

BRITAIN

'Cuts' both ways

The UK Government last week unveiled its White Paper on Public Expenditure and dismayed practically everyone. Colin Norman looks at the implications for British science

GRADUAL erosion of government support for so-called big science, such as high energy physics and astronomy, little real growth in other areas of basic research, and a virtual freeze on university appointments. Those gloomy prospects are held out in the White Paper which sets out tentative plans for public expenditure for the next five years, and it represents a painful re-ordering of some of the Labour government's most cherished domestic priorities; it has provoked howls of protest from various sources, including the resignation of a junior minister.

The basic strategy is a desperate attempt to curb the inexorable growth in public expenditure by cutting back heavily in such sensitive areas as education and social services as well as defence. The 'cuts' themselves, which are only being made in the expenditure planned for the next few years and thus aim to prevent the growth in spending which would otherwise have occurred, are designed to have their greatest impact in a couple of year's time: the hope is that their effect on unemployment will be mitigated by the fact that worldwide economic recovery should have filtered through to Britain by then. The proposals should not be taken as Gospel, since they will be reviewed each year and they are unlikely to be put into effect if economic recovery doesn't materialise. But the trends are important, and the dismal state of Britain's economy now seems to make it imperative that some blood will be spilled by the Treasury's knife. For the past couple of years, the government has tried to stave off unemployment by spending heavily on public programmes, with the result that with inflation it has run up a massive national debt, for which it is now forced to make staggering interest payments that could outweigh the savings themselves. Unless the debt and the interest payments can be reduced, politically unacceptable tax increases will be inevitable.

Science and technology

As far as science and technology are concerned, the government is proposing to hold support for basic research constant until the end of the decade. The amount of money flowing to the research councils would increase mar-

ginally this year and next, and thereafter it would decline slightly. Within those totals, however, there is a very deliberate trend away from support of large, capital-intensive programmes, which means that the Science Research Council (SRC) is in for a lean time.

The White Paper itself states that the government intends "to reduce expenditure in the areas of 'big science' (high energy physics, astronomy and space science) supported by the Science Research Council, in order to sustain the other sciences (including applied science) supported by that council, and to enable the Agricultural, Medical, Natural Environment, and Social Science Research Councils to continue to develop programmes based on social need as well as scientific opportunity."

That policy was laid down about a year ago, when the Advisory Board for the Research Councils, an advisory body which recommends how the science pie should be divided among the research councils, suggested that Britain's limited scientific resources should be used to support more people by giving priority to less capital intensive efforts. The result was that SRC's budget was cut by about 2% in 1975, and a similar reduction is expected for each year until 1980.

The axe will fall most heavily on high energy physics, with two accelerators in jeopardy. The first will be the 5 GeV accelerator, known as NINA, which is located at Daresbury, near Manchester. It is due to cease operation at the end of 1977. The other is NIMROD, located at the Rutherford Laboratory, support for which, according to SRC sources, is likely to be reduced although no execution date has been settled.

As for space science, officials in the SRC suggest that British contributions to the European Space Agency will be reduced in the next few years, but the details have yet to be worked out. And the prospect for astronomy is that

there will be no large new capital projects in the next five years.

The other research councils are likely to fare rather better than SRC. The Medical Research Council's funds will grow this year by about 1.7%, those for the Agricultural Research Council are expected to grow by about 2%, and the others are likely to expand in similar fashion.

Additional impact

But there are other proposals in the White Paper which could affect the science budget. Proposed support for higher education has been greatly reduced from previous plans. The target now is for a total student population of some 600,000 in institutions of higher education by 1981; until last week, the target was 640,000. One impact of the reduction, according to the White Paper, will be that "there will be little, if any, scope for increasing total staff numbers after 1976-77." That stagnation in university hiring would follow on equally tight period in academic appointments.

Another dismal aspect of the proposals for education is that "capital expenditure on new buildings, . . . will continue to be severely restricted and more intensive use of available premises will accordingly be required". Failure to commit adequate funds to university facilities is indirectly likely to hurt the research councils. There is some fear that the research councils will find themselves paying for equipment and facilities which would normally come from general higher education support funds. Again, the SRC would suffer most.

In another area earmarked for the Treasury's knife, defence research and development, few details have yet been released. But last week Defence Secretary Mr Roy Mason announced that "we are reviewing the future levels of research and development on defence against chemical and biological warfare carried out at the Porton research establishments, with the object of making significant economies". □

Science Budget expenditure analysed by main forms of research and training support (in £ million)

	ARC	MRC	NERC	SRC	SSRC	Total
Research grants and contracts	1.1	8.3	2.2	19.7	3.0	34.3
Research units	1.2	10.6	0.0	0.0	0.5	12.3
Research Council Establishments	3.5	5.9	12.3	34.7	0.0	56.4
Research Council grant-aided institutes	6.7	0.0	1.3	0.0	0.0	8.0
Postgraduate Awards	0.1	1.9	1.5	10.1	3.9	17.5
International subscriptions	0.0	0.6	0.0	24.7	0.2	25.5
Centrally supported schemes and administration	0.5	1.6	1.9	7.2	1.1	12.3
	13.1	28.9	19.2	96.4	8.7	166.3

Expenditure based on 1975-76 figures, excluding expenditure by the Natural History Museum and the Royal Society (£4.6 million).