

the OECD OBSERVER

THE RELATIONSHIP BETWEEN SCIENCE
AND ECONOMIC GROWTH. FIRST STEPS
TOWARDS A HARMONISATION OF HEALTH
REGULATIONS. THE RÔLE OF TECHNICAL
ASSISTANCE IN ECONOMIC DEVELOPMENT.
WORKING TO AVOID DOUBLE TAXATION.



12-30-63
 ✓ OS/EA
 ✓ WC/OS/MA
 CFA - Keller ✓
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 Lusk ✓
 Labor - 2 ✓
 Treas - 2 ✓
 FRB - 2 ✓
 Comm - 2 ✓
 CIA ✓
 ✓ OST - Beckler / Robin
 ✓ Sec - Kovach / Thomas
 ✓ NSF
 ✓ AEC - Burke
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*President
John F.
Kennedy*

Normally one would not expect a head of State to have much to do with an international organisation, but the OECD owes unusually much to the late John F. Kennedy because of his invigorating influence in its formative stage.

He became President of our biggest Member state just after the signature of the Convention, and his Administration made the United States a very active partner in our work. He understood the interdependence of the continents which he stressed in a famous speech. If the OECD has become a real Atlantic organisation, it is to a large extent due to the wholehearted participation of the Kennedy Administration.

The President personally took a lively interest in economic affairs. He asked his advisers for papers every now and then, and he found time to read them in spite of his enormous workload. It was highly stimulating to discuss our problems with him. He asked good questions, and his own answers were quick and to the point.

It is difficult to accept that he is no longer among us. We will always remember him as an exceptionally courageous and positive leader of men in a troubled world.

Thorkil KRISTENSEN,
Secretary-General of the OECD.



STATEMENT BY THE OECD MINISTERIAL COUNCIL

The Ministerial Council of the OECD held its annual meeting in Paris on 19th and 20th November, 1963, under the Chairmanship of the Honourable Halvard Lange, Minister for Foreign Affairs of Norway, and reviewed the economic prospects for its twenty Member countries and their economic relations with the rest of the world.

The prospects for economic growth in Member countries are on the whole better than last year. The United States, the United Kingdom and Canada are now progressing at a faster rate. In other

Member countries expansion continues. In the expectation that this growth will be supported by suitable measures in the United States and other countries, the increase of the gross national product of the OECD area as a whole for the years 1960-64 will probably correspond to the growth target of 50 per cent set for the decade of the 1960s by the first Ministerial Council in 1961.

The importance of internal stability for balanced economic growth was stressed. Costs and prices in a few European countries are rising rather rapidly.

A stabilisation plan is being put into effect in France. Measures have been taken in Italy; further steps must be envisaged.

As regards international payments, measures undertaken by Member countries, and the recent trends of trade among them, have begun and should continue progressively to create better equilibrium between the deficit and surplus countries. It is important that measures adopted by all Member countries to deal with their internal economic situations should continue to take into account their effects on the general equilibrium of international payments.

In Member countries in the process of development, economic growth in recent years has generally been somewhat faster than in the OECD area as a whole. However, it can hardly be said that the desirable narrowing of the gap between these and other Member countries has really begun; much remains to be done.

The Ministers considered it desirable, therefore, that the Organisation and its more developed Members should continue to devote their attention and co-operation to the development problems of the less-developed Member countries.

Ministers noted with satisfaction that a new Spanish development programme will be inaugurated in 1964. The Ministers also reviewed the situation of the Consortia for aid to Greece and Turkey and reaffirmed the importance which they attached to the efforts of Member countries in support of the development of these two countries, particularly by the provision of long-term development capital on favourable terms.

Ministers reviewed the work of the Organisation in the fields of agriculture, industry and manpower, and agreed that this work should increasingly be directed to the problems of adaptation arising from changes in the economies of Member countries. They considered in particular that the Organisation should pursue its work on an active manpower policy, and on the retraining of manpower as well as on mobility of manpower and industry.

Ministers noted with satisfaction the results of the Ministerial Meeting on policies for Science and Technology on 3rd and 4th October, 1963.

The Ministers noted that development aid has been maintained at a high level and on improved terms, although the earlier rate of increase has not continued. The needs of the developing countries are, however, increasing, and great problems lie ahead. Past results have depended largely on public support in Member countries. The provision of aid to meet the expanding needs of the less-

developed countries will depend even more on such support in the future and will be related increasingly to measures of self-help in the recipient countries.

The Ministers emphasised the value of the confrontations of national aid programmes through the Organisation, and asked Members further to coordinate their efforts with a view to making aid more effective in response to priority needs in the less-developed countries. They also welcomed the intention expressed by the Members of the DAC of relating more nearly the terms of aid to debt-servicing capacities of recipients. Important steps had been taken by some Members in this connection during the past year. Ministers noted the decline in private capital movements from the industrialised countries to the less-developed countries and asked the Organisation to consider further what steps might be taken by industrialised and less-developed countries to increase the flow.

The Ministers welcomed the establishment of the OECD Development Centre.

Since last year's Ministerial Meeting, the Organisation has devoted a great deal of attention to the ways and means to increase the export earnings of less-developed countries, Member and non-member.

The bulk of the exports of the less-developed countries still consists of primary products of which OECD countries are the main importers. Various methods for stabilising and increasing the export earnings from these commodities are now being studied. Ministers stressed the importance of this work. Member countries should join in efforts to improve the market conditions for primary products.

Increasingly, however, the less-developed Member and non-member countries need to diversify their economies and encourage the production of manufactured articles for their own markets and for exports. The industrialised countries of the OECD should facilitate this development by providing enlarged access to their markets for these products. The Ministers noted with approval that full reciprocity from less-developed countries was not being demanded for the tariff reductions expected from the forthcoming round of GATT tariff negotiations.

Ministers instructed the Organisation to continue work and consultations concerning the trade problems of the less-developed countries.

They voiced the determination of their Governments to prepare for the United Nations Conference on Trade and Development in a constructive spirit.



Mr. Halvard LANGE
*Foreign Minister
of Norway*

In this interview with The OECD Observer Mr. Halvard Lange, Foreign Minister of Norway, reflects on the outcome of the OECD Ministerial Meeting held on 19th-20th November, of which he was Chairman. At this meeting it was decided to set up an ad hoc working party to study the problems to be considered by the United Nations Conference on Trade and Development to be held next Spring.

Mr. Lange, son of a Nobel Prize winner, has been Foreign Minister of Norway since 1946 except for a month's break this Summer. In this capacity he has participated in many international conferences of the United Nations, NATO and the Council of Europe as well as those of OECD and its predecessor, the Organisation for European Economic Co-operation. He was elected Chairman of the OECD Council at Ministerial level for the year 1963.

NOT DRAMATIC - BUT ESSENTIAL

*Interview with the Chairman of the 1963
Ministerial Council meeting of OECD*

*What are — in your opinion — the
main results of the OECD Ministerial
Council meeting?*

I would say that the main result is that it is clearly established that all the Member countries want to push on with their efforts to improve their policies of assistance to the developing countries, and to harmonise their policies in this field to the widest practicable extent. We have an important world conference on trade and development ahead of us in March next year. It is important that we all take a constructive approach to the immensely difficult problems which will be dealt with at that conference.

Since you ask about results of the Ministerial Council, I want to stress that in the OECD we do not, as a rule, try to reach "results" in the form of resolutions or formal commitments. We did that in the forerunner Organisation, the OEEC, particularly in such fields as liberalisation of trade and payments from all the restrictions placed upon our economies by the war and post-war reconstruction. The OECD is above all a meeting place for officials with important economic and political functions in the industrial countries. Dealing with economic problems ranging over a wide field — from international payments to science and agriculture and assistance to developing countries — our high officials and experts meet at the Château de la Muette. They compare notes, try to understand each others' views and take them into consideration in their work in their own countries. This is in itself a co-ordinating activity in the sense that we try to take into account the international impact and repercussions of our national policies. Aiding in this process is a competent team of international civil servants and experts. All this is not very dramatic, not very much in the public eye, but nevertheless essen-

tial. It goes a long way to explain why we do not any more encounter the devastating economic crises so well known from pre-war history. By this inconspicuous process an international milieu is created from which all Members derive stimulating impulses.

Do you feel that the main job of the OECD to-day is to solve problems among its Member countries, or is it rather within the area of economic relations between industrialised countries and third countries?

I would say that our main job lies in the field of economic relations with third countries. We have, after all, quite good reasons to be satisfied with the development in the countries bordering the North Atlantic Ocean. Two years ago we set ourselves the target to reach a 50 per cent increase in gross national product during the decade 1960-70. As matters stand to-day it looks as if that ambitious target is, broadly speaking, well within our reach. Within such a big group of 20 countries the expansion must of course be uneven. In particular there is the difficult problem of improving conditions of developing Member countries more rapidly. But overall growth within the OECD area is not unsatisfactory.

I certainly do not want to pretend that we hold the keys to the solution of all problems such as maintaining price stability with a high rate of expansion, and in this situation to establish a reasonable balance in international payments, but we now have a much better insight into those problems than we used to have a few years ago. We have benefitted greatly from services rendered by the Secretariat of the OECD and our expert committees.

The improvement of the instruments in economic policy and the recognition that our problems are interdependent — the internationalisation of economic policy, if you like — make it more likely that we shall be able to steer the international economy past the unfortunate road-blocks of former days.

I would like to mention one specific question in this respect. That is the need to improve statistics for international capital movements. With improved statistics we shall be able to deal more effectively with problems in international payments.

Now, when you come to the problems of the developing countries and our relations with them the situation is quite different. We still need much more knowledge of the difficult economic, social and human problems involved in a rapid development of retarded

economies. We need to improve our efforts both quantitatively and qualitatively and, let me be quite blunt, that goes for the developing countries as well. There is a need for more effective direct assistance, but there is above all a need to develop patterns of trade which can lead to increased export earnings of the countries in process of development. This is the task to which we shall now above all devote ourselves. It raises extremely complicated problems. Let me mention some of them: What is the right balance to strike between multilateral and bilateral assistance? In what way can assistance from outside best stimulate the efforts of the developing countries themselves? Should it be in the form of public grants, loans, export-credits, or the stimulation of the flow of private capital? Should contributions be tied or untied? Should one concentrate upon export of capital or upon technical assistance?

Also in the field of "trade not aid" various problems arise. When for instance establishing an international raw materials agreement, how can over-production be avoided at the same time as the price level is stabilised on a satisfactory level? Are preferential arrangements in one form or another necessary in order to develop and diversify production in developing countries? Could we depart from well established international rules and obligations such as the most favoured nations clause without opening the door for a spreading of discriminatory practices which in the end may do harm to the developing countries themselves? I shall not try to answer these questions — they probably have no simple and clear-cut answer anyway.

As time goes on we shall have to find a "mixture" of policy measures to stimulate the economies of the developing countries. Success in these efforts is crucial, and may in the end be decisive for peace and progress in the world as a whole. Even if we, the richer countries, appear to make sacrifices, this is not charity, it is a matter of self interest.

Do you include Japan in the aspect you have just mentioned?

YES, I do, because Japan has been invited to become a full Member of OECD. Being one of the fastest growing industrial and trading nations of the world, she should be a very valuable new Member who is in a position both to benefit from the work of the Organisation and to undertake the obligations of membership.

DEVELOPMENT ASSISTANCE EFFORTS AND POLICIES

The following extracts are taken from the report by Mr. Willard Thorp, Chairman of the OECD Development Assistance Committee, on the results of the 1963 Review of the Development Assistance Efforts and Policies of Members of the Committee (1).

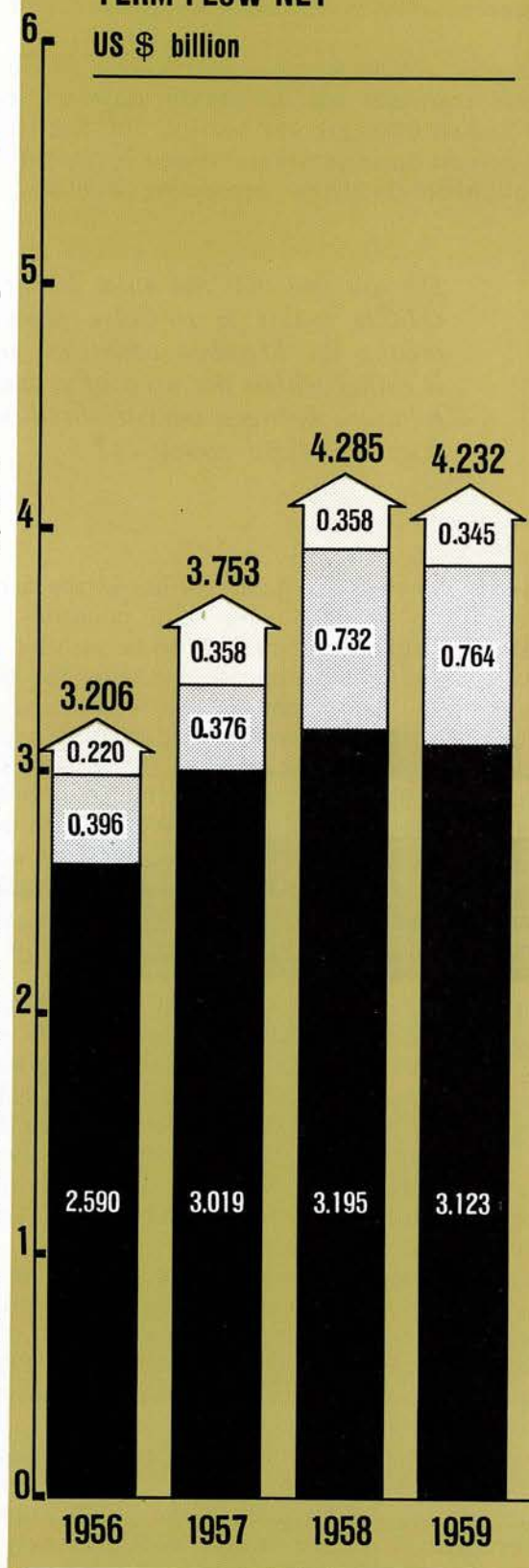
THE FLOW OF OFFICIAL RESOURCES

The flow of financial assistance to the less-developed countries continued during the year (1962) at approximately the level reached in 1961 while the volume of technical assistance recorded a large increase. The year was notable for the emergence of a broad and vigorous effort on the part of the aid-providing countries to appraise and improve the policies and operations of their assistance programmes.

The recent level of official disbursements was attained in a series of important annual increases. Since 1956, the first year for which comprehensive data are available, this flow has almost doubled. The only years in which the rate of increase in the net official flow has fallen below ten per cent have been 1959 and 1962. To some extent this growth in volume of aid has been due to the impetus given by the setting-up of new development assistance programmes in countries such as Germany, Italy, Japan and the Scandinavian countries which did not start from a position of having special responsibilities towards particular groups of less-developed countries, but the growth has by no means been confined to these countries. The increase in the total could not have been achieved without substantial increases on the part of countries such as France, the United Kingdom and the United States.

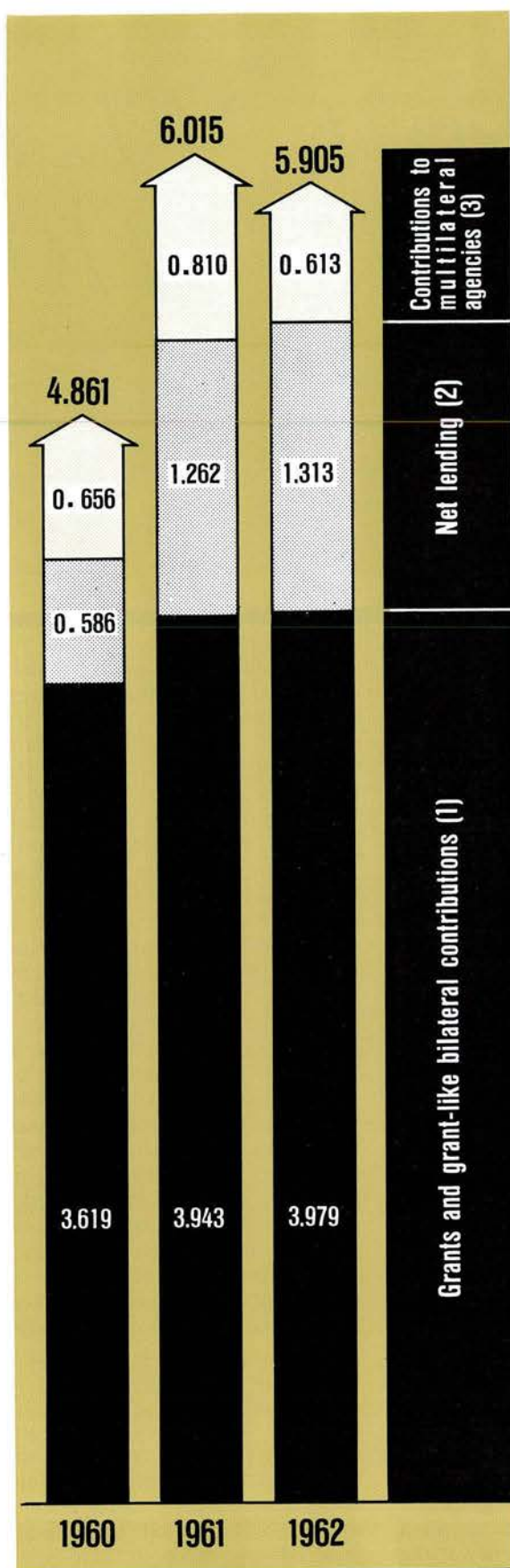
TOTAL DAC OFFICIAL LONG TERM FLOW NET

US \$ billion



1. Including also reparation and indemnification payments, loans repayable in recipients' currencies and transfers of resources through sales for recipients' currencies
2. Gross bilateral lending minus capital repayments
3. Including net official purchases of securities of multilateral organizations

(1) The members of DAC are : Belgium, Canada, Denmark, France, Germany, Italy, Japan, the Netherlands, Norway, Portugal, the United Kingdom, the United States, the Commission of the European Economic Community.



Note : These figures incorporate revisions to country data made since publication of the Chairman's Report

THE TERMS OF AID

Two main tendencies have been evident in bilateral lending operations over the past few years. First, the volume of loans has risen rapidly, tripling in gross amount between 1956 and 1962 and constituting a rising proportion of new financial assistance. Second, the impact of this greatly enlarged volume of lending on the debt-servicing burdens of the recipients has been mitigated by a softening of terms in respect both of interest rates and of periods of repayment.

Even if there were no further increase in total debt, debt-servicing would continue to rise as grace periods expire. But a continuation of present trends for a period even as short as five years must have serious consequences.

CO-ORDINATION OF AID EFFORTS

The need for closer co-ordination of assistance efforts arises from the great variety of sources of external finance and technical assistance and the increasing number of less-developed countries in which several donors are simultaneously providing aid.

The co-ordination of DAC efforts through special groups and meetings to consider aid problems, in particular countries and regions, will undoubtedly be further extended, and it has also been proposed that the meetings to consider regional problems should be put on a regular basis.

TECHNICAL CO-OPERATION

Many less-developed countries need substantial technical assistance as a prerequisite for the effective utilisation of capital aid and for the carrying out of other projects. Despite the recent expansion in this type of assistance, the recent review by the DAC's Technical Co-operation Working Group has underlined the urgent need to increase the supply of qualified personnel who can provide technical assistance, to improve the selection, supervision and management of technical assistance projects, and to assess more precisely the real needs of the less-developed countries in this respect. Studies of human resource requirements to be undertaken pursuant to recent decisions of the Technical Co-operation Working Group will be a step in this direction.

PRIVATE CAPITAL

Measures to expand the flow of private capital demand special attention, in view of the failure of funds from this source to show any increase in recent years. In view of the potential contributions which can be made in this form, the forces restricting private foreign investment should be more clearly established in the hope that ways can be found to stimulate an increased flow of private management and technical skill as well as of private capital.



The problem of **FLAG DISCRIMINATION**

The question of flag discrimination has occupied an important place in the deliberations and the annual reports of the OECD Maritime Transport Committee. In this interview with the OECD Observer, Dr. J.J. Oyeveaar, Chairman of the Committee, discusses the problem, without necessarily expressing the opinion of OECD. He begins by explaining the meaning of the term.

FLAG discrimination is preferential treatment for the ships of a particular flag, against the ships of other flags. It takes many forms, but the worst cases are those where governments by legislation or decree reserve part or all of their countries' imports and/or exports to ships of their national fleet, or accord privileges for these ships by way of tax concessions or rebates, differentials in exchange rates, berthing priorities.

Is flag discrimination always wrong and if so, why?

It is always wrong because it disregards commercial considerations, is in restraint of free trade, and is therefore potentially damaging to world economy. In shipping, perhaps more than in any other industry or service, complete freedom to compete without governmental restrictions of any kind in the commercial field for the carriage of the world's trade is imperative, because shipping is an international service and can best contribute to world economy in conditions of competitive freedom. Only in such conditions can transport costs be kept down.

If this is so, what are the reasons which induce governments to discriminate in shipping?

Discriminatory action in shipping by governments is the result of their creating or maintaining national merchant marines

which can only operate at a loss without State aid. Whilst some governments provide such aid by direct subsidies, most of such governments prefer the indirect method provided by discriminatory measures, because the latter throws part of the economic burden on to the shoulders of other countries, whereas a subsidy comes entirely from the pockets of the national taxpayer.

Why should governments wish to create or maintain national merchant marines which are uneconomic?

Such governments employ several different arguments, the principal of which are national prestige — a symbol of status; defence; the saving of foreign exchange; and the improvement of national trade. Sometimes there exists, too, a suspicion that established shipping services charge too high rates.

How valid do you consider these various arguments?

Before considering this question, we should, in the first place, look at the standard or criterion which applies to them all — namely the amount of money at the disposal of the government concerned. The creation and maintenance of an uneconomic merchant marine involves financial outlay on the part of the country to support it, and increases the cost of transport; because where competition is

denied, inefficiency and increased charges inevitably result. Thus a country needs to have plenty of spare cash, if it is going to afford the luxury of embarking on investments in uneconomic projects. On the other hand, most of the countries adopting this policy are financially weak — many of them dependent to a large extent on aid from the industrialised countries.

The history of merchant shipping points several morals. How and why were the merchant marines of the "traditional" maritime countries developed? The answer is so simple. Take the case of three of the greatest — Norway, the Netherlands, and the United Kingdom. Neither Norway nor the Netherlands are rich in indigenous resources, and one of their best and only possible contributions to viability was to develop their merchant marines. They did it the hard way — no "aid" from industrialised countries — they were forced to pay their way. In the case of the United Kingdom — a small island dependent for her life on her exports to purchase the imports which she cannot produce — there was the same need to develop the means of ensuring shipment of her trade.

In the facts of today, the same arguments are no longer cogent. Most of the new countries produce basic commodities and are developing their indigenous industries. They need their finances for these developments. There is not the same compelling need to build ships, because there already exist adequate shipping services throughout the world. Indeed, in regard to shipping itself, many of these countries have inadequate port, storage, and inland transport facilities



to cope with their growing export and import trade. The cost of their exports and imports could be appreciably reduced if they invested whatever financial resources they could spare in port development schemes and improvement in hinterland communications, whereas by investment in uneconomic merchant marines this cost is increased.

Assuming the truth of what you say, what are the answers as to the respective validity of the various arguments advanced for uneconomic merchant marines?

All right, let's take them in turn. First of all you have *national prestige*. This is a luxury in which a country should only indulge if it has adequate capital resources to devote to uneconomic projects, after developing those projects which will genuinely produce profitable results.

Then, *defence*. This argument has more validity, but is not in itself an overpowering reason for devoting money to an uneconomic project. The prospects of global war are gradually receding: indeed, in any case the likelihood of a long-drawn-out conflict like the last two world wars is remote in the atomic age, and there can now be only a minimum danger that any uncommitted country would be reduced to starvation through lack of shipping in an international conflagration.

Now, as to *the saving of foreign currency* — here again there is some validity in the argument, but it is not as simple as it might appear. When one allows for the

expenditure of foreign ships using the national ports — sometimes as much as 50 per cent of the freight — and the expenditure in foreign currency of national ships using foreign ports (including crews' spending); and when one bears in mind that new or second-hand ships have in the case of the countries concerned usually to be paid for in foreign currency, the foreign currency saving when set against the foreign currency expenditure of financing the national fleet can easily be exaggerated.

Then I mentioned *the improvement of national trade*. Some countries argue that the expenditure involved in maintain-

ing (at least for a time) an uneconomic merchant marine is justified because the services of foreign ships are not adequate to develop the growing potential of the country's imports and exports. Only by ensuring a flow of national ships will they be able to develop their foreign trade. Commercially, this is a very unconvincing argument because it is a well-established maxim that where there is the trade there will be the ships. Shipowners want cargo, and will send their ships wherever there are prospects of cargo. What does impede the development of a country's foreign trade is inadequacy of port and inland transport facilities, as I said before.

You also mentioned a suspicion in some quarters that established shipping services charge too high rates. Is there any truth in this contention.

This argument needs careful consideration. It is directed mainly against "Shipping Conferences". The "Conference" system has been in existence for over 80 years. A "Conference" consists of a voluntary association of a number of shipping companies to provide a regular service between fixed ports or countries at agreed freight rates. The advantage is that merchants (shippers) are thus assured of continuity of service and stability of freight rates, at least for a fixed period. The disadvantage is that a "Conference" could degenerate into a cartel or monopoly which maintained unjustifiably high rates. This is what some countries fear. There are, however, two very strong commercial factors in favour of the "Conference" system. The first is that it has been proved over so many years, and that it

has the support of the vast majority of merchants throughout the world. The second is that in conditions of free competition, "outsiders" would very rapidly replace "Conferences" if the rates charged enabled excessive profits to be made. In a short chat of this kind, I can't possibly deal in detail with the various facets of the problem; but these two commercial factors in themselves are strong proof that "Conference" rates are generally reasonable.

The conclusion then is that whilst a country's aspirations to develop a merchant marine of its own are natural and readily understandable, the use of flag discrimination to achieve this object can never be justified — at least in terms of world economy.

The Free Trade Unions and OECD

The Trade Union Advisory Committee is one of the five international non-governmental organisations recognised by the Council of OECD as expert advisers. As such, TUAC helps in the drawing-up of OECD operational programmes affecting labour, and the planning and follow-up of seminars, study missions, training courses and lectures, some designed for trade union participation only, others in which employers'

The Free Trade Unions of Western Europe have co-operated whole-heartedly in post-war recovery and in expanding productivity. International co-operation to secure higher living standards for all remains a top-priority objective for the unions in their struggle for an equitable division of the fruits of production.

From Marshall Plan days onwards, therefore, the Free Trade Unions have exerted themselves to mobilise public opinion behind the economic co-operation begun in OEEC and continued in OECD. The necessity of early consultation with the representatives of organised labour was recognised by OECD in March 1962 when the Council of OECD included the Trade Union Advisory Committee (TUAC) among the five international non-governmental organisations granted special consultative status as being "the most representative in economic life".

TUAC, consisting of representatives of the International Confederation of Free Trade Unions, the International Federation of Christian Trade Unions, and of independent confederations, maintains close links with OECD through the medium of a Liaison Committee and by regular contacts with committees, working parties and the international staff of the Organisation. For instance, valuable meetings have already been held to discuss aspects of the 50 per cent growth target for the 1960's, aid to under-developed areas, and incomes policy; on all of these subjects, TUAC has submitted memoranda to the Organisation.

the growth target

Under OEEC the Trade Unions consistently urged that a paramount priority should be given to increasing the growth rates of Member countries. TUAC therefore strongly endorsed OECD's placing this among its prime objectives. The very adoption of the 50 per cent target for the decade 1960-1970 obliges governments to review the whole range of their economic policies in order to ensure its achievement.

Thus the adoption of the target has encouraged some countries to adopt expansionary policies based upon flexible democratic planning, though progress towards the target in some OECD countries is not yet fast enough.

In a few Member countries under-utilisation of capacity, unemployment and short-time working are still all too evident. This clearly hinders growth and trade liberalisation on an Atlantic scale.

incomes policy

TUAC's function is to criticise, in a constructive way, from the trade union angle. From this viewpoint an example of how far economic expertise can stray from industrial realities is to urge the adoption of an incomes policy which

limits wages and salaries while being prepared to allow rents, interest and profits to remain largely unrestricted. These items of revenue constitute up to 50 per cent of gross national product in the different Member countries and are therefore often at least as great a source of demand as wages and salaries. Thus, in the trade union view it constitutes economic and political unreality to seek to limit one half of demand while allowing the other half to get off scot free. This has now been recognised by OECD, whose Working Party on Production Costs and Prices is studying the problems of non-wage incomes in a much more searching way than hitherto. This is a signal example of how discussion with trade union representatives can ensure that economic theory is adequately related to the industrial and political facts of life.

TUAC has asked that the OECD Working Party should make an adequate analysis of administered prices, distribution costs in general and self-financing of investment, etc. Moreover, the supplementary increments to managerial incomes in the form of tax-free allowances for travel, entertainment and retirement, etc., should be carefully analysed and published. It has been estimated by Professor Titmuss of London University that these managerial fringe benefits effectively double these incomes.

It is not only the economic impact of these privileges that is important; they also have the result of working against a feeling of community in industry without which the talents and energies of employees will not be utilised to the full.

technological change and responsibility in industry

We have entered a period of intense technological change that bids fair to disturb our preconceptions and shake our complacency about the distribution of effective responsibility in industry. The results of technological advance will inevitably create a working force of increasingly greater educational and vocational capacities. The present system of industrial relations is in large measure a reflection of unequal educational facilities. Thus the educational hierarchy is reflected in the industrial hierarchy. We shall have to rethink our attitudes concerning the allocation of responsibilities in industry. The unskilled and uneducated worker that we have known in the past is rapidly becoming an extinct class. Increasing leisure inevitably creates new possibilities for the development of capacity and personality attended by an increasing demand for the exercise of responsibility. Thus the corollary of increasing technical and cultural development of ordinary men and women is the creation of a need for new forms of organisation and communication in industry.

The OECD has already done valuable work in the field of technical and scientific manpower. It seeks, inter alia,

representatives also take part; and expresses its point of view on other OECD policies and activities.

In this article the Secretary of TUAC, Mr. Charles Ford, describes the joint work of his Committee with OECD, and puts the point of view of the free trade unions on the lines this work should take in future.

to bring out the importance of investment in education as a factor in increasing growth rates. The Trade Unions fully support this endeavour, but feel that workers below the level of skill of technicians are equally relevant, and that the Organisation should also set the pace in this field instead of allocating inadequate financial resources to it. For instance, there is an apparent need for an adequate and coordinated international effort in the field of vocational training. The EEC has already established principles for a common vocational training policy for the Six which provides an active role for the Commission itself. There is really no reason why this should be limited to the six countries of the European Economic Community. The same judgment applies to many other aspects of economic planning.

The rising standards of living and culture of the ordinary man and woman everywhere raise sociological problems that are nowhere given adequate attention. Among OECD's tasks should, in our view, be the stimulation and coordination of international co-operative research in this field.

developing countries

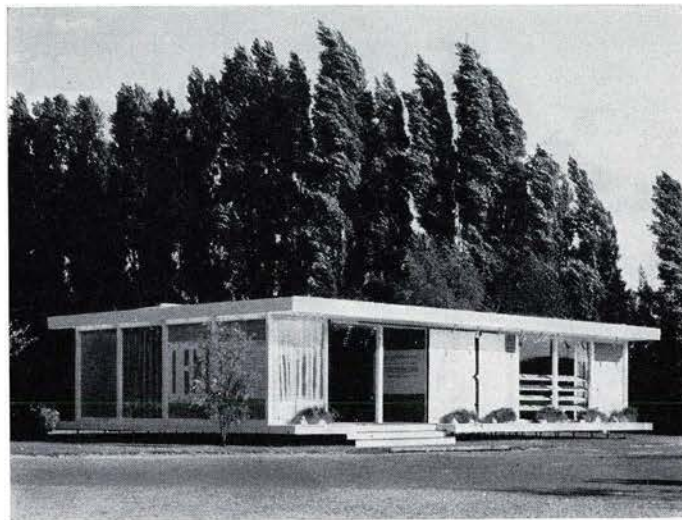
TUAC is fully recognizant of OECD's efforts in seeking to coordinate and expand the flow of financial resources to countries in process of economic development. What has, however, been lost sight of almost everywhere, is that the full participation of the populations of receiving countries is a necessary condition for the effective utilisation of aid funds. The Trade Unions constitute in some developing countries the strongest, and sometimes the only voluntary body of organised opinion.

The problem that now faces us is how to mobilise public opinion in the developing countries in order to release latent energies for a common effort of construction; and that of the industrialised countries to increase the total of aid from the present 1 per cent of GNP to at least double that amount.

The above examples show the positive attitude adopted by TUAC toward the work of OECD. Many more could be given, particularly in matters relating to manpower and social affairs, to industry and agriculture. As economic co-operation develops, there will be a need for greater efforts to recruit the active support of citizens of all OECD countries in the Organisation's work. This implies that the Organisation's links with the principal organs for forming public opinion should be strengthened; and in this category can be placed the free trade union movement with its membership of well over 40 millions affiliated to TUAC.

There is a clear trade union interest in all OECD activities and policies. It is important, therefore, that policy issues should be referred to TUAC at an early stage so as to ensure that the trade unions are aware of OECD's policies and principles and seek, increasingly actively, to implement them.

The OECD Berlin Exhibit



The OECD portable pavilion shown above made its first appearance in October at the German Industries Fair held in Berlin.

Designed by the Swiss architectural firm of Harnden et Bombelli, the pavilion displayed a basic library of OECD technical and general interest publications and functioned as an information centre describing the Organisation's aims and work.

The Fair's theme, "Asia — Partner in Progress", was portrayed in the pavilion through visual elements reflecting OECD interest and efforts in the field of development assistance.



Reading left to right, Dr. Walter Scheel, Federal Republic of Germany's Minister for Development Aid inspects the exhibit with Mr. Willard L. Thorp, Chairman of the Development Assistance Committee of the OECD.

The relationship between SCIENCE and ECONOMIC GROWTH

The relationship between science and economic growth is the subject of a Report entitled "Science, Economic Growth and Government Policy" to be published shortly by the OECD. The Report served as a Background Paper for the Ministerial Meeting on Science held at the OECD Headquarters in Paris in October. Its authors are: Mr. Christopher Freeman of the National Institute for Economic and Social Research, London; M. Raymond Poignant, Maître des Requêtes au Conseil d'Etat and Technical Advisor to the Délégation Générale à la Recherche Scientifique et Technique, Paris; and Professor Ingvar Svennilson of the Institute of Social Sciences, University of Stockholm and Member of the Working Group of the Science Advisory Council to the Swedish Government.

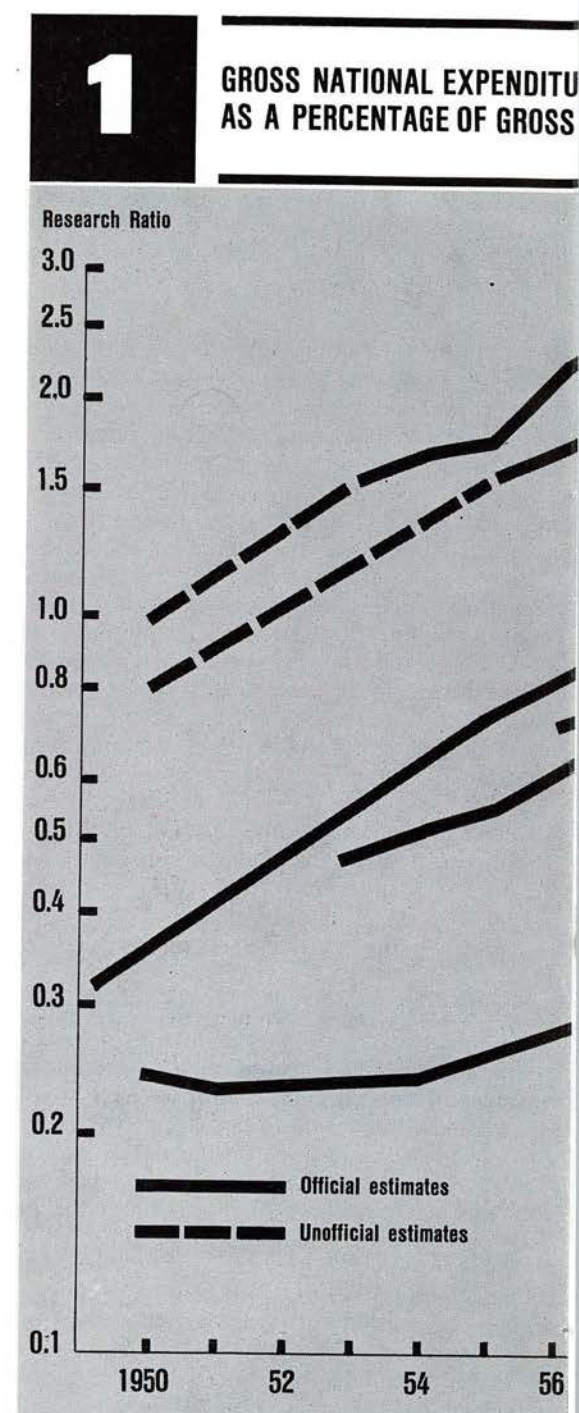
This article summarises the findings of the authors concerning the economic impact of scientific research and technological development.

IT is surprising how little is known about the effects of scientific research and technological development on economic growth. The various attempts which have been made to measure the contribution of the principal variables lead to the general conclusion that education and the advance of knowledge account for some part of the increase in real product per person employed. But it would be illusory to suppose that either the statistical data or the techniques of analysis have yet reached the degree of refinement which will make it possible to weigh

accurately the contribution of each of the factors involved. Moreover, all the factors in question are interdependent, and the behaviour of each of them is both a cause and a consequence of economic growth.

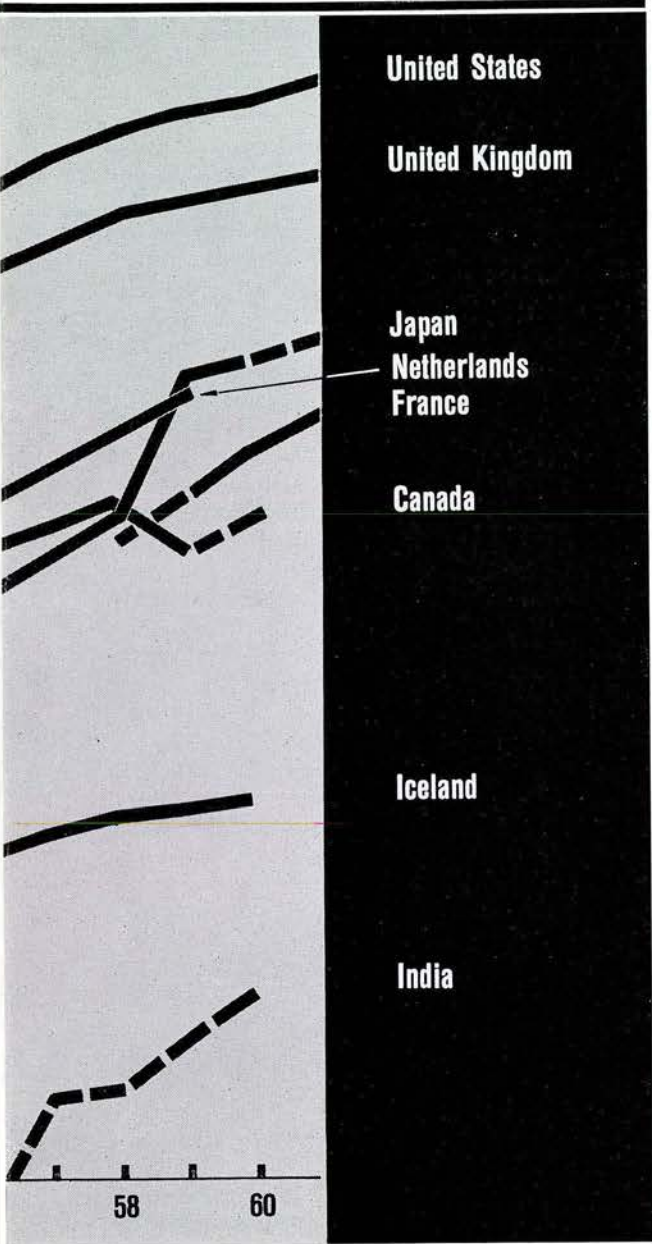
The statistics on scientific research and technological development at present available are grossly inadequate. Most countries have more reliable and more comparable information on their poultry and their egg production than on their research effort or their output of discoveries and inventions.

The OECD has been concerned



with this problem for some years and at a conference at Frascati in June 1963 broad agreement was reached between the Member countries on standard definitions and conventions for surveys on scientific research and technological development. But it will take several years before any complete and reliable statistical series are available and, meanwhile, it is necessary to get the best out of the data available. Even though these are incomplete and not always comparable, they do suggest some interesting hypotheses about the relationship between science and economic growth.

RE ON RESEARCH AND DEVELOPMENT
NATIONAL PRODUCT (AT MARKET PRICES)



*The rate and pattern
of research and development
activity*

In those countries for which statistics on scientific research and technological development activity are available, it can be seen that the increase in expenditure on research in the 1950's was much greater than the increase of Gross National Product (GNP) (Chart 1). The only

exception is Canada where the normal trend was temporarily interrupted through the sudden cancellation of major military development work in the aircraft industry. These estimates are in terms of current prices, and the rise in terms of constant prices may be somewhat smaller, since the prices of research inputs have almost certainly risen more than the general price level. But there can be little doubt about the strong upward tendency in the research ratio, i.e. the ratio of research expenditure to GNP.

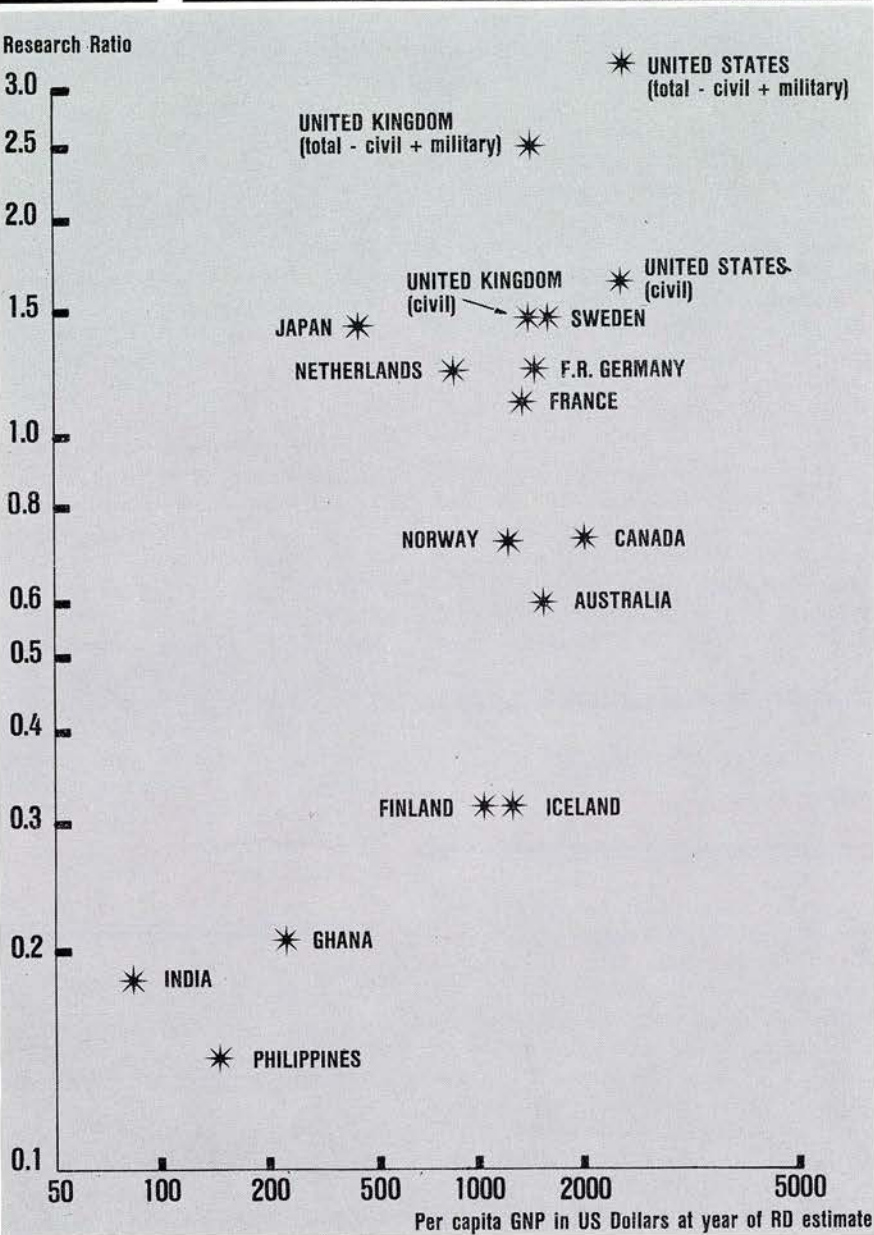
The research ratio itself tends to rise with the growth of per capita

GNP. Industrially advanced countries typically spend more than one per cent of their GNP on research, whilst less-developed countries spend less than one quarter of one per cent (Chart 2). These figures are not an entirely reliable guide to international comparisons because of differences in internal costs between countries, but they do serve to illustrate the general trend. However, two other factors have a major influence on the level of research activity: one relates to the structure of the economy, and the other to military needs.

Manufacturing industry has gen-

2

RESEARCH AND DEVELOPMENT EXPENDITURE IN RELATION TO PER CAPITA GNP (AT MARKET PRICES)
1961 (or nearest year)



erally a much higher ratio of research to output than non-manufacturing industry and agriculture, forestry and fisheries. In the USA, for instance, in 1959 the average company-financed research expenditure per employee in companies performing research was 353 dollars in manufacturing industry, but only 54 dollars in non-manufacturing industry. Thus in countries such as Australia, Canada, Finland, Iceland and Norway, where non-manufacturing industry makes a relatively large contribution to GNP, the ratio of research expenditure to GNP is relatively small. Furthermore, in Australia and Canada a considerable part of the industrial sector is foreign-owned and uses to a large extent the results of research "imported" from parent firms.

On the other hand, in countries such as France, Japan, the Netherlands, Sweden, United Kingdom, USA and Western Germany, where manufacturing industry is well developed, the ratio of research expenditure to GNP is relatively high.

The share of military research

As far as military needs are concerned, the high research ratios of the United States and the United Kingdom are clearly related to the high level of military research; in the civil sector, the research ratios in these two countries are not exceptionally high. It should not be forgotten, however, that other countries, such as Sweden and Canada, also spend considerable amounts on military research. In the case of France, only a part of military research seems to be included in the estimates, and no adjustment has been made in this figure. As for the USSR, the available data are not easily comparable, but the estimates suggest that the USSR resembles Japan in showing a high rate of economic growth, and a high research ratio in relation to *per capita* GNP even when allowance has been made for a high level of military research.

The structure of the economy and military needs also influence the degree to which governments are involved in financing and undertaking research and development. In Canada, Finland and Norway, govern-

ments finance over 50 per cent of national expenditure on research and development, largely because of government programmes related to the exploitation of agriculture, fisheries, forestry and mining. In France, United Kingdom and USA governments finance 78, 61 and 66 per cent respectively of national expenditure on research, largely because of government programmes related to defence and space. Government contracts given out to industry are very important in these three countries, amounting to between 45 and 60 per cent of total funds spent on research in industry.

In Japan and the Netherlands, by contrast, where there are no large scale defence or space programmes and where manufacturing industry is well developed, governments finance 36 and 30 per cent respectively of national expenditure on research.

In all the countries under consideration governments finance by far the largest part of research in the universities, either through direct grants or through contracts. The latter are used much more widely in the USA than elsewhere. Governments also supply the largest proportion of funds for fundamental research: 37 per cent in the USA and up to 90 per cent in most West European Countries.

The economic impact of scientific research

Economic growth is accompanied by a transformation of the structure of the productive system, and in this process technical innovation plays a preponderant part. In very broad terms, during the past half-century the fast-growing industries have been the metal-using industries producing mainly capital goods, the electronics industry and the chemical industry. The food and textile industries have been relatively slow-growing, whilst basic metals occupy an intermediate position. The fast-growing industries are generally research-intensive, that is, they have a relatively high ratio of research expenditure to output (net or gross), whilst the slow-growing industries usually have a low ratio. There is some evidence of a statistical association between the research intensity of an industry,

its rate of productivity change and its rate of growth; but there is no evidence of causality.

There is nevertheless little doubt that the relatively high level of research and development activity in, for example, the chemical and the electronics industries has been a major factor in their growth over the past thirty years: in a very real sense, it was scientific research which created them. But the rapid growth of demand for new materials, new communications devices, and control systems for both civil and military purposes has itself been a powerful stimulus to research and innovation in these industries. Again, the fact that the ratio of qualified scientific and technical manpower to total employment is very much higher in the research-intensive industries than in the slow-growing traditional industries can be regarded as both a cause and consequence of their levels of research activity and rates of innovation. Research-intensive industries grow faster, but industries which grow fast both need more research and create more favourable conditions for it.

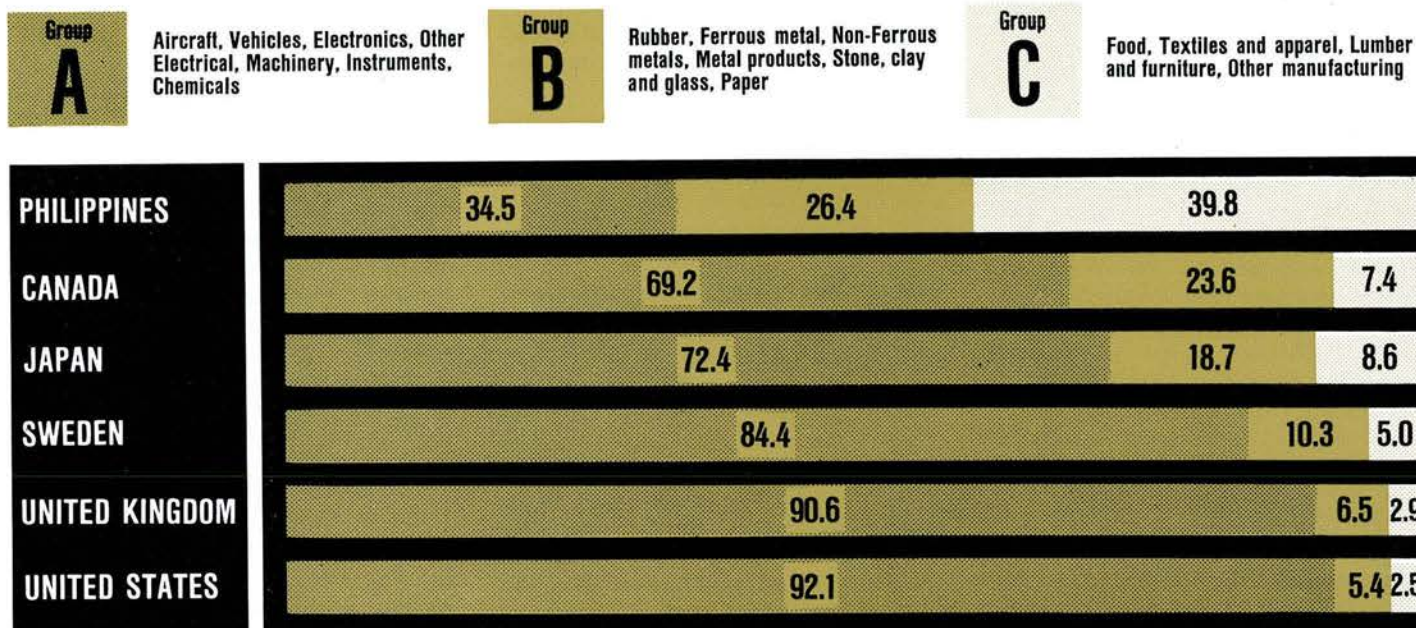
In such industries, the earlier phases of growth may be expected to entail a very intensive research effort to exploit the scientific breakthrough. Examples in point are the exploitation of the transistor by the electronics industry and of such new materials as polyethylene and polypropylene by the chemical industries. As the costs of applied research and development are many times higher than that of the original fundamental research, the earlier phases of growth of these industries would entail a high ratio of research costs to sales or outputs. But after a period of rapid growth, there might be some tendency for this ratio to fall off with the increase in the volume of standard production.

However, there seems now to be a general tendency towards increased research expenditure in all industries, because of the introduction of new equipment, materials and methods affecting all types of production. And it is the research-intensive industries which blaze the trail, not only for themselves but also for the slow-growing traditional industries. The makers of automated machinery and the suppliers of new raw materials, for example, frequently carry out research work for their customers in other industries — or enter those industries themselves. An obvious

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PATTERN OF RESEARCH AND DEVELOPMENT EXPENDITURE WITHIN INDUSTRY IN VARIOUS COUNTRIES, 1959

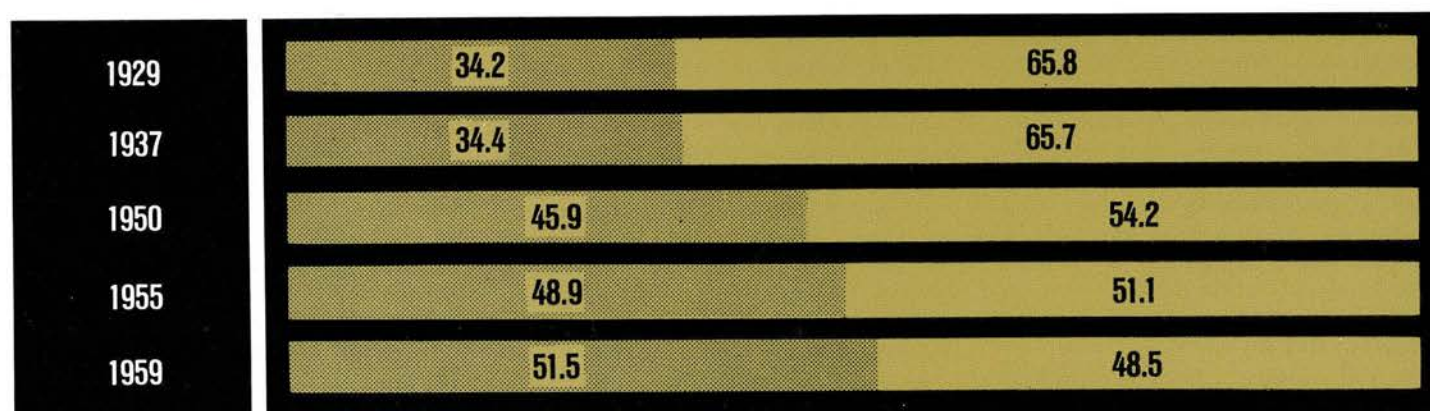
Percentage of total R and D expenditure in each industry



4

LONG-TERM TRENDS IN EXPORTS OF MANUFACTURES FROM 12 COUNTRIES* AT 1955 PRICES

In percentage of total



Note : This classification does not correspond exactly to that used in table 3.

* United Kingdom, France, Germany, Belgium-Luxembourg, Italy, Netherlands, Sweden, Switzerland, United States, Canada, Japan and India.

example is in the field of synthetic textiles. This is the only rapidly growing sector of the textile industry, and is dominated by chemical firms which have done most of the research involved by introducing new fibres.

Thus the pattern of industrial growth has now become increasingly complicated and some of the research-

intensive industries of today may well innovate both "vertically" and "horizontally" and remain research intensive by constantly introducing new products and processes both in their own and in other industries. The disparity in research capacity between such industries as chemicals and electronics, on the one hand,

and building and textiles, on the other, is now so great that this in itself must be one of the determining factors in the evolution of the industrial structure. The so-called "take-over bid", for example, can often be ascribed directly to this disparity in research capacity.

(Continued on page 18)

The influence of technical factors

The influence of technical factors on industrial research is illustrated by a comparison of the research intensity of certain industries in different countries (Chart 3). All the industrial countries considered show well over two-thirds of their industrial research expenditure in Group A which comprises the research-intensive industries, while the less-developed Philippines shows only one-third. On the other hand, Group C which comprises the least research intensive industries shows well under one-tenth of research for the industrial countries but some 40 per cent for the Philippines.

Thus there seem to be strong technological, economic and social forces tending to create a similar industrial pattern for research irrespective of national peculiarities. And the existence of a world market giving a competitive advantage to firms or countries which innovate is a powerful stimulus to the growth of research on a comparable scale in the same industries in different countries. The long-term trends which are at work in world trade of manufactures are similar to those which manifest themselves within manufacturing industry: the share of the research intensive industries is growing (Chart 4) and this is true not only of world trade as a whole, but also that of most of the principal manufacturing countries. Thus a firm, industry or country which lagged too far behind in technology and product innovation would be at a disadvantage in world markets, and international competition will compel firms of different countries working in the same industry to spend comparable amounts on research.

Apart from international trade in goods, there is also a growing international exchange of technical knowledge which can greatly affect the level of research activity. A firm or country might compensate for its lack of research by manufacturing under licence from foreign firms, or by purchasing technical "know-how" from abroad. So far as they go, the available statistics show that the USA has a big (and rapidly

growing) favourable balance of "technological payments", which reflects her position as technologically the most advanced country. France, Canada and Japan, on the other hand, have a considerable adverse balance, and less-developed areas, as Latin America, have scarcely any income from sales of technical know-how and must rely heavily on imports.

No substitute for independent research

These imports will always play a prominent part in all countries, including the most advanced, since no country can be ahead in *all* branches of science and technology. But this does not mean that there can be a permanent or satisfactory substitute for independent research activity. Even imported techniques may be further improved by independent research work. In fact, complete "parasitism" in scientific and technical knowledge would probably be as inefficient as scientific and technological "autarky", and neither is a practical policy.

Two examples, one of a country, another of a firm, may serve to illustrate this point. The country which has probably been more successful than any other in turning to good account imported foreign technology is Japan, and yet this is also the country which shows the most rapid rise in company-financed industrial research. It is also a country which is becoming increasingly competitive in world markets on the basis of advanced design and product innovation rather than on the basis of lower labour costs and prices. The second example is that of the largest American chemical firm, Du Pont. A study of this firm has shown that of 25 major product and process innovations, which together accounted for nearly half of Du Pont's total sales in 1948, only 10 were based on the inventions of the firm's scientists and engineers. Yet it would be difficult to believe that Du Pont would have been capable of succeeding in the introduction of the other 15 products and processes if it had been a firm conducting no independent research.

In spite of all the factors which concur to increase the level of

research, there are reasons for believing that it is still in many cases inadequate for sustained and rapid economic growth, a situation still further aggravated by the imbalance in the allocation of resources resulting from the rapid increase in military and space research. The reasons for this sub-optimal allocation of research resources to economic ends can be found to a large extent in the balance of incentives and disincentives to research in the business enterprise sector.

Price competition in the classical sense is not necessarily the most significant factor in the decisions of business enterprises, if only because the element of uncertainty in research makes it often impossible to estimate the profitability of a research project. Empirical enquiries suggest that "fashion" as well as the qualifications and quality of management are of far greater importance in this respect.

But the major factor in determining the scale of investment in innovation is the large element of risk involved in research investment, and this will clearly tend to limit it to a relatively "safe" level for the individual firm. This level may often be below the optimum in terms of profitability for the firm because of the high social returns from research; it will certainly be below the optimum for the community as a whole.

One consequence of this element of risk is the fact that research is heavily concentrated in large firms, and that the great majority of small firms in most industries simply cannot perform any research at all. This is a serious deterrent to research in general, though it can be counteracted to some extent by setting up co-operative research organisations catering for the needs of small firms.

For all these reasons governments in most countries have stepped in in an effort to bring the allocation of research resources closer to an optimum. But though government expenditures on research have risen very rapidly, and in some cases considerably, over the last fifteen years, by far the larger part of this increase has gone to military and space research. In most industrial countries the total supplementary effort of governments in civil sectors other than atomic energy has been much smaller than the expenditure of the business enterprise sector itself.

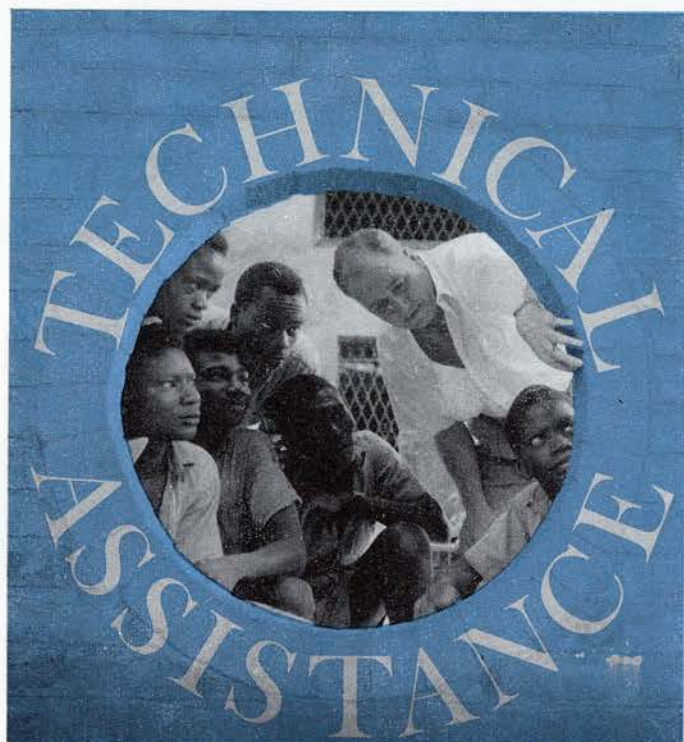
THE RÔLE OF TECHNICAL ASSISTANCE

by
Angus MADDISON
OECD Director
for Technical Co-operation

IN ECONOMIC DEVELOPMENT



THE ROLE OF



IN ECONOMIC DEVELOPMENT

The fact that underdeveloped countries are working so far below the threshold of practice technology, and that the mass of their populations lacks modern skills and training is the major reason for their low productivity and low living standards. Economic development can take place if natural resources are poor, but it will not take place if people remain ignorant. Improvement in their human skills is basically the task of the underdeveloped countries themselves, and if they are to achieve it they must plan their education system carefully in the light of their growth aspirations. If the improvement is to be rapid, they will need to make extensive use of foreign skills and training to break through the constraints imposed by their low starting position.

There are many ways in which these foreign skills have been financed. Knowledge can be acquired by privately-financed study abroad, or by scholarships of philanthropic foundations. Technicians

Member countries of OECD are the major providers of technical assistance to the developing countries. OECD itself provides a forum in its Development Assistance Committee for the expansion and coordination of bilateral efforts, brings together donors and recipients of aid and conducts its own technical assistance programme. In this article Mr. Angus Maddison, OECD Director for Technical Co-operation, explains the need for foreign skills, training and technology and what is being done, on a world scale, to satisfy this need.

from these countries work abroad to gain experience and new ideas; private investment will carry new techniques to these countries. Sometimes the governments of developing countries will finance the import of foreign experts and give scholarships for study abroad (as was the case in nineteenth century Japan or Russia during the first Five Year Plan). Nowadays about a quarter of this accelerated transfer of skills is financed by the wealthy aid-giving countries. This government aid in transferring human skills is generally called technical assistance. More recently it has been called technical co-operation on the grounds that the donor of such aid also benefits considerably in his understanding of growth processes and social problems, and this new knowledge can help accelerate growth in the developed countries too. If technical assistance is successful and if it is combined with a determined drive of the recipient country to improve its education system, there is reason to hope that the develop-

ing countries may be able to catch up some of the gap between them and the developed countries. This at least was the experience of countries like Japan and Russia which made the improvement in human skills an integral part of their development strategy.

The rate of growth achieved will depend heavily on the investment effort, but the productivity of investment will depend upon the types of human skills available to exploit it. The degree to which the investment effort of developing countries is supplemented by foreign aid and private foreign capital is also likely to be increased if the human skills are there to absorb this foreign capital effectively.

The need for foreign skills, training and technology

The needs of underdeveloped countries differ considerably, and so does the level of income in these countries. In countries which have only recently ceased to be colonies, there is a need to man the whole political and administrative apparatus with local talents. In Africa, particularly, this places a big strain on existing resources of higher educated people. There is also a great need for teachers as the educational goals of these countries have been greatly heightened. In these cases the presence of large numbers of skilled foreigners is necessary for several years. These people come not only to give advice and train counterparts, but primarily to do an urgently needed job. In Africa South of the Sahara three-quarters of university teachers are foreigners, and there are for instance about 8,000 British officials still serving in Kenya, Uganda and Tanganyika. More than half of the 100,000 "experts" provided by technical assistance are serving in the new African countries.

Outside Africa there is not the same acute shortage of people with higher education. In India for instance there is a surplus in some fields, and Egypt is able to provide about 3,500 teachers for foreign countries. The problem in most underdeveloped countries is that there are not enough highly trained people whose training and experience fits them to sustain the momentum of economic development. In many Asian countries there is a shortage of technically skilled people such as engineers, plant breeders, veterinarians, doctors, irrigation experts, etc., and some of these gaps can be filled by foreign advisers. Much more difficult is the shortage of skilled workers and middle-level personnel. Part of this is due to lack of possibility for on-the-job training in modern techniques in countries where the mass of people are in subsistence agriculture. But it has been exacerbated by the fact that education in the underdeveloped countries has in the past been reserved for a privileged group who have not been involved in manual work. In many countries, therefore, the most urgent problem of technical assistance is to help provide accelerated

training facilities for middle-level personnel. For this reason some technical assistance donors such as Germany and Israel are concentrating the bulk of their effort on middle-level training. Improvement in mass education is also essential to economic growth because an illiterate peasantry finds it difficult to learn or retain new techniques, and does not have an open mind to the winds of change. In this field, external assistance cannot make such a substantial impact as with higher and middle-level people because the problem is so much more vast and the language barrier is a much more significant obstacle to use of foreigners.











A big problem in underdeveloped countries is the need to develop business enterprise and managerial ability. Here foreign private capital can help if it takes local business into partnership. Returning immigrants who have business or industrial experience abroad can bring back new ideas. Training abroad in management techniques can also help, but often the business conditions are so different in developed countries that some of the training is not too appropriate. In this important field, therefore, the role of technical assistance is limited, and a great deal depends on the social and economic climate created by the government in the country concerned. If this climate is not favourable to growth, the work of foreign technical experts will often not be properly used.

Another problem in underdeveloped countries is that the technological gap between them and the advanced countries is so great. The most modern techniques are not designed for a situation in which labour is as plentiful and capital is as scarce as in the developing countries. A good deal of research could usefully be done on the techniques most likely to be appropriate for their abundant labour supplies.

There are a number of ways in which developing countries could make better use of their own skills and training facilities. As already mentioned, some countries have a school system which hinders rather than helps growth. Foreign techniques and accelerated curricula can be devised but there are often social or religious obstacles to their adoption. Intellectual resources are wasted because of inequality of educational opportunity which is worse in underdeveloped than in developed countries. Incentives and salary structures do not always direct the right people to the right jobs. In Latin America and elsewhere, inflation has reduced the real income of teachers and civil servants so that the best people have been driven into other professions. In Africa, on the other hand, the maintenance of expatriate salary scales in some countries may mean that government employment is too highly paid and not enough highly trained people go into industry. In other countries, political instability may have upset the efficiency of government service.

Technical assistance can help meet the social welfare needs of underdeveloped countries, many of which are closely related to economic growth. One of the most important fields in which scientific progress has helped to raise the welfare of developing countries in the past two decades, is in public health. Campaigns to improve health facilities and eradicate disease have succeeded in cutting death rates substantially. The result is that parents no

SCHOOL ENROLMENTS AND MEDICAL SERVICES IN 1962

AREA	Sub-Saharan Africa	Southeast Asia	Latin America	«Six» + UK
				
SCHOOL ENROLMENT RATIO BY LEVEL (%)				
PRIMARY  age 5-14	40	78	75	100
SECONDARY  age 15-19	3	10	12	62
HIGHER  age 20-24	0.4	2.6	3.3	14.2
AVAILABILITY OF MEDICAL PERSONNEL AND FACILITIES (per 100,000 population)				
Doctors 	4	6	56	121
Nurses 	18	20	47	186
Hospital and other medical beds 	153	100	316	1.090

longer expect their children to die but to live, and the parents themselves can have reasonable hopes of reaching old age. This is a major improvement in human welfare, but as there has been no compensating decline in birth rates, this decrease in mortality has led to very rapid population growth — indeed to more rapid growth than the developed countries themselves have ever known. This makes it all the more difficult to raise *per capita* income in developing countries, and makes it urgent to help them as much as possible with modern techniques of birth control. Apart from help in family planning, the other public health requirements of underdeveloped countries are still large. In the poorest of them such as India, average life expectation is still about 45 whereas in some European countries it is now over 70, and in many of these countries people's energies are sapped by diseases which have been virtually eliminated in developed countries.

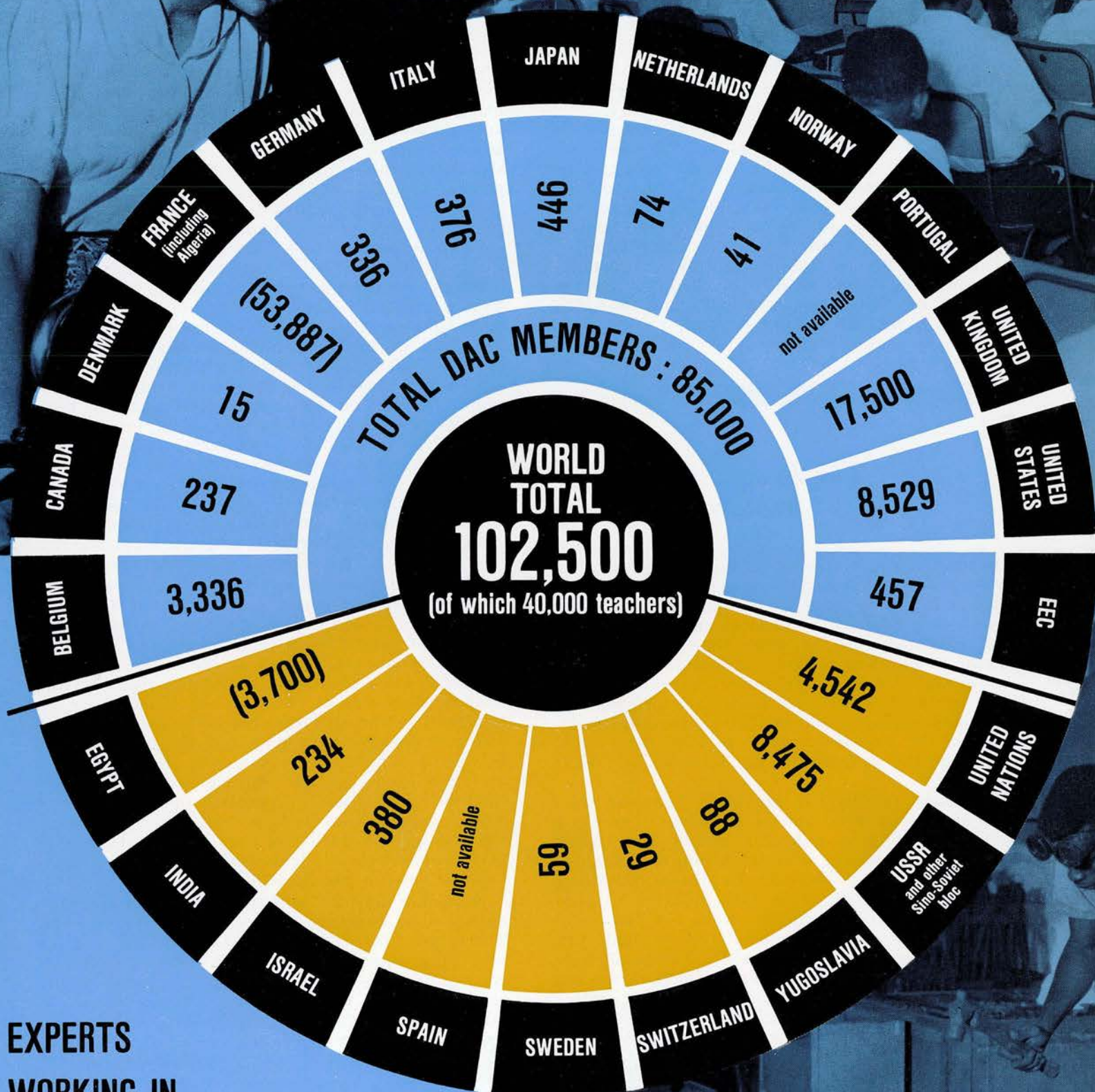
Technical assistance is thus needed for many purposes, but in all underdeveloped countries there is a pressing need for the kind of technical assistance which is most closely related to the efficiency of investment, i.e. natural resource and land use surveys, feasibility surveys of the impact of potential investments, engineering and economic data on alternative investment projects, and help in developing new industries in all of these fields; the flow of technical assistance is smaller than it should be.

Present flow of foreign help

About 40,000 students receive grants for study abroad under technical assistance, but the total flow of students from developing countries who study abroad is about 170,000. About 20,000 people receive grants for practical training abroad, but the total flow is much larger than this. In Germany for instance there are about 8,000 industrial trainees from these countries on top of the 2,000 financed by the German Government. In the United Kingdom there are several thousand student nurses from developing countries.

About 100,000 experts were sent to underdeveloped countries under technical assistance schemes in 1962. Of these experts, about 40,000 were teachers and about 40,000 (mainly British and French) were administrators in ex-colonial territories. About 85,000 of these experts were financed by OECD countries, 13,000 by non-Member countries and 3,500 by the United Nations.

Apart from this publicly financed flow of skills, there is a substantial but probably somewhat smaller flow of "experts" whose services are provided free to underdeveloped countries by private voluntary efforts in developed countries. On top of this there is a flow of foreign technicians doing jobs connected with pre-investment surveys or carrying out investment projects in underdeveloped countries. Some of these are financed by foreign capital aid pro-



**EXPERTS
WORKING IN
DEVELOPING COUNTRIES IN 1962
FINANCED BY TECHNICAL ASSISTANCE**

() Secretariat Estimates

grammes and some are hired by underdeveloped countries themselves. The total flow of foreign experts to underdeveloped countries is probably somewhere around 300,000 a year. There is a growing recognition of the need to increase this flow of skilled people to make capital aid more fruitful. The UN Special Fund concentrates on financing pre-investment surveys, a good deal of German, Japanese and United States aid is given for this purpose, British aid of this kind has been growing, and the International Bank intends to increase its technical assistance considerably.

In money terms, the official flow of technical assistance from OECD countries in 1962 was about \$550 million, if it is defined in its narrowest sense, excluding equipment and school construction, and UN expenditures amounted to \$24 million for the regular programme, and \$45 million for the Expanded Programme. About \$78 million was committed by the UN Special Fund. Technical assistance now constitutes about a fifth of the total flow of grant aid by OECD countries, although in Africa the share is probably about a third.

The human problem in technical assistance

In most donor countries, technical assistance has a wide popular appeal, and there has been no great difficulty in raising funds for this purpose. In 1962, expenditures by OECD countries on bilateral technical assistance rose by more than a fifth. The increase in spending is likely to continue in 1963 in most cases. All OECD countries contribute voluntarily to the UN technical assistance programmes and their contributions to this have increased considerably in the past few years. In fact, three-quarters of the UN programmes are financed by OECD countries.

The major problems in providing technical assistance are not financial but human ones. There is a problem in finding qualified people who speak foreign languages, and who are willing to interrupt their careers to work abroad. In present conditions of high employment, it is very difficult to find highly qualified people for this work. A few countries have a stock of ex-colonial civil servants but these are being pretty fully used. Nearly all high level government officials in developed countries are badly needed at home and it is, therefore, imperative that means be found to mobilise the skills which can be provided by the private sector. For this reason, technical assistance agencies have to maintain close contact with professional bodies, private industry, local authorities and nationalised industries.

With one or two exceptions developed countries have not tried to create a career service to ensure the future supply of experts for this kind of work, because of difficulties in forecasting requirements and because the long-run career prospects are

uncertain. However, it is clear that the demand will be high for a long time to come and several steps have been taken to increase the supply of experts. In France, the organisation of the public service and of teaching is such that it is fairly easy to detach people for overseas service. In other countries, this is not so simple, and several attempts have been made to create supernumerary posts in the public service or in universities, in order that a portion of the staff may be available permanently for detachment overseas. Various measures are being taken to ensure that overseas service is given an enhanced status and does not involve loss of advancement or pension rights. In France, special steps have been taken to enlist the support of private industry by creating ASMIG, which is a group of leading figures in industry who try to encourage firms to make managerial personnel available for overseas service. Local government authorities in the United Kingdom are encouraging teachers to accept opportunities for temporary service overseas. The EEC has found it useful to build up its contacts with "bureaux d'études" for this kind of work. The United States also uses contracts with universities and private firms on a large scale. Institutions have been created to train people for work abroad, and several countries have started special accelerated courses in foreign languages for this purpose. Greater emphasis is being given in many countries to encouraging young people to do technical assistance work. Such people are usually mobile and adaptable and have made a valuable contribution. A good many countries are, therefore, following the United States Peace Corps' initiative in some form or other.

The flow of students and trainees from developing countries whose training is financed by technical assistance is probably less than a quarter of the number of people from under-developed countries who study abroad. There is obviously scope for providing more scholarships, and the strain on the training resources of the recipient countries, even though it is already large, can be further increased. The real problem here is to find the right balance between provision for study abroad and aid to build up institutions in the underdeveloped countries themselves. If a large proportion of students from developing countries study abroad, this may weaken the prestige and quality of their own institutions, it may disorient the students from their own environment and make resettlement a problem.

A further difficulty is that many such people stay abroad long after their foreign training is over. There are, for instance, 2,000 Turkish doctors practising outside Turkey, and there is a similar emigration from Greece, Pakistan and India. Many of these doctors work in developed countries. The same problems arise for middle-level training for nurses, draughtsmen, foremen or skilled tradesmen. In these cases, it is even more preferable from the viewpoint of cost to provide training in the developing countries themselves, but in many cases facilities have yet to be developed. These problems are, therefore, not simple and require careful planning both by Member countries of the OECD Development Assistance Committee (DAC) and by the developing countries.

Help through OECD and its Members

OECD countries are taking steps to increase the efficacy of their practical training facilities for people from underdeveloped countries. Many practical training courses are specifically designed to meet the needs of foreign trainees. This is true of facilities for study of tropical medicine, hygiene and agriculture, which, for example, Portugal and the United Kingdom have expanded. Several countries now provide training courses conducted in the English language for such students. This is true of Norway, the Netherlands, and Japan, which do not require foreign visitors to learn the donor country's language for training purposes. These countries have designed special curricula in their training institutions to meet the needs of less-developed countries. Italy and Germany have also set up training institutions which concentrate on the problems of developing countries. In Germany, most of the training offered is in industry, and the training takes place there, rather than in formal courses. Norway and Japan stress courses for groups of students in order to make better use of existing facilities and to improve the training provided to foreign nationals. Some countries, such as the United Kingdom, France and the United States, prefer to provide training and education for overseas students in institutions of learning attended by their own nationals, though recognising the value of organising special courses for certain categories of overseas students. France has several institutes catering specially for the less-developed countries. Some OECD countries have prepared a special catalogue of courses designed for trainees from developing countries and the OECD is in process of preparing a catalogue of such courses for Europe as a whole.

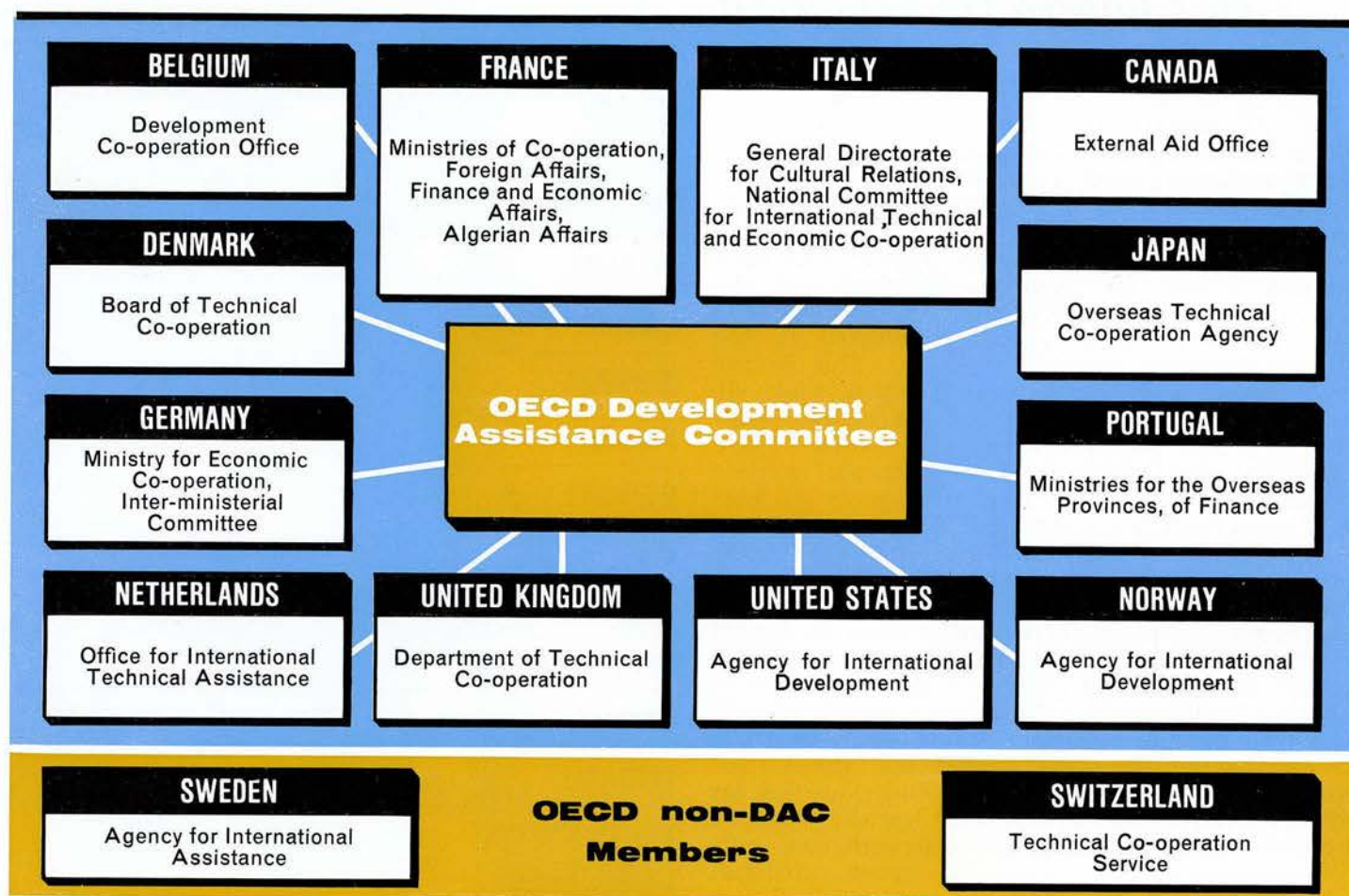
DAC Members have given some scholarships for training in the underdeveloped countries themselves, and considerable efforts are being made to build up local universities and training institutions, particularly in Africa. The need to build up African training facilities is particularly urgent, as there are at present only 15,000 students receiving higher education in Africa South of the Sahara, and most of them are taught by foreigners. Some OECD countries send teachers to underdeveloped countries and are also experimenting with young volunteer teachers of the Peace Corps type, in order to augment the flow, or they are encouraging the existing voluntary societies, which have been doing this sort of work for many years. France has by far the largest number of teachers in underdeveloped countries — about 17,000, excluding Algeria. Germany has specialised in creating technical training schools for middle-level personnel. About twenty of these have already been created and sixty more are planned.

One of the major problems in technical assistance programming is that decision-making is, of necessity,

STUDENTS AND TRAINEES FROM DEVELOPING COUNTRIES IN 1962 () Secretariat estimates

in	STUDENTS AND TRAINEES		TOTAL STUDENTS RECEIVED (includ- ing self-financed)
	Receiving bilateral grants	Receiving UN grants	
BELGIUM	1,996	146	1,329
CANADA	1,043	93	(2,500)
DENMARK	58	516	500
FRANCE	9,522	941	25,000
GERMANY	2,805	325	15,000
ITALY	2,073	277	2,073
JAPAN	771	216	4,470
NETHERLANDS	179	212	(506)
NORWAY	(20)	72	(187)
PORTUGAL	2,000	5	(1,000)
UNITED KINGDOM	4,644	948	40,000
UNITED STATES	10,388	785	40,000
EEC	514	—	—
TOTAL DAC MEMBERS	36,500	5,012	135,000
EGYPT	2,000	296	13,500
INDIA	319	266	(1,000)
ISRAEL	1,621	112	(2,000)
SPAIN	n.d.	42	(7,000)
SWEDEN	40	178	250
SWITZERLAND	526	476	(2,248)
YUGOSLAVIA	133	158	359
USSR and other Sino-Soviet bloc	12,000	805	(12,000)
ALL OTHER	n.a.	3,040	n.a.
UNITED NATIONS	6,484	—	—
TOTAL	60,000	—	170,000

DAC MEMBER COUNTRIES AND THEIR PRINCIPAL TECHNICAL ASSISTANCE AGENCIES



widely dispersed and pragmatic. Technical assistance is mainly concerned with individuals, and the amount of money involved in each decision may well be only a few thousand dollars. However, the aggregate size of the flow is very large and, unless there is some planning, there are real dangers of waste and duplication.

On order to get the priorities and phasing in perspective, it is therefore very useful to try to fit technical assistance programming in a coherent way to manpower or education plans, although requests for assistance must always be to a substantial degree pragmatic. There is, for this reason, an urgent need to help these countries with their manpower planning. OECD has already done this for Greece, Turkey, Spain, Portugal, Yugoslavia and Italy, and further progress towards increasing the efficiency of technical assistance in the OECD developing countries is hoped for as a result of the forthcoming review of technical assistance receipts from all sources which will take place in 1964. It is hoped to develop this review within a quantitative analytic framework which should help serve as a model which can be profitably used in diagnosing the problems of other countries.

Another requirement in increasing the efficacy of technical assistance is an improvement in the field

representation of the donor countries. Traditional diplomatic missions need new skills to assess technical assistance needs. Some improvement has been made in recent years, but the smaller donor countries cannot reasonably hope to have an adequate field representation in every underdeveloped country. In some cases, they do not have any diplomatic representation at all. A good deal can be gained by field co-ordination between different aid donors, the recipient countries, and UN regional representatives.

OECD contributes to the effectiveness of technical assistance in three major ways :

- by providing a forum for the donors to exchange their views within the Development Assistance Committee, and to expand and co-ordinate their bilateral efforts;
- by bringing together donors and recipients of aid by individual cases to meet pressing needs;
- by conducting its own multilateral technical assistance programme for developing Member countries in a way to serve as a model elsewhere.

However, the aid efforts of donors will be fully effective only if the recipient countries make a substantial effort to adapt their social structure and education systems to the needs of economic growth.

THE BUDGET

AS A TOOL OF ECONOMIC POLICY

The Annual Economic Surveys of OECD, issued for every Member country, discuss a broad range of economic developments and problems. Some of the recent reports pay particular attention to budgetary policy which, for many governments, has become increasingly important in achieving economic objectives. This article, based on the Economic Surveys, illustrates by various examples some of the ways in which the budget is being used as a tool of economic policy.

The budget has assumed new importance for many OECD governments in recent years. Acceptance of ambitious economic objectives — promoting full employment and economic growth without inflation — has given rise to a search for ways to make fuller and more efficient use of all economic policy tools. Fiscal policy is receiving particular emphasis because the direct controls used just after World War II have fallen out of favour and the effectiveness of monetary policy as a means to regulate demand has been called into question, particularly since the liberalisation of international capital movements in the late Fifties. Moreover, though the importance of the government's role varies from country to country, it is such that the way in which taxes are collected and spent, and the size of the gap between receipts and expenditures have a decisive impact on the economy whether or not the budget is consciously used as a policy instrument.

Although the theoretical range of possibilities available to policy makers is the same in every country — variations in the type and level of expenditure and taxation — the choice of measures and the way in which they are used are

substantially different from one country to another.

Some governments consider the budget suitable only for influencing the distribution of income and the allocation of resources; others use it as a means of stabilising the short-term business cycle; and in recent years many countries have examined how the budget could be used more actively as an instrument to promote growth.

The Budget and the Business Cycle

The U.S. and several other OECD countries have tended to rely heavily on so-called "automatic" or "built-in" stabilisers to moderate the cycle. As economic activity falls, so do taxes with the result that post-tax incomes decline less than pre-tax incomes. A system of progressive taxation intensifies this cushioning effect because a lower income is taxed at a lower rate and vice versa. Unemployment compensation also works contra-cyclically: governments pay out more in benefits during a recession and this expenditure helps to maintain incomes.

The U.S. Council of Economic Advisers has estimated that as a result of the stabilisers, when gross national product falls by one dollar in the U.S., private income after taxes falls by only seventy cents. The Council goes on to point out what it considers to be the limitations of the automatic stabilisers: "If the forces causing the downturn are strong and persistent, the built-in stabilisers may not suffice to prevent a large and prolonged recession. Furthermore, they are blindly symmetrical in their effect. When economic activity quickens after a slump, the rise in Federal revenues begins immediately and slows the recovery in employment and incomes. For these reasons, the task of economic stabilisation cannot be left entirely to built-in stabilisers. Discretionary budget policy — e.g. changes in tax rates or expenditure programmes — is indispensable, sometimes to reinforce, sometimes to offset the effects of the stabilisers."

Sweden, perhaps to a greater extent than most other countries, has used discretionary fiscal policy to stabilise the business cycle. The OECD 1963 Economic Survey of Sweden describes the development of Swedish fiscal policy.

Until the early 1930's the budget in Sweden, as in most other countries, was not generally regarded as an instrument with which to influence the economy; the prevailing attitude was that the budget should be in balance each year. In 1937, however, there was a budgetary reform which made it possible to run a deficit (or a surplus) providing the budget was in balance over the course of a number of years, generally understood to be the business cycle.

Since then, the attitude towards budget policy has changed. Today it is regarded as one of the most

important instruments at the disposal of the authorities: attention is concentrated on the budget's function as a balancing factor in the economy as a whole, and the balance of the budget itself is considered a matter of less importance.

As in other countries, of course, the overall size of the budget and the structure of both expenditure and revenue in Sweden are determined not primarily by short-term economic policy needs but by other considerations. For example, decisions concerning expenditure are primarily related to the various activities with which the Government has been entrusted, e.g. education and defence. Moreover, the speed with which variations in expenditure and taxation can be made is conditioned by the principles and procedures of parliamentary government which require that the legislature approve budgetary decisions. But efforts have been made to increase the flexibility of the budget on both the expenditure and the revenue sides and to reduce the time lags that often make difficult the use of the budget to influence the business cycle.

On the expenditure side, the budget that is submitted to and approved by Parliament normally includes certain appropriations which are to be used only if measures to increase employment are required. The amount of these appropriations came to roughly \$ 90 million (2 per cent of total fixed investment) in the 1963 budget. In addition, a special budget is voted every year to cover emergency programmes of public works; in 1963 this budget amounted to \$ 300 million (6 per cent of total fixed investment and 8 per cent of ordinary budget expenditure). Of this sum a fifth of the funds may be spent by the administration on its own initiative; additional expenditures require the approval of the Parliament.

The responsibility for use of both types of funds rests with the Labour Market Board which, on the basis of short term forecasts concerning the development of employment in different regions, and with a view to influencing both seasonal and cyclical patterns of employment, decides when and where projects should be started and stopped. The Board, in co-operation with central and local government agencies, keeps ready an up-to-date list of emergency investment projects. The recent OECD study of Sweden concludes that "efficient techniques have been developed to achieve contra-cyclical movements of public investment, a weapon which many countries have found to be particularly difficult to handle. Swedish experience in this field suggests that careful advance preparation is the key to success. It is not sufficient that appropriations should be available; suitable projects — suitable from the point of view both of location and duration of execution — must be ready to be started at short notice." (The Swedish authorities estimate that, even after advance preparation, it takes a minimum of about four months to get a project going).

As regards revenues, changes in rates of taxation of personal incomes and profits have not generally been made for contra-cyclical purposes, though there have been certain modifications in indirect taxes. But the

government has developed a different instrument whereby taxes may be used to influence the timing of business investment — an investment reserve system. Under this scheme, companies are permitted to declare up to 40 per cent of their taxable income as an investment reserve. In doing so, they avoid paying taxes on this income, but must deposit the amount they would have paid in taxes with the Central Bank, which freezes the money until such time as the government decides it should be invested. The rest of the investment reserve must be kept liquid enough to be available for investment when the money being held by the Central Bank is released.

If, when the funds are released, the firm invests (within a time period fixed by the government) both the released funds and those it has been holding, it can write off the entire sum at once and therefore avoid paying taxes on it altogether. In addition, the firm may deduct 10 per cent of the sum from its taxable income for the year if it is used in accordance with the decisions of the authorities.

In the United Kingdom, the Radcliffe Committee concluded in 1959 that “the importance attached to the use of fiscal measures, particularly the Budget balance, has been one of the fundamental innovations of the post-war period. The main reliance of the Treasury for the regulation of the pattern and total of effective demand has, at least since 1948, been on fiscal measures, monetary measures being regarded as having only a supporting rôle.”

Until recently, changes in taxation were made only with the prior approval of Parliament, ordinarily on Budget Day or, in a crisis, in a supplementary budget. In 1961, however, the Government was given power to change certain indirect taxes by 10 per cent in either direction, providing the action were approved by Parliament within 21 days.

In late 1962 and early 1963 the Government announced a number of budgetary measures that would normally have been delayed until Budget Day. Investment allowances were raised, extra government capital expenditure announced, post-war credits released in advance, and higher unemployment, pension and other social security benefits announced.

A study of Austrian experience between 1953 and 1962 shows that, by comparison with most other Member countries' budgetary systems, that of Austria was relatively flexible and adaptable, with the Government enjoying substantial discretionary powers over expenditures. The Minister of Finance was authorised, without prior leave of Parliament, to distribute any excess of actual over budgeted receipts among expenditure items as he saw fit. Or he could refrain from spending such receipts, although the ordinary budget was not, in principle, to be brought into surplus. The scope for discretionary government action thus provided was considerable since actual tax receipts were normally significantly higher than those envisaged in the budget.

The Government had even greater discretionary authority over expenditure in the extraordinary budget, which could be varied up or down at the discretion of

the Minister of Finance. These expenditures were provided for in a 10-year programme set up in 1953 and designed primarily with an eye to contra-cyclical policy needs. The \$ 400 million appropriated for the programme in 1953 was used up by 1960, mostly for building roads. Since 1960 such expenditure has been voted on a year-to-year basis.

The same budgetary flexibility did not extend to changes in taxation, whether direct or indirect. These require Parliament's consent, which of course takes time; moreover, in Austria as in some other countries, public opinion regards taxation as a poorly-suited instrument for short-term demand management — chiefly because it is thought that tax increases will result merely in a corresponding expansion in government expenditure. There were, however, a number of tax cuts during this period as a result of parliamentary action.

The Austrian case illustrates some of the difficulties that countries can experience in attempting to use fiscal policy. In its 1963 review of the Austrian economy the OECD, commenting on the use of the budget for cyclical stabilisation, noted that “While the Austrian authorities were highly successful in countering the cyclical slack in 1958, considerable difficulties were experienced in properly timing the reversal of the expansionary budgetary policy”. Prompt action, the report continues, was taken by the budgetary authorities when a slack became apparent in 1958, and the existence of a long-term investment programme enabled the delay to be kept to a minimum in starting contra-cyclical public works. In 1960, however, when the need for a stimulus from the budgetary side had definitely disappeared, the road construction programme proved difficult to reverse, as did capital transfers to the private sector.

The Austrian Government has also experienced difficulties of a legal nature which are not uncommon among OECD Member states; for parliamentary privileges in the matter of government budgets were hard won and are, for good and proper reasons, not lightly to be relinquished. In many countries there is permanent legislation which governs such matters as the balance of the budget (in some cases the law requires not only that overall government expenditures and receipts should be balanced, but that there should be a balance of some particular segment of the accounts, such as current transactions). In governments organised along federal lines, the law may require that the states as well as the federal government play a role in budget determination. This is true, for example, in Germany where the “Länder” must approve changes in income taxation. In the Austrian case, some of the Government's discretionary powers were found to be unconstitutional in December 1962.

Growth and the Budget

The increasing importance attached to growth as an objective of economic policy may lead some countries to reshape fiscal practices; in many cases the existing

fiscal system was developed to meet conditions which have radically changed and which in the present context may actually hamper growth.

In some countries, the budget has already been integrated with long-term growth plans and consciously used to that end. In Norway, for example, the budget

in the less-developed districts. With government approval in certain cases private firms may establish tax-exempt funds to be used in these districts. The Government has also used its investment in infrastructure to influence the location of investment, though the nationalised sector is still relatively modest, accounting

CENTRAL GOVERNMENT EXPENDITURE IN SELECTED COUNTRIES IN 1960

(In per cent of gross national product at market prices)

	Total	Current Expenditure on Goods and Services	Gross Capital Formation	Transfers*
<i>FRANCE</i>	19.3	10.2	0.6	8.5
<i>GERMANY</i>	14.0	4.3	0.6	9.1
<i>ITALY</i>	18.5	8.2	0.6	9.6
<i>NETHERLANDS</i>	21.5	6.2	1.1	14.1
<i>NORWAY</i>	22.7	7.4	1.3	14.0
<i>SWEDEN</i>	23.2	8.2	3.6	11.4
<i>UNITED KINGDOM</i>	24.4	11.1	0.5	12.8
<i>UNITED STATES</i>	15.3**	10.2	0.4	4.7**

* Current and capital transfers, subsidies and interest on the public debt.

** Excluding capital transfers.

Source : Country submissions to the OECD.

is continuously used to influence the level and pattern of investment. Judging that private savings alone would be inadequate to finance the level of investment considered desirable for growth, the Government itself has undertaken to provide the savings : by maintaining a level of taxation that was relatively high compared to other countries, the Government during the last decade consistently created surpluses on current and investment account which, in large measure, it channelled back to private business through government-controlled banks at low rates of interest. There has been no lack of demand for the funds thus made available. During the 1950's, thirty per cent of gross national product was devoted to real capital formation as compared with an average rate for European Member countries of about twenty per cent. Of the total savings used to finance this investment, the public sector provided about half.

The Government has also used fiscal policy to influence the pattern of investment and its location. Until 1957, higher depreciation allowances were granted in sectors which the Government wished to encourage. New tax measures were taken in 1961 to encourage investment

for only about 6 per cent of employment and 8 per cent of the value added of total industry.

France also has integrated the budget into its Plan. The budgetary authorities work closely with the planning organisms in drafting the plan and the planners participate in the process of drawing up the budget which is discussed against the background of the progress made in achieving the Plan's objectives.

One of the principal difficulties encountered in gearing the budget to growth objectives is that budgets are traditionally approved annually, yet a plan ordinarily requires long-term commitments for investment projects. To reconcile this conflict, the French employ a technique authorised by a decree of 1959 which utilises so-called programme authorisations and payment credits. The programme authorisation fixes the amount that can be spent on an investment programme over the course of several years. It is approved along with the yearly budget but remains in force after the year is up, namely until it is cancelled or revised. The payment credit sets forth what part of the total investment expenditure can be spent during the current year. It is also approved with the budget on an annual basis.

THE STRUGGLE AGAINST DOUBLE TAXATION

The Fiscal Committee of the OECD

THE Fiscal Committee is the OECD body responsible for international fiscal matters. It was set up in March 1956 under the Organisation for European Economic Co-operation (OEEC) to study, inter alia, questions relating to double taxation. It is composed of high-ranking experts belonging to the national administrations of the Member countries and its Chairman is Professor Dr. A.J. van den Tempel, of the University of Amsterdam. It is at present the only intergovernmental body dealing with double taxation questions.

Between 1958 and 1961 the Fiscal Committee prepared four reports which were published by OEEC under the title "The Elimination of Double Taxation". These reports contained a series of Articles constituting the basis of a draft Convention for the avoidance of double taxation with respect to taxes on income and capital. The complete Draft Convention which was drawn up this year by the Fiscal Committee has recently been published by OECD, together with a General Report and a detailed Commentary on each Article.

International double taxation can be generally defined as the imposition of comparable taxes in two or more States on the same taxpayer in respect of the same subject matter and identical periods. Such a situation is not due to any deliberate intention on the part of the States, but is merely the result of each State's exercise of its fiscal sovereignty. Consequently, in the majority of cases, persons engaging in business or investing in more than one State are arbitrarily given less favourable tax treatment than those who engage in business or invest in one State alone. Double taxation is therefore a serious obstacle to the development of international economic relations and must be eliminated.

Substantial progress has already been made in this direction through bilateral Conventions or unilateral measures. Thus the number of general bilateral Conventions between the twenty countries now Members of OECD rose from twenty or so in 1939 to sixty-eight in 1957. This was largely due to the work of the

by
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League of Nations which led to the Model Conventions of Mexico (1943) and London (1946), the principles of which were followed more or less closely in many bilateral Conventions concluded during the next ten years. Neither of these Model Conventions, however, was fully and unanimously accepted. Moreover, the extension of taxation and the development of international economic relations have made certain problems in the field of double taxation more difficult and have created new ones.

The increasing economic interdependence of the countries of the Western world in the postwar period, and the economic co-operation established among them since 1948 within OEEC emphasised anew the problem of international double taxation. They made it indispensable to complete the work of OEEC in the field of liberalisation of trade, current invi-

sible operations, and movements of capital and manpower by collective action in the field of double taxation.

The need was increasingly recognised to harmonise the bilateral Conventions between Member countries on uniform principles, with uniform definitions, rules and methods, and to agree on a common interpretation. It was also desirable to extend the network of the Conventions to cover all Member countries. The methods of co-operation evolved in OEEC made it possible to approach these problems from a new standpoint and under particularly favourable conditions.

In February 1955, following a Resolution adopted in 1954 by the Executive Committee of the International Chamber of Commerce, the Council of OEEC recommended Member and Associated countries to persevere in their efforts to avoid double taxation by the conclusion between

THE DRAFT DOUBLE TAXATION CON

● *Scope and Definitions*

Articles 1 and 2 define respectively the persons and the taxes covered by the Convention. Article 3 defines certain terms or expressions systematically employed in the Convention. The object of Article 4 is to determine clearly the concept of *fiscal domicile*, since this concept is used to define the persons to whom the Convention applies and, furthermore, in the case of conflict of residence, for determining the Contracting State on which the right to tax is conferred under the Convention. The object of Article 5 is to define *permanent establishment*, which is an essential concept, since Article 7 provides that the profits of an enterprise of one Contracting State may be taxed in the other Contracting State only if the enterprise carries on business in that other State through a permanent establishment situated there, and then only so much of them as is attributable to the permanent establishment.

● *Taxation of Income*

Article 6 gives the right to tax *immovable property* to the State in which such property is situated. Article 7 determines the attribution of the right to tax *business profits* in accordance with the criterion of permanent establishment, and formulates the basic prin-

ciple which must govern the calculation of the profits of the permanent establishment, namely, that the permanent establishment must be treated as an enterprise distinct and separate from the head office of the enterprise. Article 8 reserves the right to tax the profits of *shipping, inland waterways transport and air transport* to the Contracting State in which the place of effective management of the enterprise is situated. Article 9 deals with the case of an enterprise of one Contracting State which is under the control of an enterprise of the other, and with the case of enterprises under common control.

Articles 10, 11 and 12, relating to the taxation of dividends, interest and royalties respectively, are the result of a compromise between Member countries which favoured taxation by the State of residence and those which favoured taxation by the State of source. The compromise is based on the attribution of the exclusive right to tax royalties to the State of the recipient's residence and on the division of the right to tax dividends and interest between the State of the recipient's residence and the State of source of the income. For this purpose, a right to levy tax at a restricted rate is given to the State of source; this tax the State of residence must take into account in computing its own tax so as to avoid double taxation. Thus, Article 10 provides that the tax imposed by the State of which the company paying the dividends is a resident shall not exceed 15 per cent of the gross amount of the dividends in the general

case, and 5 per cent in the case of companies with certain holdings in the company distributing the dividends. Likewise, Article 11 provides that the tax imposed by the State in which the interest arises shall not exceed 10 per cent of the amount of the interest.

Article 13 relating to *capital gains* provides that gains from the alienation of immovable property or of certain specifically defined movable property may be taxed in the Contracting State in which the property is situated, while gains from the alienation of any other property are taxable only in the State of which the alienator is a resident. Article 14 brings income from *independent personal services* under a similar taxing rule to that for business profits, the concept of a "fixed base" for the performance of the services being substituted for that of "permanent establishment".

Article 15 establishes the general rule applying to *salaries and wages* and similar remuneration in respect of employment, namely, taxation in the State where the employment is exercised. To this rule there are only two exceptions: one in the particular case of employment of short duration abroad — the object being to facilitate the international movement of qualified personnel — the other in the case of certain governmental functions. The Article gives the right to tax remuneration of crews of ships and aircraft in international traffic and of boats engaged in inland waterways transport, to the Contracting State in which the place of effective management of the enterprise is situated. Articles

THE COMMENTARIES ON THE ARTICLES

For each of the Articles in the Convention there is a detailed Commentary which is designed to illustrate or interpret the provisions. These Commentaries have been

drafted and agreed upon unanimously by the experts appointed to the Fiscal Committee by the governments of the Member countries. They are therefore of special importance in the elaboration of international fiscal law and can be of great assistance in the application of the Conventions and in particular in the settlement of any disputes.

In order to facilitate the application of the Convention

themselves of bilateral agreements, and to review any existing agreements which were no longer adequate to deal with the problem of double taxation. In March 1956 the Council established a Fiscal Committee for the study of questions relating to double taxation and other international fiscal questions of a similar technical nature. In July 1958 the Council instructed the Fiscal Committee to submit to it a draft Convention for the avoidance of double taxation with respect to taxes on income and capital as well as concrete proposals for the implementation of such a Convention. This mandate was confirmed under OECD in September 1961.

The Fiscal Committee set itself the two-fold aim of establishing a draft Convention which would effectually resolve on a uniform basis the double taxation problems

existing between Member countries and which would be acceptable to all of them in spite of the differences in national taxation laws and economic interests. The application by all Member countries of common solutions to identical cases of double taxation should in fact make it possible to clarify, standardise and guarantee the fiscal situation of taxpayers in each Member country who are engaged in commercial, industrial or financial activities in the other Member countries.

The Draft Convention submitted by the Fiscal Committee to the OECD Council in July 1963 is designed in the first instance to be the basis for the negotiations between Member countries for the conclusion of new bilateral Conventions or the revision of existing ones and, generally speaking, can be directly adopted by Member countries. It consists of thirty Articles arranged in seven Chapters.

CONVENTION ON INCOME AND CAPITAL

16 and 17 respectively state how the general rule is to apply in the case of *members of company boards*, and in the case of *public entertainers and professional athletes* whether performing for a salary or wages or on their own account.

Article 18 provides that *pensions* and other remuneration paid in consideration of past employment shall be taxable only in the Contracting State of which the recipient is a resident. Article 19 stipulates that remuneration, including pensions, paid in respect of services rendered to a Contracting State, or to a political subdivision or local authority thereof, may be taxed only in that State. Article 20 provides that payments which *students or business apprentices* receive for the purposes of their maintenance, education or training abroad shall not be taxed in the State where they are temporarily residing for such purposes. Finally, Article 21 provides that all items of income which are not expressly mentioned in the foregoing Articles shall be taxable only in the State of the recipient's residence.

● Taxation of Capital

Article 22 attributes the right to tax according to the nature of the property constituting the capital. Thus immovable property may be taxed in the Contracting State in which it is situated. Movable property

forming part of the business property of a permanent establishment, or pertaining to a fixed base used for the performance of professional services, may be taxed in the Contracting State in which the permanent establishment or fixed base is situated. Ships and aircraft operated in international traffic and boats engaged in inland waterways transport, and movable property pertaining to the operation of such ships, aircraft and boats, shall be taxable only in the Contracting State in which the place of effective management of the enterprise is situated. Finally, all other elements of capital shall be taxable only in the State of their owner's residence.

● Methods for Elimination of Double Taxation

Article 23A is intended for Conventions between countries which generally use the *exemption* method, and Article 23B for Conventions between countries which use the *tax credit* method. In Conventions between countries which each use a different method, both Articles must be included. Article 23A, paragraph 1, is based on the method which may be called "exemption with progression", Article 23B is based on what may be called the "ordinary credit" method. Where the right to tax is divided between two Contracting States, as, for example, in the case of dividends and interest, Article 23A provides that a

State which usually employs the exemption method must employ the ordinary credit method.

● Special and Final Provisions

The object of Article 24 is to prohibit the application of *discriminatory treatment* in one of the Contracting States to taxpayers who are nationals of the other, to permanent establishments owned by enterprises of the other, or to enterprises controlled by residents of the other. Article 25 establishes a *mutual agreement procedure* for the purposes, in particular, of remedying taxation which is not in accordance with the Convention, resolving problems which may arise out of the interpretation or application of the Convention, and settling cases of double taxation not provided for by the Convention.

Article 26 defines conditions for the *exchange of information* in order to enable each State to determine correctly the tax which it is entitled to levy under the Convention. Article 27 relates to the taxation of *diplomatic and consular officials*. Article 28 makes provision for the *territorial extension* of the Convention in the case of States possessing overseas territories or responsible for the international relations of other States or territories. Finally, Articles 29 and 30 determine the conditions relating to the *entry into force and termination* of the Convention.

between certain of the Member countries, the Commentaries provide various possibilities of completing the Convention by special provisions, extending or restricting its scope, or setting aside or varying certain provisions in special cases. Thus, in order to take account of the peculiarities of the tax laws of certain Member countries, the Article on the taxation of dividends needs to be accompanied by special

clauses to be negotiated bilaterally. In recognition of the special position of some countries with regard to particular questions, the provisions of certain Articles have been set aside or varied in their favour. The Commentaries also indicate the reservations that have been formulated by some countries on certain of the provisions of the Convention. These few reservations should not obscure the progress and

success that the degree of agreement achieved on the whole draft Convention represents in itself.

FIRST PRACTICAL RESULTS OBTAINED

In July 1963 the Draft Convention was the subject of a Recommendation of the OECD Council in which, inter alia, Member countries were asked to conform to the Draft when concluding or revising bilateral Conventions between them. The object of this Recommendation in the first instance was to consolidate the Recommendations that the Council of OEEC had addressed to Member countries on each of the four reports submitted to it by the Fiscal Committee from 1958 to 1961. As the Fiscal Committee successively reached agreement on Articles for a Convention, it submitted them to the Council which then recommended their adoption to the Member countries. The great advantage of this procedure was that it enabled the Articles to be used immediately in the Conventions concluded between Member countries since 1958, so making it unnecessary to await the completion of the whole Draft Convention.

This permitted progressive harmonisation of the bilateral Conventions on an increasing scale over the last five years. It also enabled the Articles to be put to what amounted to a practical test. Furthermore, the successive publication of the four reports of OEEC, under the title "The Elimination of Double Taxation" secured from the outset wide circulation of the Committee's studies among taxpayers who were directly affected by the problem of double taxation, as well as among business and university circles, both national and international, interested in the problem from the practical or the theoretical point of view.

The practical results recorded even before the appearance of the complete Draft Convention can be regarded as very encouraging. For since the establishment of the first report in July 1958, twenty-three bilateral Conventions have been concluded between the countries now Members of OECD, fifteen of which are new Conventions. In ninety per cent of possible cases, the Articles proposed by the Fiscal Committee were adopted either word for word or in their fundamental purport. The Article on permanent establishment, for instance, which was established in 1958, was incorporated verbatim in sixteen of the twenty-three Conventions, while its main provisions were adopted in six other Conventions. It is also important to note that several of the Articles proposed by the Fiscal Committee have also been adopted in Conventions recently concluded by certain Member countries with third countries.

As the table shows, there are now eighty-five bilateral double taxation Conventions applying to income and capital between the Member countries of OECD, i.e. twenty-nine more than in February 1955, the date of the first OEEC Recommendation. In addition, twenty-eight bilateral negotiations are proceeding between Member countries, fifteen of which are for new Conventions.

The existence of the Articles established by the Fiscal Committee has made it possible to simplify bilateral negotiations considerably and reach agreement more speedily. It is particularly interesting to note that Spain, which had no double taxation Conventions, signed three during the early months of 1963 and is now negotiating a fourth. Luxembourg which, at 1st January, 1958, had concluded only one Convention, has since concluded four more and is negotia-

ting a sixth. Ireland, which had only three Conventions in 1958, has since signed two more and is negotiating three others. Greece, which was in the same position, has since signed a new Convention and is negotiating three others.

TOWARDS A MULTILATERAL DOUBLE TAXATION CONVENTION

The Recommendation adopted by the OECD Council in July 1963 should make possible a further advance in the harmonisation and extension of the bilateral double taxation Conventions and bring nearer the time when it may prove possible to conclude a multilateral Convention among all Member countries of OECD. The Recommendation in question furthermore instructed the Fiscal Committee to report to the Council on this question as and when appropriate. However, before the Fiscal Committee can undertake this task various questions remain to be examined and resolved.

For instance, it is necessary to find a final solution to the problems arising out of the peculiarities of some countries, laws concerning the taxation of dividends. Also, for all the terms employed in the Convention there is a need for true "international definitions" which would not refer to the definitions employed in the domestic laws. A solution must also be found for the question of the improper use of Conventions and the fiscal evasion which can result from the interaction of the Conventions and the domestic laws. Certain particular points need to be regulated in greater detail. Finally, the reservations maintained by some countries on certain provisions in the Convention need to be withdrawn. These various questions are to be studied by the Fiscal Committee in the coming years.

In the meantime, however, it should be possible for certain groups of countries bound to one another by particular regional agreements to apply the draft Convention multilaterally among themselves, subject to certain adaptations that would be necessitated by the particular objectives pursued by these countries. In a report published in April, 1962, the Fiscal and Financial Committee set up by the Commission of the European Economic Community and composed of independent experts under the chairmanship of Dr. F. Neumark, stated that it was of opinion that so far as EEC was concerned the efforts directed against double taxation must finally result in the conclusion of a multilateral Convention on the model of that of OECD, amended and completed in certain respects. Furthermore, the Ministers of the Member states of the European Free Trade Association, at a meeting in Lisbon in May 1963, agreed that it would be desirable to examine the possibility of concluding among the Member States a multilateral Convention for the avoidance of double taxation on the basis of the OECD Recommendations.

In order to encourage efforts in this direction, the OECD Council last July recommended the governments of Member countries which are also members of regional groupings to examine the feasibility of concluding within such groupings multilateral Conventions based upon the Draft Convention established by the Fiscal Committee. These countries were also invited to notify the Organisation in due course of the results of their examination and of any difficulties encountered with regard to the application of the Draft Convention on a multilateral basis.

NETWORK OF BILATERAL CONVENTIONS FOR THE AVOIDANCE OF DOUBLE TAXATION WITH RESPECT TO TAXES ON INCOME AND CAPITAL BETWEEN MEMBER COUNTRIES OF THE OECD as at 15th July 1963

REPORTING COUNTRIES	SWEDEN	UNITED STATES	FRANCE	UNITED KINGDOM	F.R. GERMANY	DENMARK	NORWAY	NETHERLANDS	AUSTRIA	CANADA	ITALY	SWITZERLAND	BELGIUM	IRELAND	LUXEMBOURG	GREECE	SPAIN	ICELAND	PORTUGAL	TURKEY
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UNITED STATES	N				N									N	S					
FRANCE											S		N	N		N	S			
UNITED KINGDOM					N										N					
F.R. GERMANY		N		N		S				N	N		N	S		N	N			
DENMARK					S						N			N						
NORWAY										N	S						S			
NETHERLANDS									N				N	N						
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CANADA					N		N					N	S	N						
ITALY			S		N	N	S		N			N					N			
SWITZERLAND										N	N		N				N			
BELGIUM			N		N			N		S		N			N					
IRELAND		N	N		S	N		N		N										
LUXEMBOURG		S		N					S				N							
GREECE	S		N		N						N	N								
SPAIN	S		S		N		S													
ICELAND	N																			
PORTUGAL																				
TURKEY																				
Number of Conventions concluded	16	15	14	14	14	11	11	11	10	9	9	9	8	5	5	4	3	2	—	—
Increase since 25th February 1955.	+4	+3	+3	+2	+5	+5	+5	+4	+5	+4	+5	+2	+1	+2	+4	+1	+3	—	—	—

Conventions concluded



Convention in force



Negotiations proceeding for the revision of the Convention in force



New Convention signed to replace the Convention in force



Convention signed but not yet in force



Negotiations proceeding for the establishment of a Convention



Health precautions are stringent; they should not form a trade obstacle.

tive as they may be in this way, however, they have another less desirable result; the long journey and the successive transfers do not improve the condition of the animals on arrival, and increase the costs of meat distribution.

This is one example among others of the drawbacks of the present health regulations as they affect international trade in livestock and meat. The OECD has tackled the problem of harmonising health regulations between its Member countries, and recently arranged a meeting of groups of experts to study some aspects of the matter; other meetings will be organised in 1964 and 1965. What is the situation at the present time?

Disparate regulations

Professor H. Drieux, of the National Veterinary College at Alfort (France), an OECD consultant, undertook a thorough survey of the subject for the Agriculture and Food Directorate of the Organisation, visiting the health authorities in the chief exporting and importing countries, and consulting the appropriate international trade organisations and groups. He put forward some possible improvements as a result, and suggested ways in which some standardisation of the various health regulations could be achieved.

The first conclusion to be drawn from his survey is that the diversity, complexity and inconsistency of the existing regulations restrict and sometimes even hinder the development of trade within each separate country and between the various OECD Member countries. There are many reasons for this disparity in the regulations. First, the health condition of the livestock herd as a whole is not the same in every country; some countries lag far behind as regards, for instance, the elimination of bovine tuberculosis, brucellosis, foot-and-mouth disease and swine fever. Arrangements for animal transport also vary widely from country to country, the only common ground being the difficulty of working out an efficient method of identifying the animals entered in the transport documents. The health inspection arrangements

FIRST STEPS TOWARDS THE HARMONISATION OF HEALTH REGULATIONS

It is common for slaughter animals sold to one European country by another to cross several frontiers before reaching their destination. At the first frontier they are unloaded from the trucks, inspected and reloaded. The process is re-

peated on the other side. The same thing happens at the second frontier, and so on. These measures have the perfectly legitimate intention of ensuring that the animals are healthy and that they bring no risk of contamination into the country. Effec-

at markets and slaughter-houses show that there is a growing tendency in the former to keep animals for export in a special enclosure, and a general awareness in the latter of the importance of putting meat into cold storage after slaughter, and of the wide introduction of all-purpose cold storage depots in all countries.

Very varied inspection methods are applied in domestic and international trade in slaughter animals and meat; they are governed by sanitary regulations in every case, but these vary considerably with the country. The veterinary health services themselves are organised along dissimilar lines. The regulations on animal health control and meat inspection, and the methods employed by importing countries to keep out unhealthy livestock or unwholesome meat, vary equally widely.

Harmonisation agreements

As a first step towards facilitating the application of health measures, bilateral agreements have been entered into between certain countries. They are based on the "calculated risk" concept, which balances the economic advantages of bigger trade against the possible cost to the country concerned of eradicating an

epizootic disease introduced as a result of relaxing the stringency of the health precautions. In addition, a system of multilateral agreements is now being introduced by the European Economic Community, which is compiling health regulations to be applied by the Six in intra-Community trade in livestock and meat. This is harmonisation of health regulations on the same lines as those envisaged by other international organisations, in particular the OECD.

What improvements must be aimed at in approaching the universally desired harmonisation? First and foremost, tightening up epizootic control, chiefly by increasing the numbers of qualified staff. And as the common enemy should be clearly recognised, there is need for a nomenclature of infectious diseases grouped by animal species and a catalogue classified by risks incurred, so that any harmonised regulations introduced are sure of a standard interpretation.

Standardisation should also be aimed at for certain biological products — e.g. vaccines and biological reactors — and for methods of experimental diagnosis, brand-marks, model health certificates and sanitary standards for animal transport. Such steps as linking health inspection posts in neighbouring countries for livestock crossing the common frontier, and arranging to inspect the con-

dition of imported meat inside the country, to avoid breaking the cold chain, seem essential.

A health charter

Some time will be needed to work out a common health charter for all OECD Members, as many complicated problems call for solution, and each country is concerned with some special aspect of the situation. But the successes already scored in the matter of harmonisation (especially over fruit and vegetables, fodder crop seeds and farm tractors) show that such a charter is a practical possibility, and that there is a general awareness of its importance. With this end in view, the OECD intends to arrange meetings of small groups of experts, each dealing with a specific problem (one of those referred to above for example), so that the end in view can be gradually attained by successive stages.

In the report on his survey, Professor Drieux makes two noteworthy comments on this matter: "Sanitary restrictions must take precedence over commercial considerations, but they should conform strictly to the purpose for which they have been designed, namely the safeguarding of the animal's health. Moreover, they should be applied only as long as the danger which they are intended to provide against continues to exist. Finally, the provisions should be really capable of application and of recognised efficacy."

"It is a fact that the drafting of common sanitary regulations is bound to give rise to serious difficulties if each party holds that the measures taken for its own use are those to which the others should adhere; in such a case, agreement could be obtained only by giving general application to all the individual measures, which would hinder trade instead of making it easier. It would appear that, to prove beneficial, a common rule should be based on confidence rather than on prevention. It should make it possible to ease trade controls on the basis of adequate, justified guarantees which it should be possible for a well organised veterinary service in the exporting country to furnish."

Testing pork for salt content in a Danish laboratory.



FORECASTING FUTURE

In order to help its members keep abreast of developments in the field of manpower forecasting, the OECD held a meeting of manpower specialists at the Château de Karreveld in Brussels. Papers presented at this meeting by Sten-Olof Döös of Sweden, Prof. Jean Fourastié of France and Prof. Pieter de Wolff of the Netherlands, together with a

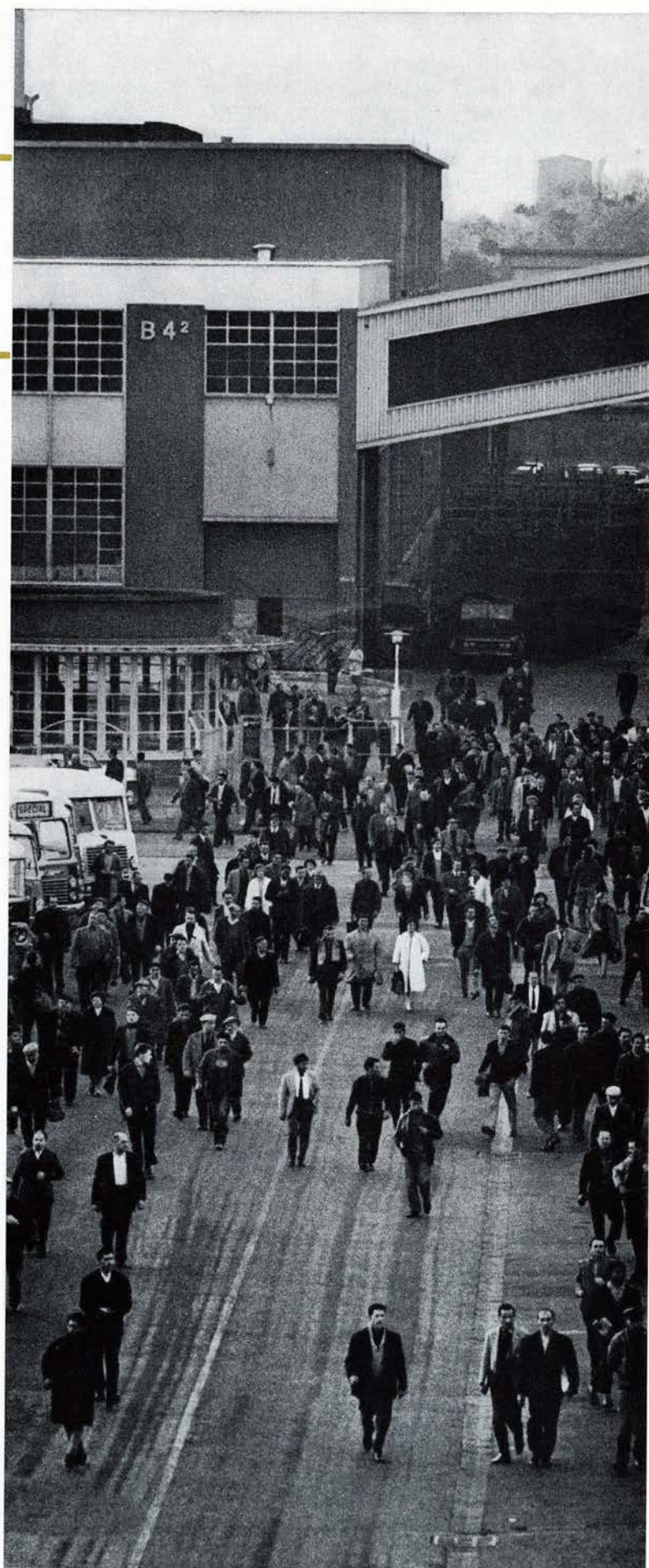
In retrospect it seems unlikely that anyone in 1940 or 1945 could have foreseen how many people would be working on guided missiles in 1963, anticipated the advent of the 25-hour week for electricians in New York City's construction industry or envisaged the operation of a complete oil refinery by one man.

Today an impressive amount of effort is being devoted to the forecasting of developments that will affect manpower five, ten, and even twenty years ahead. Techniques are being developed and tested which, though they provide no magical solutions for breaking open the secrets of the future, still may serve as useful bases for planning.

One of the five horizontal commissions working on the French Plan is concerned exclusively with the manpower aspects of planning. In Sweden, a Forecasting Institute was established in 1960 within the National Labour Board; at the present time it employs twelve professional forecasters. The U.S. Bureau of Labour Statistics and official bodies in other countries have large forecasting staffs; and manpower forecasting plays an important role in the development plans of countries in the process of industrial development.

The basic objective of such forecasting is to minimise the likelihood of a gap between the supply of workers and the demand for manpower, both in the economy as a whole and for particular industries and occupations. The projections try to show what will be the demand for labour on the part of employers and, in the absence of special measures, what will be the likely labour supply pattern. If there is a discrepancy between the two, as there almost inevitably is, the information can help the government to guide intelligently not only the adaptation of the supply of labour to the expected demand (through planning of new educational facilities and the provision of up-to-date vocational counselling, for example) but also, if the need arises, the adaptation of demand to supply (through new government investment programmes, fiscal policies that encourage new industries and like measures).

Forecasting future employment patterns is a herculean task, for account must be taken of a host of



EMPLOYMENT PATTERNS

report on the meeting by Prof. Jan Tinbergen have recently been published under the title **Employment Forecasting**.

The OECD is also using manpower forecasting techniques in its programme of assessing educational needs in the Mediterranean countries. A book describing the methodology of educational

planning in the light of development objectives has been written by Herbert S. Parnes, Consultant to the OECD's Directorate of Scientific Affairs which is responsible for the Mediterranean Regional Project. It is published under the title **Forecasting Educational Needs for Economic and Social Development**.

factors most of them changing rapidly and many of them interdependent or themselves functions of what happens to employment.

Perhaps the least problematic forecast, if census data are adequate, concerns what might be called the total potential pool of workers : how many people of working age there will be in the country concerned. The second task, that of estimating how many of these people will actually want to work, is much more difficult, especially for women. In general, employment forecasters figure that all men of working age do, in fact, work. The problem for forecasters comes in trying to project how long they will stay in school.

Extremely important, and more complex, is the breakdown of the total future labour force by the type and level of education and training its members will have received.

It is in projecting the demand for labour that economists encounter the knottiest problems, for such projections must rest on estimates about future consumption patterns and production techniques, and these can change spectacularly within a short period of time and at different rates for different industries. For short-term forecasts, past trends are usually projected into the future. This can be done with considerable sophistication. In the Netherlands, for example, short-run employment projections are made with the aid of the following econometric model developed by the Central Planning Bureau :

$$a = 0.39v + .76K + .07P_{m-v} + 0.66$$

where a = total employment
 v = total volume of sales excluding stock formation
 K = level of gross profits per unit of production
 P_{m-v} = the ratio of the import price level to the internal price level corresponding to v .

For the medium and long term, projections from the past are often checked against the opinions of people in industry as to what will happen in the future and against any other information that may be available about future trends.

Manpower projections must be made not only industry by industry but for each occupation. However, standard occupational breakdowns are not sufficient in the view of the most advanced manpower forecasters, at least for educational planning : one occupation — say managers — may require very different kinds of educational preparation from one industry to another or even within the same industry. Some forecasters therefore are experimenting with a three-way breakdown - by industry, by occupation and finally by educational preparation. The trouble is that this approach results in a huge number of subdivisions : in Sweden where forecasters have used 50 industrial sectors, 300 occupational groups and 300 educational groups, the total number of manpower categories comes to 4 1/2 million or almost a million more than the present labour force (in actual fact all but ten to twenty thousand of these slots are "empty").

The preceding is but the briefest indication of the kinds of problems involved in making manpower forecasts. There are many others. As an example, assumptions must be made about what will happen to the length of the work week, but the results of collective bargaining on this matter are often unpredictable. Moreover formal agreements between unions and employers do not necessarily determine the real number of hours worked, since there may be frequent overtime work or so-called "moonlighting" (holding down two jobs at once) which will affect the total number of workers needed.

Economists are by no means dogmatic about the assumptions they make, realising the need constantly to re-examine them in the light of new developments. Herbert Parnes, professor of economics at Ohio State University and Consultant to the OECD on manpower forecasting and educational planning, notes in this connection that "every action concerning a future event involves assumptions about the future. Forecasting attempts to make these assumptions explicit and subject to evaluation. The probable errors of projection are thus likely to be smaller and less costly than those resulting from action without such systematic projections."

Erratum : In the illustrated report "Fitting the Job to the Worker" which appeared in No. 4 of the *OECD Observer*, the caption referring to the mine-worker (page 34) should read as follows : "This mine-worker is equipped with a measuring device conceived by the Max-Planck-Institut by which it is possible to record the amount of energy expended by a worker."

THE MINISTERIA



Above : The Chairman of the Ministerial Meeting on Science, M. Théo Lefèvre, Prime Minister of Belgium (right), and Ambassador Roger Ockrent, Permanent Representative of Belgium at OECD. Right: Representatives of the Federal Republic of Germany were (left to right) Ambassador Carl H. Mueller-Graaf, Head of the Permanent Mission to OECD, Mr. Hans Lenz, Minister for Scientific Research, and Dr. Gerhard Storz, Minister for Cultural Affairs of Land Baden-Württemberg.



L MEETING ON SCIENCE

Ministers and national representatives responsible for policies relating to science and technology in the OECD Member countries met in Paris on 3rd and 4th October under the chairmanship of M. Théo Lefèvre, Prime Minister of Belgium, to consider : (1) problems of science and government policy; (2) problems of intergovernmental scientific co-operation, and (3) the relation of science and economic growth. Observers from Japan and Yugoslavia, the EEC, EURATOM, ECSC, and the Council of Europe attended the meeting.

The importance of furthering a comprehensive and consistent national science policy comprising science and technology on the one hand and the humanities and social sciences on the other hand was unanimously recognised.

The Ministers recognised that the rapid progress of science and technology 1) contributes essentially to the strength and well-being of countries, and 2) places increasing strains on national budgets and reserves of technical manpower. Governments are therefore faced with the task of elaborating criteria to guide allocation of their scientific resources, while also jealously safeguarding the freedom of the basic scientific enquiry. Institutions and procedures to accomplish this task will differ from country to country. They must be sensitive to the element of change characteristic of science and technology, and adaptable to different national objectives. They in every case require data adequate to informed decision-making. The Ministers agreed that exchanges of experience and information about national science programmes among different countries could help each to better formulate its own science policies. This is particularly true of Member countries in the course of development.

International scientific co-operation has become an increasingly important element of scientific effort, because some scientific activities are best pursued co-operatively, and because some fields require large numbers of specialised personnel and costly equipment. Co-operative programmes must take account of the particular needs and potential contributions of each participating country, and must avoid unnecessary duplication while allowing scientists the flexibility necessary to scientific enquiry. The Ministers emphasised that fruitful international co-operation must be based on effective national institutions for science policy. They agreed that precise and comparable information, mutually available, about international scientific activities and about the costs and benefits of co-operative programmes to the participating countries is required to enable each government to assess the value of particular joint programmes both to itself and to its partners.

The Ministers recognised the growing importance of science and technology in the economic and social development of the Member countries. They therefore stressed the importance of establishing effective links between science policy and economic policy. Emphasis was put on the need to ensure the rapid assimilation in the economy of the extensive volume of existing scientific and technical information. The Ministers agreed to invite the Organisation to reinforce its work concerning the contributions of science to the economy, and in particular those relating to establishing comparable statistics on scientific and technical activities in connection with economic growth and assistance to countries in the process of development. They also recognised that there is scope for co-operation in identifying and studying



A break in the discussions : (left to right) Prof. L. Massart, Chairman of the Belgian National Council for Scientific Policy ; Mr. James C. Langley, Permanent Representative of Canada to OECD ; Lord Hankey, KCMG, KCVO, Head of the United Kingdom Delegation to OECD ; Ambassador Roger Ockrent, Permanent Representative of Belgium to OECD ; M. E.M.J.A. Sassen, member of the Euratom Commission ; M. Théo Lefèvre, Prime Minister of Belgium ; Mr. Olaf Löfberg, Swedish Delegation ; Mr. Thorkil Kristensen, OECD Secretary-General.

scientific fields of potential importance to the economies of the OECD countries.

The Ministers recognised that all of the foregoing

activities require the closest exchange and co-operation among scientists and technologists in government, industry, and educational institutions.

The Ministers decided :

- to meet again within two years under the same conditions that applied to the 1963 meeting ;
- to constitute an interim committee of high-level officials concerned with science policy, to be charged with :
 - a) continuing substantive investigation of the questions of national and international science policy raised under the three items of the agenda and in the preparatory work of the 1963 Ministerial Meeting on Science ;
 - b) investigating means of, and if possible initiating action to effect a fruitful exchange of information on national and international scientific programmes and problems ;
 - c) identifying and studying the issues to be presented to the next ministerial meeting ;
- to request the Secretary-General of the OECD to provide secretariat and other necessary support for this committee, and to ensure that the existing scientific work of the Organisation is co-ordinated with the work of the interim committee.

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