

# INVESTMENT IS CRITICAL

## Rebuilding the capital goods sector

by Amitai Etzioni

Contemporary America is largely shaped by a core project of economic development that lasted from the 1820s to the 1920s. Both the high level of productive capacity and the basic societal framework evolved in those years. After two dramatic "interruptions" (the Depression and World War II), the golden age of consumption (private and public, economic and social) set in—from 1950 to 1980. In the final five years of that era, however, much erosion was evident.

By 1980, 50 years or so had passed since productive capacity (and the societal bases that support it) had been a matter of first priority—a core project.

These were, increasingly, years of over-consumption and underinvestment in the economic and societal foundations of productive capacity. The neglected productive base was strained not only by the growth of the public sector and social services but also by the private consumption spree.

Not only was the high-production core project neglected, its resources, psychic energy, legitimacy and projection into the future were being challenged by an alternative project. This alternative, it is claimed, puts social progress above economic progress and strives for greater harmony with nature, others and self than the core project provides.

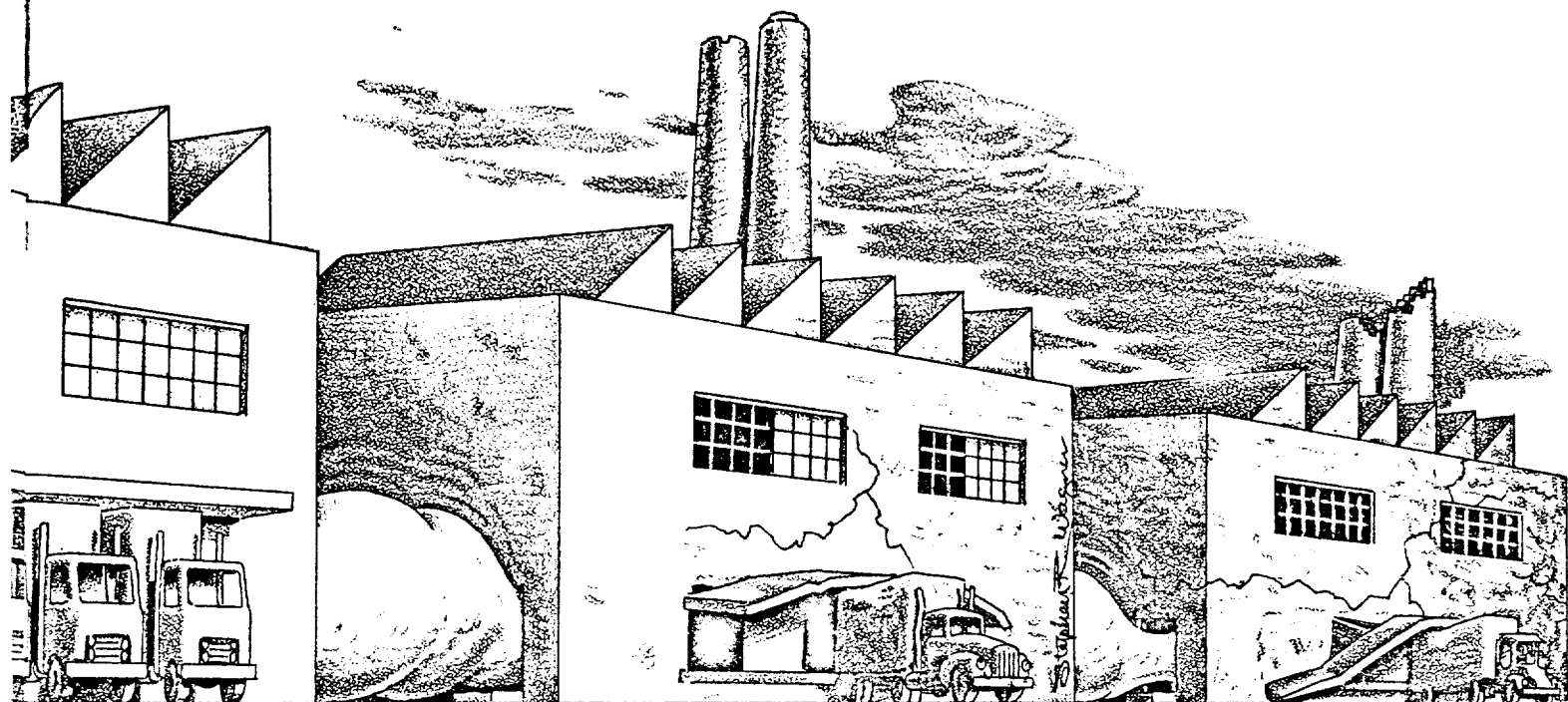
As our society now considers the need to reindustrialize, it must look beyond an infrastructure that encompasses expeditious transportation, efficient communication, reliable sources of energy, a work ethic committed to productivity, suppor-

tive research and development and hospitable legal/financial institutions.

Before even this broadly defined infrastructure can provide for a modern, growing economy, for an age of mass production and mass consumption, one other element must be added: capital goods. These are assets that cannot themselves be consumed but that serve in the production of consumer goods. They are the plants, their machinery and equipment—steel mills, cranes, lathes, shipyards, assembly lines, etc.

Since most industrializing economies already have a labor force (although often it must be transferred, motivated, educated and trained for industrial work), attention tends to focus on accumulation of capital—invested in the infrastructure and capital goods—to lay the foundations for industrialization.

A society that consumes all or most of its product, and does not set aside a growing proportion of its savings for capital goods and the infrastructure, will not industrialize, or will industrial-



# TO INDUSTRIAL GROWTH

ize only as far as foreign investments and contributions will carry it.

Before 1860, much of the American industrial effort was piggybacked on the produce of field and forest. But in the era that followed, new sources of power and important innovations in iron and steel production were major factors in making industry less dependent on growing things, more dependent on minerals and on capital goods.

As historian Edward C. Kirkland has put it: "The age since 1860 may have been the 'age of coal and iron' or the 'age of petroleum' or the 'age of electricity.' It was unquestionably the 'age of the machine.'" Air-driven power drills and steam shovels were introduced in the coal mine, suspended rotary drills in the oil fields. The Bessemer process reduced the cost of steel so that its widespread use became practical, and later the open-hearth process made it possible to use lower-grade ores.

While steel can be used to make both capital (producer) and consumer goods, early in industrialization much of it is typically used for capital goods, and the capacity to make steel reflects a rise of capital goods. Hence, the amount of steel produced is often used as a gross measure of the potential of the capital goods sector. In 1860, raw steel production in the United States was 13,000 tons. Ten years later, it was 77,000 tons. By 1910, production had grown to more than 28 million tons.

The production of other capital goods also grew rapidly. The value of output of industrial machinery and equipment increased from \$99 million in 1879 to \$512 million in 1910. In general, manufacturing production multiplied 12 times from 1860 to 1914, and output per work hour doubled from 1869 to 1914.

Another measure of industrial growth in the "age of the machine" is the increase in the amount of capital invested in U.S. manufacturing facilities. From 1850 to 1880, it grew from \$533 million to

almost \$3 billion. It reached \$8 billion in 1900, then climbed sharply to nearly \$40 billion in 1914.

The importance of capital accumulation is emphasized in studies that relate the takeoff and acceleration of industrialization to the increase in capital/output ratio. Between 1850 and 1900, it grew from approximately 1.6:1 to 2.9:1; capital per worker grew from about \$2,100 to \$5,000 or more.

As far as one can tell, major segments of the capital goods sector were seriously undermaintained during the period from 1950 to 1980. Plants, machines and equipment in several key industries grew in obsolescence and did not keep up with the installation of new machines by competitors overseas. This seems to be the case in such major American industries as autos and steel as well as in rubber, textiles, and, for different reasons, shipbuilding.

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One survey found that at the end of 1978, although some industries had made considerable progress in modernization during the previous two years, the proportion of technologically outmoded plants and equipment was 26 percent in iron and steel, 25 percent in rubber, 18 percent in mining, 17 percent in autos, trucks and parts. Other industries, such as petroleum and chemicals, showed stronger innovative signs.

The manufacturers surveyed reported that it would cost \$126.4 billion to replace all technologically outmoded facilities with the best new plants and equipment. Since this figure excludes all nonmanufacturing industries as well as the manufacturers that did not reply to the survey, the total outlay needed for modernization would obviously have been much greater.

### GROSS FIXED CAPITAL FORMATION AS A SHARE OF GNP (1981)

United States	17.1%
France	21.2
West Germany	22.9
Italy	20.3
United Kingdom	16.9
Japan	31.0
Canada	24.5

Source: Department of Commerce, Bureau of Economic Analysis

Where do we go from here? Between laissez-faire supply-side economics on the right and industrial policy on the left, is the conception that what ails the country is overconsumption (public and private) and underinvestment, resulting in a weakening productive capacity. Signs of deferred maintenance and lack of adaptation to the new environment of expensive energy can be seen in most of the elements that make up the infrastructure and capital goods sectors.

The suggested cure is *semitargeted*: Release resources to the private sector but channel them to the infrastructure and capital goods sectors, away from public and private consumption. For example, if government revenues are cut through across-the-board cuts in personal income tax, the funds released might well be used mainly to spur pri-

vate demand for consumer goods and services; little rejuvenation of productive capacity might occur. On the other hand, if those resources are guided to the productive sectors of the economy—not to specific industries—reindustrialization is much more likely to follow.

Thus, if tax revenues are “lost”—not just through tax cuts for individuals but in part by allowing companies to take accelerated depreciation when they replace obsolete or energy-inefficient equipment—the released resources will revitalize, without determining which specific industry will benefit: steel or textiles, rubber or rails. The polity will set the context; the market will target.

Similarly, providing tax incentives for greater research and development expenditures spurs all such efforts. It does not require any government trade desk or tripartite committee to decide which R&D project is desirable. And if workers are provided with productivity-based incentives to share directly in renewed economic growth, Washington need not be involved in determining which group of workers is eligible or to what extent. This is best done by the management and the workers within each corporation.

Critics suggest that such reindustrialization will return the country to the 19th century and focus on “basic” or “smokestack” industries rather than on post-industrial high-technology industries. The prefix *re-* does point to a return but should not be taken literally. A return to strong infrastructure and capital goods sectors does not require a return to the same mix of industries. The return implied is to higher investment and innovation in the productive sectors, not to anachronistic details.

On another count, though, reindustrialization must plead guilty as charged: It does favor mitigating the criterion of “comparative advantage” with considerations of developmental economics, social sensitivity and national security. Studies of developmental economics show that a measure of government-provided incentives and support, even short-term import limitations, is often essential for developing a new industrial base; the same might hold true for renewing one.

Social considerations provide many reasons not to export all blue-collar work to Third World countries. To start with, we have plenty of unskilled labor of our own. National security requires us not to grow so dependent on imported coal, steel and shipbuilding that we are

unable to withstand boycotts or other supply interruptions.

Reindustrialization thus stands between supply-side economics and industrial policy. It is semitargeted and the context it seeks to advance is a stronger productive capacity. ■

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### NAM ON TAXES

*The association sees a need for more capital but not for increased taxes. The following is excerpted from recent testimony by Paul R. Huard, vice president, NAM Taxation and Fiscal Policy Department, before the Senate Budget Policy Committee.*

In view of the need for a prolonged and sustainable economic recovery, the NAM cannot at this time support any increases in taxes for general deficit reduction. In essence, the 1981 tax cuts enacted under the Economic Recovery Tax Act (ERTA) have already been significantly eroded by the tax increases included in the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). Not to put too fine a point on it, more than half the aggregate business tax relief has already been taken back.

Further business tax increases would threaten our potential for recovery by reducing available capital for plant and equipment investment and increased job creation. Even with the reduction in interest rates, many companies are still having great difficulty in just paying interest on short-term debts, without even making provisions for increased investments.

As one would expect under these conditions, capital formation has declined. The net investment ratio—the share of GNP comprised by new investment—averaged only 4.7 percent in 1972-79, compared with 6.1 percent in 1960-69. Estimates place the average age of the capital stock in this country as being considerably greater than in other industrial countries.