

**New York Times**  
December 24, 2006

*Economic View*

## **Goodbye, Production (and Maybe Innovation)**

By LOUIS UCHITELLE

AMERICAN manufacturers no longer make subway cars. They are imported now, and the skills required to make them are disappearing in the United States. Similarly, imports are an ever-bigger source of refrigerators, household furnishings, auto and aircraft parts, machine tools and a host of everyday consumer products much in demand in America, but increasingly not made here.

Import penetration, as it is called, worried economists and policymakers when it first became noticeable 20 years ago. Many considered factory production a crucial component of the nation's wealth and power. As imports gained ground, however, that view changed; the experts shifted the emphasis from production to design and innovation. Let others produce what Americans think up.

Or as Mark Zandi, chief economist at Moody's Economy.com, put it: "We want people who can design iPods, not make them."

But over the long run, can invention and design be separated from production? That question is rarely asked today. The debate instead centers on the loss of well-paying factory jobs and on the swelling trade deficit in manufactured goods. When the linkage does come up, the answer is surprisingly affirmative: Yes, invention and production are intertwined.

"Most innovation does not come from some disembodied laboratory," said Stephen S. Cohen, co-director of the Berkeley Roundtable on the International Economy at the University of California, Berkeley. "In order to innovate in what you make, you have to be pretty good at making it — and we are losing that ability."

Mr. Cohen is a partisan. He was a co-author of the 1987 book "Manufacturing Matters," one of the first to sound an alarm as imports began to displace domestic output. But even the National Association of Manufacturers, which is supportive of members like Whirlpool and General Electric who shift production abroad, agrees that sooner or later innovation and production must go hand in hand.

Franklin J. Vargo, the association's vice president for international economic affairs, sounds even more concerned than Mr. Cohen. "If manufacturing production declines in the United States," he said, "at some point we will go below critical mass and then the center of innovation will shift outside the country and that will really begin a decline in our living standards."

As it is with global warming, the crisis is in the future. Manufacturing output is not likely to fall below critical mass, as Mr. Vargo puts it, in this generation — or perhaps for several generations. The United States is still a powerhouse in manufacturing, and the output of the nation's factories continues to rise. The problem is that the craving for manufactured goods in this country is rising faster than output, and imports are filling the gap, particularly in crucial industries.

Measuring this growing shortfall is imprecise. The government does not do the calculation, and outsiders must put together numbers from more than one federal database to make estimates. Mr. Zandi of Moody's Economy.com calculates that 20.5 percent of the manufactured goods bought in America last year were imported. That was up from 11.7 percent in 1992 and 20 percent in 2004. Only once since 1992 did the penetration rate slip — by four-tenths of a percentage point in 2001, a recession year.

The other big industrial nations — France, Germany, Japan, England, Canada — also find themselves importing more and more of what they consume. In this comparison, the United States is not even high on the list, reflecting its preglobalization starting point in the 1970s as a much more closed economy than the others.

But the country-to-country comparisons hide a disturbing trend. Alan Tonelson, a research fellow at the United States Business and Industry Council, argues that in this country, import penetration is rising faster in core industries like machine-tool building than it is in other countries. And these are the industries that are, or should be, centers of innovation and invention.

“If you keep some production here, that is O.K.,” Mr. Cohen said. “But a lot of companies are not doing that, or slowly ceasing to do so. It is a complicated mosaic.”

Mr. Tonelson's efforts to document the exodus are part of his job. His organization represents small manufacturers who keep production at home much more than a General Electric or a Whirlpool. They suffer from import penetration more than the multinationals. The Business and Industry Council even favors tariffs as a protective measure — a red flag for many mainstream Democrats and Republicans, who shun any suggestion that they might be protectionist.

Still, Mr. Tonelson, using the same data and the same methodology as Mr. Zandi, but delving into individual industries, finds that the United States is importing more than 50 percent — and in some cases close to 90 percent — of the machine tools used in this country, the aircraft engines and engine parts, the parts that go into cars and trucks, the industrial valves, the printed circuits, the optical instruments and lenses, the telephone switching apparatus, the machines that mold plastics, the broadcasting equipment used for radio, television and wireless transmissions. The list goes on.

“It is hard to imagine,” Mr. Tonelson said, “how an international economy can remain successful if it jettisons its most technologically advanced components.”

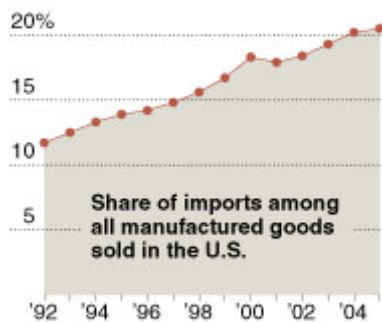
HIS alarm is not widely shared. Most economists and policy analysts say America's growing service sector and powerful financial sector will eventually offset deterioration in manufacturing. In the short run, these optimists count on a falling dollar, particularly vis-à-vis the Chinese yuan, to put a brake on imports by making them more expensive, and to encourage exports by making them less costly in foreign currency. Thus will America gradually reverse its still-ballooning trade deficit.

But implicit in this solution is the belief that industries gone, or nearly gone, will come quickly back to life, and that skills given up can be quickly reacquired.

"Economists assume that the factors of production respond very quickly," Mr. Cohen said. "They don't. If you were a chief executive, would you build an expensive factory here on the strength of a shift in the exchange rate?"

### Importing Production

Imports have been replacing goods manufactured and sold in the United States.



Sources: Census Bureau; Bureau of Economic Analysis; Moody's Economy.com

The New York Times