

The Economy and Industry

By Fukukawa Shinji

The Japanese industrial world is now undergoing its fourth wave of structural reforms of the postwar era. The first wave was in response to the liberalization of trade and capital in the 1960s; the second was to overcome the oil shocks of 1973 and 1979; and the third was to absorb the effects of the strong yen resulting from the Plaza Accord in 1985. The current wave of reforms was triggered by the severe recession following the bursting of the bubble economy in 1991 combined with the strongest yen of the postwar era.

Although each of the three previous periods of structural change were accompanied by changes in economic and technological circumstances, the current structural changes—while concentrated on the effects of asset deflation and the high yen—are accompanied by various changes of a new level of complexity. For that very reason, the rationale behind government policies and business strategies in this new climate must be the most fundamental and thorough.



Photo: Asahara

The strong yen and international competition

The yen/dollar exchange rate hit an all-time high of ¥79.75 in Tokyo on April 19. The short-term cause of the dollar's plunge was the slow response of the Japanese government and the Bank of Japan, both misunderstanding

the psychology of the market and thereby allowing speculative overshooting. The fundamental force behind the strong yen/weak dollar, however, is failure to resolve Japan's ongoing current accounts surplus (US\$129.3 billion last year), a surplus supported by excessive savings in Japan, and failure to resolve the trade and budget deficits of the United States, both tied to a lack of sav-

ings in that country.

The strength of the yen has encouraged Japanese industry, particularly manufacturing, to relocate factories abroad. Overseas direct investment reached US\$248.1 billion at the end of 1992, second only to the United States. This is Japan's third period of rising overseas investment, following similar periods when the yen strengthened in 1976 and 1985. This time, however, with the dawning of a borderless global economy, Japanese industry has truly implemented an international division of labor.

In particular, investment in East Asia has been increasing. In fiscal 1992, total overseas investment by the manufacturing industry fell by 18.3% due to recession-induced deterioration of funds. Nevertheless, investment in Asia still rose by 6% that year. When total overseas investment rose by 10.7% in fiscal 1993, investments in Asia increased by 17.9%. The trend continued during the first half of fiscal 1994 with an overall increase of 29.9% topped by an increase in investment bound for Asia at a whopping 52.8% (Table 1).

As the figures suggest, overseas expansion of production has increased steadily in the assembly industries, such as auto and electrical appliances, and labor-intensive industries like textiles. While overseas production accounted for only 3% of the total production of Japanese manufacturers in 1985, the figure now stands at around 7%. While still far from U.S. manufacturers' 25% or Germany's approximately 20%, I believe that the current strong yen will encourage a further shift to overseas production, accounting for 15% of total production by the year 2000. (See Table 2 for statistics on individual products.)

The strong yen is boosting foreign imports. Increased efforts by companies in Europe and the United States to export to Japan as well as stepped-up production and stronger competitiveness in Asian nations has contributed to this influx. "Reverse imports," products made at the overseas production bases of Japanese companies, are also on the rise. The proportion of imported manufactured goods to total imports rose

from 50% in 1990 to 55% in 1994. Automobile imports were up approximately 50% in 1994. Imports grabbed a 55% share of the color television market and an 80% share of cotton goods.

Theoretically, a strong currency shackles exports and accelerates imports. Presently, however, rapidly rising price tags on Japanese exports are not deterring foreign buyers since, first of all, the United States and other Asian nations are enjoying a healthy economy, and secondly, Japanese exports depend mostly on the capital goods and parts that foreign countries require. This is a classic example of the "J-curve effect." Consequently, it is unlikely that the Japanese trade surplus, expressed in dollars, will shrink any time soon. However, within two years the surplus will unmistakably turn towards retraction due to the structural changes embodied in the shift to overseas production.

Concerns: high costs and hollowing out

During the recent recession, most Japanese companies have been working to streamline their operations through personnel cuts and other means. Now with the high yen, an accelerated shift to overseas production is being paralleled by intensified efforts to further curtail costs.

A major factor—again related to the strong yen—further hurting business operations is the discrepancy between prices in Japan and abroad. Based on purchasing power parity, the real strength of the yen comes to 170 for wholesale prices and 200 for consumer prices. With prices for Japanese businesses this high, it is extremely difficult to compete internationally at the current exchange rate. Therefore, it is only natural that industry is strenuously asking for the lifting or relaxation of regulations as a way of narrowing the price gap.

Looking at an international comparison of operating costs, Japan is at a disadvantage in essentially every area except for interest rates. As Table 3 shows, Japanese industries are forced to

do business under the so-called "four highs": high yen, high wages, high prices and high taxes.

Labor and management settled on a paltry wage increase of only 2.8% to 2.9% during this year's *shunto* (annual labor offensive when labor and management negotiate wage increases), even lower than last year's 3.10% increase. Moreover, there was wide disparity in wage increases among different industries and among different companies within the same industry, reflecting company profits. With managers loath to accept another year of the standard wage increase and labor unions forced to place priority on securing jobs, the decision to accept the lower rate of increase was inevitable.

The seniority-based wage system, long a hallmark of Japanese-style management, is beginning to fall apart as more and more companies introduce contracts based on an annual salary and imperative contract renewals when employees reach a certain age. Maintaining the lifetime employment system is also becoming troublesome. If companies have to employ workers at high wages, the only way to turn a profit is to shift them to intellectual and creative work, the kind of work with high-added value.

Fears of hollowing out are beginning to surface as production moves overseas and rising costs erode Japan's competitiveness on the international stage. The term "hollowing out" is defined differently by different people, but I consider it reduced ability by industry to absorb employees and a slowing of technological development, the engine of economic growth.

Already the ranks of the so-called "in-house unemployed" in Japan are said to number 1.5 million to 2 million. Although managers at Japanese companies see employment as the most vital issue in business management, with the yen this strong, there is no choice but to hold personnel costs—a major chunk of a company's fixed costs—at a minimum in order to preserve flexibility in the company's management. For the same reason, any research and development costs that are not directly related to

immediate profits have to be shaved as much as possible. If things continue along this road, there is concern that industry's hollowing out and anxiety over unemployment will damage the vitality of the Japanese economy.

Changes in consumer behavior

Consumer behavior continues to change dramatically with the recession. Roughly speaking, the changes appear as two trends. The first is bargain hunting. Consumers have become more cost-conscious as the price of assets (such as stocks and real estate) falls, income from assets declines, and the hollowing out of industry creates fears over future employment. The days of the bubble economy when consumers would jump to buy brandname and expensive goods, regardless of price, are over.

To the contrary, consumers' eyes are now being caught by low-priced products evinced by the so-called "price busting" and "price revolution" phenomena. Supermarkets are turning to private brands and imports in pursuit of their low-price strategy. Mail order catalogs are gaining in popularity as a way of buying everyday goods and parallel imports are also beginning to rise. Consumers have now become aware of the price gap between goods at home and abroad and are making their buying choices without distinguishing between imports and domestic-made goods.

Another major trend is the growing emphasis on cultural pursuits. At first glance, this may seem inconsistent with the trend toward cost consciousness, but with the money saved by shopping wisely people can choose things that satisfy their deeply held intellectual and emotional needs. Evidence of this trend is the current high demand for fashionable apparel and accessories, automobiles and electrical goods of the newest design, and streets and scenery with greenery and a natural environment. In addition, people are developing an interest in continuing education and health pursuits as a way of heightening their own cultural awareness. They are also developing an interest in travel and different cultural events that

allow them to experience history or other cultures. This is definitely an expression of consumers' inclination toward high value and fulfilling emotional and intellectual activities.

These two trends demand dramatic responses from companies. To respond to consumer demand for low prices in an atmosphere of fierce international competition caused by the strong yen and industrialization in Asia, companies must work to cut costs more than ever. To provide original cultural goods and services, companies must develop an advanced information management system to get a handle on consumer needs and utilize high technology to develop new products.

Technological advancement

I believe that the most remarkable characteristics of recent technological developments have been the fusion of technology from different fields and the mutually dependent development of science and technology. Twentieth-century industrial technology—machinery, metals, chemicals, electricity, fibers, etc.—all developed out of independent technological systems. Methods of boosting productivity were increasing the size of existing equipment and standardization of the production process. However, under the new 21st century industrial technology system—already beginning to appear on the scene—it has become possible to combine disparate technologies to produce entirely new technology. Factory, office or even home automation technology is an example of the combination of the technology of machines and electronics.

The coming together of technology has made it possible to efficiently produce a variety of products, the so-called combined benefit. In the field of new materials, materials with new properties such as clad and fine ceramics have appeared. Multimedia is also built upon the fusion of hard and soft technology.

A feature of the 21st-century technological development process is the birth of a mutually beneficial relationship between science and technology where

the technological process is full of new scientific information and progress in applied technology creates new scientific discoveries. The phenomenon of superconductivity was discovered in 1911, but little progress was made at adapting the phenomenon to more normal temperatures. In recent years, however, great improvements in superconductivity have been made. Also, research at the molecular and atomic level is bringing swift progress to DNA-manipulation technology as well as work on micromachines in micron units. Advances in simulation technology have made virtual reality possible, enabling even the layman to contemplate all kinds of scientific matters.

These two characteristics of modern technology act to effectively cut costs—which companies should challenge—and utilize intellectual creativity.

Preserving the Earth's environment

Preservation of the global environment is a vital matter which must be resolved before the 21st century. The human population will double by the middle of the 21st century. Moreover, if the global economy, centered around the developing nations, continues to expand, there are strong fears of a shortage of energy. Continued economic growth will also accelerate environmental destruction in the form of global warming, acid rain, desertification and hazardous materials.

To overcome these problems, energy-conservation technology, reusable energy technology, environmental restoration technology and resource recycling technology must be developed and disseminated. We must strive to become a global society that exerts only a slight burden on the environment.

Improving the economic system

So far we have analyzed the changing environment of Japanese industry; the means and methods that brought success during Japanese industry's "catch-up" phase no longer apply today. Under a global economy, the industrial struc-

Table 1: Overseas Direct Investments Trends and Domestic Plant and Equipment Investments in the Manufacturing Industry

(Units: \$100 mil., ¥1 bil., %)

	FY 1989	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994 (Apr.-Sept.)	FY 1994 est.
Manufacturing industry's overseas direct investment (\$) A	163 +18.0	155 -4.9	123 -20.5	101 -18.3	111 +10.7	55.3 +29.9	
In Asia (% increase over previous FY)	32 +35.9	31 -4.7	29 -4.6	31 +6.0	37 +17.9	19.3 +52.8	+56.1
In the U. S. (% increase over previous FY)	89 +0.4	64 -28.0	56 -13.0	38 -31.9	40 +6.7	14.3 -1.9	
In Europe (% increase over previous FY)	31 +99.7	46 +48.6	27 -41.4	21 -21.9	20 -2.9	10.5 -14.3	
Manufacturing industry's domestic plant and equipment investment (¥) (% increase over previous FY)	18,415 +23.1	21,483 +16.7	22,530 +4.8	18,932 -16.0	14,791 -21.9	6,591 -15.1	
Manufacturing industry's domestic plant and equipment investment (\$) B % increase over previous FY	1,290 +10.6	1,520 +17.8	1,691 +11.2	1,517 -10.3	1,372 -9.6	651 -9.6	
Ration of direct investments to plant and equipment investment A/B	12.6	10.1	7.2	6.6	8.1	8.5	
Average exchange rate (¥/\$)	142.8	141.3	133.2	124.8	107.8	101.2	

Sources: Overseas direct investment: statistics from reports (1994 plan figure from MITI survey); Average exchange rate: Tokyo Interbank Market Spot Rate Report; Domestic plant and equipment investment: corporate statistics

Table 2: Transitions in Overseas Production Ratio* of Specific Products

	1985	1990	1993
Color televisions	38.8	60.1	71.9
VTRs	6.3	18.7	41.6
General tape recorders	26.1	55.0	58.8
General-use radios	55.2	56.9	63.4
Electric refrigerators	18.6	30.9	40.6
Electric washing machines	5.9	12.8	20.9
Microwaves	22.7	45.3	63.3
Electric fans	32.9	48.7	67.8
Automobiles**	—	26.5	31.0

Notes:

- *Overseas production ratio = overseas production units/(domestic + overseas) production units.
- Source for domestic production figures is MITI's production vital statistics survey.
- Source for overseas production figures is surveys of Japanese companies. The figures reflect production units of overseas companies 50% or more owned by Japanese companies.
- For automobiles, overseas production ratio = shipments from overseas factories/shipments from domestic factories + shipments from overseas shipments.
- ** Figures for automobiles are from 1992 and 1994.

Table 3: International Comparison of Operating Resources

Item	Japan	United States	Europe	Thailand	China
Annual interest rate	100	110	220	230	300
Land (per sq. m for factory use)	100	8	4	1	10 ⁽¹⁾
Construction costs	100	73	56	45	—
Monthly personnel costs	100	65	32	6	4
Overland transport for 300 km (20-ft container)	100	19	15	25	—
Freight forwarder fees (export customs fees)	100	13	130	33	130
Warehouse rent (sq. m/month)	100	20	10	20	20
Electricity costs for industrial use (¥/kwh)	100	59	63*	—	—
Water bill (cubic m)	100	19	4	100 ⁽²⁾	1
Petroleum products	100	51	—	—	—
Office expenses (as proportion of gross sales)	100	45	35	50	20
Nominal rent for office space	100	41	58	—	—
Corporate tax (nominal tax rate)	100	93	95	80	80
(effective tax rate)	100	82	76	—	—

Sources: Compiled by MITI from various surveys; figures calculated for hypothetical local factories and indexed with Japan as base.

Notes: ⁽¹⁾ China's land purchase figure is rental fee.

⁽²⁾ Estimate for when water is transported by tanker trucks.

Industrial electricity costs based on comparison of fees for a determined use charged by representative power companies in each country.

*Figure for Europe is the average of Britain's 62, France's 57 and Germany's 72.

ture must shift towards increasing intellectual creativity if industries are to withstand fierce competition and cope with the changes in consumption patterns, i.e. the preference for low prices and individualized products.

The features of the current Japanese economic system are: 1) a cooperative relationship between the government and private industry, although the economy is based in principle on market forces; 2) managers turn the fruits of improved productivity into increased market share rather than increased profits; 3) based on the so-called "three sacred treasures" (seniority-based wage system, lifetime employment, and company labor unions), maintaining employment of workers is stressed such that even in times of recession, dismissal and layoffs are avoided even if it means cutting off dividends; moreover, pay cuts start with managers and supervisors; 4) companies tend not to take the risk of developing new products, but instead improve on promising products or products developed by other companies and compete by lowering prices; and 5) entities in those industrial fields protected by regulations (such as agriculture, finance and securities) tend to work hand-in-hand which causes inefficient and large price discrepancies between Japan and other countries.

This Japanese-style system functioned superbly during the development-oriented high-growth period of the postwar era. The system no longer applies, however, now that swift expansion of production volume cannot be counted on. In the future, the economic system must change so that those market forces that stimulate companies to develop creative ideas are effectively put to work and government policy and regulations are only applied to those fields which cannot be self-regulated by market forces.

Lifting or easing of regulations

On March 31, the government created a 1,091-item five-year deregulation plan as one link in system reform. On April 14, it was decided to enact the plan

within three years as part of a set of emergency measures to deal with the dramatic rise of the yen, which had reached as high as 80 to the dollar.

Deregulation measures should give foreign countries clearer access to the import market, erase the price gap between Japan and other countries through increased competition, increase real income through lower consumer prices and expand new business and employment opportunities. As a result, deregulation can be an extremely effective and vital policy for correcting the current trade accounts surplus and increasing intellectual creativity in industry.

The deregulation plan mentioned above has been criticized in Japanese economic circles and in the United States for not going far enough toward the principle of fundamental market liberalization where regulations are the exception rather than the rule. I, however, regard this plan as an important first step toward reform and I hope that in the future private economic spheres will take the lead and push the government toward enactment of broader and more far-reaching deregulation.

Development of intellectual infrastructures

Intellectual infrastructure—information networks, databases, research capabilities, cultural and educational facilities, etc.—must be developed in order to increase intellectual creativity in industry. Investment in these activities will also absorb Japan's excess savings. In general, infrastructure development is regarded as the province of the government, since infrastructure is public property. However, in this case, the private sector should take over the development role as much as possible. Infrastructure should only be created as public property when it absolutely cannot be provided by private means.

Development of information-related infrastructure in Japan is far behind the United States. Considering the importance of tying into global networks, this development is an urgent task. Japan is also lagging behind Europe and the

United States in basic research in materials and biotechnology fields as well as software development and systems design. Capital, human resources and facilities must be bolstered if Japan's research and development capabilities are to be increased.

While human capital must be improved and plant and equipment bolstered, an environment that promotes cooperative ties with foreign research organizations must also be developed. The mechanism for providing risk money for venture businesses must also be improved.

Industrial structure oriented towards intellectual creativity

According to Yurin Clark, as a nation's economy develops, the focus of industry shifts from primary to secondary, and then to tertiary industry. Although these divisions become blurred as advanced technology and information systems develop and industries and technologies from different fields fuse, the overall industrial structure shifts towards an intellectual and creative orientation.

Therefore, while labor-intensive industries decline, fields with high consumer demand such as environmental, medical care, welfare, housing, lifestyle, urban environment, energy, data communications, marketing, education and international exchanges should grow. These new fields of development will either require renovations of conventional industry or encourage the creation of new industries as well as new technological innovations. When this happens, Japanese industry will be strongly tied to international society and a path to preserving Japan's vitality will certainly open. ■

Fukukawa Shinji is the chairman and chief executive officer of the Dentsu Institute for Human Studies, a think-tank organization established by Dentsu. Among his over 30 years at the Ministry of International Trade and Industry, from 1986 to 1988 he served as vice minister at MITI.