

# EIR **Special Report**

*High-technology debate:*

## **United States reindustrialization**

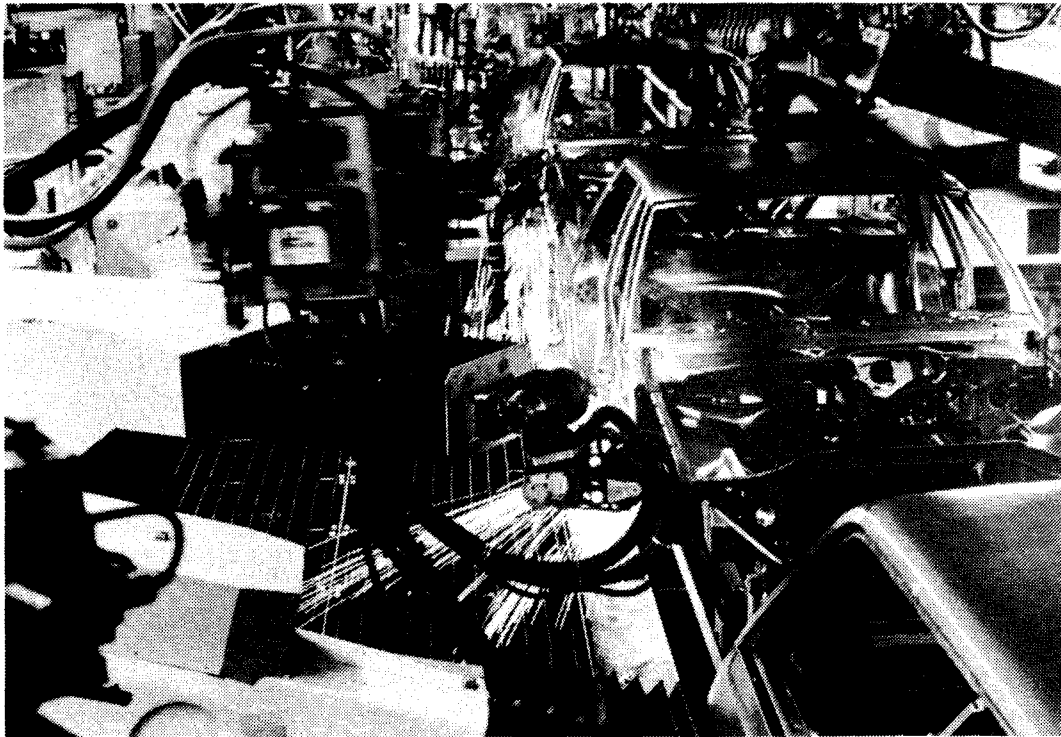
Rebuilding America's industrial core has, since May, become the subject of the most-uttered buzzword of economic policy in both political parties and the financial press. Whether "reindustrialization," as proclaimed in the bold colors of a June *Business Week* cover story, is a fad that will be put to rest once the campaign grinds on is a reasonable question. The answer is that the national imperative for industrial reconstruction is an entirely real one, understood to be a matter of greatest urgency among America's policy leaders. However, the quality of those leaders is so poor at both the public- and private-sector level that the debate often seems less than serious.

What has been accomplished, in a spectacularly short period of time, is the refutation of the "post-industrial society" and "information economy" varieties of zero-growth ideology which virtually took the country over in the past decade. Since its inception, *EIR* has insisted that the so-called resources crisis is artificial, the result of the suppression of scientific and technological advances, and that without a return to the policy of fostering such advances the United States is doomed as an industrial nation. In a series of economic surveys in April, May, and June, *EIR* employed the LaRouche-Riemann econometric model to debunk the myth of so-called "decoupling" of energy from economic growth, to evaluate how close America was to a "point of no return," and to compare America's economy to those of its competitors. Now the debate is proceeding on the terms we set, and may yet reach the needed conclusions.

Broadly, the motivations of the various kinds of "reindustrialists" are two:

- 1) America has lost its international market position in all but a handful of areas, as Georgetown University's Center for Strategic and International Studies documented in a series of papers this year, and faces competition for the first time in aerospace, electronics, nuclear energy, and other fields it used to dominate.

- 2) The Soviet Union has surpassed the United States not only in deploy-



*Robots welding auto bodies at Chrysler's Newark, Delaware plant. Can the U.S. handle the coming industrial automation market?*

Photo: Unimation, Inc.

able weaponry but also, in some key areas, in industrial mobilization capacity. Most worrying is the prospect of Soviet technological breakthroughs in particle-beam weapons and other potential war-winning weapons capabilities.

The political context is the decision of Western Europe and, in a different way, Japan, to pursue high-productivity investment programs premised on expanded North-South and East-West trade, through the vehicle of the European Monetary System.

### **Proposals in context**

There has become available a bewildering array of proposals, including initiatives in Congress by Senators Adlai Stevenson and Lloyd Bentsen, reports by the White House staff and the Congressional Office of Technology Assessments, surveys published by *Business Week* and soon to be published by *Scientific American*, and reports from most of the leading thinktanks. Since there is no effective political process operating in Washington or in the Reagan campaign capable of handling such issues, the various proposals could easily be dismissed as a lot of noise.

In fact, the proposals are very real, in the context of international corporate warfare.

Since 1967, the leading American high-technology corporations, including IBM, ATT, ITT, Xerox, TRW, Hewlett-Packard, and Texas Instruments have been committed to the devastatingly wrong program outlined in Zbigniew Brzezinski's book *The Technetronic Age*.

Brzezinski outlined the devolution of the American economy into a "post-industrial" mess with a high-technology "information economy" holdover. To the chagrin of these corporations, that is precisely what the United States got.

The American corporate sector, once resolved to deal with the collapse of America's industrial base, is in a paradoxical situation. What is involved is typified by Japan's Fujitsu Electronics' announcement last month of the development of a new computer chip made of gallium arsenide, specially structured to communicate electronic messages by a reported factor of 25 times faster than conventional silicon chips. The announcement sent a shockwave through the American computer industry, not because the Japanese have superior technology. IBM alone spends \$1.5 billion annually on research, half of Fujitsu's gross sales. ATT's Bell Labs, still the best research institution in the world, has been at work on gallium arsenide chips for some time.

However, Fujitsu's technological advance can be combined with its dominant position in computer-controls for machine tools—65 percent of the Japanese market after a recent takeover of another Japanese firm. Machine-tool specialists at one of the nation's weapons laboratories believe that computer-controls can double to quadruple machining productivity within the next decade, and represent the key to any advances in industrial productivity. American firms, they believe, have all the technology the Japanese can command in this field, and more. But American machine builders

lack the confidence, the management commitment, the centralization and legal environment to put their technology to work.

## **U.S. outflanked**

American foreign economic policy has been for a decade to discourage the Japanese from moving into high-technology areas such as computer electronics in which the U.S. had a dominant position. This is still official policy in Washington, according to ranking State Department sources. The Japanese have staked out their position nevertheless. Japanese electronics industry managers deride the idea that they will ever compete with IBM in its established markets, but point to the massive expansion of the market in the industrializing countries for computer-aided industrial production as their major target. IBM is badly equipped to compete with them.

Western Europe has also moved aggressively—if quietly—in the same high-technology area. German business and government officials say that the number-two priority, after energy, for Arab investment in European industry is in the computer-aided machining field. Europe's relatively fledgling computer capability has become more tightly managed. The June purchase by St. Gobain-Pont à Mousson of 20 percent of the Italian giant Olivetti is significant, because St. Gobain already controls the big French computer outfit Honeywell-Bull. France intends to spend \$6 billion to support electronics over the next decade, a mere four-year equivalent of IBM R&D spending, but a respectable sum nonetheless. Siemens, always a British rather than a West German company in outlook, is no longer dominant on the continent, particularly after Fujitsu earlier this month ended a joint marketing arrangement with them.

Britain's much vaunted "post-industrial" plans for silicon chip production—Sir Keith Joseph's proposed economic miracle—is apparently in shambles. The joint venture for chip production between Britain's GEC and Fairchild Camera, owned by the French Schlumberger firm, has been scrapped as uncompetitive.

The American high-technology giants lack the access to production-line facilities to rapidly implement industrial applications of microprocessors. They stand to lose the major net increase in international trade to Europe and Japan, as the European Monetary System countries finance and supply the biggest potential market expansion in world trading history.

## **Silicon Valley's switch**

This is the background to the sudden shift away from "information economy" studies at the Boston-centered thinktanks and consulting firms which serve the big corporate market. Sen. Stevenson's "Technolog-

ical Innovation Act" was drafted out of the Massachusetts Institute for Technology, in cooperation with Arthur D. Little, the Boston Consulting Group, and others in the Cambridge nexus. The "Boston" element has also circulated a series of public offers to the Japanese to engage in joint ventures in areas formerly closed off to the Japanese, e.g., a 10-page advertisement in the latest *Business Week* and a report by the Boston Consulting Group featured in the July 14 *Wall Street Journal*. One thinktanker predicts that Ford Motors' in-negotiation plan for joint automobile production with one or more Japanese auto producers will be replicated in the electronics field. That could potentially represent a way out for the Americans. But there is no reason to believe that the Japanese have any interest in playing the game.

Another, somewhat deeper approach has come out of the Hoover Institution for the Study of War, Revolution, and Peace at Stanford University. Where the Cambridge proposals come from the technology-men of the Kennedy Administration, e.g., MIT President Jerome Wiesner, the Hoover plans come from the grand old man of Eisenhower-era nuclear technology, Dr. Edward Teller. Teller's proposals are formulated, for political reasons, in the context of energy security and military requirements. In going to the heart of the matter, including a plan to cut nuclear reactor construction time from 11 to five and a half years and to spend \$50 billion per annum on energy investments, the Hoover approach has greater competence.

## **The leadership question**

Nonetheless, what we have seen from these institutions so far would fail, even if it became public policy, for two reasons.

The less significant reason is a question of economic method. As Dr. Steven Bardwell notes in this special report, the task of reindustrialization is to find the means of increasing productivity to the extent that the economy's overhead expenses (military, educational) are affordable. Since rebuilding the country's scientific capabilities and national security depends on such an increase in overhead, the solution to this question is indispensable. Judging from such documents as Sperry-Rand's survey of 100-odd American companies on priorities for future technologies, our corporate managers have trouble distinguishing between home computer units for personal banking and electronic games, and computer-controls for machine tools. Investment policy must negotiate an avenue past the danger of a general economic breakdown by centering on those technologies which will give the maximum productivity thrust to the economy as a whole. The LaRouche-Riemann model provides a means for making this evaluation; nothing we have seen from MIT or Hoover

provides a rigorous method at all.

And, fundamentally, the proposals at hand fail entirely to address the problem of skilled labor, the biggest problem of all. For 15 years American universities have shifted away from training the scientists and engineers needed for reindustrialization, and the skilled labor pool among industrial operatives has shrunk. Industrial engineers are not available in the right quantity and often of the right quality. What we have gotten instead is a generation eaten up by "Aquarian" hedonism, and in increasing numbers unfit for the workplace.

America requires more than a policy maneuver. The economic crisis is such that any maneuver by itself must fail. The state of the population shows us that economics is at bottom a moral science, the science of enhancing the capabilities of populations to assimilate and employ scientific knowledge. Anyone who believes that a President of the quality of Carter or Reagan, once persuaded by the "right advisors," could bring off such a recovery is blind to the most important policy issue at work: the precondition of moral leadership for this country.

## Legislation

# Industrial policy comes to the U.S. Congress

Pieces of legislation directed in some form toward the advancement of U.S. industrial research and development and basic capital formation are now progressing toward final votes in Congress.

These bills, typified by Senator Lloyd Bentsen's (D-Texas) "Capital Cost Recovery Act" and Senator Adlai Stevenson's (D-Illinois) "Technological Innovation Act" are basic, though limited, steps toward putting together some of the needed industrial and scientific infrastructure in this country.

The legislation combined should add about \$3.5 billion to the U.S. economy in added capital formation and increased research and development in fiscal year 1981, and rise to about a contribution of \$35 to \$50 billion by fiscal year 1985, according to the sponsors of the bills. Plus, there will be several intangible benefits—new technologies—which could end up increasing U.S. productivity in a way that could be worth \$100 billion to \$150

billion in additional corporate revenues.

These bills have been advanced by policymakers linked to industry and labor who have become increasingly alarmed as the technological base of the U.S. continues to erode. Productivity, measured in Department of Labor terms at less than 1 percent per year, is insufficient to prevent the U.S. from losing its competitive edge in world markets or from collapsing as an economy.

Thus, since 1977-78, when the disastrous course of America's Malthusian policies became apparent, a thrust was initiated to steer the U.S. back toward a broad-based use and development of new technologies, and to increase capital formation for that purpose.

## The Presidential review

Responding to the demands in March, 1978 that the U.S. industry not be allowed to collapse into a junk heap, the Carter administration set up a Domestic Policy Review on Technological Innovation. In preparation for the review, industry, science and foundation groups prepared study papers for the White House.

The study was centered under Carter's White House science advisor, Frank Press, and Assistant Secretary of Commerce Jordan Baruch. Among the sorts of recommendations offered were those of the New York-based Committee for Economic Development (CED), a businessmen's group. The CED recommended three basic changes:

- (1) permit a more rapid capital recovery allowance to stimulate investment in new plant and equipment;
- (2) allow R&D assets to be fully depreciated in the first year, or at the discretion of the firm;
- (3) reduce capital gains taxes to encourage inventive activity by small firms, traditionally the source of much innovation.

The CED also called for reducing or eliminating several government regulations and a change in patent laws. The CED approach was representative of most industry suggestions. The MIT Center for Policy Alternatives, centered in Cambridge, Massachusetts, also did a final study review for the President's panel, recommending ways to increase technological innovation. The MIT Center is under the direction of Herbert Holloman, a former head of General Electric's R&D department.

The reams of paper submitted to the Carter Review task force were ignored. The Commerce Department's Jordan Baruch did not adopt anything that might radically change the 15 pre-existing and mostly minor White House programs that allegedly foster technological innovations, mostly for small businesses. One industry source described Baruch as a "snake-oil salesman."

By the time the recommendations of the Commerce Department got through the President's Domestic