
ECONOMICS, LABOR, & BUSINESS

recorded during a five-year period since the mid-1950s.

What happened?

Leading economists point to a three-year recession (1980–82), falling oil prices, lower annual wage increases, and the deregulation of several major industries (including banking). But Sinai, an economist at Shearson Lehman Brothers, sees the soaring value of the dollar in international markets as the driving force behind disinflation. Between July 1980 and February 1985, the dollar's value appreciated by 47.6 percent (relative to the average of currencies of 15 nations belonging to the Organization for Economic Cooperation and Development).

The dollar's strength, Sinai contends, promoted a surge of imported goods in the United States and a slackening of exports (down \$57.5 billion since 1982). Faced with competition from manufacturers abroad, many U.S. businesses (especially in the auto and electronics industries) sought to lower their overhead and production costs by, among other things, raising the proportion of cheaper, foreign-made components in their own products. Meanwhile, American tourists took advantage of the dollar's increased buying power and went abroad to spend U.S. cash.

Soon, an anti-inflationary cycle began to take hold, Sinai says. The costs of basic commodities—grain, metals, oil—started to slide, allowing U.S. producers to cut the prices of their finished products. Labor costs fell too, mainly due to U.S. companies' increased use of low-wage workers overseas and a tight job market at home. Inventory hoarding and speculative business practices (known to bolster inflation) gradually slowed. By 1983, the cumulative effects of all these economic forces held inflation in check.

Using a computer model, Sinai found that without a strong dollar during the 1980–84 period, the rate of inflation would have been 4.5 to seven percentage points higher in 1984 than it was. "The sensitivity of inflation to changes in the value of the dollar," he concludes "is sizable"—a fact that may assume greater significance during the next year, now that the dollar's value has begun to decline.

Hello, Robots

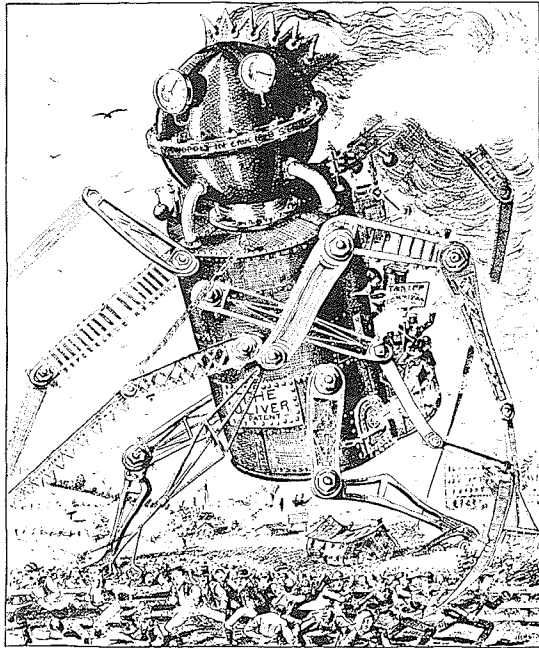
"The Golden Arm" by Roger Draper, in *The New York Review of Books* (Oct. 24, 1985), 250 West 57th St., New York, N.Y. 10107.

When leading "artificial intelligence" engineers met in 1956 to evaluate the future of robot technology, they predicted that "within a single generation humanity would no longer have to work." Clearly they were wrong: After 30 years, mankind still has plenty of work to do. But the material and economic benefits of robotics are now tangible, reports Draper, associate editor of the *New Leader*.

In 1970, some 200 robots were operating in U.S. factories. Today, there are more than 16,000. The largest "employer" of robots is the auto industry, which uses them to help weld, paint, and assemble its cars. The General Motors Corporation, which in 1980 owned barely 300 robots, now has about 5,000 and plans to purchase 15,000 more by 1990.

In many risky jobs, notes Draper, robots are often less expensive and more efficient than their human counterparts. They do not tire, take vaca-

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This 1882 cartoon depicts a "mad" robot ravaging a company town. The image captures the anxiety in 19th-century America over the industrial revolution and the increased use of machinery in the workplace—especially among those workers in the agriculture, railroad, and textile industries.

tions, or qualify for pensions; they function in extreme heat, radioactivity, and poisonous fumes "without filing a grievance." From 1980 to 1983, robots helped U.S. auto manufacturers to expand output by 15 percent. Other industries—foundries, light manufacturing (plastics, food, drugs, cosmetics), and aerospace—have also had satisfactory results. Several electronics companies, including the Apple Computer Corporation, now rely on robots to assemble delicate machinery.

With such wide applications for robot workers, the outlook for the 60 or so U.S. manufacturers of robots looks promising. What Draper calls the "Third Industrial Revolution" may generate a \$2 billion a year industry by 1992, as more companies go for robots.

But to America's blue-collar folk, such visions of an automated "utopia" may not have the same appeal. The notion that robots will create rather than eliminate jobs is an "illusion," Draper says. Several studies bear out his assertion: For every robot installed, General Motors has eliminated about two jobs; some British industries, about 2.5. West Germany's Commerzbank estimates that "second generation" robots (with sensors and greater versatility) may wipe out as many as five jobs apiece. In California, a robot-guided mechanical tomato picker allowed farmers to trim their harvest force of migrant workers from 40,000 to 8,000, while at the same time tripling output.

It is still too early to tell exactly how automation will affect America's labor force, Draper adds. But one thing is certain: Hundreds of thousands—if not millions—of low-level production workers will be displaced, beginning within the next decade.