gas prices in 1978, Myers notes, "the gas surplus soared to about 4.5 trillion cubic feet in 1983 . . . and stands at about three trillion cubic feet even today." According to the American Gas Association, between 1.2 and 2.5 trillion cubic feet of additional natural gas (equivalent in energy to 214 million barrels of oil) could be brought into production within a year.

• Thanks to energy conservation, growth in demand for all fuels has declined. Expansion in electricity use has dropped from an average of seven percent a year during the early 1970s to two percent a year today.

• While 150,000 jobs in the oil and gas industry were lost last year (30 percent of the total), this simply reduces oil industry payrolls to levels in effect before the price hikes of 1979. Moreover, Myers argues, at least 2.4 million new nonagricultural jobs were created in fiscal year 1986, due in part to "the salutary effect of low oil prices on the economy."

Myers concludes that proposed measures such as oil import fees are solutions to a problem that does not exist. The nation, he says, "does not face an imminent energy crisis or a threat to its security."

High-Tech Steel

"Can Advanced Technology Save the U.S. Steel Industry?" by Julian Szekely, in *Scientific American* (July 1987), 415 Madison Ave., New York, N.Y. 10017.

Steel is one of the strongest materials that man can make. But will the U.S. steel *industry* ever again be as sturdy as the product it turns out?

Szekely, who teaches materials engineering at the Massachusetts Institute of Technology, has his doubts.

Since 1982, he notes, U.S. steel manufacturers have sustained losses totaling $6 billion; the number of steel workers has fallen from 500,000 in 1975 to fewer than 200,000 today. "Poor management, self-serving labor unions, outdated technology, competition from overseas and the replacement of steel by materials such as aluminum and fiber-reinforced plastics" have all been cited as causes for U.S. industry's decline—although, Szekely adds, Japanese and Western European producers have experienced many of the same drawbacks and difficulties. In any case, the slide seems fated to continue. Between 1985 and 1990, U.S. steel production is expected to decline by three percent, while that of developing countries where labor costs are low (e.g., Korea and Taiwan) is predicted to increase by 20 percent.

Szekely argues that if the American steel industry is to survive, it must soon start to employ new technologies. Large "integrated" mills, which process iron ore into the metal in great quantity—and account for roughly 70 percent of all U.S. ordinary grade steelmaking—should adopt the less energy- and labor-intensive method of "direct ironmaking," which bypasses conventional blast furnaces and cokemaking facilities. Minimills, which convert scrap into a variety of low-quality products (roughly 25 percent of U.S. steel production), can benefit from such new processes as "direct casting"—turning molten steel straight into thin sheets, say, rather than first making 50- to 100-ton ingots that are later rolled out.

Szekely calculates that the cost savings from such innovations could run as high as 40 percent.

The author cites other "high-tech" methods for making steel with special properties, methods that could give U.S. producers a needed edge in world markets: "near net shape casting" (spray-coating a solid base with molten steel) and "rheocasting" (shaping semi-molten steel). "Laser glazing," "plasma spraying," and "magnetron sputtering" are also new ways to improve the quality of steel surfaces.

"To insure itself a share of the future world steel market," Szekely concludes, "the U.S. steel industry will have to develop radically new methods for making products that are not yet widely available." Otherwise, the big integrated producers, with their "large, inflexible operations," are not likely to survive beyond the 20th century.

Supply-Side Boon

"All Supply-Siders Now?" by Gordon Jackson, in *Policy Review* (Summer 1987), 214 Massachusetts Ave. N.E., Washington, D.C. 20002.

Supply-side economics—fiscal policies that aim to stimulate production rather than consumption—has not captured as much attention in recent months as it did during the first half of the Reagan presidency.

Yet, argues Jackson, managing editor of *Policy Review*, Americans should not forget that the fruits of a strong economy, which they enjoy today, were borne of Reagan's early supply-side policies.

When President Jimmy Carter—the last Keynesian (i.e. consumption-oriented) president—left the White House in 1980, notes Jackson, the U.S. economy was a mess. The inflation rate was 12.5 percent; the prime interest rate, 21 percent; the unemployment rate, roughly eight percent; the annual growth rate for industrial production, 1.4 percent.

Today, that picture is much improved. The inflation rate has dropped to about four percent. The prime interest rate stands at a mere 8.25 percent. Not only has the unemployment rate fallen to 6.3 percent, but 61.6 percent of the civilian population is working—an all-time high. And industrial growth proceeds at a rate of 3.8 percent annually.

Although several policy measures—e.g., widespread business deregulation as well as the Federal Reserve Board's stringent monetarism—have aided and abetted "America's economic rejuvenation," Jackson argues that cutting taxes was the key factor. In 1988, the top marginal tax rate for most individuals will be 28 percent, down from 70 percent in 1980. While Keynesian skeptics often argue that tax cuts reduce tax revenues, Jackson observes that the evidence suggests otherwise. In 1978, Congress lowered the capital gains tax rate from 49 percent to 20 percent; between 1978 and 1985, capital gains tax revenues rose by 175 percent.

Much criticism of supply-side theory is no longer valid, Jackson adds. The Reagan tax cuts have not worked to give the rich a break: Of the $44.6 billion increase in federal tax revenues between 1981 and 1985, 86 percent was paid by those earning more than $100,000 per year. As to the charge that tax cuts have deepened the annual federal budget deficit