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Industrial Policy: Diverting Resources from the Winners

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In the 1960s, the Japanese automobile industry comprised numerous companies, each of which produced several different models. The Japanese Ministry of International Trade and Industry (MITI) attempted to consolidate the industry into two major companies because it believed that a fragmented industry could not compete in the world market.¹ As evidenced by the numbers of Hondas, Isuzus, Subarus, and Mazdas, as well as Toyotas and Nissans on American roads today, MITI's attempted consolidation failed and the Japanese automobile industry has competed very successfully as a fragmented industry. Fortunately for Honda and the smaller Japanese automobile companies, they ignored the government's advice and discounted its foresight. Japanese industrial policy appears to have been less than successful in this case.

This article argues that the various forms of industrial policy currently being proposed are inappropriate for the United States (U.S.). They would fail not only on economic grounds, but on political grounds as well. The article outlines the appropriate role for government in the economy.

Part I examines the reasons why industrial policies are being proposed. Part II examines what those who advocate an industrial policy really mean. Parts III and IV review the economic and political problems, respectively, associated with industrial policy. Part V explores factors other than industrial policy that can explain strong Japanese industrial competitiveness. Part VI presents the authors' views of the appropriate role for government in the economy. Part VII reviews the record of the United States in enhancing industrial competitiveness.

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1. See C. JOHNSON, *MITI AND THE JAPANESE MIRACLE: THE GROWTH OF INDUSTRIAL POLICY 1925-1975*, at 286-88 (1982).

I. WHY INDUSTRIAL POLICIES ARE BEING PROPOSED

Three factors have stimulated the current interest in industrial policy: sluggish economic growth, technological change, and the increasing importance of foreign trade.

First, the back-to-back recessions in 1980 and 1981–1982 caused unemployment to rise as economic activity slowed down. The high levels of unemployment stimulated a search for new economic policies that could generate growth and employment. One of those “new” economic policies is “industrial policy.”

Second, revolutionary technologies are helping transform the U.S. economy. Technological advances like the microchip are simultaneously opening up vast new possibilities and making obsolete many products and processes. While these technological advances can dramatically increase productivity, they can also cause adjustment difficulties in the economy. For example, flexible manufacturing systems can eliminate the need for workers to set up, inspect, load, and unload machine tools. A worker who has spent his entire working life operating a machine tool may be forced to seek a new job and learn new skills.

Third, foreign trade, particularly in manufactured consumer goods, is becoming increasingly important and visible in our economy. Between 1970 and 1983, merchandise imports increased from 4.0 percent to 7.9 percent of gross national product. For certain goods, imports have penetrated quickly. For example, imports as a percent of auto sales in the U.S. by value rose from 7.9 percent in 1972 to 16.7 percent in 1983.² Workers threatened with losing their jobs and companies suffering losses because of cheaper or higher quality foreign products often demand some kind of action from government. In many cases, management and labor from industries losing sales to imports call for import restrictions or government subsidies.

II. WHAT EXACTLY IS INDUSTRIAL POLICY?

Like the inkblot in a Rorschach test, industrial policy means different things to different people. To some, industrial policy means coordinating all government policies affecting industry. Under this definition, generally available investment tax credits, government grants to universities for basic research, and federal government investment in interstate highways could all be elements of an “industrial policy” since they affect the competitiveness of industry. Such a definition is not particularly useful, though, since all government policies affect industry at least indirectly. Defining industrial policy as all government policies affecting industry requires that one include virtually every public economic and social program. Public programs to reduce alcoholism, for example, would qualify as part of an industrial policy because of the effect of alcoholism on the productivity of the labor force.

In fact, most industrial policy proposals revolve around coordinating government policies toward specific industries. The federal government would establish

2. BUREAU OF INDUS. ECONOMICS, DEP'T OF COMMERCE, 1984 U.S. INDUSTRIAL OUTLOOK 31-35 (1984).

a new body to develop industrial strategies. Four major proposals exist thus far: Representative John J. LaFalce (D-N.Y.) has proposed a Council on Industrial Competitiveness;³ the House Democratic Caucus has proposed an Economic Cooperation Council;⁴ the Senate Democratic Caucus has proposed a Council on Economic Competitiveness and Cooperation;⁵ and the Center for National Policy Industrial Study Group (co-chaired by Felix G. Rohatyn, a senior partner at Lazard Freres & Co., Lane Kirkland, President of the AFL-CIO, and Irving Shapiro, former Chairman of E.I. du Pont de Nemours & Company) has proposed an Industrial Development Board.⁶

Comprising representatives from management, labor, and government, such a body would, depending on the specific proposal, identify national priorities, formulate a national industrial strategy, and develop a broad consensus for such a strategy. For example, the Council proposed by Representative LaFalce would "create a forum or forums where national leaders with experience and background in business, labor, academia, public interest activities, and Government will identify national economic problems, develop recommendations to address those problems, and create a broad consensus in support of those recommendations."⁷ The Council proposed by the Senate Democratic Caucus would "be the forum within which the Nation's industrial strategy will be debated and formulated."⁸

More important, a national industrial strategy would really consist of many individual strategies for specific sectors or industries. For example, the Council proposed by the House Democratic Caucus could convene a subcommittee for "steel, an industry which needs restructuring, or for semiconductors, an industry overseas competitors have targeted."⁹ The Council proposed by the Senate Democratic Caucus would "establish, after a request from the private sector, advisory working groups to analyze and consider responses to problems that affect individual industries"¹⁰

Typically, these individual strategies would involve the federal government channeling resources toward specific technologies or industries. For example, the government could provide special tax deductions or credits, grants, loans, loan guarantees, import relief, antitrust exemptions, or some combination of measures to a particular industry. Most proposals would attempt to target both "declining" and "emerging" industries or markets. The LaFalce proposal would "establish a Bank for Industrial Competitiveness with power and resources sufficient to supplement private and other public capital investment in the revitalization of mature or linkage industries and the development of emerging industries."¹¹ The

3. See H.R. 4360, 98th Cong., 1st Sess. (1983).

4. See THE NAT'L HOUSE DEMOCRATIC CAUCUS, RENEWING AMERICA'S PROMISE 24-26 (1984).

5. See SENATE DEMOCRATIC CAUCUS, JOBS FOR THE FUTURE 16-17 (1983).

6. See CENTER FOR NAT'L POLICY, RESTORING AMERICAN COMPETITIVENESS: PROPOSALS FOR AN INDUSTRY POLICY *passim* (1984).

7. H.R. 4360, *supra* note 3, at § 102.

8. SENATE DEMOCRATIC CAUCUS, *supra* note 5, at 16.

9. THE NAT'L HOUSE DEMOCRATIC CAUCUS, *supra* note 4, at 25.

10. SENATE DEMOCRATIC CAUCUS, *supra* note 5, at 16.

11. H.R. 4360, *supra* note 3, at § 2(b)(3).

Rohatyn proposal would create an Industrial Finance Administration that would provide capital as part of a development strategy.¹²

A key feature in most proposals for a government industrial bank is that either its board of directors would be drawn from the accompanying management-labor-government council or the bank would be obliged to follow the recommendations of the council. For example, the board of directors of the Bank proposed by Representative LaFalce would include four members from the proposed Council and eight members who, like members of the Council, "have substantial experience and expertise in the fields of business investment, industrial development, or public or private finance."¹³ The Rohatyn proposal would explicitly require the Bank to "operate under the jurisdiction of the Industrial Development Board" and extend assistance "only as part of a development strategy adopted by the Board. The charter would limit financial assistance to industries designated as eligible by the Board."¹⁴ Most proposed banks would essentially be extensions of a tripartite council.

The fundamental premise underlying any of the council or federal bank proposals is that government can outguess the market over the long term. While some industrial policy advocates argue that the perceived necessity of "government bureaucrats 'picking winners' . . . is the myth of contemporary public debate on industrial policy,"¹⁵ in fact, industrial policy proposals would indeed require "picking winners" and second-guessing the market. The first purpose of a council would be to develop a broad national industrial strategy. In particular, such an industrial strategy would "encourage the development of emerging industries that can provide substantial economic growth and employment"¹⁶ and "identify new trends and markets".¹⁷ This strategy would have to pick winning industries, trends and markets, because people certainly would not want a strategy to pick losers.

The second purpose of a council would be to develop industrial strategies for specific industries. The Rohatyn proposal states that "[i]f an industry asks for help, and if it backs that request with a program that can help turn the industry into a world-class competitor, government should have the capacity to act."¹⁸ An industry request for government help implies that the industry could not convince the market that its program was worth the necessary investment. If the government finances the program, it thereby second-guesses the market.

Just as a council would have to outguess the market, so would a federal industrial bank.¹⁹ In essence, industrial policy proposals would substitute the judgment of government for the judgment of the marketplace.

12. See CENTER FOR NAT'L POLICY, *supra* note 6, at 14-15.

13. H.R. 4360, *supra* note 3, at § 202(b)(5).

14. CENTER FOR NAT'L POLICY, *supra* note 6, at 14.

15. *Id.* at 10.

16. H.R. 4360, *supra* note 3, at § 2(a)(12).

17. THE NAT'L HOUSE DEMOCRATIC CAUCUS, *supra* note 4, at 26.

18. CENTER FOR NAT'L POLICY, *supra* note 6, at 10.

19. A company or industry would request assistance from a federal industrial bank only if it could not gain access to capital at a reasonable cost in the private market. By providing funds to the applicant, the government bank is guessing that the market is wrong. Moreover, since its funds would be limited, the bank would have to rank applicants as to the likelihood of success, in effect choosing winners.

III. THE MARKET VS. A GOVERNMENT COUNCIL

We oppose these conceptions of an industrial policy because we believe the market identifies competitive technologies and industries more accurately than the government over the long term. An industrial policy as proposed would prop up inefficient industries and inhibit the growth of competitive industries.

A. *Government Councils in Theory*

The marketplace will identify winners and losers more accurately than a government council over the long term for three reasons. First, the U.S. market contains millions of investors and consumers who have better access than any government council could to diverse information about the competitive potential of specific technologies or industries. In general, the information about a technology or industry that would be available to a government council already would be available to the market. Moreover, a government council with 20 or 30 individuals based in Washington, D.C. (even with support from the Department of Commerce) could hardly be expected to have as much accurate information about the virtually unlimited number of potentially competitive technologies or industries or the potential for revitalizing industries as all the scientists, engineers, entrepreneurs, managers, marketing analysts, venture capitalists, bankers, and investment analysts in the market.

Second, the private sector has a greater incentive to use the available information more wisely than a government council. In the market, an individual has a strong incentive to pick winners because his or her money is at stake. A venture capitalist with several million dollars riding on an investment needs no encouragement to analyze information thoroughly. Contrast this incentive with that of a member of a government council trying to pick winners. The member's own money is not at stake. Moreover, the likely short tenure of most members combined with the long lead times necessary for the success of most investment projects reduces the incentive to be accurate.

Third, a government council is more likely to be risk averse than private investors. In fact, most industrial policy proposals explicitly call for consensus building.²⁰ A council would likely strive for a consensus consistent with conventional wisdom and reject the kind of idiosyncratic information that is the basis for many entrepreneurial opportunities.

B. *Government Councils in Practice*

It is not clear that government councils in practice outguess the market over the long run. Industrial policy proponents usually point to several prominent examples of Japanese success in identifying future growth technologies and industries. Some anecdotal evidence does suggest that the Japanese Government has managed to target some industries successfully through MITI.

At the same time, however, other evidence suggests the government's inability to outguess the market. Industrial policy proponents usually do not cite the

20. See THE NAT'L HOUSE DEMOCRATIC CAUCUS, *supra* note 4, at 25.

failures of MITI and governments other than the Japanese in trying to outguess the market. MITI, for instance, miscalculated the competitive potential of the Japanese automobile, aluminum, and aircraft industries.

In the case of the Japanese auto industry, MITI initially thought that the industry had to consolidate to compete against foreign producers.²¹ During the 1950s and 1960s, MITI attempted but failed to consolidate the industry around the two largest producers, Toyota and Nissan. MITI believed that the existence of numerous Japanese producers limited the ability of individual producers to achieve sufficient economies of scale and experience to compete with American producers. In fact, Honda, Toyo Kogyo, and other Japanese producers as well as Toyota and Nissan successfully compete today against foreign, including American, producers. MITI incorrectly calculated that a Japanese auto industry with more than two chosen winners would fail to achieve international competitiveness.

MITI also targeted the Japanese aluminum industry for growth and tried to improve its competitiveness. Unfortunately for the industry and MITI, aluminum smelting is a highly energy intensive process. The high electricity costs for aluminum refining in Japan (three to four times higher than those in the U.S. and eleven to fifteen times higher than those in Canada)²² severely hindered the competitiveness of the Japanese aluminum industry. Japanese imports of aluminum rose from 39.3 percent of domestic production in 1977 to 120.0 percent in 1981.²³ MITI miscalculated the cost structure of the industry and overinvested public resources in aluminum. Despite MITI's targeting, the Japanese aluminum industry is not a winner.

MITI targeted the commercial aircraft industry in the early postwar years,²⁴ and invested public funds in the production of the YS-11, a twin engine turboprop designed for short flights. The Japanese industry eventually halted production and the government wrote off \$100 million in loans when it became clear that MITI had miscalculated the demand for such an aircraft.

Some industrial policy advocates point to European industrial targeting as justification for adopting an industrial policy in the U.S. without assessing whether this industrial targeting has succeeded. Apparently, European industrial policies have been remarkably unsuccessful thus far. There are numerous examples of industries or products targeted and heavily subsidized by European governments that have failed to become fully competitive even with the subsidies, including the British-French Concorde, the French-British-West German Airbus, the British semiconductor industry, and the French computer industry.

Reliance on the government to outguess the market can be costly in two respects. First, the government could invest public resources and encourage private capital to invest in technologies that are uncompetitive. For example, Congress in 1980 appropriated \$12.2 billion to establish the Synthetic Fuels

21. See I. MAGAZINER & T. HOUT, *JAPANESE INDUSTRIAL POLICY* 73-74 (1981).

22. See INDUSTRIAL RESEARCH DEP'T, *THE LONG-TERM CREDIT BANK OF JAPAN, (THE FUTURE OF THE ALUMINUM INDUSTRY)* Nos. 57-59 (1982) (in Japanese).

23. See J. WHEELER, M. JANOW & T. PEPPER, *JAPANESE INDUSTRIAL DEVELOPMENT POLICIES IN THE 1980'S: IMPLICATIONS FOR THE U.S. TRADE AND INVESTMENT* 179 (1982).

24. See Lohr, *JAPAN'S VENTURE WITH BOEING*, N.Y. Times, Mar. 17, 1984, at 29.

Corporation to accelerate the development of commercial scale synthetic fuel plants through a variety of subsidies, including price, purchase, and loan guarantees.²⁵ When synfuel projects were started in the late 1970s, many believed that the price of energy would rise to a level at which synfuels would become economical. Nevertheless, the market expressed less confidence in synfuels than the government as demonstrated by the market's substantially smaller investment in synfuels.²⁶ Now with the price of energy relatively low, synfuels are highly uncompetitive and substantial private capital encouraged by government guarantees are tied up in unutilized facilities.

Government overinvested public resources in the U.S. supersonic transport (SST) commercial aircraft project. The federal government had sunk more than \$1 billion in the SST (including termination costs) by the time Congress voted in March 1971 to end government financing of the project.²⁷ Although the private sector refused to invest resources in supersonic travel, some government officials were willing to second guess the market.²⁸ The federal government assumed that the demand for supersonic travel would be larger or the costs of production lower than private sector projections. With the experience of the British-French Concorde as a guide, it seems safe to say that the market was right.

Second, the government could fail to invest resources in competitive technologies. For example, would the Department of Commerce or a government council, located in Washington, D.C. have bet in 1976 on Steven Jobs, the founder of Apple Computer, whose company in Cupertino, California grew out of a group called the Homebrew Computer Club?²⁹ Probably not. Yet some private investors, thinking that personal computers would become a success, channeled adequate amounts of capital into that industry.

The Japanese government once discouraged a small electronics company from purchasing a license for American transistor technology. The company eventually succeeded in obtaining the license anyway. The firm's name is Sony.³⁰

The failure of a government council to identify personal computers as a winner would not be damaging in a free market system, but would be damaging under an

25. OFFICE OF MANAGEMENT AND BUDGET, EXECUTIVE OFFICE OF THE PRESIDENT, BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 1982, at 134 (1981).

26. For example, the nation's largest synfuel plant in Great Plains, North Dakota had to arrange for a \$2 billion loan guarantee from the Department of Energy after private lenders balked at financing the project. See Ingrassia, *Synfuels Project in North Dakota Troubled as Oil-Price Fall May Make it Uneconomic*, Wall St. J., Apr. 1, 1983 at 15.

27. See *Senate Ends Federal Funding of Supersonic Aircraft*, 29 CONG. Q. WEEKLY REP. 688 (1971).

28. On the issue of public versus private financing of the aircraft, the congressional debate included the following remarks: Representative Lawrence G. Williams (R-Pa.) supported the SST by stating that "[w]ith the production of the 300th SST, the federal government will have recovered all of its money invested. . . ." Senator William Proxmire (D-Wis.) argued that after more than \$1 billion of public investment, "if at that point the private market cannot decide [the SST] is worth going ahead with, I say there is something wrong with it." *Id.* Arthur Okun, chairman of the Council of Economic Advisers under President Johnson, testified, "The very fact that proponents of the SST have turned to the federal government for funds is evidence itself that the SST does not pass the market test." *SST: Failure of Intensive Lobbying Campaign*, 29 CONG. Q. WEEKLY REP. 719 (1971).

29. See *The Updated Book of Jobs*, TIME, Jan. 3, 1983, at 25, 26.

30. Pine, *Industrial Policy? It's No Panacea in Japan*, Wall St. J., Sept. 19, 1983, at 1.

industrial policy. By channeling funds toward uncompetitive technologies like synfuels, a government raises the cost of capital and labor for technologies and industries not targeted. For example, each government loan to a targeted industry increases government demands on the credit markets and raises the borrowing costs for competitive nontargeted industries.

IV. IMPLEMENTING AN INDUSTRIAL POLICY

For the sake of argument, let us assume that a government council can outguess the market over the long term. Could the government then channel resources into technologies and industries that the council determined to be competitive or would political pressures impel the government to spend most of its resources propping up uncompetitive industries?

Inevitably, the government would be forced to channel most of its industrial resources to uncompetitive industries. First, domestic industries whose competitiveness is declining relative to that of foreign industries will lobby harder for government assistance than emerging, more competitive, domestic industries. Historically, uncompetitive industries like textiles and steel have sought government assistance most actively. Under an industrial policy, these uncompetitive industries would continue to lobby intensively for government assistance because the potential cost to them of failing to obtain such assistance would be greater than for more competitive industries. A personal computer firm with vast profit opportunities in the market has less incentive to request government assistance than a mature textile firm with declining profit margins. The creation of an institution providing government assistance on a large scale would encourage uncompetitive industries to request government assistance.

Second, not only are uncompetitive industries more likely to lobby for government assistance, but if they are well established and large they are also more likely to get it. In any industrial policy forum, the traditional large industries usually possess greater political influence than the newer, smaller industries.

All of the major industrial policy proposals include councils comprising representatives from management, labor, and government. Because traditional manufacturing industries employ many more people and produce much more output than emerging manufacturing industries,³¹ in some ways it is appropriate that the traditional industries be better represented on the council than emerging industries.

The distribution of political power in our society would also result in the council membership reflecting more the interests of traditional industries, than

31. Although it would not be very precise, one could use high technology industries as representative of emerging manufacturing industries and other manufacturing industries as representative of traditional industries. Such a scheme would provide an order of magnitude estimate of the size of emerging and traditional industries.

High technology industries employed about 21 percent of all wage and salary manufacturing workers in 1980, according to the Bureau of Labor Statistics in the Department of Labor. They produced about 21 percent of total industrial output in 1980, according to the Bureau of Industrial Economics in the Department of Commerce.

those of emerging industries. The White House and Congress would ultimately select members of the council. A traditional industry like basic steel with about 330,000 workers throughout Pennsylvania, Ohio, Indiana, Illinois, and Michigan³² would be better able to marshal congressional and presidential support than an emerging industry like robotics with only about 1,600 to 1,800 workers.³³ Moreover, large unions in traditional industries would be better represented on the council than working men and women in emerging industries because traditional industries are more likely to be organized. Organized labor would be better represented on the council despite the fact that only 23 percent of the American labor force belongs to a union.³⁴

Instead of helping to develop an industrial strategy benefiting the public interest, each council member would likely advocate measures benefiting his or her constituency. Hence, the disparity in political power and presence of special interests would almost certainly ensure that an industrial policy council would allocate more government assistance to traditional industries than to emerging ones.

Third, the government would inevitably invest most of its resources in uncompetitive industries because the government has a strong incentive to prevent firms or industries from failing. A venture capitalist usually counts on a few winners to generate large profits that exceed the cumulative losses of the many likely losers. The overall profitability of the venture capitalist depends on its ability to predict a few lucrative winners and cut its losses on the many losers. While a venture capitalist can simply withdraw from an unprofitable investment, a government industrial bank would face strong political pressures not to abandon a losing firm or industry, particularly one that would not have started were it not for bank support. Since the number of losers is likely to exceed the number of winners, government unwillingness or inability to abandon the losers would result in most of its resources being directed toward propping up uncompetitive firms and industries.

Could a council fashion a consensus among management, labor, and government for revitalizing a "declining" industry? Representatives of management and labor would have a strong incentive to unite to press for greater import protection and government subsidies because these steps impose no cost and would generate the greatest short term benefits to the industry. Management and labor would have little incentive to take positive long term steps such as management changes and wage cuts, that could significantly revitalize the industry's competitiveness because these changes require them to make substantial sacrifices.

Japan's experience illustrates the difficulty of implementing an industrial pol-

32. See BUREAU OF INDUS. ECONOMICS, U.S. DEP'T OF COMMERCE, 1983 U.S. INDUSTRIAL OUTLOOK 18-19 (1983).

33. While it is difficult to develop an estimate since robotics firms are often subsidiaries of larger companies, this rough estimate was derived by the Office of Producer Goods, Bureau of Industrial Economics, Department of Commerce.

34. See BUREAU OF CENSUS, U.S. DEP'T OF COMMERCE, 1982-83 STATISTICAL ABSTRACT OF THE U.S., at 409 (1982).

icy designed to target winners.³⁵ If MITI could channel resources to future winners as successfully as industrial policy proponents argue, then one could assume that of those funds in the Japanese Government budget spent on industries, a substantial proportion would be spent on industries targeted by MITI. In fact, in the Japanese Government fiscal 1982 budget only 12 percent of the outlays (about \$2 billion) spent on all industries was directed toward MITI's targeted industries.³⁶ These targeted industries included computers, civil aviation, and biotechnology. Almost 90 percent of government funds spent on industry in general was directed toward traditional industries like agriculture and railroads, hardly winners in the economic sense.

The Japanese Government has financed relatively little of the research and development expenditures of Japanese high technology industries.³⁷ The Japanese Government provides research and development contracts, grants, and subsidies totaling only 1.0, 0.3, 1.4, and 0.5 percent of the research and development expenditures in the communication and electronic manufacturing, pharmaceutical, industrial machinery, and precision equipment industries, respectively. By contrast, the Japanese Government finances 18, 19, and 28 percent of the research and development expenditures in the agricultural, mining, and transportation (railway, aircraft, and shipbuilding) industries respectively.

MITI is probably better suited than a comparable body in the U.S. to implement an industrial policy because the Japanese career bureaucracy is stronger relative to political appointees than the U.S. bureaucracy. Also, the Japanese executive branch is stronger vis-à-vis the legislative branch than the U.S. executive branch.³⁸ If the putatively more politically independent MITI cannot direct most of the Japanese Government's resources toward winners, can we realistically expect a government body in the U.S. to do so?

Senator Proxmire (D-Wis.) explained the political difficulties inherent in an industrial policy: "Money will go where the political power is. . . . It will go where union power is mobilized. It will go where the campaign contributors want it to go. It will go where the mayors and governors as well as congressmen and senators have the power to push it. Anyone who thinks government funds will be allocated to firms according to merit has not lived or served in Washington very long."³⁹

In sum, an industrial policy aiming to revitalize uncompetitive industries and to encourage the growth of competitive ones will likely result in government

35. For a detailed analysis of the direction of Japanese public resources toward winners, see Trezise, *Industrial Policy is Not the Major Reason for Japan's Success*, BROOKINGS REV., Spring 1983, at 13. The author concludes: "[I]n Japan public funds have not been directed in any sizeable amounts, relative to total investment requirements, to the private industries or economic sectors with high growth potential." *Id.* at 18.

36. See MINISTRY OF FINANCE, FINANCIAL AND MONETARY STATISTICS MONTHLY, (June 1982) (in Japanese); JAPAN INFORMATION PROCESSING DEV. ASS'N, Computer White Paper (1982) (in Japanese).

37. G. Saxonhouse, Tampering with Comparative Advantage in Japan? (June 15, 1983) (statement before the International Trade Commission).

38. E. VOGEL, JAPAN AS NUMBER ONE: LESSONS FOR AMERICA 54-55 (1979).

39. Bartlett, *The Old Politico of a New Industrial Policy*, Wall St. J., Apr. 19, 1983, at 34, col. 5.

investing most of its resources in propping up the former at the expense of the latter.

V. WHY ARE THE JAPANESE COMPETITIVE?

Given the difficulties of formulating and implementing an industrial policy, one should be skeptical of assertions that an industrial policy is the primary reason for Japanese success. Instead of attributing strong Japanese competitiveness primarily to its industrial policy, one should consider other factors that could explain Japanese success at least as plausibly as industrial policy.

(1) *High savings rate.* The Japanese historically save a much higher proportion of their income than people in many other industrialized countries, including the U.S. Household savings as a percent of household disposable income is about 22.5 percent in Japan, while the U.S. figure is only about 5.9 percent.⁴⁰ A number of factors explain the high Japanese savings rate, including strong tax incentives; the need to save for retirement (the Japanese have no real equivalent to our social security system), children's education (Japan has a very competitive and expensive private school system), and housing (the scarcity of land makes housing costs high); the emphasis on semiannual bonuses paid most workers; and, perhaps the cultural frugality of the Japanese. But whatever the reasons, this high savings rate increases the pool of available funds for investment and hence reduces the cost of capital to Japanese industry. One recent study estimates that the cost of capital in the U.S. is more than three times that in Japan.⁴¹

(2) *Strong export orientation.* Perhaps because of their heavy dependence on external sources for raw materials, the Japanese, since the Meiji Restoration, have generally thought of business in terms of world markets. Japanese manufacturers typically build their exports to the U.S. with the American consumer in mind. Many American manufacturers fail to do the same for the Japanese or other foreign consumer.

(3) *A highly motivated labor force that relates well with management.* An observer of auto assembly lines in the U.S. and Japan once remarked: "The American factory seems almost like an armed camp. Foremen stand guard to make sure workers do not slack off. Workers grumble at foremen, and foremen are cross with workers. In the Japanese factory, employees seem to work even without the foreman watching. Workers do not appear angry at superiors and actually seem to hope their company succeeds."⁴² This labor-management relationship improves the productivity of Japanese companies.

(4) *Sound management practices.* One crucial factor that has not received as much attention as industrial policy is how management practices contribute to strong Japanese competitiveness. The ability to make products more efficiently than anyone else often enables the Japanese to outcompete other countries. Moreover, effective management practices enable the Japanese to develop com-

40. See Eismeier, *The Red Japanese Miracle*, J. CONTEMP. STUD., Fall 1982, at 36.

41. See G. HATSPOULOS, HIGH COST OF CAPITAL: HANDICAP OF AMERICAN INDUSTRY 37 (1983).

42. E. VOGEL, *supra* note 38, at 131.

petitive high technology industries and make their older industries more competitive. The importance of superior management is illustrated by the cost difference between American and Japanese cars. An analysis by Harbour and Associates in Michigan found that in 1981 Japanese automakers had a cost advantage of about \$2,200 over American automakers in producing subcompact cars.⁴³ The study attributed a portion of that difference to lower wages, better labor-management relations, and superior technology. But better management systems was by far the most important factor. Practices such as zero defects quality systems, just-in-time production (*kanban*), and broader job classifications accounted for over 60 percent of the cost difference. For example, U.S. automakers required about 31 hours to assemble a passenger subcompact car. By contrast, a Japanese producer assembled a subcompact car in only about 15 hours. The Harbour analysis attributed this advantage principally to management systems and techniques.⁴⁴

These management systems are not related to government actions. It is difficult to see how an industrial policy of targeting resources to the auto industry could account for the Japanese manufacturers adopting a *kanban* system, for example. The primary responsibility for instituting better management practices lies with management and labor, not government.

VI. THE APPROPRIATE ROLE OF GOVERNMENT IN THE ECONOMY

The possibility that factors other than industrial policy could more plausibly explain Japanese competitiveness has significant implications for the role of the U.S. Government in stimulating industrial competitiveness. The appropriate role for the U.S. Government is not to target specific technologies or industries. Whether targeting means anticipating changes in the marketplace or accelerating the development of industries that the marketplace has already picked as winners, government should not be in the business of targeting.⁴⁵ As discussed above, the market will do a better job than government in both predicting those technologies and industries that will be most competitive and directing the necessary resources toward them.

In general, government measures affecting industries should apply broadly across all industries, whether they be basic or high technology, labor intensive or capital intensive, small or large. Admittedly, just as it would be difficult to resist pressures from politically powerful traditional industries in order to direct resources toward the emerging industries, it would be tough to ignore the pressures

43. See HARBOUR AND ASSOCIATES, INC., ANALYSIS OF THE JAPANESE LANDED COST ADVANTAGE FOR THE MANUFACTURE OF SUBCOMPACT CARS (1982).

44. See *id.* at 14.

45. In fact, by the time the government has decided that the market identified a winner, the market usually is already allocating sufficient resources to that winner. The argument that one could let the market pick the winner and simply have government "nudge" the market along sounds appealing. However, since capital already flows to those investments yielding the highest returns, any additional government capital either would displace private capital that would have been invested anyway or would add capital to the industry that it could not absorb because if the industry could absorb additional capital, private dollars would have flowed in.

from those industries in order to assure that government industrial measures remain neutral.⁴⁶ One could argue that the government already targets industries through special tax breaks, for example, and instead of continuing to subsidize the “declining” industries, it would be more rational to shift subsidies to “emerging” industries.

There are three reasons for preferring measures that are neutral, rather than selective. First, it is probably easier to develop a consensus for measures that do not discriminate among industries than it is to develop a consensus for measures favoring specific industries, particularly if the targeted industries have small constituencies (as most emerging industries do). The public would be more willing to support policies allowing all industries the same opportunity to benefit from government measures. Second, if the status quo is to be changed, it is better to move toward a neutral system of government measures because the market has an advantage over the government in identifying competitive technologies and industries. Third, the current system of selective government measures is now considered an ad hoc approach. Legitimizing a system of selective government measures would encourage American business to concentrate more resources on Washington lobbying for special spending programs, tax exemptions, and other federal subsidies, diverting attention and resources from real business activities. American business should spend less time figuring out how to persuade a senator to vote for a special tax exemption and more time discovering how to design, make, and sell widgets more profitably.

The marketplace must have the dominant role in improving U.S. industrial competitiveness because it indeed is the dynamic and guiding force in our economy. But the government should help strengthen the foundation of the market and enhance market flexibility. There are three specific roles the government should play.

(1) *The federal government should support sound fiscal and monetary policy at home and abroad to encourage sustained noninflationary economic growth.* By lowering inflation and real interest rates, a sound macroeconomic policy will lower the cost of capital for all industries, thereby facilitating the movement of capital into emerging industries and enabling traditional industries to modernize. Sustained economic growth will provide markets for new products and employment opportunities for workers displaced by new technologies and people entering the labor force. Other macroeconomic factors for which the government is responsible are overall levels of savings and investment. By encouraging greater savings and investment, government can increase the total amount of capital formation in the U.S. for all industries.

(2) *The government should make those investments in the economy whose social returns exceed private returns.* For example, in technology, certain kinds of generic research benefit such a wide segment of society that individual firms

46. By neutral, we mean measures that are applied indiscriminately across firms or industries. Clearly, nearly all measures affect individual firms or industries differently. For example, a company making profits benefits more from a tax credit than a company losing money. However, by applying measures indiscriminately, government allows the market to determine which firms benefit from the measure.

cannot hope to reap all the benefits. As a result, firms will conduct less generic research than that amount which society finds beneficial. Likewise, in education, it is unlikely that a company would teach an individual important basic math skills beyond those of which the company itself can take advantage.

Investments in programs which generate social returns exceeding private returns are legitimate government responsibilities. It is unnecessary to establish a tripartite council or government industrial bank to make these types of investments since government already invests in these programs.

(3) *The government should enhance the efficiency of the market by reducing barriers of entry and exit into and out of all markets.* By increasing the ease with which resources, whether labor, capital, or technology, can move into and out of markets, the government would assure that resources flow toward those industries and sectors of our economy that can use them most efficiently. A free flow of resources allows resources to move where they are most productive and increases the incentives for individual firms to remain competitive. Barriers that restrict a free flow of resources can include government regulations restricting entry at home or trade barriers at home and abroad.

We should recognize, though, that government can only do so much; ultimately the private sector must do the job. For example, government could encourage greater savings and investment, but management and labor must run the machines and train the workers effectively. If American management and labor use equipment inefficiently, hold excess inventories, or establish restrictive work rules, no amount of government intervention will increase efficiency.

VII. THE REAGAN ADMINISTRATION'S RECORD

Following the general approach outline above, the Reagan Administration has implemented a number of policies.

A. *Strengthening the Foundation of the Private Market.*

With respect to fundamental macroeconomic elements, the Administration has been dramatically successful in helping reduce inflation and interest rates and increasing employment. The growth rate in the consumer price index has declined from 12.4 percent in 1980 to 3.8 percent in 1983. The prime rate has fallen from 21.5 percent in January 1981 to 13.0 percent in July 1984. The economy experienced a 6.2 percent increase in real gross national product from the fourth quarter of 1982 to the fourth quarter of 1983. The economy generated a net employment gain of about 6.7 million jobs from the end of the 1981–1982 recession to June 1984, the largest increase in total civilian employment during any nineteen month recovery period since the end of World War II. The Economic Recovery Tax Act (ERTA)⁴⁷ in 1981 reduced marginal individual income

47. Economic Recovery Tax Act of 1981, Pub. L. No. 97-34, 95 Stat. 172 (1981) (codified, as amended in various sections of 26 U.S.C.) [hereinafter referred to as ERTA].

and capital gains tax rates⁴⁸ and increased deductions for retirement savings,⁴⁹ all of which encourage more personal savings than prior law. ERTA also accelerated depreciation allowances and enhanced the investment tax credit,⁵⁰ which when combined with the lower inflation rate encourages higher levels of investment.

While the strength of the U.S. dollar has helped finance investment by attracting foreign capital, it has also reduced the competitiveness of U.S. exports and increased the competitiveness of imports. The appropriate solution to the resulting trade imbalance is not erection of trade barriers or subsidization of exports, but pursuit of appropriate fiscal and monetary policies. The Administration has been working to reduce federal budget deficits and has supported money growth at a moderate rate consistent with sustained noninflationary economic growth.

With respect to the microeconomic elements of the market's foundation, the Administration has emphasized the need for investing in programs which generate social benefits exceeding private benefits, such as education, training, and research and development.

We need to educate American youth in the fundamentals of science and math so they possess the basic skills that are increasingly necessary in an age of rapidly changing technology. To help achieve this goal, the Administration has called for a renewed emphasis on the quality of our basic educational system. Our high schools can probably better prepare our youth for careers by requiring them to take a certain number of years of math and science. To meet the shortage of qualified math and science teachers in our schools, the Administration has proposed a new Department of Education and National Science Foundation (NSF) programs in the fiscal year 1985 budget.

To retrain displaced workers, the Administration proposed \$223 million in the fiscal year 1983 budget for a grant program under the Job Training Partnership Act (JTPA)⁵¹ which the President proposed and signed into law in 1982. In addition, the fiscal year budget provides \$1.9 billion for a JTPA training block grant to allow displaced workers to meet their specific training needs for real private sector jobs. This block grant should enable states to train over one million people in 1985. JTPA is more likely to succeed than earlier public sector training programs because of greater private sector participation and emphasis on actual training, instead of income maintenance.

Investment in basic research is a classic case in which social benefits exceed private benefits. The lower rates of inflation and interest and sustained economic growth will stimulate more private sector investment in research and development. To encourage private sector research and development more directly, ERTA included a new 25 percent tax credit for increased research and development expenditures.⁵² The Administration has also proposed legislation that would

48. *See id.* at §§ 101, 102.

49. *See id.* at §§ 311, 312.

50. *See id.* at §§ 201-14.

51. Job Training Partnership Act, Pub. L. No. 97-300, 96 Stat. 1322 (1982) [hereinafter referred to as JPTA].

52. *See ERTA, supra* note 47, at § 221.

amend the antitrust laws to encourage the establishment of procompetitive joint research and development ventures.⁵³

To encourage more innovation in the patent and copyright area, the President has directed federal agencies to allow nearly all federal research and development contractors to own federally funded inventions. Previously, only small businesses and nonprofit organizations could keep the patents on federally funded inventions. In addition, the Administration has proposed legislation that would encourage the procompetitive licensing of intellectual property and strengthen process patents.

For those research and development projects which are appropriately federal responsibilities, the fiscal year 1985 budget includes a proposed annual increase of 14 percent to a level of \$53 billion. For basic research, the President has proposed a ten percent annual increase to \$7.9 billion.

B. *Enhancing Market Flexibility.*

The Reagan Administration is pursuing a regulatory policy that seeks to provide greater flexibility within the economy. For example, the Administration supported Federal Communication Commission proposals to deregulate the telecommunications industry where technological change is making many regulations obsolete. In addition, the Administration worked with Congress to deregulate the financial services and intercity bus industries.⁵⁴ The Administration has also reformed the Davis-Bacon Act (affecting employment on Federal construction projects) and proposed deregulating natural gas. In 1982, the Department of Justice issued a new set of merger guidelines designed to encourage mergers enhancing economic efficiency, while still deterring mergers reducing competition.⁵⁵ Finally, the President's proposed legislation amending the antitrust laws for research and development joint ventures not only promotes more research and development, but also recognizes the changing environment of international competition.

The Administration is dedicated to the cause of trade liberalization both at home and abroad. For example, it rejected a highly publicized petition filed by Houdaille Industries, Inc. that would have denied the U.S. investment tax credit to U.S. taxpayers purchasing Japanese machine tools,⁵⁶ initiated the Quad-

53. See H.R. 3878, 98th Cong., 1st Sess. (1983). Currently, there exists a perception that courts may find joint research and development ventures *per se* illegal. The President's proposed legislation would require courts to consider joint research and development ventures under the rule of reason standard and reduce the liability in an antitrust suit from treble to actual damages. See National Productivity and Innovation Legislation, 19 WEEKLY COMP. PRES. DOC. 1234-37 (Dec. 1, 1975).

54. See Garn-St. Germain Depository Institutions Act of 1982, Pub. L. No. 97-320, 96 Stat. 1469 (1982); Bus Regulatory Reform Act of 1982, Pub. L. No. 97-261, 96 Stat. 1102 (1982).

55. See *Justice Department Merger Guidelines*, ANTITRUST & TRADE REG. REP. (BNA) No. 1069 (June 17, 1982) (special supplement). The Justice Department recently issued further revised guidelines. See *Justice Department Merger Guidelines*, ANTITRUST & TRADE REG. REP. (BNA) No. 1169 (June 14, 1984) (special supplement).

56. See *Administration Denies Relief Requested by Houdaille*, 8 U.S. IMPORT WEEKLY (BNA) 124 (Apr. 27, 1983).

ilateral mechanism which resulted in an agreement to accelerate the multilateral trade negotiations tariff reductions, worked with Congress to enact the Caribbean Basin Initiative,⁵⁷ and vigorously opposed local content auto legislation. Regarding the rise of protectionism abroad, the Administration is working in the General Agreement on Tariffs and Trade and the Organization for Economic Cooperation and Development to reduce the many trade barriers hampering U.S. investment abroad and U.S. exports of services and high technology goods.

President Reagan recently appointed a Commission on Industrial Competitiveness to provide a forum in which to develop recommendations on public sector actions to enhance the efficiency of the market and private sector actions to improve industrial competitiveness. The recommendations of this Commission were presented to the President in December 1984.

VIII. CONCLUSION

The industrial policy concept can look attractive on the surface. It promises to restore U.S. industrial competitiveness by developing and implementing a national industrial strategy. However, it contains many fundamental flaws, including the inability of the government to outguess the market and the improbability of the government successfully implementing industrial targeting. There is a more promising alternative. By strengthening the foundation of the marketplace and enhancing its flexibility, the government can improve the market's ability to identify winners and losers and allocate resources efficiently.

57. Interest & Dividend Tax Compliance Act of 1983—Caribbean Basin Economic Recovery Act, Pub. L. No. 98-67, 97 Stat. 369 (1983).