1981
Japan	4.4 (1.9)	15.9 (8.3)	45.4 (24.5)	37.9 (44.6)	19.1 (19.8)
United States	82.8	124.2	227.3	10.7	10.6
West Germany	7.3	16.0	37.3	21.7	15.2
Britain	23.7	30.8	79.4	6.8	17.1

Remarks: Upper figures for Japan represent total overseas direct investment at the end of the year on authorization and registration bases. Figures in brackets represent outstanding balance of direct investment (assets) at the end of each year from balance sheet of Japan's total overseas assets and liabilities.

Sources: Bank of Japan; Survey of Current Business; IMF-IFS; Japan External Trade Organization, "White Paper on Overseas Market"; Bank of England Quarterly Bulletin; OECD-Recent International Direct Investment Trends, etc.

Fig. 1 Japanese Overseas Direct Investment by Industry and Region



Remarks: 1. Cumulative overseas direct investment on authorization basis from fiscal 1976 to fiscal 1982 year-end
2. Excluding branches and real estate
Source: Bank of Japan



Workers at one of Japan's leading automobile manufacturers in the U.S.A. Japanese direct overseas investment created an estimated 700,000 jobs in fiscal 1980.

in the hope of developing markets for Japanese exports.

However, manufacturing investment in the advanced countries increased steadily in the 1970s, a trend that became particularly conspicuous after 1978 (Fig. 2). Behind the increase lay Japan's growing industrial strength, resulting from the smooth expansion of the Japanese economy and the accumulation of production technology and other "management resources," the increased need to develop profitable markets globally in pace with the expansion of business activities, and increased requests from foreign countries which wanted to revitalize their own domestic economies. A breakdown shows that the increases in overseas investment in recent years are most evident in those industries in which Japan has become most competitive, including electric appliances, general machinery and transport machinery.

Fig. 2
Trends in Japan's Investment in Manufacturing Industries in Advanced Countries

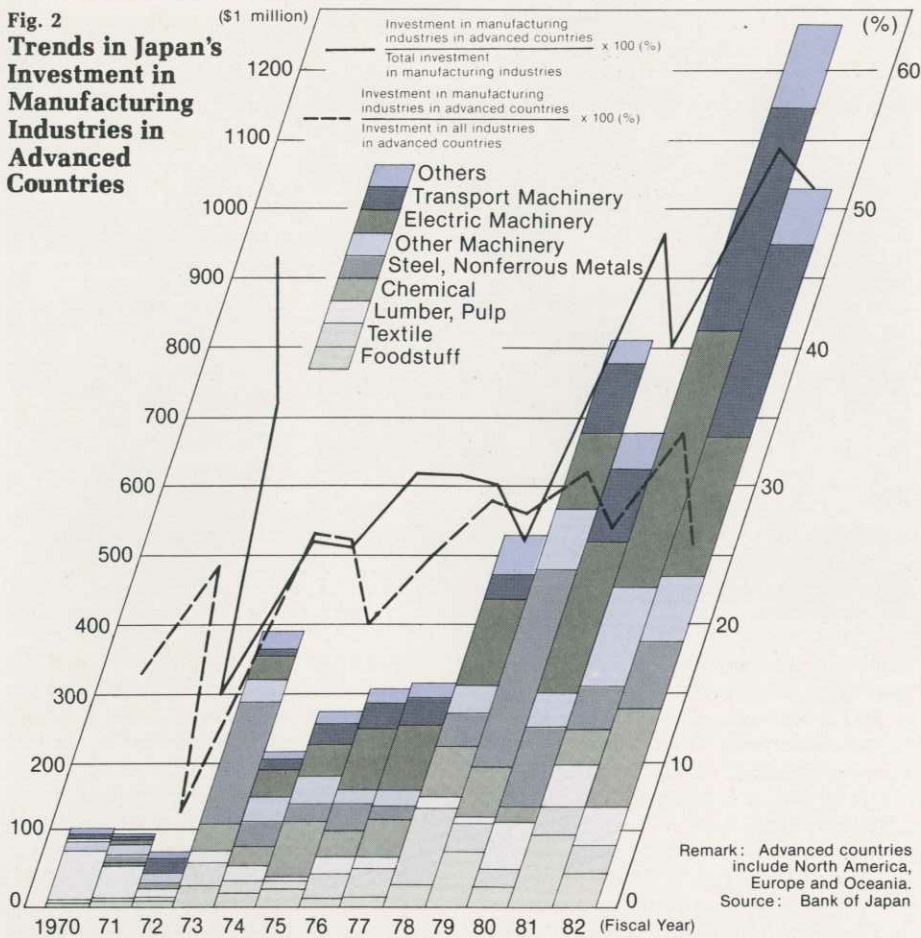
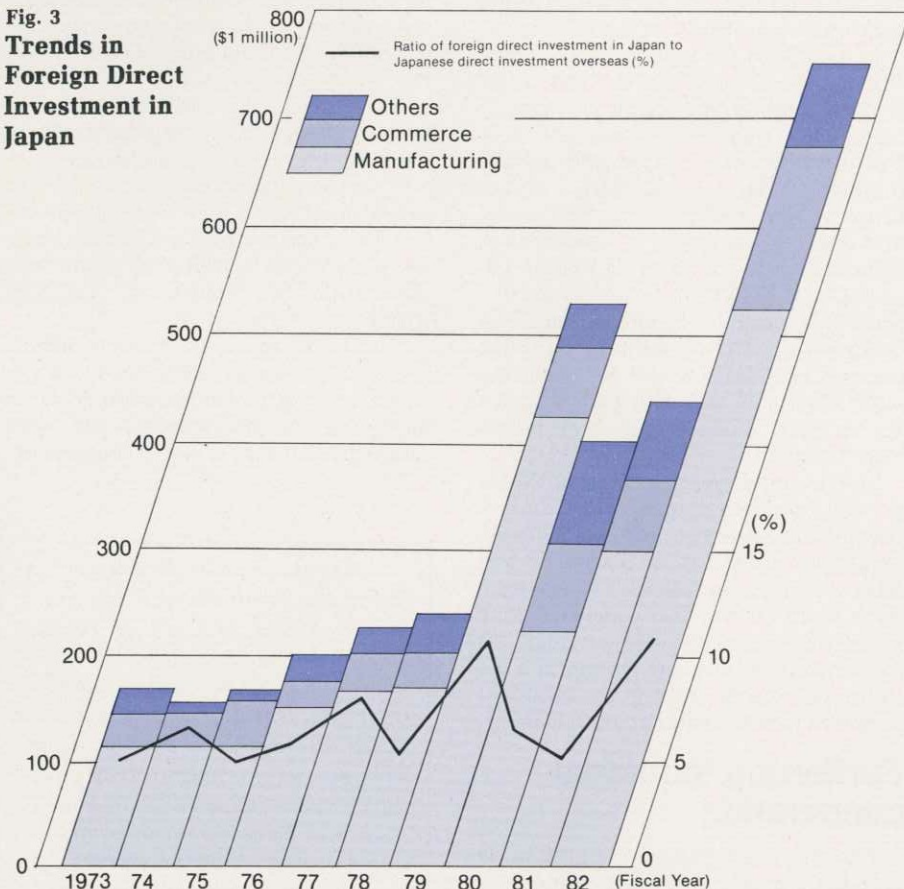


Fig. 3
Trends in Foreign Direct Investment in Japan



(2) Trends in foreign direct investment in Japan

Direct investment in Japan by other countries remains at a low ebb, as compared with Japan's direct investment overseas. However, foreign investment in Japan, centering on the manufacturing industry, has increased in recent years. In fiscal 1982 it rose sharply to \$750 million for a growth rate of 73.3% over the preceding year (Fig. 3). Particularly noteworthy is the advance into Japan of foreign companies boasting unique technical capabilities and excellent productivity in high technology fields related to pharmaceuticals and semiconductors.

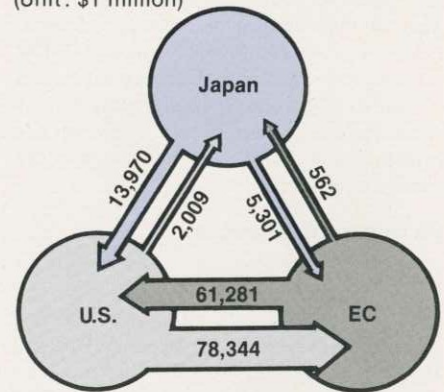
Japan liberalized foreign direct investment in five steps from 1967 to 1973 to conform completely with the OECD's capital liberalization code. In 1980 Japan went on to revise its Foreign Exchange Law, virtually removing all legal restrictions on capital transactions, and more recently, the Japanese government has taken a number of measures to promote foreign investment in Japan, including dispatching a mission abroad to encourage such activities. The government is actively trying to smooth the flow of direct investment from overseas.

(3) Trends in trilateral investment interchange

A study of trilateral investment interchange among Japan, the United States and the EC shows that whereas cumulative investment interchange between the United States and EC reached \$139.6 billion at the end of 1982, between Japan and the United States it remained at a low \$16 billion and between Japan and the EC came to a mere \$5.9 billion (Fig. 4).

Fig. 4 Investment Interchange among Japan, U.S. and EC

(Cumulative total at the end of fiscal 1982)
(Unit: \$1 million)



Remarks: 1. Japan-U.S. and Japan-EC figures represent cumulative totals as of end of fiscal 1982 on authorization and registration bases.
2. EC figures represent total for 10 nations. However, in the case of EC direct investment in Japan, figures represent total for six countries (West Germany, Britain, France, Netherlands, Belgium and Denmark).
Source: Bank of Japan; Survey of Current Business

This difference has come about largely because the United States and EC, helped by their geographic proximity, have always had mutual interchange, while Japan only started full-scale direct investment overseas as recently as 1972. It also reflects the greater proportion of Japanese direct investment in developing countries.

However, as explained above, both Japanese overseas investment and foreign investment in Japan are increasing rapidly. This is especially true of investment interchange between Japan and the advanced countries in Europe and the United States which has recently claimed a greater and greater share of the total. Further growth is anticipated.

The government's role

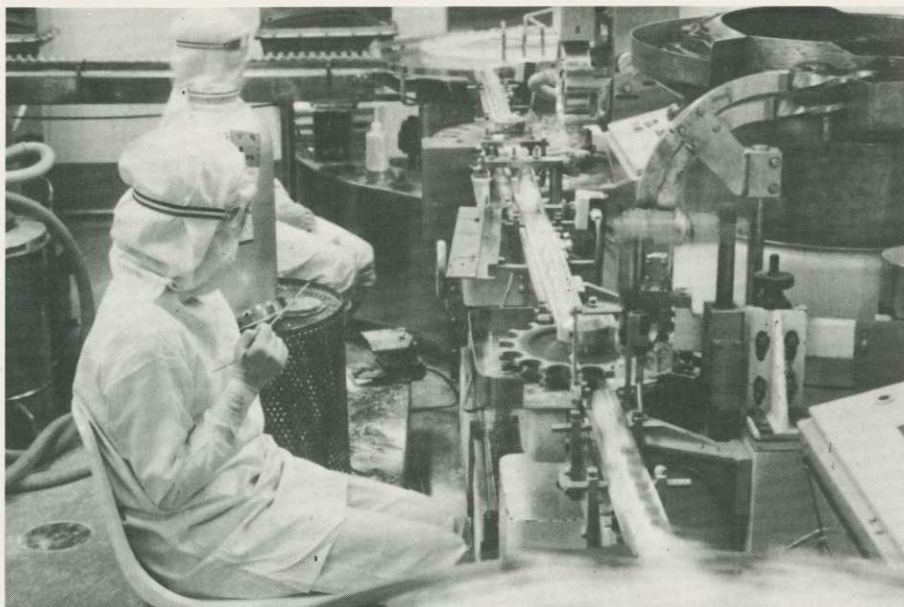
(1) The government can smoothe the way

Industrial cooperation bears directly on the fundamental elements that sustain the life of a corporation, that is, investment, technology and management know-how. It is therefore up to the corporation itself to decide whether or not to engage in industrial cooperation. However, companies lacking experience in foreign operations and second-tier or small- and medium-sized companies are often deterred from embarking on industrial cooperation because of inadequate information about conditions overseas and the vagaries of foreign risk. There are also sometimes problems involving the host country's government policy and traditional economic systems which are beyond the ability of private enterprises to solve on their own.

This being the case, it falls upon the Japanese government to actively exchange information with other governments for promoting industrial cooperation, and, when necessary, to provide enterprises interested in industrial cooperation with general information as well as information concerning individual projects. The government must also remove obstacles hindering the smooth implementation of industrial cooperation and expedite the improvement and expansion of the involved systems.

(2) Concrete measures

MITI conducts regular consultations on industrial cooperation not only with the EC Commission but also with relevant government agencies in France, Britain, Belgium, Italy and Ireland. The ministry also engages actively in information exchange and liaison activities with each country concerned in order to find ways to promote industrial cooperation, including specific projects. The information thus exchanged includes measures taken in each country to promote industrial cooperation and sector-by-sector evalua-



The pharmaceutical industry is one field in which investment into Japan is concentrated. (Photo: Pfizer Taito Co., Ltd.)

tions of the current state of bilateral industrial cooperation.

MITI also consults with the United States concerning investment, and exchanges opinions on the impact this investment has or is likely to have on each country's trade, and on their investment policy. In addition, MITI helps foreign enterprises setting up in Japan to find industrial sites, advises missions dispatched to Europe and the United States, provides necessary information and offers other back-up to industrial cooperation efforts.

In fiscal 1983 the Japan External Trade Organization (JETRO) established industrial cooperation and technical exchange centers not only at its head office in Tokyo, but in seven major cities abroad (London, Paris, Dusseldorf, Milan, Brussels, New York and San Francisco), thus bolstering its ability to furnish information and to promote industrial cooperation. JETRO is now conducting feasibility studies on international cooperation in research for promoting the international development of industrial technology, and considering the dispatch and receipt of missions to promote investment in Japan.

Moreover, the government is moving to provide financial assistance to industrial cooperation investment projects by facilitating the utilization of Export-Import Bank of Japan and Japan Development Bank loans. It has also concluded joint insurance agreements with Belgium, the Netherlands, France and Britain in a bid to promote cooperation in the export of industrial plants to third-country markets.

Furthering industrial cooperation

The protracted stagnation in the world economy has led to mounting protection-

ist pressures in many countries, and the entire free trade system is now being put to the test. As protectionism rises, Japan's environment can only worsen. As the free world's second largest economic power, it is imperative that Japan contribute vigorously to the revitalization of the world economy by making the best use of the dynamism of its private sector. To do so, Japan should undertake the following:

(1) Japan should energetically promote technological development, while accelerating the introduction of investment and technology from abroad and maintaining the vitality of its industry. At the same time, it must constantly maintain and improve its capacity to respond readily to investment and technical exchange.

(2) In investing directly overseas, Japan should understand and respect commercial and other practices in the host country, while trying to transplant to the host the transferable elements of Japanese-style management.

(3) The Japanese government should respect the autonomy and initiative of private enterprise, pay attention to details in improving the environment, and work untiringly to foster industrial cooperation. ●

Masuo Shibata is the director general of the International Trade Policy Bureau of the Ministry of International Trade and Industry. Shibata, 53, joined MITI in 1954 after graduating from the University of Tokyo. He served in many posts such as deputy vice minister for administration and deputy director general of MITI's Agency of Natural Resources and Energy before assuming his current post.