

for a moratorium. All the committee will do is outline what will happen if various courses of action are taken.

The best that can be hoped for is that the quota on fin whales will be further reduced, that firm quotas will be established for other species—minkies and sperm whales in particular, that a permanent secretariat, including a number of scientists, will be established, and that a more successful attempt will be made to bring the non-IWC members into the camp.

Some improvement in monitoring the number of whales caught during the season would also be welcome. Monitoring is at present the task of the International Bureau of Whaling Statistics. This year when it set the date for the end of the season, the rate of catch promptly doubled, so that 745 minkie whales over the 5,000 quota set in the Antarctic were taken.

It is in any case as well that a total moratorium on whaling will not be declared by the commission. The IWC has no hold over its members other than the hold of public opinion. Although Japan has been party to agreements to limit the numbers of certain species taken, she has still, for the past four or five years, taken whales outside her quota using a whaler sailing under a Brazilian flag (Brazil not being party to the IWC). The commission's constitution even allows for commission members to flout the commission's agreements, while still remaining members. If a total moratorium were to be imposed, it is more than likely that Japan and the USSR would ignore it, thereby destroying the IWC.

OECD

Research Efficiency

THE scientific standing of the smaller countries in Europe "is out of all proportion to their comparatively limited resources" according to the Organization for Economic Cooperation and Development. But several arguments suggest that "this very high grade research effort (cannot) be profitably continued, particularly in university laboratories, purely by following the main trends of international scientific activity as in the past".

This verdict emerges from the second of the OECD's expected three volume analysis of the research systems in the major European countries and North America. The countries involved in the present study are Belgium, Netherlands, Norway, Sweden and Switzerland. (*The Research System*, Volume 2, OECD, £2.38.)

The current volume is the successor to the report in which the research council system in Britain was compared with the funding organizations for science in France and West Germany.

The patterns of research in the two sets of countries are very different, and this is based, the report says, in the conduct of scientific and technological activities particularly in relation to economic activities. As the report points out, in the set of countries analysed in the present report "whatever may have been the constraints of international competition, research and development policies have pursued a steady path." This contrasts sharply with the progress of science in Britain, France and West Germany which has developed according to a "saw tooth pattern full of sudden changes and sharp breaks".

The report states that the "scientific area which the smaller countries occupy in the mass of knowledge produced throughout the world seems far greater than their 'economic space'." But the OECD examiners feel that the high grade research effort present in these countries cannot continue profitably, particularly in university laboratories. They quantify their argument by pointing out that:

- As the volume of world research continues to increase so will the number of branches of research. If these countries attempt to follow every line then "scientists in countries of limited resources will court failure by dispersing their efforts".

- Several fields of research, especially in physics, are particularly attractive to researchers but their economic value is dubious and the research tends to be expensive.

- Considerable capital expenditure is needed in many scientific sectors where research cannot make further progress without much capital and without setting up large teams.

- International technological competition will force nations to make choices and to specialize more narrowly in the industrial rather than in the pure research sector.

The OECD, in its own way, advises these countries that little progress can be made in the future without scientific effort being based on an overall strategy or, in other words, a national policy for research. Britain, of course, does not subscribe to this view and the OECD report does acknowledge that the need for countries to work out national research strategies is not always economically urgent.

Readjustment is the key word for these five countries, according to the report. None of the countries has assumed responsibility for large scale technological development — like the large industrialized nations—and so the difficulties of readjustment are not as large as they could be. Resources can be reallocated without large scale redundancies among scientists and engineers.

But the real challenge is yet to come.

The capacity of these countries for readjustment in the industrial fields has already been shown, but will they succeed in harnessing this capacity with the same energy in the solution of their major socio-economic problems? The crucial question, according to the report, is whether "they will be able to equip themselves with institutions devoted to scientific research which are capable of making the most rigorous and essential choices and yet avoid paralysing unofficial initiative with red tape." The OECD, this time, has hit the question right on the head.

ROYAL SOCIETY

Financial Problems

THE Royal Society is to double its fellowship fees. At a recent meeting of the fellowship it was agreed that the annual subscription fee will go up from £10 to £20. This decision has still to be ratified by July 12's council meeting and the society's statutes will have to be changed before it comes into effect.

The reason for the rise is simply impecuniosity. In spite of the large grants that the Royal Society handles from Parliament, the society's general purposes fund, which is used to run the society's own business, has fallen into deficit. The account was £100,000 down last year, double the deficit in 1971.

The situation is being aggravated by the fact that many of the covenants that the Royal Society received in 1966 and 1967 just before it moved to Carlton House Terrace are now running out. These covenants produce an income of £50,000 a year. The society has also been hit by the £30,000 loss made on its publications last year, the first loss recorded for 18 years.

Sir David Martin, the Royal Society's secretary, said this week that doubling the subscription "will only be a small help". The society only has just over 850 fellows, so that an increase of £10 a head will only raise something under £9,000. But, says Sir David, "by beginning with an increase in the fellows' subscriptions, we are at least showing that we are willing to help ourselves".

Like many other scientific bodies — the Royal Institution for example, which has largely weathered its immediate financial problems (see *Nature*, 243, 3; 1973)—the Royal Society has been hit by inflation. The society has always tried to keep its publications work at just better than break-even, with price increases infrequent. The cost of some of the society's publications has already gone up this year—the *Proceedings* for example—and the society is clearly going to have to make a little more profit in future from publications in order to help make ends meet. A further appeal to help redress the general purpose fund's deficit is also likely.