

Evolving a New Industrial Policy

—Philosophy and Ideas for the Positive Adjustment of the Basic Materials Industries—

By Toshihiko Tanabe

In December 1982, the Industrial Structure Council, an advisory panel to the Minister of International Trade and Industry, presented a set of recommendations calling for the positive adjustment of Japan's basic materials industries.

In line with these proposals, the industries are now working to find a way out of the current structural difficulties and the government is trying to establish a consistent policy for industrial adjustment involving incentives for industry and legislative measures to encourage restructuring efforts.

The basic materials industries are those which obtain raw materials from primary upstream industries and process them for distribution to downstream industries such as assembling.

The Council's policy recommendations concern seven industries which face particularly severe structural difficulties: petrochemicals, chemical fertilizers, aluminum smelting, electric furnace steel-making, ferroalloys, paper, and chemical fibers.

Before outlining the Council's recommendations, I would like to explain how the policy for the basic materials industries is evaluated in the context of the general framework of Japan's industrial policy.

In 1960, Japan announced a broad framework of trade liberalization measures. In the early years of the 1960s, Japan declared a shift to the status of a GATT Article XI and an IMF Article VIII nation, and became a member of the OECD. Japan's industrial policy was geared to the liberalization of trade and capital transactions. The philosophy underlying Japan's industrial policy has been to maximize the ability of private enterprises by making the best use of the market mechanism. Providing future visions and other indirect incentives, this industrial policy has played the role of promoting the sophistication of the industrial structure (such as the development of knowledge-intensive industries) in order to solve resource, energy and environmental constraints, improve the people's standard of living, and contribute to global economic development and international cooperation.

Greater Emphasis On Market Mechanisms

Industrial adjustment was a relatively easy process in the years of high economic growth, which provided new business and employment opportunities. In an era of slow economic growth such as the one in which Japan now finds itself, however, industry has less potential for quick structural reorganization, and adjustment is apt to generate more social and economic dislocation. Its impact on the industries involved is often serious. Under such circumstances, a new industrial adjustment policy must be devised to cater to the era of slow growth.

The Council's recommendations for restructuring the basic materials industries are in response to this need. The recommendations, reflecting the industrial policy of the past and the global economic changes brought about by the second oil crisis, suggest new policies to be pursued in promoting industrial adjustment in the present era of slower economic growth.

The fundamental approach under this new policy is not to preserve and protect the basic materials industries as they are, but to encourage them to adapt themselves to the changes in the economic climate at home and abroad and to become economically viable entities in the free trading system through measures that will help curtail obsolete portion and activate new growth. Generally speaking, industrial adjustment entails industries' curtailment or withdrawal. The policy for the basic materials industries as recommended by the Council includes a positive, future-oriented strategy to revitalize, through innovation, those parts which have the potential to recover their economic viability. In this sense, the recommendations may be characterized as a positive adjustment policy. This approach will also help stabilize and develop employment and regional economies.

Although industrial activity in the free world is based on market mechanisms, each government is involved in some way in promoting and aiding its own industries

to achieve its own national goals smoothly and efficiently. In America and Europe, for example, governments are, in their own ways, providing aid to domestic industries which are losing their international competitiveness, laying aside the question of whether such an approach can be called an adjustment policy. The positive adjustment policy suggested by the Council puts greater emphasis on market mechanisms, and is more rational and less expensive to implement. It really conforms to the Positive Adjustment Policy (PAP) agreed upon by the OECD Ministerial Conference in 1982.

I would like to emphasize that, at the present time when industrial restructuring is a global trend, with each nation increasingly interested in industrial policy, Japan's industrial policy is being carried out in an international manner so that it can be applied to the economies of other nations. And it is with this intent that the recommendations of the Council have been outlined herein.

Outline of the Positive Adjustment Policy Recommended by the Industrial Structure Council

1. Present State of Basic Materials Industries and Their Problems

Japan's basic materials industries today face profound structural problems, which mostly stem from their intrinsic nature. These industries function as intermediaries between raw material suppliers and manufacturers of finished products by refining and processing raw materials into semi-finished products for distribution to the manufacturers. They are thus characterized structurally and technologically by a heavy reliance on resources, particularly energy. (See Table 1.)

Their problems can be categorized according to the following three factors:

(1) Higher costs of raw materials and energy: the two oil crises have boosted tremendously the production costs of the basic materials industries.

Table 1 Fluctuation in Energy Cost Ratio

	1965	1970	1975	1978	1979	1980
Petrochemicals	13.4	23.9	53.3	47.8	50.6	61.0
Chemical fertilizers	20.5	15.8	25.5	23.9	24.3	29.5
Chemical fibers	10.5	11.6	14.4	15.6	16.1	20.9
Synthetic resins	15.4	13.6	28.8	26.2	29.2	38.8
Ferroalloys	27.5	32.6	43.8	47.9	42.8	53.3
Aluminum ingots	27.9	24.2	40.7	46.2	41.5	49.1
Paper	14.7	12.6	17.2	17.4	18.4	22.1

(Note) These figures include both direct and indirect energy costs (such as electricity, gas, oil, and coal products).
 (Source) 1979 Report of Input-Output Table.

(2) Slump in demand: demand for basic materials has been in a prolonged slump. While the general business recession is partly to blame, this is compounded by the declining volume of basic materials consumed to yield a unit of GNP. (See Table 2.)

(3) Excessive competition: Japan's basic materials industries have responded to the demand slump by intensifying their competition to such an extent that market sluggishness is exacerbated and the problem further magnified.

As a result, these basic materials industries are slipping deeper and deeper into the red due to the combination of high production costs and rock-bottom product prices. On the plant and equipment side, the slump in production and capacity utilization in many of the industries has created a situation of overcapacity and a drop in plant investment which has contributed to marked plant obsolescence. (See Table 3.)

Thus the gap—"bipolarization of the industrial structure"—continues to widen between the manufacturing and assembling industries, as typified by the electronics industry on the one hand and the basic materials industries on the other. And its effects are beginning to be felt in employment, in related small-business sectors, and in regional economies.

According to a report issued by the group the Council recently dispatched to the United States and Europe, the basic materials industries in these countries, although embroiled in some difficult problems of their own, are nonetheless far better positioned than their Japanese counterparts since some have a wealth of investment capital and strong research and development capabilities, and others are involved in a wider variety of industries. The U.S. and European industries also enjoy a cost advantage in energy.

2. Aim of the Policy for Basic Materials Industries

If efforts are not made for Japan's basic materials industries to overcome their present structural problems, their deter-

ioration will likely deal a severe blow to the national economy. With appropriate measures, these industries can be encouraged to overcome their present difficulties and to achieve new development in the years ahead. Their U.S. and European counterparts are aggressively tackling their own problems. They seem to regard themselves as industries with the potential to develop new materials that will ensure a bright future. Japan's basic materials industries must devote all possible efforts to restructuring so that the negative elements in today's gloomy picture can be removed and the way cleared for future developments.

These recommendations are intended, first, to quickly and smoothly curtail those facilities which have lost their viability and can no longer be operated economically and, second, to effectively lower production costs and improve profitability through measures that will reduce energy and material costs and promote production of more value-added products, research and development, and cooperation or consolidation of businesses.

It is in the best interests of the nation to do what we can to create conditions conducive to these restructuring efforts by the basic materials industries. Through the recovery of their economic viability, we can expect to reap long-term benefits in the form of an appropriate environment for better market competition and greater consumer interest through the upgraded market performance of these industries. In this sense, Japan's industrial policy is taken as a key part of the policy of competition for the medium- and long-term range.

These policy measures should be based on the following principles:

- a) Encouraging rigorous self-help efforts by the industries themselves
- b) Adhering to the principle of free and multilateral trading system
- c) Proposing limited-duration measures
- d) Advocating systematic implementation with a long-term perspective
- e) Alleviating the impact on the employment situation

Table 2 Domestic Demand Compared to GNP

	1970	1975	1980	1981
Textiles	1.21	0.87	0.90	0.82
Paper	10.55	9.11	9.39	8.85
Ethylene	2.96	2.78	2.88	2.50
Vinyl chloride monomer	1.10	0.82	0.81	0.64
Chemical fertilizers (ammonium phosphate)	—	0.20	0.26	0.20
Ferroalloys	1.40	1.43	0.98	0.84
Aluminum ingots	0.74	0.78	0.86	0.86

(Sources) 1981 MITI Annual Statistical Reports on the above industries and the Economic Planning Agency's Statistics on National Accounts.

- f) Ensuring stability in related small businesses and regional economies.

Particular attention will be paid to the following conditions in formulating and implementing these measures.

- a) Selection of the most effective and rational means
- b) Maintenance of policy clarity and the formulation of consensus
- c) Harmonization with international industrial trends.

3. Specific Restructuring Measures

3.1. Excess Capacity

The under-utilization of capacity not only adversely affects the efficient distribution of resources by idling labor, capital, and other factors of production, but also raises the fixed cost ratio, which puts more pressure on management, stimulates excessive competition in supply, and worsens general market conditions. Moreover, the existence of excess capacity also acts as a constraint on capital investment for new or replacement plants. It is essential to dispose of the more inefficient and obsolete facilities first and attain higher efficiency and lower production costs by combining this disposal with cooperation or consolidation of businesses.

3.2. Reducing Raw Materials and Energy Costs

Such costs must be reduced by conserving on energy and material consumption, diversifying fuels and materials, and securing supplies of lower-cost materials. An example of fuel diversification is the switch from naphtha to LPG and coal gas in the chemical fertilizer, petrochemical, and other industries.

3.3. Plant Investment for Revitalization

Investment in plants and equipment should be aimed at building production technology in line with medium- and long-term market conditions. Such investment should aim at:

- a) Reducing energy and materials costs (e.g. investing in LPG cracking facilities)

Table 3 General Statistical Outlines of Principal Basic Materials Industries

Fiscal Year (Apr.-Mar.)

Table (A) Aluminum Smelting

	1978	1979	1980	1981
Sales (¥billion)	622.3	765.9	786.2	633.1
Current profit (¥billion)	-23.1	25.6	33.4	-56.3
Accumulated loss (¥billion)	-87.9	-57.7	-20.3	-70.9
Production (1,000 tons)	1020	1040	1040	670
Capacity utilization (%)	64	90	90	59

Table (B) Petrochemical Processing

	1978	1979	1980	1981
Sales (¥billion)	2,388.5	3,968.2		
		3,495.0	3,828.7	
Current profit (¥billion)				
Total	21.7	126.5	77.4	-29.9
Petrochemicals	—	103.7	46.8	-57.7
Production (1,000 tons)	4,520	4,840	3,870	3,600
Capacity utilization (%) (for ethylene)	74.3	80.0	63.7	59.0

(12 ethylene companies)

Table (C) Polyvinyl Chloride

	1978	1979	1980	1981
Sales (¥billion)	177.4	275.0	239.6	200.0
Current profit (¥billion)	-9.1	-2.3	-31.9	-47.5
Production (1,000 tons)	1,310	1,640	1,320	1,090
Capacity utilization (%)	65.7	77.8	60.8	54.8

Manufacturing (17 companies)

b) Product diversification towards high value-added goods (e.g. investing in production equipment for high-performance resins)

c) Increasing operational integration (e.g. investing in equipment for storing intermediate materials).

Furthermore, there must also be plant investment for business conversion.

3.4. Developing Technology

In order to build an industrial system with long-term viability, the basic materials industries must accomplish technological innovations in production processes and develop new and upgraded products. New aluminum smelting technology is but one example here.

3.5. Cooperation or Consolidation of Businesses

Along with concentrating production in the most efficient plants, further efforts need to be made to lower costs. In achieving the advantages of scale through cooperation or consolidation of businesses, efforts for such integration must accurately reflect each industrial sector's specific prospects and circumstances, and should be pushed ahead at the industry's own initiative.

4. Related Policy Measures

The following related policy measures are also important in formulating a consistent policy towards the basic materials industries.

4.1. Trade Policy

Any policy measures must be premised upon the maintenance of an open market system. When necessary, however, actions allowed under GATT regulations might be taken to check an abrupt increase in imports caused by unfair measures including dumping and export subsidy. Their enforcement should be carried out strictly, paying attention to GATT and other international agreements and to international trends.

4.2. Energy Policy

The need to secure more stable supplies of energy resources at moderate cost is urgent. In the area of electric power, this need can be met by expanding the ratio of nuclear power production, converting more thermal plants to coal-firing, and promoting contracts for supply coordination. In the area of petroleum resources, this need can be met by creating supply and management systems which are responsive to the shift in demand to lighter-grade oil and by relying upon market mechanisms to determine price.

4.3. Policies for Employment, Small Businesses, and Regional Economies

The restructuring and revitalization of basic materials industries will in itself have beneficial medium- and long-term effects on the stability of employment, related small businesses, and regional economies. However, the government should take measures to alleviate the possible short-term adverse impact of restructuring efforts. This may be done by extending or making relevant amendments to the Law on Special Measures for Workers Leaving Specified Recession-Hit Businesses, the Law on Special Measures for Workers Leaving Specified Recession-Hit Regions, and the Law on Special Measures for Smaller Businesses in Specified Recession-Hit Regions.

5. Policies for Basic Materials Industries and the Anti-Monopoly Law

These measures for promoting restructuring by disposing of excess capacity and integrating business operations must fundamentally be initiated by management in the private sector. However, if they are to be put into practice smoothly and rapidly, it will be necessary to coordinate implementation of these measures with the enforcement of the Anti-Monopoly Law.

The long-term goals of these measures are to guarantee economic rationalization and to ward off an increase in the social costs that would accrue from bankruptcies and unemployment. They will en-

sure freer competition in the long term.

In this sense, these measures are compatible with the spirit of the Anti-Monopoly Law and a way should be found to coordinate the implementation of those measures with the proper enforcement of that Law. It is imperative that efforts be made to provide a firm legal basis for such coordination.

In Europe, a coordination system has already been established within the government as well as in the legal framework.

6. Adjustment Assistance

The basic intent of industrial policy is to utilize market mechanisms so as to encourage the private sector's own efforts.

This principle is equally applicable to adjustment of the basic materials industries. Recognizing the imperfections of market mechanisms and the difficulties the basic materials industries are facing, the government should provide guidance and support in the form of tax and finance incentives and will take the necessary legal steps for establishing a system for coordination with the Anti-Monopoly Law. ●

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