

Pl. Agree on R & D with.

+ B. Young 21A



Prime Minister

Agree that Dr. Nicholson's views on priorities be made available to Lord President and Chief Secretary?

I see no reason why this should not be extended to other members of MISC 106.

W0749

PRIME MINISTER

12 October 1984

Agree?

Yes no

AT 12/10

MISC 106: R & D EXPENDITURE BY DEPARTMENTS

1. When I minuted you on the Annual Review of Government Funded Research and Development (W.0495, 27 July 1984), I said that I believed the Review showed Government-funded R & D to be substantially out of balance, the present position having developed over many years as a result of the varying bargaining skills of Departments in the PES round; also that we are over-committed in R & D for defence, agriculture and nuclear energy and under-committed in basic research and in strategic research for areas such as the environment and manufacturing industry. I did, with your agreement, communicate to the Chief Secretary the views that I expressed to you, and provided some guidance for his officials on the questions that could be put to Departments during the PES bilaterals.

2. Following your meeting with Lord Jellicoe and Sir James Gowans on MRC funding, you asked me how areas of Government funded R & D which might be inadequately supported could have their funds increased without increasing overall public expenditure. I pointed out that Government had accepted the validity of the horizontal look at Government-funded R & D in its response to the House of Lords Select Committee report on 'Science and Government' and that the Annual Review of R & D now provided a basis for a judgement to be made on areas of waste in Departments' R & D expenditure and areas which were inadequately supported.

3. With MISC 106 starting to meet next week, I have therefore prepared some further comments on relevant R & D expenditures in MAFF, MOD and DOE which are attached. In summary they recommend that MISC 106 should seek, in full, the suggested reductions in support for agricultural R & D, the burden of cuts falling on support for improvement of agricultural productivity and the associated advisory services; they inform the Committee of the work you have asked to have put in hand on defence R&D that may have implications for the

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next PES round; and they seek to protect the R & D activities of DOE relevant to radioactive waste disposal and other areas.

4. Since you have indicated that you wish to take a co-ordinating role in science and technology issues which straddle the responsibility of several Ministers, you may wish to send the comments to the Chairman of MISC 106 from your office in which case a draft Private Secretary's minute is attached. Alternatively you may prefer me to send the comments direct to the Lord President and the Chief Secretary.

5. I have copied this minute and the attachments to Sir Robert Armstrong.

MBN

ROBIN B NICHOLSON  
Chief Scientific Adviser

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~~DRAFT PRIVATE SECRETARY LETTER~~

to Janet Leary Jones

MISC 106: R & D EXPENDITURE BY DEPARTMENTS

The Prime Minister has received the attached comments from the Chief Scientific Adviser, Cabinet Office, on the R & D expenditure of Departments whose bids will be considered by MISC 106, and where R & D constitutes a significant element of their expenditure.

The Annual Review of Government-funded R & D announced in Cmnd 8591 (Government observations on the report "Science and Government" from the House of Lords Select Committee on Science and Technology) was established to take a horizontal look at Government-funded R & D plans in the PES cycle. The 1984 Review, together with the views of the Advisory Council for Applied Research and Development (ACARD) on the expenditures covered in the Review, were drawn to the attention of members of the Cabinet (David Barclay's letter of 6 August) . In addition, Dr Nicholson subsequently gave the Prime Minister his personal impressions, based on the scrutiny of Departmental objectives and expenditure plans made by his Secretariat while preparing the 1983 and 1984 Annual Reviews.

The Prime Minister has noted Dr Nicholson's view that generally the picture is one of rigidity and lack of change to meet changing circumstances, with the distribution of Government-funded R & D substantially out of balance. She endorses the validity of the overview approach advocated in Cmnd 8591, and accepts that for the Review process to succeed, the need for cuts in some areas of R & D will need to be examined alongside the need for maintenance of R&D expenditure or even increases in expenditure in others.

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The Prime Minister has previously indicated that she will take a co-ordinating role on science and technology issues which straddle the responsibilities of several Ministers. She believes that <sup>it will be helpful to members of MISC 106 to be aware</sup> ~~the correct~~ distribution of Government funded R&D should be a factor in the MISC 106 discussions and that the ~~advice~~ of ACARD and Dr Nicholson should be taken into account.

I am sending a copy of this letter and the attachments to the Private Secretary <sup>to</sup> of the Chief Secretary. <sup>reference of MISC 106, to Richard Hatfield</sup>

<sup>and</sup> ~~Admiral~~ <sup>Nicholson</sup>  
(Cabinet Office)

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COMMENTS FROM THE CHIEF SCIENTIFIC ADVISER, CABINET OFFICE, FOR MISC 106

Ministry of Agriculture, Fisheries and Food - support for reductions  
proposed by MISC 100

1. Two areas in which Government support should be reduced are for R & D and for the Agricultural Development Advisory Service (ADAS). MISC 100 recommended that MAFF's expenditure on agricultural R & D should be halved but had to treat ADAS as sub-judice because of the in-house review in train.
2. MAFF will probably seek to delay decisions on R & D funding pending the outcome of further reviews and advice by the Priorities Board. MISC 106 should ignore such arguments, since it is highly unlikely that the Priorities Board will recommend that R & D support should be reduced. A halving of support for R & D by the end of the PES period would not be unreasonable.
3. MISC 106 may wish to consider the areas of MAFF R & D activity where they would wish support to be reduced. The following table taken from the 1984 Annual Review of Government-funded R & D shows the purposes of projected expenditures of MAFF for 1985/86 -

	£m
Supporting statutory duties	13.4
Supporting purchasing duties	0.1
To improve technology	103.2
Supporting policy formulation and implementation	10.5

It would be difficult to argue the case against support for R & D in relation to the statutory responsibilities of the Department, since such expenditures stem from the Government legislation - even though some of the routine monitoring carried out by MAFF is undertaken voluntarily and the value of some of this work is questionable. Similarly, there is no obvious argument against R & D expenditure to support policy formulation. One would need more information on MAFF policies in order to understand the R & D expenditures involved. The expenditures to improve technology are by far the largest and most difficult to justify. The major proportion (£86.5m) supports research in agriculture. Such a

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high level in support of improvement of agricultural technology must be questionable given the very large subsidy which farming incomes already receive under CAP arrangements.

4. The long-awaited review of ADAS is, I am told, now complete although I have not seen a copy. Farmers support for improving technology through ADAS is additional to the R & D expenditure quoted in paragraph 2. Roughly half the MAFF complement is composed of ADAS officers and although MAFF claim that more than a third are concerned with statutory duties, this does not seem to be their main activity and the majority are concerned with general advisory duties whether in agriculture or agricultural science. Such officers are engaged in advising farmers on the results of R & D. Any reduction in the R & D budget could therefore produce further savings in the ADAS Agriculture Service. Similarly the ADAS Agricultural Science Service would need to be examined, since it is largely concerned with the exploitation of R & D and any reduction in R & D should again produce savings. MAFF is protectionist about ADAS (attention is rarely drawn to manpower, interest areas, cost effectiveness, etc) and may, if MISC 106 were to allow latitude, apply the cuts elsewhere.

Conclusion

1. MISC 106 should seek to implement, in full, the MISC 100 proposals for reductions in support for agricultural R & D.
2. The burden of cuts should fall on support for improvement of agricultural productivity and the associated advisory services.
3. As a consequence of this reduction, further savings in Government support for the agricultural advisory services should accrue.
4. MAFF should be directed by MISC 106 to ensure that reductions are made in the areas designated and not spread across the board.

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Ministry of Defence - status of current studies

1. The Advisory Council for Applied Research and Development (ACARD), commenting on Government-wide R & D funding plans revealed in the 1984 Annual Review of R & D, said that the justification for so much defence R & D should be closely examined. ACARD argued that current and projected levels of Defence R & D expenditure preempt a significant fraction of the Nation's R & D resources, especially in areas of actual or potential growth, and that the return to the economy of expenditure on Defence R & D is significantly less than that of expenditure on civil R & D in the same industrial sectors. The Prime Minister has asked Sir Robert Armstrong to advise her on how the issues raised by ACARD can be considered interdepartmentally.

It is expected that a group under Cabinet Office chairmanship will begin work when the current PES round is completed, and will report to Ministers by the end of June 1985.

2. The Prime Minister has also asked for there to be an examination of the case for transferring a sum (such as £20m) from MOD to the Science Vote, for basic or strategic research of interest to MOD to be undertaken through the universities and Research Councils. The proposal, made by Sir Keith Joseph, is now being examined by the Chief Scientific Adviser (Cabinet Office) together with the Chief Scientific Adviser (MOD) and the Chairman of the Advisory Board for the Research Councils. The likely outcome of such a transfer in terms of the strength of the science base in the country as a whole and the MOD's ability to use this base to fulfil its responsibilities for the defence of the country will be considered.

Again, it is expected that a report on this question will be available for the next PES round.

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Department of the Environment - need to protect R & D budget

Treasury have argued that the funds required for the rationalisation of the Building Research Establishment sites and for newly levied VAT on UKAEA research contracts should be found from offsetting savings, and that the "DOE - Other" programme as a whole should take its share of savings to be found across the board. Such an outcome would result in reductions in the volume of R & D being conducted in support of important Government policies (on radioactive waste disposal, housing, the inner city) and in R & D in support of the construction industry which already receives much less R & D support than other industrial sectors. I must advise against any cuts falling in this way and recommend that DOE R & D budgets are maintained at their current level.

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SCI  
Econ 101: Public Expenditure R2

Structure of the assignment - 100 marks

The assignment is divided into two parts. Part 1 is a short answer question (20 marks) and Part 2 is a long answer question (80 marks). The short answer question asks you to explain the concept of public expenditure and its components. The long answer question asks you to discuss the impact of public expenditure on the economy and the role of the government in providing public goods. You are required to use appropriate economic theory and diagrams to support your arguments.