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SCIENCE

The Blind Side of Science Policy

In the on-again, off-again chronology of the President's Office of Science and Technology Policy there has been at least one consistency: it never has had a voice in the economic policy circles of a President. Unlike other advanced nations, both democratic and authoritarian, the United States has not seen fit to make explicit the role of science and technology in mapping economic strategy. We are likely to regret it.

In last year's presidential race, both Mr. Ford and Mr. Carter were questioned about their positions on government spending for research and development. Mr. Carter thought that both public and private R & D should grow as the economy grows, but that it would be wrong to tie R & D spending to any fixed fraction of any macroeconomic indicator, "for R & D is a microeconomic factor." President Ford argued not that R & D promotes the national economy but that a strong economy is a necessary precondition for science and technology.

These views reflect a consensus of opinion across the otherwise contentious spectrum of our political economy. It would be hard to argue that R & D should drive the national economy. But the absence of *any* explicit R & D component in macroeconomics flags a significant and puzzling flaw in our national policy machinery.

It is conventional wisdom to say that we see science and technology as only parts of a large family of forces which influence the quality of the national economy. We subordinate their roles to more important elements: skilled management, product diversification, market satisfaction, modernization, entrepreneurship, ingenious infrastructure, and career self-selection. If these elements are not in place and working, R & D is insufficient by itself. On the whole, the theisis stands up. The trouble is that while it has served to explain the past, it may not be good enough to produce a future.

America's macroeconomic goals are not hard to capture and describe. They are to maintain a high standard of living, to confine unemployment within a range of 4 or 5 percent of the work force, to secure a favorable international trade balance, to minimize extreme swings of the business cycle, to produce enough to meet demand without inflation, and to generate enough real growth to create the jobs needed for a growing labor force. These are consensus objectives.

But it is noticeable that when the economic script goes wrong, we invariably grab for the emergency cords of money and credit policy, tax policy, and spending policy. It is doubtful that it ever occurred to an economic czar that an explicit public policy to strengthen public and private technological drive would contribute something of value to long-term stabilization and growth.

There are signs that the vitality of growth-producing technological effort in the United States is not what it used to be. In industry, despite the impressive dollars assigned to R & D, the mix of spending has shifted strongly away from innovation and toward defensive research and development. The U.S. economy cannot count on much of a future if this scenario continues, resting content with old beliefs in the strictly *micro*economic role of R & D.

Down at the White House, reorganizers are busy with plans to shape up the sprawling Executive Offices. Someone should be thinking hard about new assumptions as to how the Office of Science and Technology Policy can make a real difference in policy planning. Seen from here, an important difference could be made if the science adviser were linked not only to the President's budgetary staff but also to the Council of Economic Advisers. The time has come to deal with the blind side of science policy.

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