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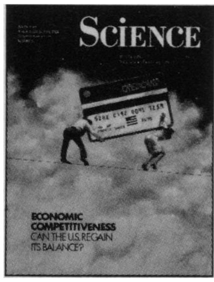

COVER Does it matter whether the United States is competitive in the global marketplace? Several articles in this issue of *Science* focus on that question and how economic competitiveness affects not only individuals and government but also our industries, particularly high-technology industry. See page 299. [Cover design by John L. Heinly, Burke, VA 22015]

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Information for contributors appears on page XI of the 24 June 1988 issue. Editorial correspondence, including requests for permission to reprint and reprint orders, should be sent to 1333 H Street, NW, Washington, DC 20005. Telephone: 202-326-6500.

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Economic Arteriosclerosis and Competitiveness

"How you gonna keep 'em down on the farm after they've seen Paree?" Those lines could be paraphrased today as, "How you gonna get 'em competing again after the spending spree?" The situation facing the United States is probably the most difficult of all possible political problems: here is a nation with lots of jobs and a good standard of living, but also one with a serious economic arteriosclerosis filling up its fiscal arteries. Complacent people do not like unattractive Cassandras saying, "You are living beyond your means, you must change your ways." Worse, when the causes are complex, each participant can blame another, saying, "You've got to shape up, I don't need to change." Management says labor must accept more flexibility and more competitive wages; labor says management must plan more innovatively. Both say politicians must devise tax laws for the future, not just for the short run. Congress says voters want quick fixes, not Spartan self-discipline. Voters say, "Why should I scrimp so that my children can live off the fat of the land?"

The three articles on U.S. economic competitiveness in this issue provide signposts that might help the U.S. economy back onto a more stable pathway. The good news is that the patient is not in a terminal decline, and the malady has been identified.

Hatsopoulos, Krugman, and Summers clearly lay out the dimensions of the problem. The authors point out that over the long haul productivity growth is the main determinant of trends in living standards, and no amount of fiscal legerdemain can obscure a basic weakness. Real wages in this country have steadily decreased, and they will have to diminish further unless productivity and capital investment trends reverse. Capital spending is closely related to the cost of capital. Because the cost of capital is so high here, a U.S. firm that undertakes a project that lowers earnings by $1 a day requires a payoff of 1.2 constant dollars a day in less than 3 years, whereas a Japanese firm could be willing to make the same sacrifice for the same increment 12 years in the future. It is thus inevitable that the Japanese firm can afford to take a longer view. The cost of capital is in turn related to the savings pattern in a country, and U.S. fiscal policy does not encourage savings, either in the private sector or in the government. A large part of savings in the private sector is tied up in residential real estate, which does nothing to reduce the trade deficit.

That there is no quick fix is illustrated by Klein, who points out that the devaluation of the dollar makes U.S. goods more competitive abroad, but that increases the difficulty of paying off the debt. The good news, as pointed out by Young, is that steps are being taken to improve productivity by improved interactions of manufacturers with the research community and by improved efficiency at the manufacturing level. Cooperation between scientists, engineers, and managers is a key step.

The pinch of the global economy has indeed resulted in the need for discipline at both labor and management levels. The question is whether such discipline can be applied at the political level. Hatsopoulos *et al.* point out that U.S. saving is as low as 2% of national income, in dramatic contrast to the average 13% saving rate of the other advanced countries. If our nation is to become genuinely competitive instead of depending on fiscal gimmicks and mutual recriminations, it will have to take the hard steps necessary to reduce the debt, readjust taxes, and opt for deferred gratification. Fortunately, there are devices that can set the economy on a better course, but they require significant changes in the tax incentives, with emphasis on long-term investments rather than short-term profits. There are tough political choices ahead, and the United States is currently in the middle of a presidential election campaign. That election could present a welcome opportunity if the candidates are asked to speak these economic issues realistically.

"Eat dessert first, life is uncertain." That T-shirt slogan expresses the fiscal policy of the United States at the moment. It is a prescription that can make the system fat, happy, and dangerously clogged with cholesterol. Economics has been called a dismal science, possibly because, like the second law of thermodynamics, it eventually confronts us with the fact that none of our easy ways out are viable. Nations faced with dilemmas like this have responded well, once a true crisis has developed. The intriguing question in this case is whether the arteries can be unclogged before or after the first major heart attack.

—DANIEL E. KOSHLAND, JR.