



Members of the 1872-73 Iwakura Mission, which sent 40 Japanese leaders to the United States and Europe to study modern ways. Second from left is Toshimichi Okubo, the architect of the 1868 Meiji Restoration and of Japan's rapid industrialization. Seated is Prince Iwakura, a noble in the court of Emperor Meiji and the new regime's prime minister.

What is Japan's industrial policy?

Many Americans, seeing Japan's success, are now debating whether the United States too should adopt industrial policy. In the course of this debate, at least three distinct, equally wrong, images of Japan's practice are generated, sometimes by the same economists who smugly proclaimed—or even welcomed—Japan's 1964-65 recession as the long-predicted end of its “impossible” effort to sustain double-digit growth.

One image, presented by Democratic Party economists like Robert Reich or Lester Thurow, projects onto Japan what they propose here: phasing out alleged “sunset” basic industries, such as steel, through “depressed industry cartels”; and phasing in “sunrise” electronics-computer industries through R&D subsidies and tax incentives. In the second image, Japan Inc. uses government subsidy to build up export-oriented growth industries, giving these sectors a competitive advantage they would not otherwise enjoy. The third, equally misleading, portrayal is often presented by the Japanese themselves to avoid the “unfairness” charges. The claim is Japan really does nothing different; some ads and government statements imply they are even more obedient to “free enterprise” than America since the ratio of state-funded R&D is so much less in Japan.

To help set the record straight, in order to provide the background for a real debate on proposals for an American industrial policy, this *EIR* special report will examine three topics:

- 1) What Japan's industrial policy is;
- 2) How Japan learned it from America in the 19th century;
- 3) The “nitty-gritty” of industrial policy tools: how Japan was transformed into an economic superpower.

The basic principle of Japanese industrial policy is quite straightforward: It is *maximum leverage*. Through government-banking-industry cooperation, resources are allocated to frontier, growth industries—industries whose development over a 10- to 20-year period propels the entire economy forward technologically; industries which increase the ability of each worker to develop greater skill and produce greater output. Sectors are chosen for development, not for their own productivity, but for their ramifications for the entire economy.

Through the Industrial Structure Council of the Ministry of International Trade and Industry (MITI), Japanese officials and industrialists decide jointly what kind of industrial/technological/labor structure Japan needs on a 10-, 20-, or even 30-year horizon. They then choose key leveraging industries because the *process of developing those sectors* is the most effective way to transform Japan in the desired direction. Those sectors get special investment tax benefits, low-interest credit from government agencies, priority for private bank credit, and government/industry funds for research and development. Special aids are applied particularly to sectors in which it takes years to recover investment, and where short-term “market forces” alone might not dictate a large enough allocation of resources.

Early in the postwar period, Japan's leaders decided to

encourage modernization and capacity expansion in steel, but not because it was important in itself as an export item. Rather, cheaply produced quality steel would lower the costs and raise the productivity of every steel-consuming industry, from autos to shipbuilding to construction. At the same time, the process of building up steel would promote all the supplier and infrastructure industries, including machinery, electricity, and shipping. Their development in turn would promote all the other sectors that they supplied.

In the 1960s and 1970s, MITI promoted semiconductors and numerically controlled machine tools, because these devices reduced the production cost and labor-intensity of untold numbers of items, including televisions, automobiles, and steel plants. Again, export interests were tertiary: significant semiconductor and machine tool exports did not begin until years after their domestic use. For similar reasons, robots, computers, and nuclear energy are promoted now.

Growth and development

For Japan, growth alone was never enough; development was also demanded. In the prewar period, as Chalmers Johnson points out in *MITI and the Japanese Economic Miracle* (see review, p. 32), "the government induced the *zaibatsu* [giant business conglomerates] to go into areas where it felt development was needed. . . . Between 1930 and 1940 [despite the Depression], Japan's mining and manufacturing had more than doubled . . . equally important, the composition of manufacturing had changed drastically from light industries (primarily textiles) to heavy industries (metals, machines, and chemicals). In 1930 heavy industries had accounted for approximately 35 percent of manufacturing, but by 1940 this proportion had grown to 63 percent."

The same qualitative transition took place in the postwar period. In the early 1950s, textiles still comprised 30 percent of exports, with machinery amounting to only 14 percent. Ten years later, due to the state-promoted capital investment boom, textiles were down to 8 percent of exports. Machinery had taken the lead with 39 percent, and metal and metal products came in second with 26 percent. By 1982, forty-three percent of Japan's exports consisted of capital goods.

Exports were promoted not only to pay for resource-poor Japan's imports. Through economies of scale, exports acted as the vanguard for the technological upgrading of domestic industry. Until 1964, export sectors received special benefits. But to claim industrial policy is primarily a matter of "targeting" other nations' vulnerable sectors for takeover—as charged by the U.S. Commerce Department—is simply making Japan the scapegoat for failures at home.

Increased labor power

The foundation of Japan's industrial policy is developing labor power, as can be seen in the textile, television, and semiconductor industries. In America during the 1960s, as labor-intensive methods made domestic production uncompetitive, these industries begged for protection from imports.

They then used the cash flow benefits of protection to ship off labor-intensive, low-skill aspects of assembly to non-union shops in the U.S. South and/or the sweatshops of Hong Kong, Mexico, and Taiwan. Not surprisingly, textiles are now consigned to "sunset" status.

Japan did the opposite: their industrialists maintained domestic production *and* improved competitive advantage by automating the drudge aspects, thereby upgrading the workers' skill content and productivity. Semiconductor assembly was automated and televisions moved to solid-state technology, making the products both cheaper and more defect-free, and the textile industry moved on to capital-intensive synthetics. When the United States finally made a similar switch in textiles, the result was, contrary to popular impression, a move back to a healthy trade surplus from serious trade deficit.

The real product of industrial policy is not specific commodities, or even "cost reduction" as normally conceived, but labor productivity—the ability of each worker to produce much more value-added than before—both by increasing productivity within sectors and by continuously shifting workers to even more productive new industries. For most of the postwar period, Japan enjoyed productivity increases of 10 percent per year, a process interrupted only by the post-1973 world trade turmoil. Japanese cars are cheaper than American-made ones, not only because the steel in them is so much cheaper, but because well-equipped Japanese workers need only 90 hours to build a car, compared to 120 in America.

Productivity gives industry the profits to accelerate the investment spiral. From 1955 to the 1971 monetary crisis, Japan tripled its living standard *and* maintained 10 percent a year increases in both production and productivity—while hardly raising unit labor costs and lowering the consumption portion of GNP. This situation precludes any conflict between higher wages and higher profits; quite the opposite, because labor with a higher living standard is more productive.

'Least action' versus Gosplan

Only a few frontier industries get special benefits or are planned in any great detail. Even in the 1950s heyday, MITI never tried to imitate the Soviet Gosplan in planning every nail and cucumber; that is not industrial policy. Once the economy as a whole is channeled into an ever-growing technological spiral upward through promotion of nodal sectors, private business—i.e., "market forces"—can then be counted on to make the thousands of day-to-day decisions that conform to the needs of both profit and national development.

Because of "leveraging," the amount of direct state intervention in Japan is much less than one might think, especially as MITI's overt direction in the 1950s was replaced by more subtle "administrative guidance." This has led some defensive Japanese and some U.S. "free market" theorists, e.g. *Time Magazine*, to insist that state actions either never did or no longer shape the structure of the economy. Japanese point

to Tokyo's smaller ratio of government R&D funding, implying a less important state role there. Yet, under the proper circumstances "less is more," just like a catalyst in chemical reactions. Effective, leveraged allocation of resources to the right frontier industry can catalyze development far beyond the directly affected sector. Government and industrial leaders achieve the most effect with the "least action."

America has also experienced leverage. During the 1960-67 NASA era, thousands of small- and medium-sized companies sprang up to supply the space effort and to develop commercial spinoffs, boosting the productivity of the entire economy. At the same time, military R&D has built up civilian industries: passenger jets are copied from military jets; private industry accepted integrated circuits only after the Air Force sponsored a demonstration project by Texas Instruments in 1961, while the U.S. government purchased 75 percent of semiconductors as late as 1965. On the negative side, Jimmy Carter's energy price hikes sent thousands of companies into production of computerized energy-use monitors and insulation materials instead of basic industry—a sort of "de-industrial policy."

The means of promoting industry

The tools of Japan's industrial policy are simple and few. To promote a rising ratio of capital investment to total output, interest rates are kept low while accelerated depreciation allowances allow quick plowback of funds into new equipment. When recession cuts demand for the products of favored industries, private credit for capacity-expansion continues to flow so the sector is ready for the next upturn. This enabled the Japanese semiconductor industry to build up while the American sector cut back during the 1974-75 recession. In short, Japan's monetary policy and corporate financial structure allows a longer horizon time than the quarterly bottom line fixation often seen in the United States.

For the favored "leveraging" sectors, the government and business groups provide startup capital and/or low-interest loans to promote R&D or to underwrite investment in risky capital equipment. Outright government grants do not in general go beyond basic R&D. To promote modernization and expansion for "designated equipment" in "designated industries," e.g., steel and machine tools, the government temporarily provides an additional 25 to 33 percent depreciation above normal. At times, MITI and the business leaders simply use "administrative guidance" to direct private investment and private bank credit into nationally needed areas. During the 1950s and 1960s, MITI went so far as to promote mergers and to allocate specialized product-lines among companies within particular sectors.

These measures are complemented by innumerable *temporary* laws or MITI guidances, a process that began in 1953-57 with laws favoring such industries as textile machinery, general machinery, synthetic textiles, petrochemicals, autos, and electronics. To stimulate *domestic* consumer goods purchases, the Ministry of Finance lifted commodity taxes on

transistor radios for the *first two years* after they began appearing on the market. Benefits were then transferred the more technology-intensive tv industry. The Ministry of Finance levied taxes in two-year stages: at first tax rates were subnormal; as prices went down due to economies of scale and improvements in technology, taxes were raised gradually to the "normal" rate.

MITI's strategy differs radically from American suppliers' fixation on cash flow. First, not every sector is treated equally; moreover, unlike such abominations as the 1981 U.S. law enabling sale of tax losses, Japanese tax laws give firms cash flow not so much as a reward for what they have done in the past, but to enable useful action in the future. There are no tax writeoffs to invest in commodities or corporate takeovers. Overall, Japanese firms pay more of the nation's total taxes than American ones—40 percent in Japan versus only 10 percent in the United States. Japanese tax laws promote investment because of their *design*, not just their rate.

What makes these tools work is the political environment. Industrial policy is not primarily an issue of state-private company relations, though certainly Japan's state bureaucracy has immense power to intervene in what are seen in the United States as purely business decisions, and there are considerable state-private interlocks in Japan. The top leaders of both government bureaucracy and the business world come from the same elite schools and marry their children to each other. Officials from MITI or the finance ministry retire from the bureaucracy during their early 50's—a process known as "descending from heaven"—often to take high-level posts in major banks and industries. This helps ensure that finance ministry or MITI "administrative guidance" is followed.

More importantly, industrial policy works because Japan's elite, permeating both government and business, considers economic development a political goal for the nation. Business leaders, many of whom are trained as engineers rather than accountants or lawyers, understand the difference between paper profits and real production. Economic statutes need run only a few paragraphs and do not need haggling by scores of lawyers.

Certainly there are conflicts among the ministries and businessmen as well as between government and business as a whole. Competition between top business groups for market share is very intense. In the prewar period, such antagonism did not stop at coups, assassinations, and rigged bankruptcies of rivals; and Japan is not without conflicts today. Nonetheless, for more than 100 years, regardless of other disputes, virtually every leading figure of Japan has been committed to the overriding national goal of catching up with the West. The 1980 "Visions of MITI Policies in the 1980s" 300-page report began: "For Japan, the period of 'modernization for catching up with advanced Western economies' has ended, and the country is now about to enter the next phase of development."