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Does science need a tax-break?

SHOULD President Carter introduce generous new tax incentives — in particular increased deductions for money spent on research and development — to help reverse the productivity decline widely claimed as a major source of the nation's economic problems? American business is convinced that he should: the Committee for Economic Development, for example, synthesising the views of many large corporations, said earlier this year that 'top priority' should be given to appropriate tax changes as a means of stimulating technological innovation.

The administration itself is less certain. While accepting the argument that tax relief for R and D could help increase the rate of innovation (and even this is yet to be supported by hard data) administration officials also point to the cost of such measures in terms of reduced federal revenues. Revisions to the tax law have long been promised, and many expected them to be included in the package of measures to spur innovation which the President presented to Congress last autumn. But such moves have since been overshadowed by attempts to balance the budget.

At present, although private companies can deduct R and D expenditures as running expenses, no special incentives exist for investment in R and D equipment. This is in contrast to France, for example, where accelerated depreciation is allowed on all investments in research. Or Germany, where a 7.5 per cent tax-free cash subsidy is granted on money spent on R and D facilities.

Current demands to reduce the tax burden represent the intersection of two trends. The first is a general political thrust to reduce taxes on both individuals and corporations, represented most vividly by a proposal before Congress for an immediate 30 per cent cut in personal income tax. The other is a more detailed argument that, in order to encourage more private R and D, it should be made more attractive than other possible investments — with the tax system being used to this end.

In general the two trends reinforce each other. But there are ways in which they could conflict. For example, political enthusiasm for tax relief to major corporations has produced broad-based support for a bill introduced by representatives James R Jones and Barber B Conable which would shorten the time over which companies could write off capital investments. Rather than using a 'useful life' formula which differs from industry to industry, the bill proposes fixed depreciation times of ten years for buildings, five for machinery and equipment, and three for light vehicles (hence referred to as the 10-5-3 proposal).

Supporters of the bill, which has more than 300 co-sponsors in the House of Representatives and would include R and D equipment, argue that it would free capital for more lucrative investment, and is thus precisely the type of measure needed to raise the general level of economic activity. Critics, however, have suggested that the benefits of such a bill would be skewed in favour of capital-intensive industries, and not necessarily high

technology firms with large R and D costs, where the 'write-off' time may already be short. It is also argued that the Jones-Conable bill would cost \$5 billion in the first year, and \$25 billion after five years — and that the resultant inflationary pressures could outweigh any benefits.

In the light of such objections, a separate proposal has been made by representative Charles Vanik of Ohio. He has proposed a Basic Research Revitalisation Act which would offer tax incentives to companies supporting university research. In particular, companies would be given a 25 per cent tax credit on money deposited in a special research reserve (up to five per cent of the company's business income). And any money taken from this reserve to fund basic or 'exploratory' research in universities could be claimed as a tax deduction, providing it was spent within four years.

Research universities are understandably enthusiastic about the Vanik bill, which has been co-sponsored by over half the members of the House Committee of Science and Technology. As funds for federal support for basic research grow tighter, universities are increasingly looking to industry as a source of financing. A typical example is the announcement expected this week from the Massachusetts Institute of Technology that it is to receive a large grant from the Exxon Company to support fundamental combustion research. Exxon officials have already spoken in support of tax relief for such moves, claiming it would encourage other companies to follow their example.

But the question hanging over the Vanik proposals is whether they would make any significant impact on the problem they are intended to address, namely the nation's declining productivity and the consequent slowdown in economic growth. Most analysts agree that it is not support for R and D itself which is missing, but adequate mechanisms for translating knowledge into useful and acceptable products. A report published last week by the National Science Foundation, for example, shows industrial R and D to be in a surprisingly healthy state, experiencing a five per cent real growth between 1976 and 1977, with a 22 per cent increase in the number of qualified scientists and engineers employed between 1972 and 1977.

Demands for tax incentives to stimulate research, particularly made at a time when the overall level of R and D effort would appear adequate, reflect a desire to short the control of research funds from the public to the private sector. Such a move has obvious attractions to those who would benefit most directly; but whether it is the best solution is a political, not a technical, judgement. The success of Japanese industry in fields from motorcycles to digital watches has been achieved in active partnership with government. In Britain the Spinks report on biotechnology endorses a similar marriage. In the US, the key to rekindling innovation should be better government — not less. □