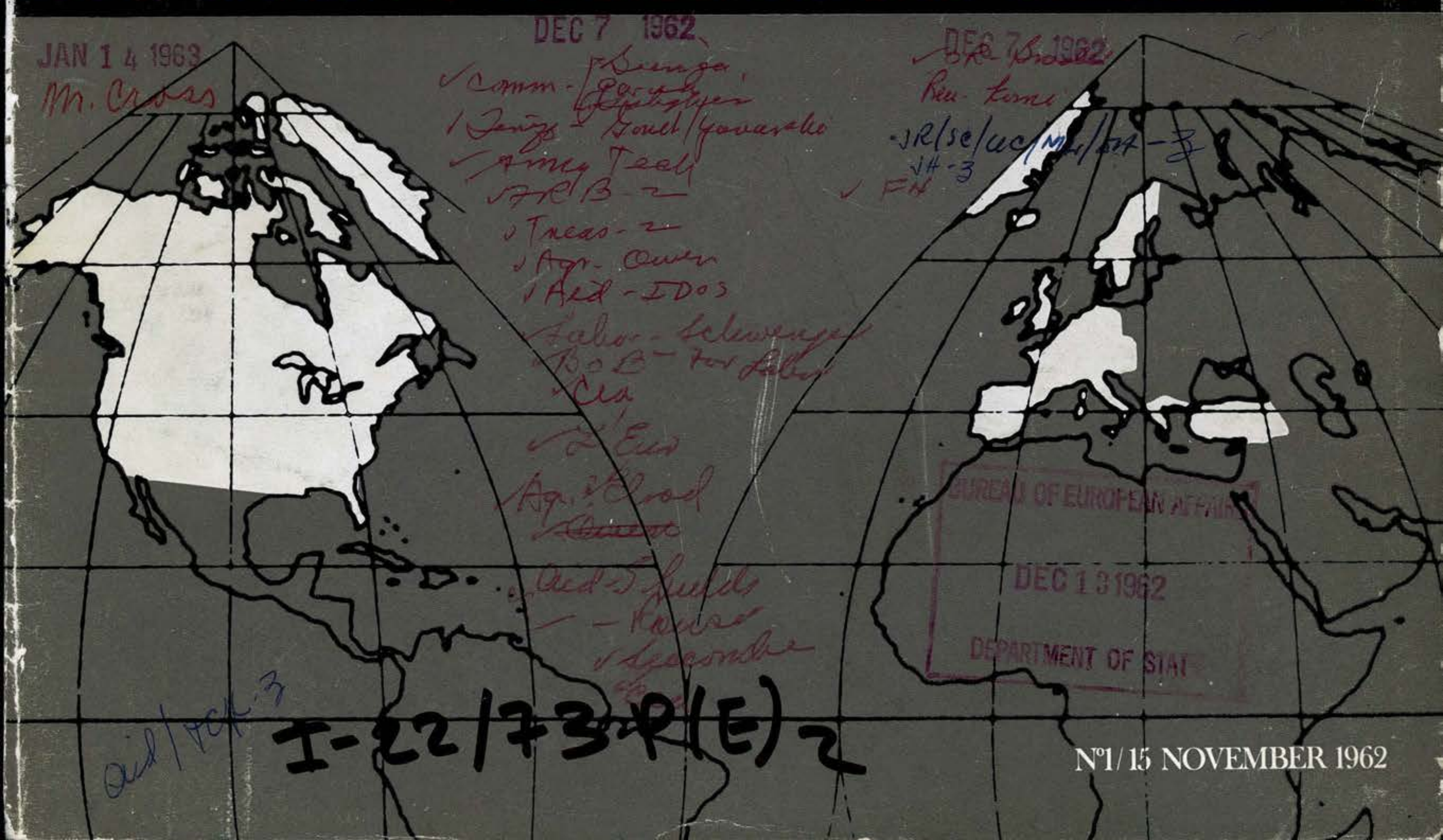
the OECD OBSERVER

WHAT MAKES AN ECONOMY GROW? THE ROLE OF RESEARCH, EDUCATION AND MANPOWER ADAPTABILITY. THE NEW DIMENSIONS OF ECONOMIC PROGRESS.

CAN SMALL INDUSTRIES SURVIVE?

THE TASK AND THE TOOLS OF AID.



Nº1/15 NOVEMBER 1962

the OECD OBSERVER

N° 1 15th NOVEMBER 1962

Published bi-monthly in English and French by
THE ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

EDITORIAL OFFICES
O.E.C.D. Information Service, Château de la Muette, Paris 16e.

Annual Subscription Rates: NF 10.00, FS 10.00, DM 8.30, 15 s., $ 2.50. Single copies: NF 2.00, FS 2.00, DM 1.70, 3 s., $ 0.50.

EDITOR: Anker Randsholt

All correspondence should be addressed to the Editor.

PHOTOS: Page 4: Jacques Normand - *Le Figaro*; Pages 6-7: Marc Riboud - MAGNUM; Page 8: U.S.I.S.; Page 11: Robert Mottar; Page 12: Robert Mottar; Page 13: Reporters Associés; Pages 14-15: Marc Riboud - MAGNUM; Pages 16-17: Lucien Adrion; Page 26: Photo Italsider; Page 27: André Ganet - Agence Rapho; Pages 30-31: Janine Niepce - Agence Rapho; Page 33: André Ganet - Agence Rapho (upper); Keystone (lower).

CONTENTS

The confrontation of economic policies within the O.E.C.D.

20 NATIONS EXCHANGE THEIR POLICY IDEAS FOR MUTUAL ECONOMIC BENEFIT

The lesson of the Thirties has been taken to heart: international agreements signed since the end of the war have been based on express recognition of the need for international economic co-operation to ward off any recurrence of catastrophes like the Great Depression and to help assure an economic climate wherein all countries can expand smoothly and acceptably fast. An essential part of the machinery for this co-operation is the system of confrontation of economic policies operated by the O.E.C.D.

Confrontation enables each country to formulate and apply its own policy in full knowledge of the international conditions in which it will be put into effect, and of the plans of other governments and the motives behind them. Each country thus has the opportunity to explain and seek to justify its own policy; and each has the chance of expressing its views on what other countries are doing, and, where appropriate, of influencing them.

The Great Depression, the World War and the post-war reconstruction period brought about a radical change in the role of governments in economic life. The prevailing idea of the State as a mere economic watch-dog gave place in the course of ten or fifteen years to a more positive and dynamic conception of economic policy. It was generally recognised and accepted that governments were responsible for ensuring full employment, a satisfactory rate of economic growth, the sound utilisation of national resources and the fair distribution of incomes between the social or regional groups. Governments found themselves playing an increasingly essential part in economic development, not only because public spending was rising enormously but also because of the new responsibilities they expressly assumed.

Thus were the foundations laid for the co-ordination of national economic policies. The need for it had become common ground; and governments now had the means to put it into effect. They took the opportunity, and as early as 1948 they developed, inside the O.E.E.C., an efficient system of co-ordination and virtual day-to-day confrontation of the economic policies of the 20 Member and Associated countries. This

resulted not from abstract recognition of the value of international co-operation, but a hard fact of quite a different order. The grants and loans made by the United States to the countries of Europe under the European Recovery Programme (the Marshall Plan) had to be shared between the beneficiaries according to their needs. But George Marshall himself wisely laid down that the countries of Europe had to agree between themselves as to what each of them needed and submit to the United States a joint recovery programme showing the amount of aid they required in total. Thus it was that Paris witnessed a phenomenon unique in peace-time history. Each country submitted to the O.E.E.C. an economic programme which set out its economic aims, the resources available for achieving them and the external assistance thought necessary to fill the gap thereby revealed. And each national programme was exhaustively and critically examined, in the various committees of the Organisation, by representatives from all other Member countries.

The distribution of Marshall aid was finally completed. But the system of confrontation went on. History has seen many institutions flourish long after the disappearance of the circumstances for which they were created. The periodic confrontation of the economic policies of the O.E.E.C. countries lived on because it answered deeper needs than the immediate problem of distributing Marshall aid. It had to be conserved because it was the only way by which constructive solutions could be found to the manifold problems which, in quick succession, threatened to frustrate the aims of the O.E.E.C. : the acute balance of payments difficulties experienced by Germany, the United Kingdom and France in 1951-1952; the recession which followed the Korean War; the persistance of an international dollar shortage up to 1957; the recession of 1958; the problems which arose from the restoration of the convertibility of several European currencies in early 1959; the persistent German balance of payments surplus; the reversal of the dollar problem since 1960. A succession of problems of this order is clearly a natural and inevitable manifestation of life in a changing world. The experience of the O.E.E.C. showed that it is better to solve them through co-operation than through independent and unco-ordinated national action.

Thus, when the O.E.E.C. was converted into the O.E.C.D., one of the major tasks of the reconstituted Organisation continued to be the review of country situations and problems and general economic trends. The aim of such reviews is to determine the principles of action that a given situation requires and to indicate what concerted measures could be taken to achieve the common objectives and to avoid discrepancies of action.

At the present time, there are several different ways in which economic policies are confronted within the O.E.C.D.

The first and most regular is the annual review of each country's general economic situation and prob-

ECONOMIC POLICY ANNUAL EXAMINATION OF COUNTRY X

Representative List of Questions

THE BALANCE OF THE ECONOMY

- The rate of growth has recently been slowing down considerably. How far is this tendency thought to be due to exceptional factors unlikely to recur? What is the outlook for output, the major demand components and the balance of payments over the next twelve months?
- What will these forecasts imply for unemployment and capacity utilisation?
- What are the main factors behind the recent rise in prices, and what is the outlook for the next twelve months? What further progress has been made towards the development of an

ANNUAL AID REVIEW OF COUNTRY X

Representative List of Questions

INTENTIONS FOR FUTURE AID PROGRAMMES

- What are the intentions of the Government with respect to the volume and terms of development assistance to be provided in future years?
- Is it the intention of the Government to make contributions to multilateral agencies over and above the amounts which they are due to contribute under the terms of membership to those agencies?

TERMS OF AID

- More than half of net official contributions is

EDUCATIONAL POLICY OF COUNTRY X

Representative List of Questions

EDUCATIONAL PLANNING

- In what ways could the existing machinery for estimating present and future needs for scientific and technical personnel, and for education, be improved?
In particular :
Are the needs of the economy fully investigated under existing arrangements?
Is there sufficient co-ordination between the bodies engaged in educational forecasting and those in other fields, e.g. economic and financial?
Could the Delegation express its view concerning the advantages which have been gained from the forecasting procedures adopted up to now?
- How does the educational planning machi-

incomes policy, and what are now the views of the Government on this issue?

STABILISATION POLICY

● What lessons can be drawn from contra-cyclical policy experiences over the last few years? Are steps being taken to secure a better coordination of policies?

● The Government budget for the current year, drawn up before the new trend in activity had become apparent, entails a tighter fiscal policy. Is it felt that an early reversal of budgetary policy in an expansionary direction is required?

● What could be done to increase the flexibility of the budget for anti-cyclical purposes?

● The surplus on the current account of the balance of payments has shown a tendency to grow, aggravating the international payments situation. What is being done to counteract this tendency? In particular, have the authorities considered eliminating remaining restrictions on merchandise imports?

● Interest rates, although declining somewhat, remain high, and have led to an influx of both short-term and long-term funds, which has created balance of payments difficulties for certain other countries. With demand pressure now disappearing, will external considerations be given greater weight in the formulation of monetary policy?

LONGER-TERM PROBLEMS

● How do the authorities intend to deal with the structural problems now arising in manufacturing industry?

● What steps are being taken to increase the present very limited capacity of the capital market?

---

given in the form of grants (including grant-like contributions to multilateral aid agencies). Most loans, however, are given at market rates of interest, and, although they are usually for long repayment periods and sometimes given jointly with grants they may, in some cases, constitute a heavy external repayment burden on recipient countries. What are the intentions of the Government with respect to loan terms in future?

TIED AID

● At present most aid contributions are tied. Do the authorities contemplate, in view of the favourable balance of payments position, to take steps in the direction of decreased tying?
Could the authorities indicate the proportion of aid which is used for purchases in Country X?

GEOGRAPHICAL DISTRIBUTION

● Aid is concentrated in a limited geographic area. The recipients are countries which until recently were linked to Country X by close institutional ties. In view of a possible reduction of charges as a result of decolonisation, do the authorities propose to increase their aid to other countries? How will these countries be selected?

TECHNICAL CO-OPERATION

● How are requests for loans or grants for capital projects and programmes screened to ensure that any necessary training of operating personnel is provided for and that related technical co-operation activities will be forthcoming? Is any coordination of capital assistance and technical co-operation being considered?

---

nery operate, and what changes are contemplated? What are the respective functions of the various bodies engaged in the planning process? What account is taken by the planning authorities of the forecasts of needs?

HIGHER EDUCATION

● What action is being considered concerning the internal efficiency of higher education?

● Adults now make up a high percentage of the total student body in higher education. What measures are being taken to facilitate the studies of these adults, by the enterprises which employ them, and by the university staff who teach them?

● Is it intended to set up a research service, at Government level, on means of further education (use of radio and correspondence courses, techniques of adult education)?

HIGH SCHOOLS AND TECHNICAL SCHOOLS

● What measures are being taken by the authorities to ensure that :
There will be, in future, a sufficient supply of high-school graduates who are adequately prepared, in science and mathematics, for higher education?
The main purpose of secondary technical schools remains to supply technicians?

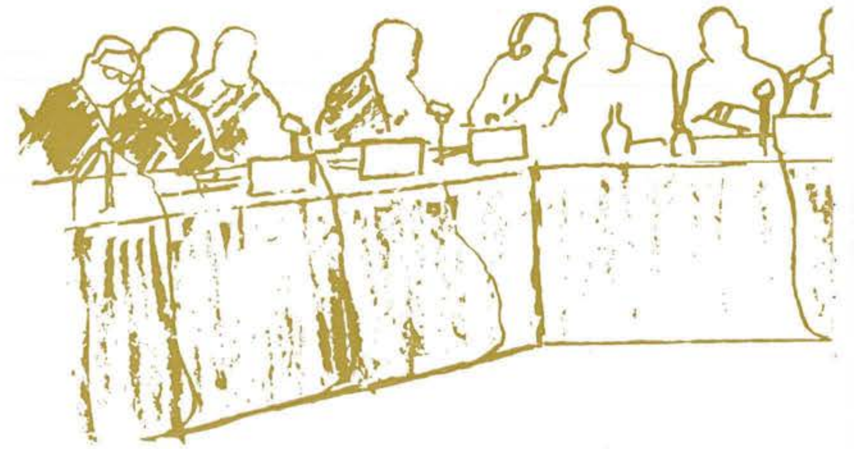
TEACHERS

● In view of the past expansion of higher education, and the need for future expansion in secondary education, what measures are being taken to increase the supply of teachers, in mathematical, scientific and technical subjects, for both higher and secondary education?

SCIENTIFIC AND TECHNICAL RESEARCH

What are the facilities available to members of scientific and technical faculties for carrying out research? Are there opportunities for applied research?

lems. This takes place in the Economic and Development Review Committee, on which all 20 countries are represented. Every country submits each year a memorandum and a standardised set of statistics to explain its economic situation, and the aims and methods of government policy. From this material, economists of the international O.E.C.D. Secretariat, specialists in the economic affairs of the Member countries in question, prepare a draft report on the situation of the country under review. Two examining countries, in consultation with the Secretariat, then address to the country under review a list of questions relating to its immediate or medium-term prospects, its problems and the policy it is adopting or should adopt. All these documents are communicated beforehand to the members of the Economic and Development Review Committee. On the day of the examination, the representatives of the country under review (senior civil servants come from the capital for the occasion) answer the questions put to them by the examiners and participate in the general discussion that those answers normally invoke. The Secretariat's draft report is then reviewed, and a final version is formally approved by the Committee and published. These reports contain both factual analysis and recommendations for economic policy. The recommendations may be addressed not only to the country under review, but to other Member countries as well.



In addition to its regular annual reviews, the Economic and Development Review Committee, on the proposal of its members or of the Secretariat, may at any moment undertake *ad hoc* surveys either of the situation in a particular country where important developments are taking place, or of other special economic problems which are not confined to individual countries. Arising out of such reviews, it may submit reports to the Council of the Organisation calling attention either to the situation in a particular country or to more problems which call for concerted action by the Organisation.

Economic policies are also confronted, two or three times a year, in the Economic Policy Committee. This body is drawn from the high-level officials directly concerned in the formulation of economic policy in each country. It is the constant concern of the Economic Policy Committee to keep current international economic trends under review and, where necessary, to advise on appropriate policies. Its discussions are exceedingly frank, and are not generally followed by any publicity.

The Economic Policy Committee has set up three Working Parties which meet more frequently on particularly important subjects. One of them, which keeps balance of payments trends under constant review, finds the confrontation procedure of considerable value. And the Working Parties which deal with longer-term growth problems and the all-important question of cost and price stability may also find it useful, on occasions, to adopt a similar approach.

These examples of the confrontation procedures are in no way exhaustive. Many others may be found in the branches of the O.E.C.D. dealing with foreign trade policies, invisible transactions, manpower, agriculture, energy, development aid, etc.

The interdependence of national economies has necessitated a far-reaching international co-ordination of policies. The virtually continuous confrontation of these policies as practised by the O.E.C.D. probably represents the greatest advance so far achieved in this direction.

This is far from claiming that the system has reached perfection. Confrontation does not inevitably lead to co-ordination; even when it does, that co-ordination may still be inadequate, fragmentary or belated. Under the unanimity rule no country is bound to apply recommendations or decisions with which it is not in agreement.

More rigorous methods of international co-operation and co-ordination can easily be imagined. But national sovereignty remains an inescapable fact, and it is unrealistic to contrive a system which disregards it. Moreover, it would be far from the truth to conclude that the present voluntary system whereby countries compare and utilise each others' policies leads to aca-

demic discussions with no practical effects. On the contrary : during the past fifteen years it has had a deep influence on the economic policies of the countries which today form the O.E.C.D.

In the first place confrontation enables each country to formulate and apply its own policy in full knowledge of the international conditions in which it will be put into effect. In particular, it enables each government to assess one variable factor which is of increasing importance, the economic policies of the other governments and the motives behind them.

It also gives every country the chance of expressing its views on what other countries are doing and, where appropriate, of influencing them. Conversely, each country has the chance to explain its own policy and, if that seems to have adverse repercussions on others, to seek to justify it.

Thirdly, where views coincide, confrontation is a valuable means of reaching joint decisions.

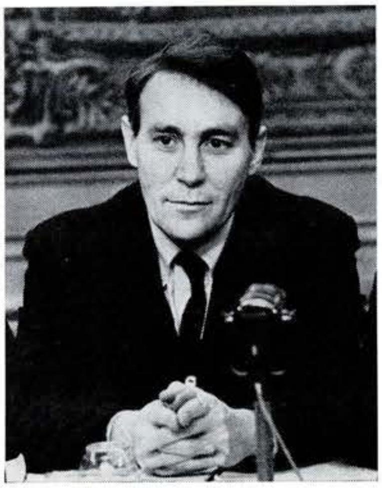
But confrontation yields its most appreciable result in those precise cases where there are differences between national viewpoints. In such cases the unanimity rule might have been expected to make confrontation meaningless except for the purpose of recording disagreement. But this is seldom the case. A country which finds itself alone against practically all others is subject to strong moral pressure; and the experience in recent years shows that, even if they have to be repeated several times, right ideas generally prevail over wrong ones. A glance through the conclusions and recommendations of a series of annual reports devoted to a particular country (accepted before publication by the representatives of the country under review but often only after long and tenacious discussion) will reveal many cases where national policy has been seriously criticised and subsequently amended.

It is not difficult to understand why this should be. A country's economic policy is not the pure expression of unalloyed reason. It reflects the prevailing balance of its social and political forces, and is normally under constant sectional pressures, but discussion in an international forum such as the O.E.C.D. helps to put these forces and pressures into better perspective, and to sort out the good from the bad. Publication by the O.E.C.D. of an international view of what are sometimes thought to be purely domestic questions can materially help the formation of more bilateral opinions in the country concerned.

Among the O.E.C.D. countries there is no more instructive case of the developing relations between governments, science and education than that of the United States of America. A cross-examination by an international panel of United States educational policy recently took place at O.E.C.D. headquarters, following a review carried out by Sir John Cockcroft, Master of Churchill College, Oxford, Dr. A.H. Halsey, Head of the Department of Social and Administrative Studies, University of Oxford, and Professor Ingvar Svennilson, Professor of Economics at the University of Stockholm. In this article Dr. Halsey discusses the pattern and development of the American system of higher education.

America's way to educational reinforcement

by Dr. A. H. Halsey



The educational problem in America is both massive and complex. The 50 states encompass a population of over 180 million which is expected to rise by 15 per cent to 208 million in 1970. Moreover, the educational system faces unprecedented enrolments, not only because of population increase but also because every year a higher proportion of the upper school age groups stays in school.

In 1904, 4 per cent of Americans went to college; in 1960 the proportion was 35; by 1970 it will be 47 per cent. In the process, it may be noted, the nature of the undergraduate college is transformed; for example, about 40 per cent of those who enter college in the U.S.A. do not graduate whereas in Europe typical "drop out" rates would be 10-15 per cent.

Behind these remarkable trends lie two powerful forces, a social push and an economic pull. The social push takes the form of rising popular aspirations towards higher education. College graduation is rapidly coming to be accepted as part of every American's birthright. The pull comes from the impact of science on the economy of an advanced technological society.

Unskilled labour in such a society is well on the way towards elimination. The most rapidly growing sectors of the occupational structure are the professional and scientific occupations, those which demand a high and rising level of educational qualification. Education is not only an American cultural birthright, it also pays off for the individual as an investment in his occupational career. Another way of putting this is to say that the traditional American drive towards equality of opportunity is now powerfully reinforced by the nature of a high growth economy based, as it is, on the application of science to economic processes. One might say that

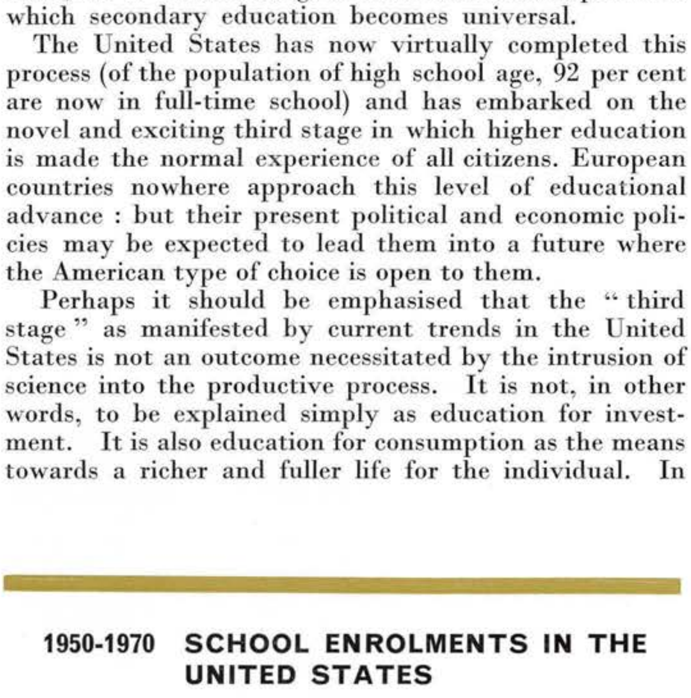
what was once a political and moral aspiration has now become an economic necessity. The modern high growth society is characteristically chronically short of skilled manpower.

Reflection on the American experience also brings into clear relief a pattern of educational development which seems to accompany stages of economic growth. Early industrialism in Western Europe and America in the nineteenth century gradually generated a need for universal primary education. The subsequent growth of large scale industry and the development of the tertiary sectors of industrial economies, together with the beginnings of the new industrial and administrative professions, led to a second stage of educational development in which secondary education becomes universal.

The United States has now virtually completed this process (of the population of high school age, 92 per cent are now in full-time school) and has embarked on the novel and exciting third stage in which higher education is made the normal experience of all citizens. European countries nowhere approach this level of educational advance : but their present political and economic policies may be expected to lead them into a future where the American type of choice is open to them.

Perhaps it should be emphasised that the " third stage " as manifested by current trends in the United States is not an outcome necessitated by the intrusion of science into the productive process. It is not, in other words, to be explained simply as education for investment. It is also education for consumption as the means towards a richer and fuller life for the individual. In this respect comparison of U.S.A. and U.S.S.R. is instructive.

1950-1970 SCHOOL ENROLMENTS IN THE UNITED STATES



In his recent message to Congress in support of immense Federal spending on education, President Kennedy emphasised the fact that, despite much lower rates of enrolment, the U.S.S.R. produces three times as many engineers and four times as many physicists as does U.S.A. This striking comparison reflects the fact that Russian higher education since the Revolution has been planned single-mindedly as an instrument of manpower in the drive towards economic growth. The Russian universities and technical institutes are used for investment education almost exclusively, whereas the American campus, though clearly also a training ground for the professional, scientific and white collar world, is much more. It is a microcosm of the American way of life with an enormous range of activities from intellectual to almost anti-intellectual, from the most earnest professional training to the most trivial pastimes.

The American institutions of higher education graduate about eleven times as many as does the Russian system in the humanities, the social sciences and the liberal arts. On the other hand, the sharper focus of Russian higher education on the manpower needs of a scientific society is illustrated by the fact that of all graduates in U.S.S.R. in 1959 about 57 per cent majored in science, applied science or engineering. The comparable American figure was 24 per cent in 1958 (1).

The American universities reflect American society too in the organisational model to which they approximate. In our Examiners' Report on the U.S.A. we contrasted Russian and American education by describing the former as a tidy monolith of specialised research and training organisations and the latter as a vast and lively untidiness of many autonomous " academic corporations " competing in the market for academic prestige and income. It is against this background with its emphasis on the idea of the free university and the general American suspicion of government that the " interference " of the State in educational matters has to be seen.

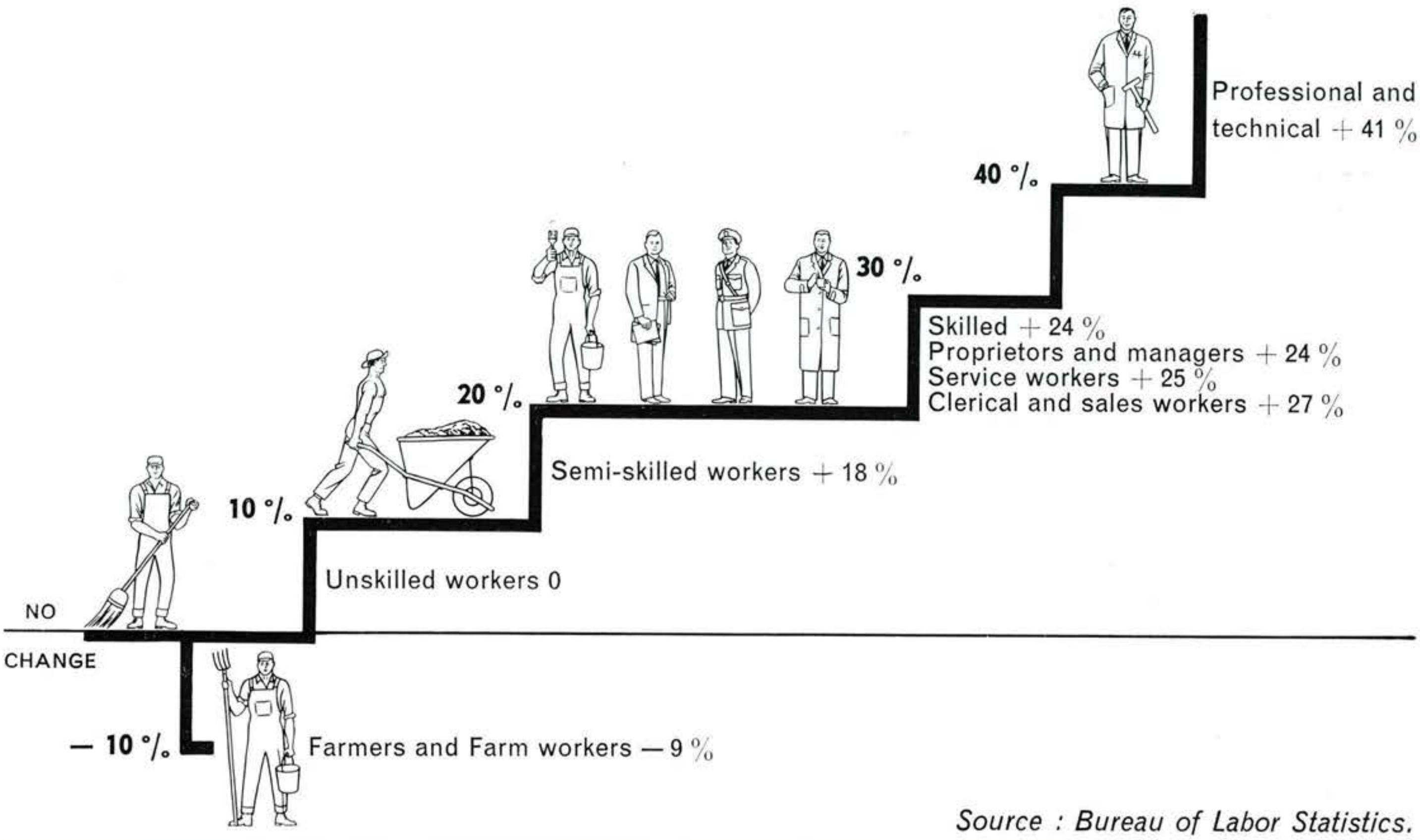
One special peculiarity of the financing of higher education is a consequence of the traditional relationship between education and the Federal Government. This is that federal aid to higher education is predominantly in the form of research support and hardly at all as a direct support to the teaching function itself. Federal money, too, tends to flow much more into the natural sciences than into the humanities.

Among the consequences of this special economic relation between the universities and the Federal Government, a major issue is that of the balance of intellectual life in institutions of higher education, the allocation of resources between research and teaching and between science and the humanities. It can be argued that since we live in an age of science the strong trend towards science and scientific research in the universities is only to be applauded. But, I think, there are three further points to be made.

First, it must be recognised that what I have called an educationally " stage III " society tends to change

(1) For more detailed comparison see N. de Witt : *Education, and Professional Employment in the U.S.S.R.*, Washington, D.C.. 1961, p. 338.

1960-1970 IN THE UNITED STATES, JOB OPPORTUNITIES WILL INCREASE FASTEST IN OCCUPATIONS REQUIRING MOST EDUCATION AND TRAINING



Source : Bureau of Labor Statistics.

the character of its undergraduate institutions. From being the apex of the system where the limits of knowledge are met, they become teaching institutions feeding the graduate schools. Thus, as research, prestige and opportunity shift to the graduate schools, so does talent, and the undergraduate experience tends to become impoverished. This trend is especially threatening to the American private liberal arts college which is having an increasingly hard struggle to attract and retain faculty to match the quality of its often superior students.

Second, the rise of scientific research has tended to produce a subtle redefinition of the whole of scholarship, and the humanities tend to redefine themselves in terms of the natural sciences. Thus, for example, it may very well be that insistance on the Ph.D. degree as the minimum qualification for professional standing, around which the graduate school and the supply of teachers for higher education is organised, may be inappropriate for the humanities and the social studies.

Third, the effect of governmental demand for research scientists has given strong reinforcements to the tendency of research to separate itself from teaching. There are many manifestations of this tendency. One is the growth of a " Ph.D. community " outside the universities, the teaching potential of which is under-utilised. Another is the development of academic jobs without teaching responsibilities. The young post-doctorial research associate is an increasingly common phenomenon as is the illustrious but absent professor whose membership of his university is little more than a home base from which he circulates on the international network of research and expertise. The organisation of science in America shows that resources for preserving and transmitting the scientific culture have to compete with resources for developing new scientific knowledge.

The American case shows then that an affluent society which bases its way of life on the scientific cultures enters new realms of educational experience. Paradoxically, it appears that the more highly educated a nation becomes, the more short it becomes of educated people. This paradox arises from the insatiable appetite of advanced industrialism for professional and scientific manpower. Other O.E.C.D. countries are, no doubt, eager to develop to the point where they may face these difficulties. Meantime, the visitor cannot fail to be impressed by the immense energy and optimism with which they are being tackled in the United States.

Working with Yugoslavia

In 1955 the O.E.E.C. invited Yugoslavia to attend its meetings in the capacity of an observer. Since that time, Yugoslavia though not a member of the O.E.E.C. or the O.E.C.D. has participated in a constantly growing number of its activities on an equal footing with Member states.

A special working party was set up in 1956 to facilitate discussions between Yugoslavia and Member countries on problems of mutual interest. Yugoslav authorities were asked in 1961 to participate in the work of the Economic and Development Review Committee which is charged among other tasks with the annual review of the economic situation and prospects of each Member; a survey of the Yugoslav economy was published in May, 1962. Yugoslavia also sits on the Scientific and Technical Personnel Committee and the Scientific Research Committee, and its policies in these domains are scrutinised by the committees.

At the request of the Yugoslav government the O.E.C.D. is also sending groups of experts to Yugoslavia and financing study abroad for Yugoslav technicians.

Between 1930 and the middle 1950's, the Yugoslav economy was subjected to a series of blows which left it in near desperate condition : first, the Depression, then World War II which was as destructive for Yugoslavia as for any other participant, wiping out as it did most of the progress towards economic development that had already been made. In 1948, just as the economy was beginning to recover — industrial production had actually surpassed the prewar level — Yugoslavia was hit by an economic blockade on the part of the Eastern European countries which then accounted for nearly half its trade. Lacking raw materials, industry stagnated until 1953.

Throughout the early postwar years, however, the Yugoslav government had been investing huge sums — from 28 to 36 per cent of national income — to increase the country's productive capacity, and in 1953 (by which time Yugoslavia had reoriented its trade to the West) this investment programme began to pay dividends. From 1953 through 1956 the "social" product (1) rose by an average of 8.8 per cent annually; the process accelerated in the years 1957 through 1960 when average annual growth reached the striking rate of 12.7 per cent.

PROGRESS AND PROBLEMS

Industrial production now makes up almost half of Yugoslavia's total output as opposed to only a quarter in 1939. Products manufactured include such sophisticated pieces of equipment as ships, turbo-generators and washing machines; and Yugoslavia is exporting buses to Egypt, cars to Finland, combine

(1) This concept differs from that of gross national product used in most O.E.C.D. countries.

harvesters to Cambodia, steel bridges to India, Greece, Turkey and Burma, and polio vaccine to Brazil.

Although Yugoslavia's rate of growth compares favourably with that of any Western European country, the same cannot be said for the level of development so far attained. The average standard of living in Yugoslavia today can perhaps most accurately be likened to that of Italy a dozen years ago. And, as in Italy, certain regions, notably in the south, are well below the average : it has been estimated that in two southern regions — Montenegro and Kosovo-Metohija, per capita income is only half that of the average for the country as a whole and only a tenth that of the more highly developed regions — Slovenia and Croatia — to the north. The government is faced with the problem of improving conditions in the South without sacrificing the aspirations of the Northerners to narrow the gap between themselves and Western Europe.

Agriculture also presents a serious problem for the Yugoslav government. It was only in 1957 that postwar agricultural output substantially surpassed the prewar level. There have been better years since, but progress has been erratic, and unfavourable weather can wreak havoc with production as it has done for the last two years.

Yugoslavia also has balance of payments difficulties. The value of exports over the last seven years has averaged only two-thirds that of imports. Despite a rise in tourist receipts, the country has been forced to borrow extensively abroad with the result that its foreign debt is now in the neighbourhood of a billion dollars.

To improve the external payments situation and to combat inflationary pressures that had been building up, the Yugoslav government at the end of 1961 and the beginning of 1962 took a series of measures intended to limit the growth of internal demand and devalued the dinar. A significant improvement in the trade balance resulted : during the first nine months of 1962 exports rose by 16 per cent, imports by only 6 per cent; but the measures also seem to have led to some slowing down of the growth rate, at least temporarily.

THE INSTITUTIONAL FRAMEWORK

Yugoslavia's economic system is unique and in a state of evolution. The original system adopted in the years beginning just after World War II followed closely the pattern established by the Soviet Union. Production and distribution were not only nationalised but put under the control of the central government. Agriculture was to be collectivised. Planning for the whole economy became a function of the central government whose decisions were communicated to the individual firm by such mechanisms as compulsory production quotas.

Towards the end of the 1940's, the Yugoslav government began to depart radically from this original concept. The principle of public ownership of industrial enterprise was maintained, but over the years responsibility for production and distribution decisions was decentralised : steps were taken towards a system of worker management of production by granting extensive powers over investment and production to workers' councils within each plant. Collectivisation was abandoned in favour of peasant ownership of the land; and central plans were used as a guide rather than a directive.

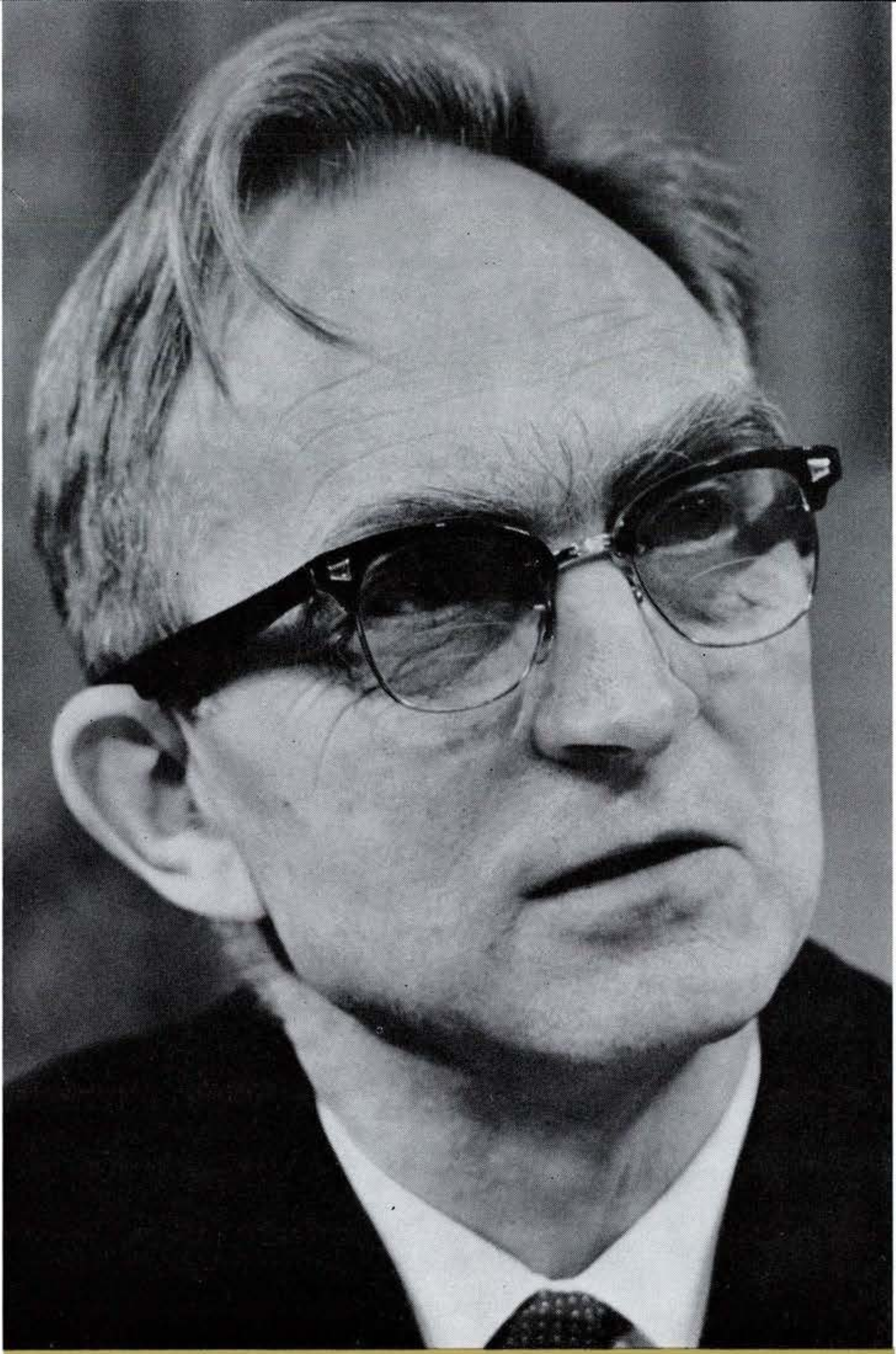
In the late 1950's various refinements were introduced to improve the co-ordination between production and demand and between investment and income. The changes have continued into the Sixties with the decentralisation of the banking system and the liberalisation of imports among other developments. Further changes are in the offing.

TECHNICAL CO-OPERATION

The Yugoslav government has requested that the O.E.C.D. address itself to certain of its development problems. Half the funds allocated by the O.E.C.D. for technical co-operation with Yugoslavia in 1963 will go for the work of increasing industrial productivity, particularly in the manufacture of goods which have an export potential : wooden building materials like fibreboard and plywood, for example; wooden furniture, electrical cables, transformers and radio and television sets.

The second largest portion of O.E.C.D. funds will be used to develop Kosovo-Metohija (also called the Kosmet), an autonomous area within the republic of Serbia composed largely of Moslem Albanians whose ancestors were under Turkish rule from the 14th to the 19th century. Though largely agricultural, the area has good industrial potential since it has Europe's largest deposits of lead and zinc, as well as coal and a variety of other minerals. The Yugoslav government has undertaken a five-year 230 billion dinar ($ 300 million) development programme for the region. The O.E.C.D. is working with the government to improve the plan and quicken its pace in the fields of agriculture, industry, mining and the tourist trade. To this end, three Italian experts went to the region for a preliminary study visit last summer.

The rest of the technical co-operation funds will be used to improve agricultural productivity on newly irrigated land in Macedonia and the lower Danube; to improve techniques of economic analysis and forecasting; to lower distribution costs through modernising the distribution system and to train technical and scientific personnel.



As his starting-point in an address to the Société d'Économie Politique, Paris, on 12th February, Mr. Thorkil Kristensen took the halt in the Brussels negotiations. From a discussion of the tendencies of Europe's economic and political system — the federal and the functional approach — he went on to consider links between Europe and North America, the United States' balance of payments difficulties and the problem of the disposal of her agricultural surpluses. Economic growth, the Secretary-General pointed out, is higher in those countries where possibilities exist of increasing the national product by the transfer of manpower from agriculture to industry. Finally, he dealt with the widening gap between the rich countries and the poor, and stressed that the main problem of the developing countries would in the long run be the finding of market outlets for their products.

European Co-operation: Federal or Functional?

* * *

Reciprocal reduction of trade barriers across the Atlantic.

* * *

Developing countries: the needs and their nature.

ECONOMIC RELATIONS BETWEEN EUROPE AND THE OTHER CONTINENTS

The war left Europe weak and divided, economically weak and politically divided. The economic system of Europe therefore had to be reconstructed and at the same time action had to be taken in the political sphere to prevent any future conflicts between European countries.

These were the two fundamental facts underlying the European movement which arose spontaneously in many European countries in the immediate post-war years. The origin of this movement therefore gave it a twofold character, economic and political. In fact, to many supporters of the movement, economic co-operation has been of secondary importance only and has been mainly looked upon as a means of achieving the political unity of Europe. That it why it is so difficult, even today, to distinguish in European discussions between economic ideas and political ideas, so closely are they linked together. Even the reflections which may be made as to economic relations between Europe and the other continents are always mingled with considerations which are political rather than purely economic. This must be remembered if we want to form a true picture of what is going on at this moment.

Two tendencies within the European movement explain to some extent the difficulties which have arisen: the federal approach and the functional approach.

Another feature which has marked the European movement from the outset has been the existence of two different approaches, a federal approach and what has been called a functional approach. To the federalists the political unity of Europe was the real goal of the movement and they therefore wanted supranational organs which would compel individual countries to submit to the decisions required by a truly European policy.

The federalists were found more particularly among the supporters of the European movement in France, Germany, Belgium and Italy. It is perhaps no accident that the federalist tendency was so marked in the countries which were more severely affected than the others by the war and which had fought doggedly. People in these countries wanted to prevent another war between them at all costs. The desire was to limit or even do away with national sovereignty in order to prevent any future political conflict.

The functional approach, on the other hand, laid stress on the need for European co-operation rather than for political unity in the proper sense of the term. The functionalists were not convinced that the European countries, with their age-old national traditions and institutions, could all of a sudden submit to a supranational authority, though they recognised the need for co-operation in a certain number of public functions; this is how they came to be called functionalists. Their chief aim was economic co-operation, but on a voluntary basis, leaving national governments greater freedom than the federalists desired.

The supporters of the functional approach were mostly found in the United Kingdom and the Scandinavian countries the latter of which, in general, had been less directly affected by the war than the countries I have just named. Furthermore, in the case of the United Kingdom, because of its world trade and its important relations with the independent Commonwealth countries, of which it felt itself to be the metropolis, it was perhaps more difficult than it was for some other countries to restrict its freedom of action, more especially in its relations outside Europe. The Scandinavian countries were fairly closely linked with the United Kingdom, both economically and on a cultural plane and, in addi-

ECONOMIC RELATIONS BETWEEN EUROPE AND THE OTHER CONTINENTS

tion, Sweden was neutral and had certain special considerations towards its neighbour Finland.

I have referred to these two tendencies in the European movement because I am convinced that they represent two outstanding features in the picture of Europe, and because they explain to some extent the difficulties which have arisen in recent years and, I would even say, in recent months.

I would like to stress the original difference between these two trends in European thought. As you know, we were later to find the federal trend in the constitution of the European Communities of the Six. This is not surprising, since they were generally the countries in which this tendency was most widespread from the start. On the other side, the functional tendency is to be found in the structure of the Free Trade Area in which the United Kingdom and the Scandinavian countries are partners. It therefore seems to me that the difference between these two groups of countries is based, more than is generally thought, on the tradition and conditions which have for a long time existed in the countries themselves.

This means that there is not merely one single concept of the internal problems and external relations of Europe. There are two, although they are in the process of coming nearer together. It is by no means surprising that it is a difficult process and one which demands a little patience to throw light on the position of Europe in the world.

The role of agricultural policies in Europe and ways of improving the United States balance of payments position should trade negotiations fail.

I should now like to turn to some aspects of the problems which will arise in future years.

Let us look first of all at the economic relations between Europe and North America, that is to say the United States and Canada. These relations are very complicated and raise some difficult problems.

As everyone knows, there has been in recent years a considerable deficit in the overall balance of payments of the United States. This deficit is caused by the combination of a very high surplus on current balance and an even greater surplus of export of American capital.

Obviously this deficit must sooner or later be liquidated, but the question is how to do it. This is largely a problem between America and Europe, since a large part of United States external payments takes place between the two continents on either side of the Atlantic and the surplus which corresponds to the American deficit is mainly a European surplus.

In principle three different solutions could be envisaged; in the first place an increase in the United States trade surplus, secondly a reduction in official payments abroad in the form of military expenditure and economic aid and thirdly a possible reduction in the export of capital.

So far as trade is concerned the United States have a substantial surplus in their trade with Europe. In 1961 this surplus was \$ 2.3 billion. Canada had a similar surplus of \$ 600,000 but it had at the same time a trade deficit with the United States. Since there is no way of increasing trade surplus with the poorer countries except by giving them more aid, it appears that the only way of increasing the trade balance of the North American continent would be to increase the present trade surplus with Europe.

It is for this reason that the main object of the new American Trade Expansion Act is to reach agreement with Europe on the reciprocal reduction of trade barriers. Since America exports more than she imports, it is hoped that an increased surplus will result.

It should be added that the question is not merely one of reducing customs barriers. One of the most difficult problems for the United States at the present moment is the enormous surplus of agricultural produce. There is therefore a keen desire to increase the export of this produce to Europe. In the case of Canada also the European market for foodstuffs is of capital importance.

However, the possibility of maintaining a substantial market in Europe for American foodstuffs essentially depends on the final character of the common agricultural policy of the Community of the Six. It will depend more particularly on the prices allowed to European producers, since these prices will have a decisive influence on the development of production in Europe. Is it desired to encourage European farmers to increase their production still more by guaranteeing them a high degree of protection? Or is it desired on

the contrary to approach a system which will allow free trade with the other continents?

More generally, the question is whether the Common Market will decide to follow a relatively liberal or a protectionist policy towards other countries, especially in the sphere of agricultural produce.

If Europe makes progress towards a system of world free trade in the agricultural sector, food imports from North America will be higher than if she does not. Unquestionably the natural conditions of the two continents are such that in a free world the Americans would be large suppliers of Europe.

I have no doubt that for Europe as a whole such a situation would be highly advantageous, indeed probably more advantageous for Europe than for North America.

There are two reasons for this. The first is that there have been since 1961 certain inflationary tendencies in most of the countries of Western Europe, whereas the price level has shown remarkable stability in North America. In consequence Europe has lost some of its competitive power. Now, it is common experience that one of the best ways of countering inflationary tendencies is to allow freer entry to goods from abroad so as to strengthen competition and prevent shortages which may push prices up.

It is probable that in the long run another consequence of a free system will be even more important. There is a persistent shortage of industrial manpower in some European countries which has stimulated large-scale immigration from Southern Europe. There is, however, still a large reserve of agricultural manpower and, as economic history clearly shows, it is in the countries where the flow of manpower from agriculture to industry is greatest that growth rates are the highest. This happens because the average output per man hour is greater in industry than in agriculture, which is obviously the whole cause of inadequate incomes in agriculture.

In countries with a relatively high rural population, like Italy, France and Germany, there are therefore great possibilities of increasing the national product by the transfer of manpower from agriculture. The possibilities of this are much less in the United States and the United Kingdom.

For the farmers themselves the only way to get a satisfactory income is to reduce their own numbers by mechanising their labour and abandoning the regions which are too poor. This is an inevitable process which has gone much further in North America than in Europe.

It is, of course, a process which is socially and politically difficult. This inevitable movement can to some extent be slowed down by guaranteeing the farmers artificially high prices by means of sustained protection, but if Europe wants to approach the American economic standard in the not too distant future, it would be much better to pave the way for the progressive abolition of protection in order to encourage the movement towards greater efficiency.

If, on the contrary, protectionist tendencies prevail in the forthcoming negotiations it seems probable that they will prevail on both sides of the Atlantic. Instead of the reciprocal reduction of barriers it is by no means impossible that we shall witness a certain number of reprisals, that is to say higher customs duties and the like.

This will have the result, on the political plane, of a strained atmosphere which will make economic and political co-operation all the harder, and on the economic plane of less efficient production in the protected sectors, and in consequence some slowing-down of general expansion. What is perhaps even more serious is that reciprocal protectionism in the two Western continents would probably have the result of also making them protectionist in their relations with the underdeveloped countries.

Another consequence of any breakdown in the trade negotiations would no doubt be that the Americans would be induced to look for other ways of improving their balance of payments. They might, for example, reduce their military expenditure abroad and more especially in Europe. That is a political problem, but it also has economic aspects since this expenditure is an important source of foreign currency in some European countries, especially Germany.

On the purely economic plane there is certainly some possibility of influencing capital movements. Interest rates in the United States are somewhat low compared with those in most other Western countries. For a deficit country this is an abnormal situation which is bound to encourage the export of capital to the detriment of the balance of payments.

According to the ordinary rules of monetary effects, a deficit in external payments will mean that less money circulates inside the country, which will in turn result in a higher rate of interest. It is quite possible to counter such effects by deliberate policy of the central banks and governments, and it appears that in the United States the authorities have tried to keep interest rates fairly low in order to encourage investment and therefore economic activity within the country.

This banking policy is one of the cases where arguments affecting the internal situation seem to conflict with those affecting the external situation. We have seen similar cases in other countries in recent years. Nevertheless, since the interdependence of the national capital markets is becoming increasingly pronounced, it seems to me that in future greater account will have to be taken of the balance of payments in determining monetary policy, which will probably mean bringing

ECONOMIC RELATIONS BETWEEN EUROPE AND THE OTHER CONTINENTS

national interest rates nearer together. A development of this kind will make it necessary to look for other means of regulating economic activity within the various countries, such as fiscal policy, in respect of which each country is more independent than it is in respect of monetary policy.

It therefore seems desirable that the United States should to some extent bring about a rise in their interest rates so as to attract capital instead of driving it away.

If at the same time the capital markets of the various European countries could be better organised and placed in a position to absorb more issues we should have achieved a degree of Atlantic co-operation which would lead us towards the greater stability of the international monetary system.

The problems of finding markets for the products of less-developed countries will in future be much more important than those of trade among the developed countries.

Finally, let us look at relations with the less developed continents, namely Latin America, Africa and Asia. I do not need to go into the whole of this great problem, which has been so much discussed in recent years. I should just like to say a few words about two or three aspects of it.

There is no need to stress the importance of a steady increase in overall aid from the West to the poor countries. Is development aid a passing burden or shall we have to contribute to the impoverished peoples for an almost unlimited period ?

Let us hope it will be a short-lived phenomenon, since this is highly desirable from the political and psychological point of view. I am not quite certain, however, that we shall be able to do without it, let us say before the end of the century. In spite of aid and an economic policy which is more methodical than it used to be, the gap between the standards of living in the rich countries and the poor countries is constantly widening. Even assuming the most favourable conditions, this gap will be enormous in 50 years, and the recognition of it will have spread all over the world; and it must not be forgotten that most of the poor countries are former European colonies. Whether we like it or not, the West will be held responsible for the fate of these countries in future discussions on international policy.

In the long run, the main problem of the developing countries will probably be their external trade.

In my view, the problems of markets for the products of the less developed countries will be much more important in future than the problems of trade between the developed countries. If we are not skilful enough to solve these problems, the political consequences might become somewhat grave. I think this might even be the case with the economic consequences, since, as I have just said, the West will, rightly or wrongly, be held responsible for the fate of the less developed countries.

But exports from these countries raise not one single problem but a number of problems. It is enough to mention the problem of the obstacles to the import of all categories of goods from the underdeveloped regions and the complicated question of stabilising prices or export earnings in respect of tropical products and primary materials. Many studies are being made of these subjects in the competent international organisations, including the O.E.C.D.

In conclusion, I should like to refer to two major aspects of this vast complex of problems. The first is that the decisive annual figure for the developing countries is not aid or export earnings, but the sum of the two. If export earnings are low there must be more aid than usual and vice versa. The West cannot think of obtaining lasting advantages at the cost of the less favoured countries, either from the political or from the human point of view.

The other major aspect is that in the long run we must expect a spectacular increase in the imports of manufactured products originating in the poorer countries. Almost their only wealth is their plentiful low-wage manpower. They must have modern techniques, but like the Japanese they could adopt them gradually. We might perhaps envisage a large scale re-deployment of industrial activity between the continents over the next few decades, which would mean a re-orientation of European industry. It is not too soon to start preparing for this.

Whether we like it or not, Europe will be forced in the imminent future to change, not only her day-to-day policy but also her economic and political structure under the pressure of inexorable forces which entail ever-growing interdependence between all the continents. Europe cannot live in isolation. There is no protection against the fundamental forces of history.

Ways in which many of the farmers who are now under-employed might be encouraged to find new occupations, contributing at the same time to the promotion of economic growth and to the provision of richer possibilities for those who stay on the farms.

FROM THE FARM

* * *

TO THE FACTORY

Among the important economic and social problems facing almost all national governments and a number of international organisations, those concerning agriculture present the greatest difficulties. Moreover, the absence of satisfactory long-term solutions now endangers plans for a desirable extension of international co-operation and the possibilities of extending liberalisation measures. Economic growth is seriously hampered because too many people are under-employed in agriculture while at the same time non-agricultural enterprises in many countries suffer from a shortage of labour.

Against this background the Committee for Agriculture of O.E.C.D. sponsored a three-day expert meeting in 1962 on " Problems of Mobility of Agricultural Manpower in Relation to Economic Growth ". The opinions and conclusions of the experts are summed up in a report, a digest of which has recently been published together with other O.E.C.D. documents under the title : " Adaptation and Training of Rural Workers for Industrial Work ".

A full report on the meeting may be obtained from the Division for Technical Action of the Directorate for Agriculture and Food of O.E.C.D.

The participants were unanimous in considering that a solution of the problem of under-employment in agriculture is indispensable for economic growth and that there is urgent need for a reconsideration of the place of agriculture in relation to general economic development.

Why are farmers' incomes low by comparison with those of people in other occupations in the same economy? The O.E.C.D. experts' meeting answers this question in the following way: " One of the main causes of this condition of relatively low agricultural incomes is too low a rate of mobility from agriculture to the non-agricultural sectors ". " In addition ", the experts add, " low average incomes in agriculture as a whole arise because of differences in incomes within agriculture, in that certain types of farming or certain agricultural regions are less prosperous than others and manpower does not move freely enough within agriculture. "

Furthermore, it was generally agreed by the experts that the achievement of equality of real income between farm and non-farm occupations was a major objective of agricultural policy.

The only rational solution

Having re-emphasised this major objective of agricultural policy and having stated two of the main obstacles to the achievement of equality of real incomes between farm and non-farm occupations, the experts came to the conclusion that: " Policies designed *(a)* to alter the structure of farming, *(b)* to increase the mobility of farm people, and *(c)* to fit them better into non-farm employment provide the only rational solution in the long run to the problem of farm incomes. "

As regards several of the methods now forming part of the national policies of O.E.C.D. Member governments, the experts say :

" These range from methods of support for farm prices by direct subsidies, government purchase or restriction on imports to programmes of aid for structural changes and to methods of increasing the outward mobility of agricultural manpower. However, in so far as methods of price support currently lead to an expansion of the supply of farm products at a rate faster than the demand increases, they have the effect of perpetuating the problems which they try to alleviate. "

The experts conclude: " More research work is urgently required on the future place of agriculture in the economy of Member countries and on how to achieve greater mobility of manpower within and out of agriculture. It is already clear, however, that progressive decrease will be necessary in the number of people employed per unit of land, if equality of real incomes between agriculture and other occupations is to be achieved over the long term. In the past, the number of people entering agriculture has been too high and the net rate of mobility outwards has been too low. It is recognised that the barriers retarding the rate of egress are economic, social and institutional in origin and it is considered that policy should be concerned with methods of reducing these restrictions. "

Ways to overcome the difficulties

But how could the difficulties of adjustment be overcome? The experts have considered the problem under two headings:

(a) How to facilitate the movement of people out

of agriculture and their absorption into other sectors of the economy.

(b) How to deal with the changes in population structure and farm organisation which will result from a movement of people out of agriculture.

A reduction in agricultural manpower can be achieved by measures designed to prevent excessive entry of young people into agriculture and by incentives designed to encourage some people already in farm work to leave it. Three prerequisites necessary to encourage such movements are: education, information, opportunity.

- **Education**

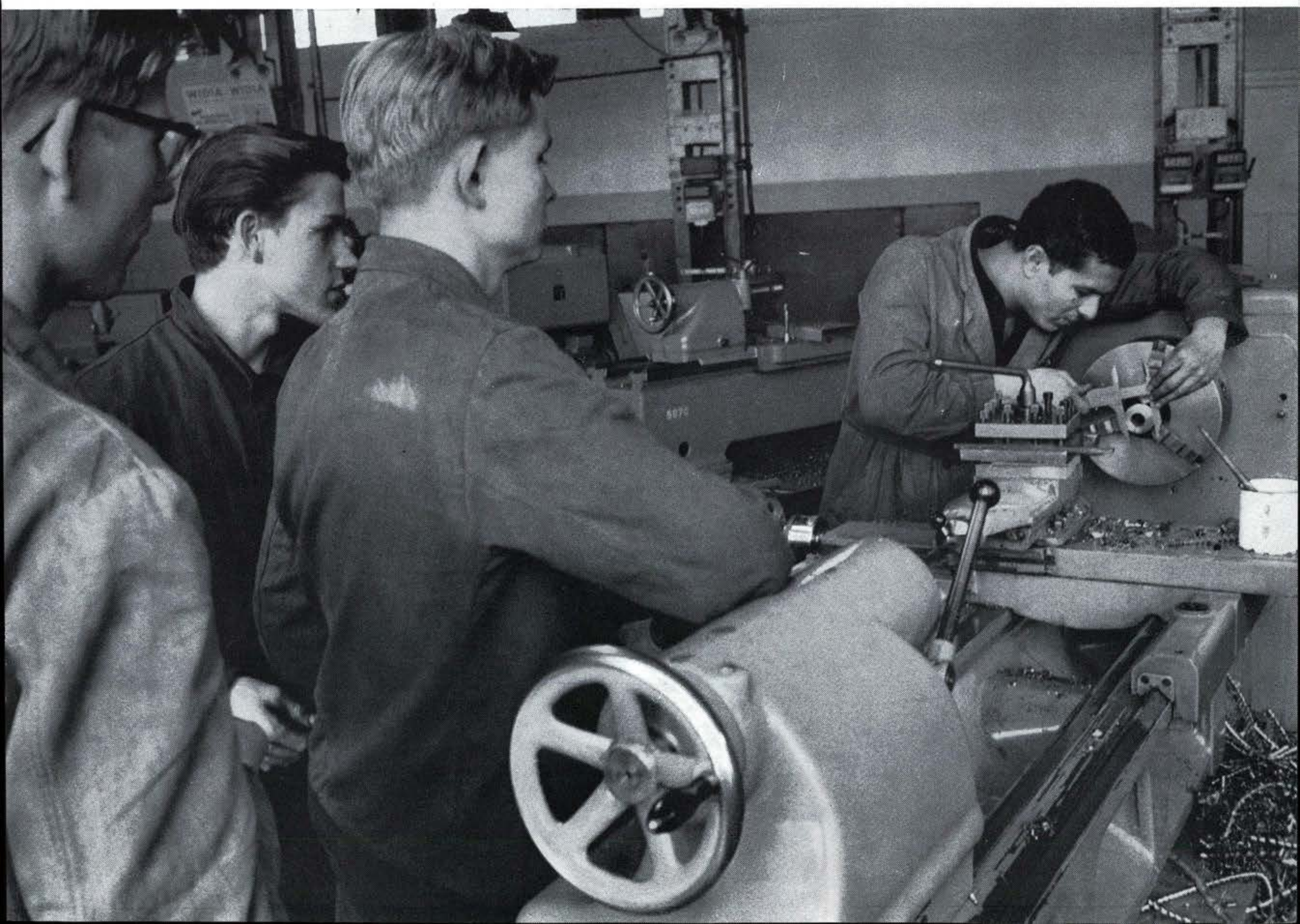
As regards education, vocational training for occupations other than agriculture should be encouraged in rural schools and at the same time vocational training for agriculture should be adapted to changing circumstances. Thus, in those regions where there are too many young people entering agriculture, emphasis on vocational training in agriculture should be reduced and, wherever agriculture is taught in schools, stress should be placed on future prospects for farming as compared with other occupations.

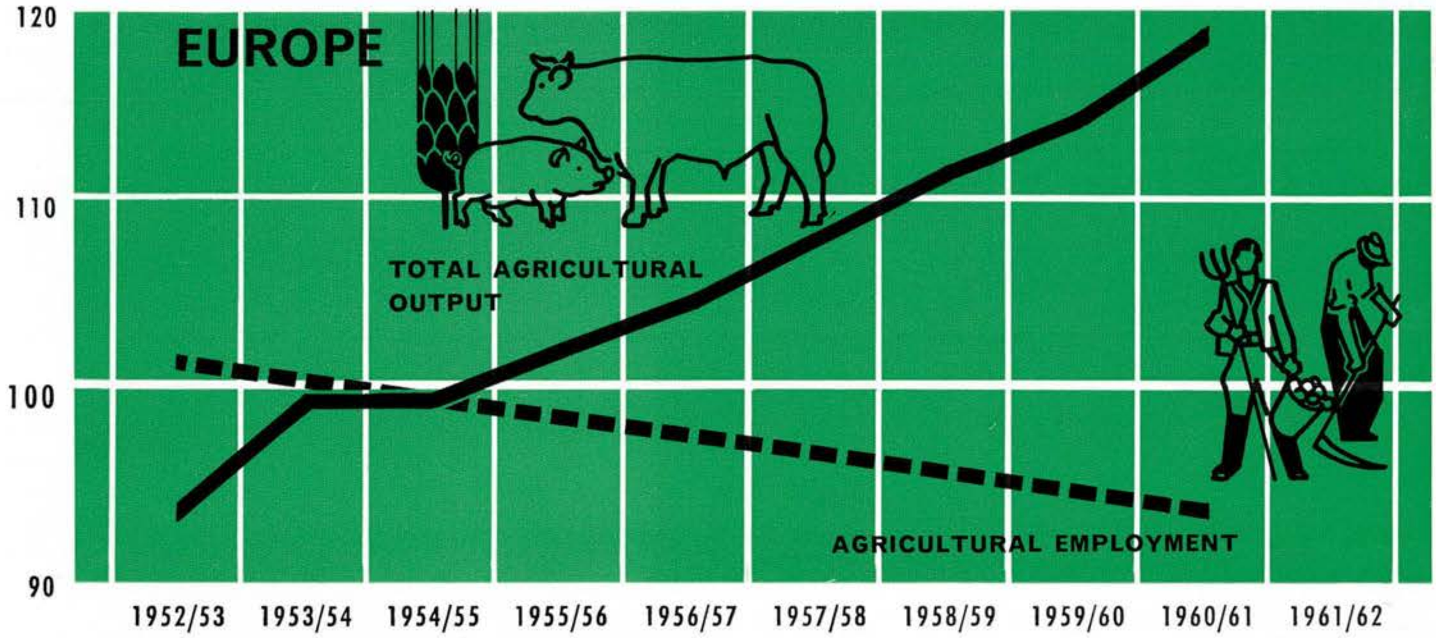
Furthermore, there is a need to provide vocational training in other occupations for adults, particularly those who, for lack of other opportunities, have started their working career in agriculture and have remained in it until they wish to marry. Such people though still young are often too old to be accepted for ordinary apprenticeship programmes, and if they are married people with family responsibilities, they find it difficult to sacrifice time and income in learning a new trade. In the absence of training facilities, these people on leaving agriculture often have to take unskilled jobs which do not utilise their inherent capacities.

To encourage such people to train for a new skilled occupation, it will normally be necessary to ensure that they suffer no financial loss because of the time spent in training. Consequently, it is necessary that financial support for themselves and their families be available during the training period.

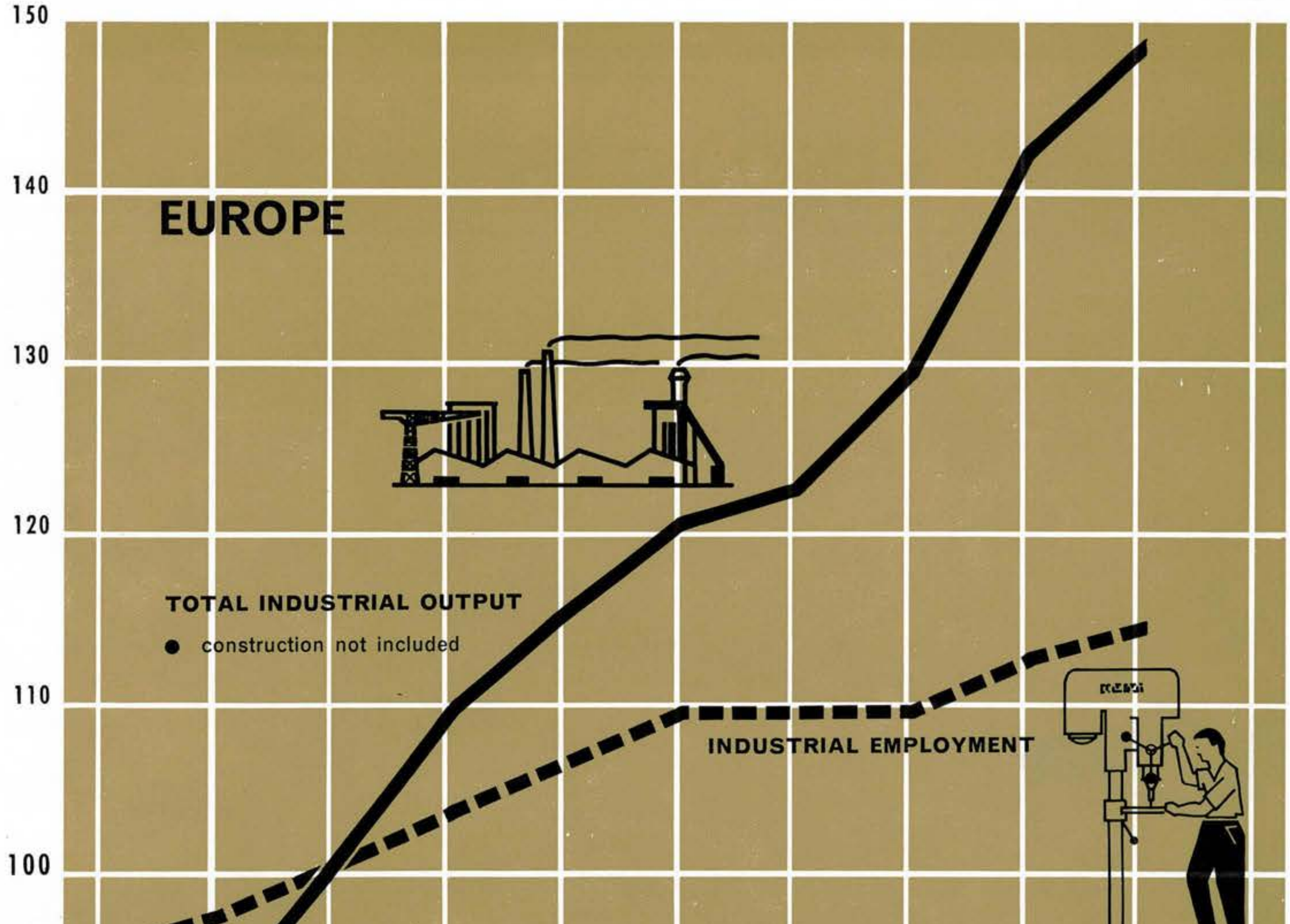
- **Information**

Rural inhabitants often lack information on the resource requirements and rates of return on work and investment in modern agriculture as against opportunities in other occupations. Vocational guidance through a youth employment and counselling





120
110
100
90
EUROPE
TOTAL AGRICULTURAL OUTPUT
AGRICULTURAL EMPLOYMENT
1952/53
1953/54
1954/55
1955/56
1956/57
1957/58
1958/59
1959/60
1960/61
1961/62



150
140
130
120
110
100
90
EUROPE
TOTAL INDUSTRIAL OUTPUT
● construction not included
INDUSTRIAL EMPLOYMENT
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961

AGRICULTURAL AND INDUSTRIAL PRODUCTION AND MANPOWER IN THE EUROPEAN COUNTRIES OF THE O. E. C. D.

(1954=100)

The charts opposite refer to the European countries of the O.E.C.D. They show that industrial production has grown steadily and that industrial employment has also risen, though less rapidly; in agriculture, on the other hand, the substantial rise in total production has been accompanied by a constant fall in employment.

Active agricultural population has in almost all cases declined, while total active population has been growing. As a result, employment in agriculture as part of total employment has diminished in all countries.

The available statistics suggest that the movement of agricultural labour to the rest of the economy has been strong in some countries, either where a situation of full employment has almost been achieved or where the labour force in agriculture is relatively high compared with total labour force and where agricultural incomes are relatively low. However, in countries where unemployment is high or in those where the labour force in agriculture is relatively small compared with total labour force, the movement of agricultural labour towards other sectors has apparently tended to decline considerably.

Output-per-man in agriculture (in terms of gross product) has increased in all countries in the last decade. In almost all countries output-per-man in agriculture has increased faster than output-per-man for the entire economy, and in some countries much faster.

This rapid increase in output-per-man in agriculture has permitted, in general, countries which have a large share of labour in agriculture, to realise a quicker rate of growth than the other countries. This came about through the transfer of important numbers of workers to expanding sectors without at the same time reducing agricultural output; one factor making this possible was the existence of disguised unemployment in agriculture which has probably diminished during the decade.

service for school children and through a specialised advisory service for adults could do much to ease and encourage the transition from agriculture to other occupations.

- **Opportunities**

If people are to be encouraged to leave agriculture, other occupational opportunities must be readily available. Under some circumstances, transfer of population will be the most feasible way of bringing job applicants and job opportunities together; under other conditions, it will be necessary to locate industries in close proximity to areas from which movement out of agriculture is considered desirable.

In deciding whether industry should be encouraged to locate in rural areas, it will be necessary to take a long-term view. The initial cost of such a course of action (whether incurred in the form of direct subsidy, or by providing services like roads, drainage, electricity and housing) may well be greater than the cost of moving people to established centres of urban employment. If practicable and economically feasible, the location of suitable industries in rural areas is the best answer, especially where the disparity between farm and non-farm incomes is not extreme enough to encourage a reasonably rapid change. It also avoids the social maladjustment which may arise when certain sectors of the farm population (particularly those in the older age group) are obliged to change their area of residence and their whole way of life.

- **Changes in population structure and farm organisation**

Any programme designed to accelerate the movement of people out of agriculture will have effects on the age structure of the population which remains and on the composition of the farm labour force. There will be a higher proportion of older people in the farm population and more farms will be dependent solely on their family resources for labour.

In addition to the effects on farm operations, effects on the economic and social structure of rural areas may arise if the exodus of younger and more active people reaches undue proportions. There would be fewer people to pay for the maintenance, or establishment, of power, communication and social services, and social organisation would be affected by the decrease in the population and by the imbalance of its age composition.

The O.E.C.D. experts point out that there are a number of measures which would help to counteract the farmers' difficulties. These measures are interrelated but, for convenience, can be considered under two headings:

1. Measures designed to increase farm size and economic viability.
2. Measures designed to increase the mobility of farm residents and to alleviate distress without perpetuating the conditions which cause that distress.

• Increasing the farm size and economic viability

Land commissions or other appropriate bodies should, where not already existing, be established to further the amalgamation and consolidation of land. These should have powers, on the one hand, to purchase and redistribute land as it became available as a result of the retirement or migration of farmers and, on the other hand, to assist established farmers with loans or grants to add to their existing land-holdings or to re-organise fragmented holdings in co-operation with their neighbours.

The organisation, powers and mode of working of such land commissions will vary from region to region. Their overall policy, however, should be first to assist the natural process of change that occurs when families which own or rent land die out through lack of an heir; and, second, to take advantage of any changes induced by policies which encourage farmers or their children leaving agriculture for other occupations.

Thus their object should not be unduly to force changes upon unwilling farmers, but to actively encourage those willing to change as well as to discourage acquisition by young couples of land which is not sufficiently productive to maintain a family in the future.

• Mobility of farm people and alleviation of distress

Among the most successful and socially acceptable measures which can be taken to increase the mobility of farm people the experts especially recommended :

(a) Offering inducements to farmers to retire early.
(b) Encouraging schemes designed to increase the mobility of labour between farms within regions.
(c) Encouraging migration of farmers and workers from overpopulated rural areas to those where there is need for farm labour or for new farmers.
(d) Fostering industrial employment to supplement farming in those areas where the type of farming or the industrial conditions are suitable.

• Inducements to retire

Inducements to retire may take the form of retirement grants, provision of housing for retired farmers or for farmers' sons wishing to marry, and the offer of attractive prices by land commissions to farmers contemplating retirement. Such inducements should enable farmers' sons to take over from their parents and to marry at earlier ages, and thus be in a position to operate their farms while they still have the vigour of youth.

Where there is no heir to a farm, the early retirement of a farmer and the inducement to sell his property will facilitate the amalgamation of his land with an adjacent farm.

• Encouraging internal mobility

Amalgamation schemes will increase the number of larger farms and therefore offer labour opportunities for farmers' sons. It will be necessary, however, to change the attitudes of many farmers and their sons towards the idea of working for other people. To achieve this aim, co-ordination of efforts is necessary in vocational training for agriculture in the schools, adult education and advisory services, apprenticeship schemes and schemes designed to provide career scales in agriculture for suitably qualified farmers' sons.

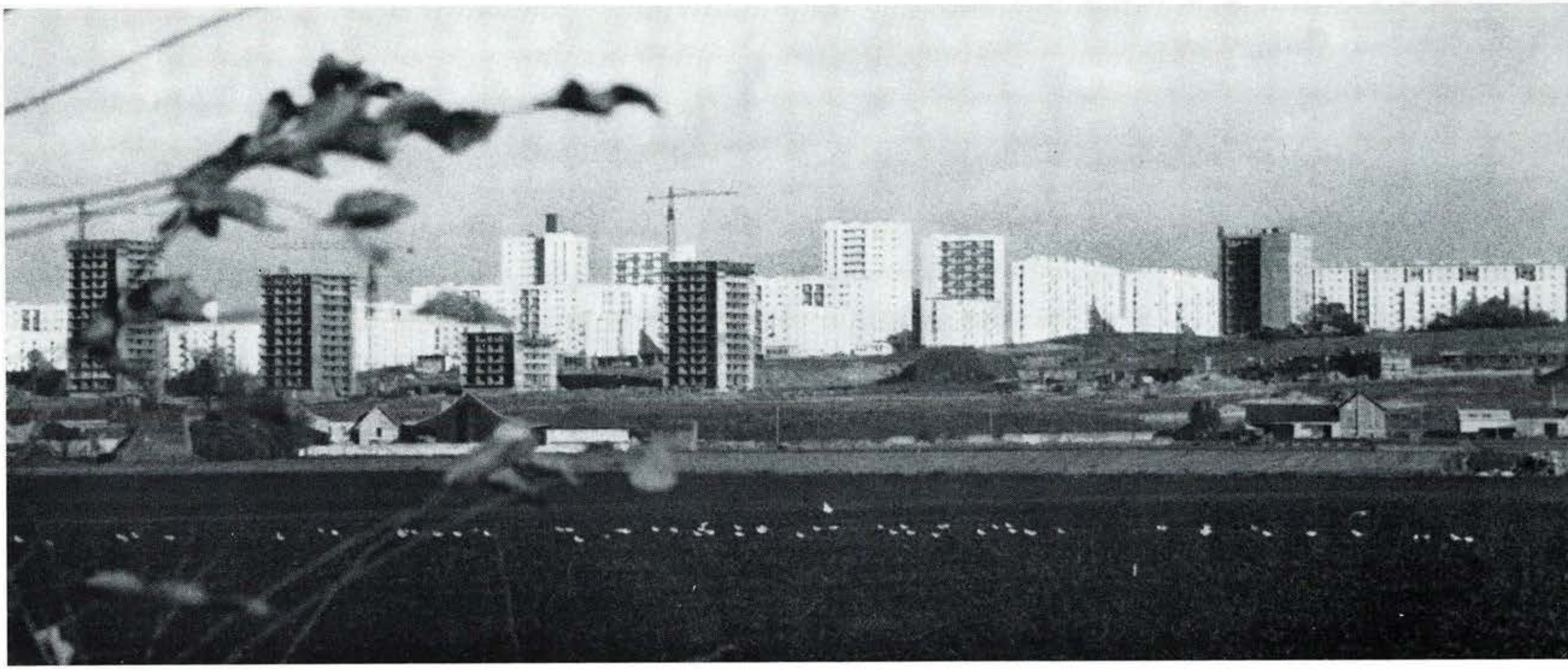
• Encouraging agricultural migration

Migration from labour surplus to labour deficient areas can also be encouraged by the provision in labour surplus areas of vocational training and guidance about farming possibilities elsewhere.

• Encouraging other employment to supplement farm incomes

Location of industry in rural areas and provision of transport to areas of employment will encourage members of farm families to take off-farm employment, while still residing on the farms. Such a course of action has two effects. First, on small farms, it helps to balance family income, labour resources, and family needs throughout the family development cycle. Second, it affects the attitudes towards industrial employment of the farm population in the area. The presence in the area of friends, relatives and neighbours employed at work other than farming creates among the farm people an environment in which farming is not necessarily considered the most desirable social or economic goal.

Locating industry in rural areas also helps to create a balanced age structure in the population and to maintain the level of population. This makes it easier to provide public services to the rural population and prevents deterioration in the social organisation of the community.



The task of O.E.C.D.

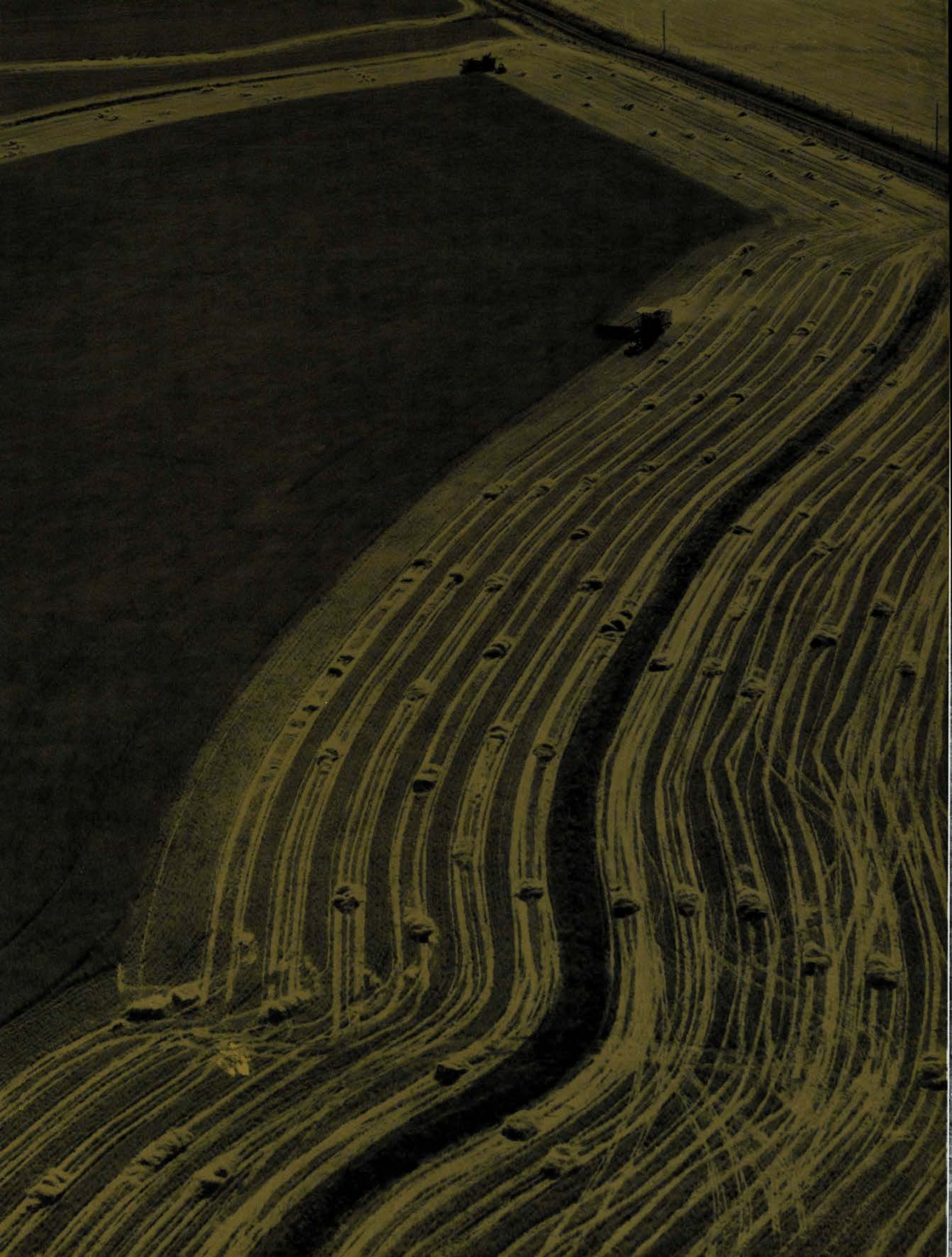
The experts considered that there is a need to continually reorient agricultural policies — away from those which seek to raise or maintain relative incomes by price support and trade restrictions towards policies which will assist the process of adjustment within the agricultural sector and between agriculture and the rest of the economy.

As the economies of Member countries become more closely integrated, the problem of allocation of human resources should be viewed within a national (and perhaps) international rather than a local (or perhaps national) setting. This requires that the individual member countries adopt a common method of approach to measuring the magnitude of the problems and to finding a means for their solution.

The participants in the meeting recommended that the O.E.C.D. consider work mobility in the field of manpower an integral part of its efforts to promote economic growth; and that the Organisation give its support to the investigations, experiments and practical actions which are urgently required in this field.

Amongst the most important subjects which the experts considered require support from the O.E.C.D. are :

1. *Investigations into the present contribution made to industrial development by manpower originating in agriculture and also into the potential contribution which it can make in the future.*
2. *Specific studies of the social and economic factors influencing the migration and occupational mobility of farm people and integration of such studies into plans for similar investigations in other industries.*
3. *Forward-looking studies into the effects on the release of agricultural manpower likely to arise from present and future changes in technology and the agricultural industry.*
4. *Studies of ways in which the structure of the agricultural industry can be changed to give equality of real incomes to agriculturists, and, at the same time, meet the requirements of economic growth.*
5. *Encouragement of closer collaboration in Member countries between the various bodies concerned with policies and programmes for agriculture, industry, labour, social welfare and the like, when initiating studies in labour mobility, and when carrying out programmes which have effects upon the use of manpower resources in agriculture.*
6. *Collection and circulation by O.E.C.D. of information about studies, experimentation and practical measures concerned with the mobility of agricultural manpower.*
7. *Advice, encouragement and assistance to Member countries, and to bodies within those countries which undertake experimentation and practical measures designed to implement the conclusion of studies of the problems of agricultural manpower.*



Mathematics teaching to meet to-morrow's needs

by Professor Howard F. Fehr

The study of mathematics is the cornerstone of a constantly growing number of activities related to economic health and growth, and the O.E.C.D. has been working to bring mathematics teaching in line with current needs. In this article, Professor Fehr, who is head of the Department of Mathematical Education at Teachers' College, Columbia University, and also an O.E.C.D. consultant on this matter, describes the changes that are necessary.

Mathematics, always an important tool for the physical sciences and technology, has in recent years been more and more utilised in economics and the other social sciences, in planning and decision-making; the production system itself is becoming more and more mathematically oriented. Ironically, however, the methods of teaching mathematics, at least at the primary and secondary school level, have been remarkably static.

The bulk of the mathematics included in the traditional curriculum for primary and secondary school students dates from before 1760. And this is so despite the fact that in the intervening years (and particularly since 1900) there has been a revolution in mathematical thinking. The result is that the average secondary school graduate is 200 years behind the times; his acquaintance with mathematics is insufficient to his needs. At best he is left without knowledge of some branches of mathematics that would be useful to him in a work setting or for further study. At worst, what he has learned may actually hamper him in the acquisition of more advanced scientific training. In any event, he is given no notion of what seems to to-day's mathematicians the most exciting part of mathematics.

The Work of Reform

Mathematics can be taught differently. Educators are generally in accord on the direction reform should take though they do not always agree on specific programmes.

Much of the mathematical content of the traditional curriculum has become outmoded or is no longer useful and can, accordingly, be dropped in whole or in part : lengthy multiplications and long-division

Mathematics teaching to meet to-morrow's needs

exercises in primary school, for example, and the logarithmic solution of triangles in secondary school are no longer essential in view of the ready availability of calculating machines (and, on a more sophisticated level, electronic computers). Moreover, the one to one-and-a-half years spent learning Euclid can, most educators agree, be drastically reduced. (Some go so far as to advocate that " Euclid Must Go " altogether.) Along with Euclid, most of descriptive geometry can be discarded as part of mathematical study.

Perhaps more important is the absence from the traditional curriculum of certain new concepts which would be extremely useful from a practical as well as an intellectual point of view; the use of sets, for example, and set operations which are basic to all other mathematical subjects — arithmetic, algebra, geometry, analysis and so on. Statistical inference based on probability theory is perhaps more widely applicable in modern science than any other mathematical subject; through the use of sample spaces and set functions this branch of mathematics can also be presented at the secondary school level. Another subject which could and should be included in the school programme is vector and matrix algebra which form the basis for data processing and linear programming.

Neither adding to the curriculum nor subtracting from it is, however, sufficient in the view of mathematicians and educators to bring the school curriculum into line with modern mathematical thinking. A complete reorientation is needed. For one thing, mathematics is currently treated in the schools as a series of more or less separate subjects — algebra, geometry, trigonometry and so on. But the discoveries of recent years have had as a principal result the unification of the various branches of mathematics into a single theory. Mathematics teaching, the experts agree, should aim at communicating to students this essential unity.

Rigour Not Rote

There is agreement also that traditional teaching has stressed rote memorisation and lacked clarity of exposition to an extent that is almost scandalous in that it has led to misconceptions in the minds of the students. To illustrate the point, students in elementary geometry have been subjected to what has been called an " intellectual swindle " with so-called definitions " which do not define anything " and proofs " which cannot withstand logical analysis ". As another example, traditional textbooks do not distinguish between number (which is an abstract property) and numeral (the name of a number). Moreover, there has been a real confusion in the minds of students concerning the nature of a geometric figure as a set of points and the measure of a figure as a number.

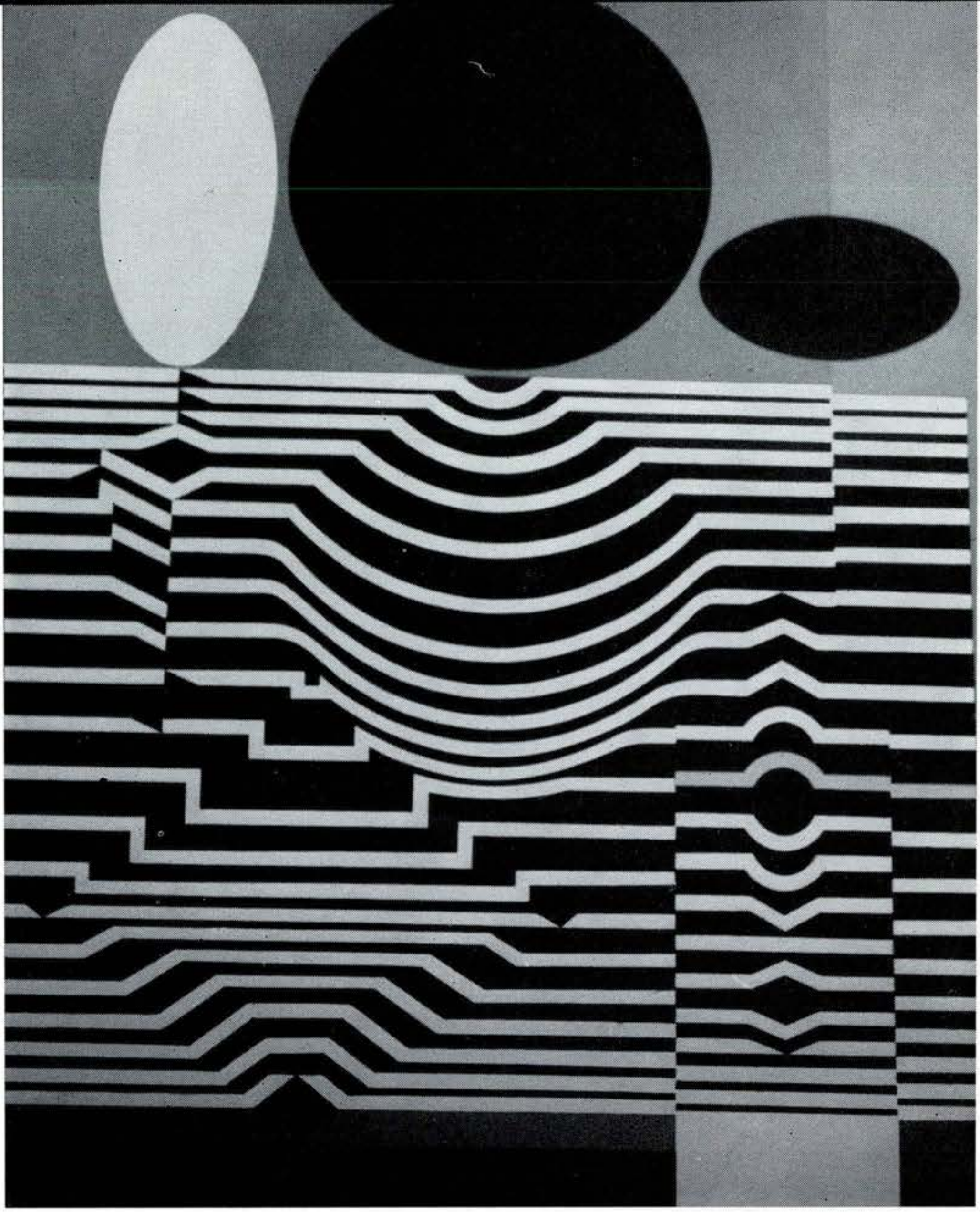
Educators now tend to feel that students should not be given an impression that there is rigour in mathematical processes which are, in fact, not rigorous in the sense used by present-day mathematicians. When there is a gap in logic, they should be informed of that fact and, whenever possible, be given a sense of what true mathematical rigour is. Teachers should, moreover, give a glimpse of the reasoning involved in the operations performed rather than encouraging students to learn by rote, so that the subject may develop reasonably rather than as a set of magical tricks.

Finally, in the last fifty years there has grown up a whole new mathematical language and symbolism which is not difficult to master but which has not been introduced in traditional school teaching.

Toward a New Curriculum

Because it felt that proper teaching of mathematics had great relevance to economic health and growth, the O.E.E.C. in 1958 began devoting considerable effort to promoting the cause of curriculum reform. In that year, the Organisation sponsored a two-week conference at the International Institute of Pedagogy, Sèvres, France, in which professors, teachers and government officials from more than fifteen countries critically examined the programme of mathematics education in France, all the way from nursery school through the university.

In November of 1959, O.E.E.C. sponsored a two-week seminar, this time at the Abbey of Royaumont near Paris, for representatives of twenty countries, mathematicians and educators. This group discussed the need for reform in all countries



Painting by Vasarely

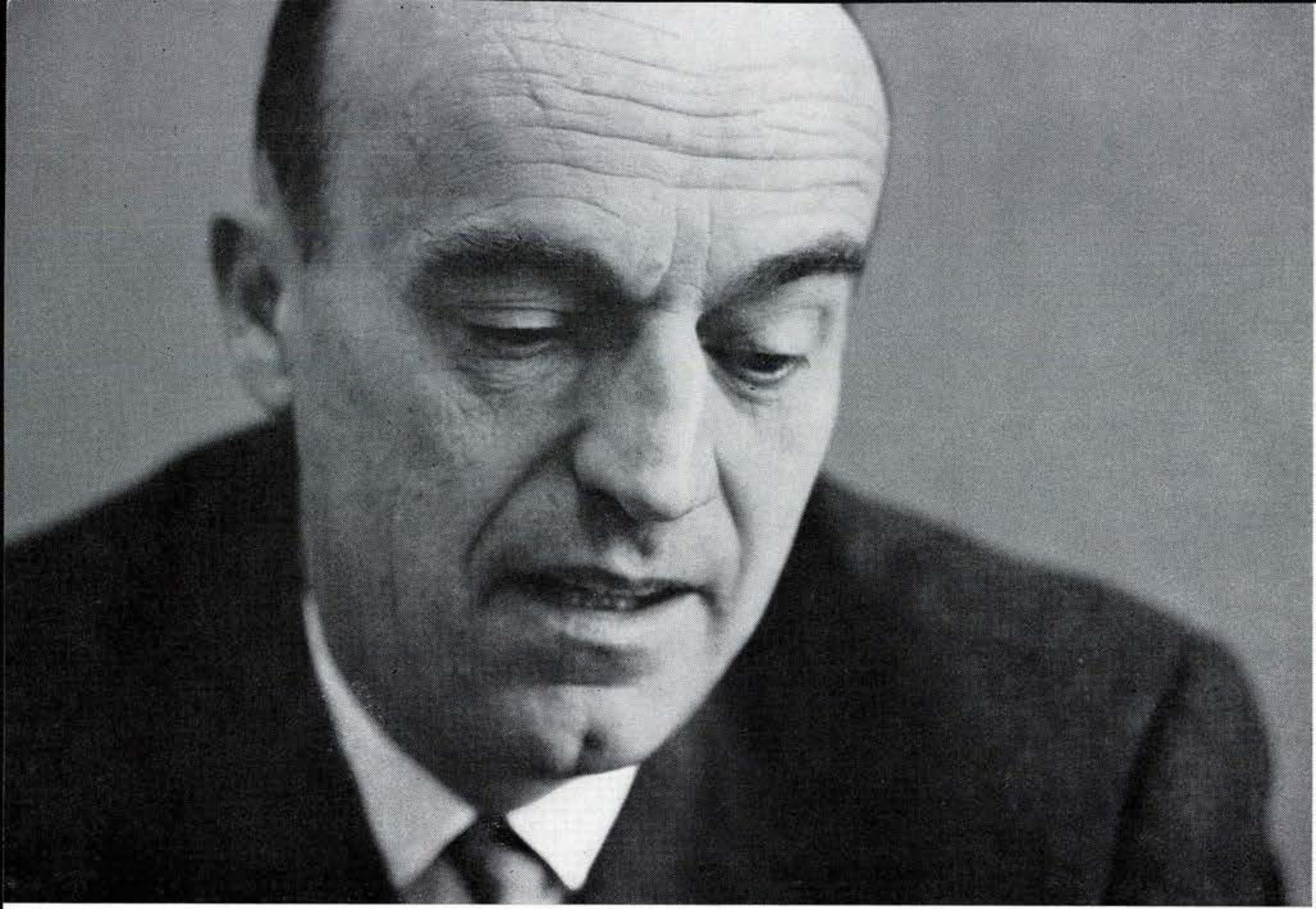
and sketched in the lines that such reform should take (1). Finally, the Royaumont conference concluded that a group of experts should be convoked and given enough time to produce a detailed programme of instruction for secondary schools. The members chosen met for four weeks in the summer of 1960 and published a suggested curriculum under the title *Synopses for Modern Secondary School Mathematics*. The book, 310 pages long, is intended to provide guidance for teachers and textbook writers. It contains an elementary exposition of set theory, defining the language and utilising the symbols of the new mathematics. It exposes new approaches to arithmetic in which the teacher is shown how to make the student aware of the general laws governing arithmetical operations.

The syllabus goes on to a completely new presentation of elementary geometry along the lines recommended by the Royaumont Conference. The link between geometry and algebra is stressed : " To-day geometry embraces all aspects of space whether treated from the point of view of number (algebra) or as a collection of points, lines, etc. " Teachers are urged to give students the opportunity to think creatively and intuitively and to appreciate the elegance of mathematics by inventing their own problems and solutions rather than memorising the ready-made problems and solutions of Euclid. The text, also shows teachers how to avoid hard and fast definitions of concepts like " angle " and " parallel " which the student is not yet ready to grasp and which would have to be revised in the later study of mathematics.

This synopsis has been widely circulated to teachers, textbook writers and government officials and is being taken into consideration in the reform of school curricula in such far-flung places as Japan, Spain, the United Kingdom, Canada, Russia and Argentina.

In Italy, Greece and the Scandinavian countries, the O.E.C.D. has sponsored pilot demonstration projets for which it pays half the cost. Such a project consists of having textbooks, which are based on the synopsis, written by experts of the country concerned; engaging on a programme of teacher training; and setting up pilot courses in the classroom. In each country a national committee, set up in conjunction with the O.E.C.D., then evaluates the work of the pilot project and makes recommendations to its government on the changes that should be incorporated into the school curriculum.

(1) The report is available in book form under the title *New Thinking in School Mathematics*. O.E.E.C., 1961.



Ambassador Roger Ockrent, Chairman of the O.E.C.D. Executive Committee.

THE EXECUTIVE COMMITTEE

one of the driving forces of the O.E.C.D.

Replying to questions put to him by The O.E.C.D. OBSERVER, *the Chairman of the O.E.C.D. Executive Committee, Ambassador Roger Ockrent, Permanent Representative of Belgium, describes the Committee's work as a « driving force » of the Organisation.*

Where does the Executive Committee stand as one of the principal institutions of the Organisation?

The three senior authorities named in the Convention are the Secretary-General, the Council and the Executive Committee. The existence of these three authorities results in balanced working methods which make the operation of the Organisation extremely flexible.

The Convention gives the Secretary-General wide powers; he is the Chairman of the Council when it meets in sessions of Permanent Representatives. The Chairman of the Executive Committee is one of the Heads of Delegations.

It is the function of the Secretary-General to put forward proposals and to exercise his influence according to his own beliefs and the advice of his staff of senior officials. It is the function of the Chairman and Members of the Executive Committee to express the views of a certain number of governments. It is these two authorities, the Secretary-General and the Executive Committee, who are the driving force behind the general policy of the Organisation and its labours and who prepare the ground for policy and action. The supreme body is the Council where all these influences merge.

In relation to the Council, the Executive Committee has three functions; it prepares the way for the deliberations of the Council, it executes the decisions of the Council and finally, under powers delegated by the Council, itself takes decisions on matters delegated to it.

In addition to the statutory institutions established by the

Convention — the Council and the Executive Committee — other deliberative bodies have been set up within the Organisation to meet special needs, such as the meetings of Heads of Delegations where the Members of the Council meet informally, off the record and without observers. There is also the Bureau, convened by the Secretary-General, consisting of the elected Officers of the Organisation and some other Heads of Delegation.

The Executive Committee also has an important role to play in relation to these *de facto* bodies based on its role in relation to the institutions named in the Convention.

The Executive Committee consists of the Representatives of ten Member Countries elected annually. How are these countries chosen?

There are in fact two different categories of country within the Executive Committee. While all the Members are elected annually some of them in fact are elected automatically each year and others in rotation.

The "permanent" members are the Great Powers which are Members of the Organisation, namely France, the Federal Republic of Germany, Italy, the United Kingdom and the United States.

The others are elected annually in rotation and in practice represent a group of countries with institutional links or common interests — the Benelux Countries, for example, the Scandinavian group, Greece and Turkey, and Spain and Portugal. In practice, if the Members of a group are agreed, the principle of rotation between them need not apply. This has happened in the case of the Benelux countries, where through the courtesy and at the request of the Netherlands and Luxembourg Governments, Belgium has represented the group without interruption for several years past, thus enabling Belgium to provide the Chairman of the Committee.

The Executive Committee, like the Council, consists of Heads of Delegation. The same questions are therefore considered twice, partly by the same people. Does this not lead to duplication?

It depends what is meant by duplication. If there is said to be duplication where a question is first exhaustively studied by a restricted committee and then considered again by a plenary committee on the basis of the conclusions of the restricted committee, then I am whole-heartedly in favour of duplication. This is the proper way of preparing the work of any deliberative assembly.

It is even a form of procedure which is indispensable where the assembly is a large one like the Council of this Organisation. Everybody knows that problems are tackled differently and with greater freedom in small committees than in large ones.

Furthermore, the existence of a restricted committee in which the small countries are assured of a certain representation is an obvious safeguard. Where the assembly is a large one, like the Council, the Delegations of the biggest powers are naturally inclined to thrash out major questions between themselves before the Council meetings.

When the O.E.C.D. was set up the choice was either to create an Executive Committee or to encourage the creation of a *de facto* body, a "caucus of the Great Powers".

Does the Council ever take a decision different from that recommended by the Executive Committee?

The answer is yes. It is theoretically possible, and sometimes happens, that a country takes a different attitude in the Council from the one it has taken in the

« *The representatives of the small countries sometimes have broad ideas while the representatives of the big countries sometimes receive narrow instructions...* »

Executive Committee. This may happen in particular where its Government changes its mind after hearing in Council the view of Governments not represented on the Executive Committee.

As a general rule, however, the Delegations are anxious to prepare the work of the Council properly and only submit to the Council proposals which they are prepared to see through to the end.

Would it be fair to say that as Chairman you must handle questions differently according to the nationality of the Committee Member you are dealing with? Can you give any examples?

A Chairman should never change his way of presenting questions according to the country he is dealing with. I made a distinction just now between big countries and little countries. A great deal of the intellectual fertility of exchanging ideas would be lost if they were presented differently to different countries. The representatives of the small countries sometimes have broad ideas while the representatives of the big countries sometimes receive narrow instructions.

What is true is that the focal point of a question may vary in different countries and that if a country has some special difficulty with a particular question, the question must be handled in the appropriate light, but the light must always be the light of truth, even if it is blinding. There is however a certain amount of truth underlying the controversial aspect of your question. I will give you an example. One of my colleagues begins his speeches by professing ignorance of the subject under discussion. As he has been making use of this charming and ingenuous device for many years and as everyone knows his subtlety of mind, his all-embracing knowledge and his profound intuition, it is a long time since anyone has believed him when he professes ignorance. Sometimes I'm inclined to play up to him and to pretend I really believe that he did not understand the question. This device, if it can be called a device, thus enables him to open his speech with his favourite phrase and so find himself intellectually at ease and therefore politically manageable. The tragedy is obviously where the Chairman himself fails to understand. But in these cases there is always some Secretariat official who knows the answer and can explain it clearly.

You will see, however, that all this really has nothing to do with the nationality of the Committee member concerned but rather with his personality. For this reason the advent of a new colleague always creates a problem — a fascinating one.

You have been Chairman of the Executive Committee without a break ever since 1957 : what do you think are the qualities you have most needed in the discharge of your duties?

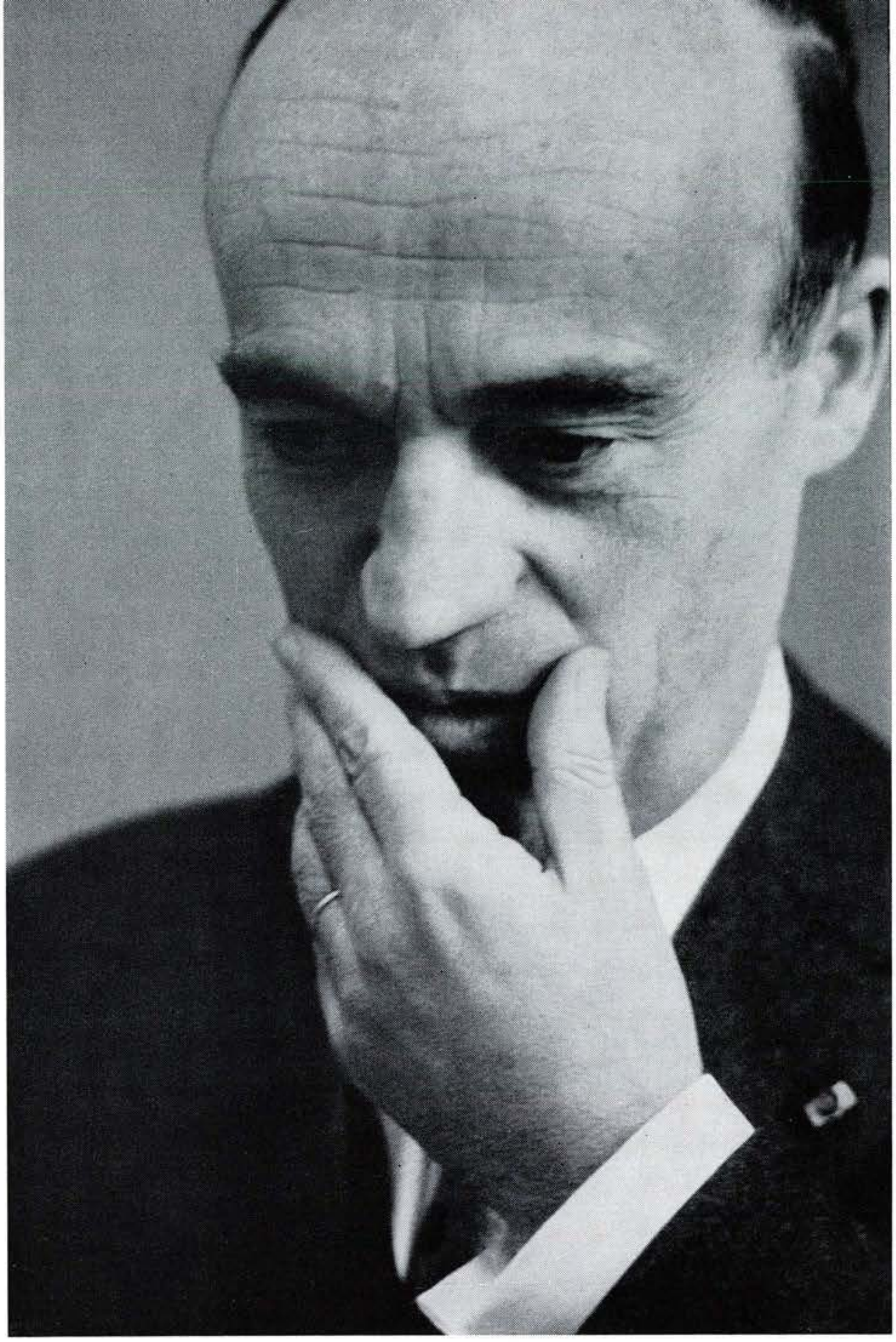
I should like to start by ruling out any possible misunderstanding. It should not be thought that because a man is elected Chairman he therefores possesses any outstanding qualities.

I shall take the risk of outlining a " theory of chairmanship " in international organisations based on my own experience and that of my country.

Chairmen are chosen by preference from the politicians or diplomats of the smaller countries. Some people say that this is because they give less trouble than the representatives of the large countries, others that in general they are more objective. These are no doubt two different ways of saying the same thing. If you are to represent a small country in an international concert you must have a full understanding of the range of the instruments you can use. This leads to some extent to a certain intellectual humility which makes it easier to understand other people's problems. Just as in the matter of health you must know yourself and to know yourself you must know your weight, so in international politics, if you are to act wisely you must know exactly how big you are. The worst thing, even for the biggest, is to think yourself bigger than you are. The small countries, filled with the hope of growing, often take their own measurements ; the big countries, full of self-assurance, sometimes misjudge their own size. So much for countries.

« You must know yourself and to know yourself you must know your weight... »

« One is always an expert for some people and a policy-maker for others. »



So far as individual qualities are concerned, I must content myself with being commonplace and say that I should like to be sincere. I think it is from my colleagues that I must look for most qualities. They must have a great deal of patience because I am very impatient and a great deal of courtesy because I am inclined to be domineering. Perhaps I need some qualities too, but if so let us say that I do not realise it because I have them anyway.

I can see from your look that you want to convert me to your own truth. You would like to hear me confess to having all the qualities you suspect I believe in. Shall we say that first and foremost I believe in enthusiasm. The chairman cannot be a sceptic. Scepticism is a fault of intellect just as hesitation is a fault of character, but those who suffer from them are apt to confuse them both with profound thought and dignify them with the name of wisdom.

Shall we also say that I believe that of any set of arguments advanced in support of a given attitude or position, there are always some good ones, and there is always some way of using them together with those put forward by others in reaching an honourable compromise.

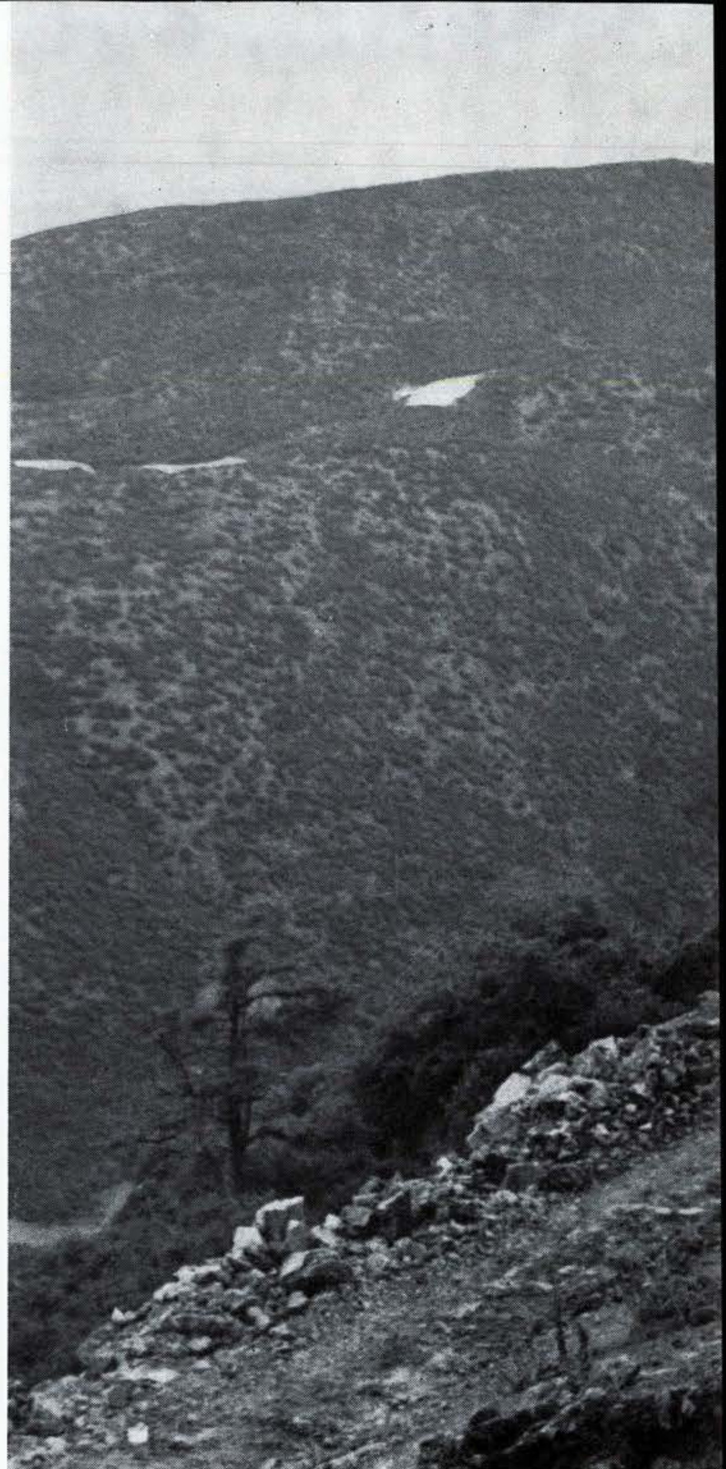
Distinction is often made between the meetings of the Council and the Executive Committee on the one hand which are described as meetings at policy level, and those of the other committees of the Organisation where the preliminary work is done and which are described as technical meetings. Is it always easy to distinguish between questions of policy and technical questions?

Of course not. One is obviously always an expert for some people and a policy-maker for others. A Minister will always describe his ambassador as an expert and rely upon him for the technical side of questions and trust in his own intuition to settle them. Encouraged by this example, the ambassador will unwillingly look upon himself as the policy-maker on behalf of his financial, economic and scientific colleagues upon whom he relies to provide him with knowledge of the subjects which he has to discuss on another level, and so on. What is particularly complicated in an Organisation like ours is that every policy problem arises out of technical data and there are very few technical data without policy implications.

O.E.C.D. diplomacy is a very special kind of diplomacy which requires not only the capacity, already rare enough, of handling broad generalities with intelligence, but also enough technical knowledge of the subjects to handle them with all the necessary precision.

This kind of diplomacy is quite a new thing, which has been in existence for less than 50 years. On the multilateral level of international organisations, it has barely been in existence for 15 years. You see we are no more than adolescents. What we need is continual mental alertness to tackle our problems with the necessary drive, with the essential enthusiasm and generosity, and not to drop them until they have been completely solved.

Mountain-track into modern road;
first steps in the Greek Government's plan to open up Epirus
to progress and prosperity.



GREECE BUILDS A BRIDGE TO THE FUTURE

Modern irrigation trough : the abundant water supply of Epirus is being put to use for power and agriculture.

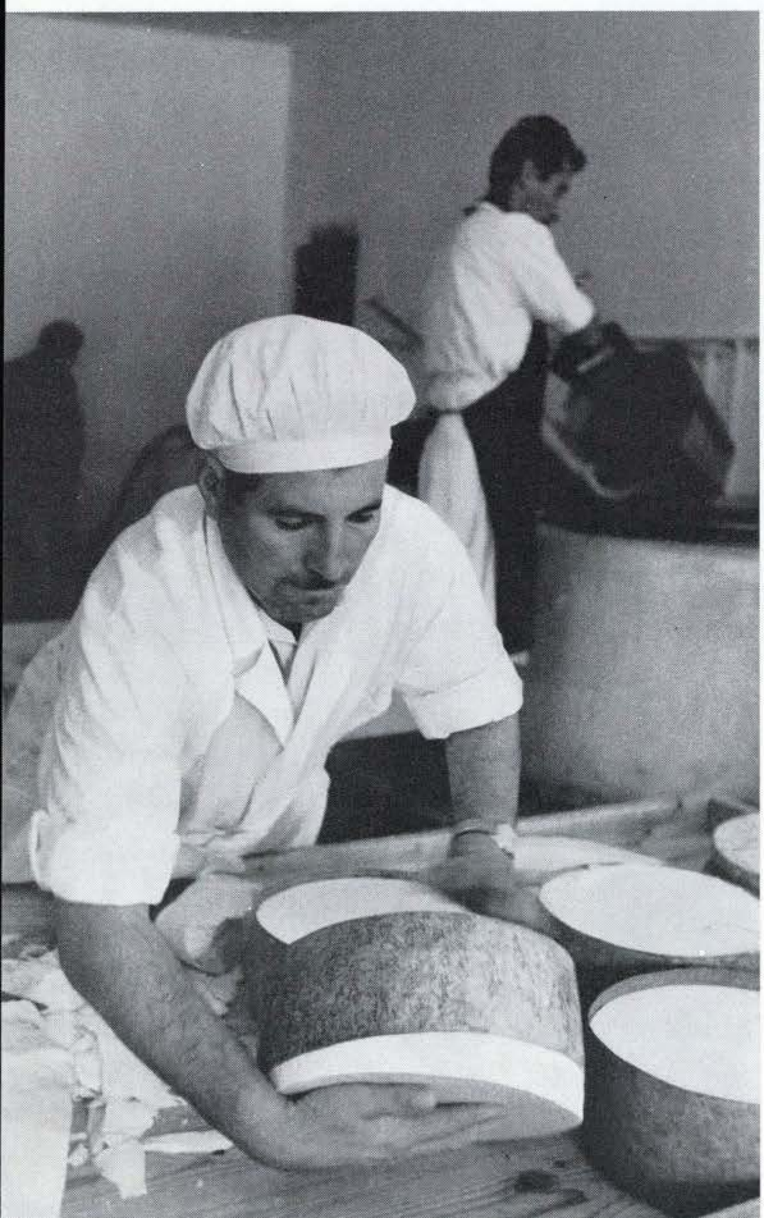
The Greek Government called in international specialists provided by the O.E.C.D. to help in its Regional Development Plan for Epirus, a remote province in North-west Greece, and the islands of Corfu and Lefkas. Cut off from the rest of the country by rugged mountains, with no railway and only one good road, the 360,000 people of Epirus had been left behind in Greece's march to progress. To put right the neglect of centuries, a trial and demonstration zone was set up and financed by the Greek Government in 1957. Already communications are being improved; electric power is being provided; agriculture aided by irrigation schemes, redistribution of land, the introduction of better breeds of cattle, up-to-date advisory and veterinary services. Plans are afoot for the establishment of light industries in this land where agriculture provides almost the sole employment, leaving emigration as the only alternative; and for the provision of facilities for tourists who come to explore its classical and early Christian past.

The story of the regional development of Epirus is another example of the help that can be given through international technical co-operation to the developing countries.

Village meetings at Community Development Centres are lively; the population joins actively in the discussion and it is sometimes a hard job to give an immediate answer to all the questions raised. Courses are arranged at the Centres to give emigrants some knowledge of the language, life and customs of Germany. Every year 1,500 leave Epirus to work elsewhere in Greece or abroad.

A sign of modernity in an ancient village. A travelling doctor brings medical care; part of the programme for progress in Epirus.

*Four-fifths of the population are farmers;
the average holding is 3-4 1/2 acres.
Average income is only $ 120 a year per head.
To raise farm incomes the Government
has introduced modern irrigation schemes,
model farms, up-to-date agricultural schools
and veterinary stations.*



*Making cheese in a new co-operative
factory designed by a French Roquefort
cheese-maker, who also trained the workers.
An Italian expert helps develop
oyster production on the Ionian coast;
an American advises weaving co-operatives.*

CLEARING

The exchange of

TECHNOLOGICAL DIGESTS

Thanks to the unrewarded work of a handful of specialists, precise and readable information on recent developments in the main branches of science and industry is today available both to larger firms and to small and medium industrial businesses which do not normally have access to foreign literature.

The Technological Digests, issued by the Directorate for Scientific Affairs of the O.E.C.D., are designed to aid the flow of technological information between countries by breaking down the language barrier and presenting the information in a condensed form which will enable the most harassed executive to find time to jot down items of potential interest to his firm. If required, the Digests team can supply, at a nominal charge, the original articles from which abstracts have been made, and can usually direct enquiries to the appropriate manufacturer or other source. This part of the Digests, service can save readers many months of investigation; it has in fact been the start of many fruitful arrangements between European suppliers and clients overseas.

Publication of the Digests is a unique venture which few private publishing houses could contemplate. It depends for its success on the National Editors who give their time to the scanning of technical journals in twenty different countries, the selection and condensation of suitable items, the hunting out of appropriate illustrations and the despatch of the complete digest to the editorial offices at the Château de la Muette. Their task is complicated by the fact that the digests are taken from texts in sixteen different languages, frequently from originals written in technical jargon.

The first issues of the Digests were published in 1954 under the title European Technical Digests, and were offered only to the Ameri-

HOUSE FOR TECHNICAL INFORMATION

technical information at international level

can public, where a demand for technical information from Europe had developed from the closer acquaintance of American technicians with their European counterparts during the immediate post-war period.

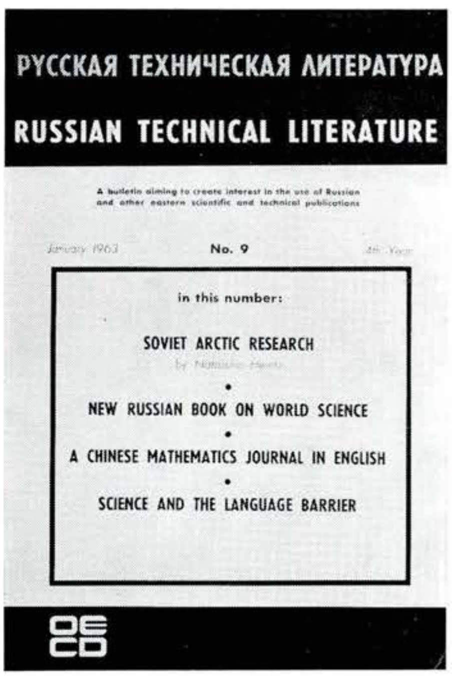
The second stage occurred in 1956, by which time it had become apparent that a demand for this type of publication also existed in Europe. European Technical Digests was thus put on sale through the network of O.E.E.C. sales agents and met with an enthusiastic reception. Shortly afterwards the Organisation began to receive enquiries as to translation rights and agreed to sponsor editions in French, German, Greek, Italian, Spanish, Norwegian, Hebrew, Chinese, Portugese, Korean, Turkish and Japanese. Some of these " second-language " editions are published by official or semi-official bodies, others by private publishing houses in the countries concerned. There are now few large firms in any of the major producing countries outside the Eastern bloc which do not subscribe to one of the editions of Technological Digests — the new title adopted in 1961 to mark a widening in the scope of the publication and the inclusion of digests from American journals.

Once a year, editors and publishers from all over Europe meet at the Château de la Muette to discuss problems involved in the preparation and publication of the Digests, and to discuss their plans to ensure maximum service to their readers. The last meeting took place in November 1962.

RUSSIAN TECHNICAL LITERATURE

Keeping abreast of scientific and technical developments in Russia presents different problems for the O.E.C.D. First, the quantity of scientific and technical literature published in Russia is vast, second only to that of the U.S. There are some 2400 scientific and technical periodicals alone, to say nothing of a great number of books and monographs. Second, the language is known by a relatively small number of Westerners.

The Organisation has interested itself in making the results of Russian research accessible to Western scientists and technicians since 1957, shortly before Sputnik was launched. The first step was to encourage the formation of a European Translations Centre in Delft,



РУССКАЯ ТЕХНИЧЕСКАЯ ЛИТЕРАТУРА

RUSSIAN TECHNICAL LITERATURE

A bulletin aiming to create interest in the use of Russian and other eastern scientific and technical publications

January 1963 | No. 9 | 4th Year

in this number:

SOVIET ARCTIC RESEARCH

NEW RUSSIAN BOOK ON WORLD SCIENCE

A CHINESE MATHEMATICS JOURNAL IN ENGLISH

SCIENCE AND THE LANGUAGE BARRIER

the Netherlands, to collect translations and information about translations from the Russian. It came into being in 1961 and functions without O.E.C.D. funds. At the present time, the principal activity of the O.E.C.D. in this domain is publication of a quarterly journal entitled Russian Technical Literature available in French, English and German.

The journal, which has been in existence since 1960, attempts to help Western scientists and technicians find their way among the many Russian documents now obtainable in the West. In France, for instance, some 280 organisations import roughly 1300 periodicals, and the number is constantly growing. The entire contents of each issue of some 90 Russian scientific journals — more than 60,000 pages in 1961 — are translated into English in the United States and Great Britain.

For the most part, the articles in Russian Technical Literature describe sources of information in a wide variety of scientific and technical fields. It presents lists of Russian books and articles on a particular topic (natural science-research in the Arctic, for instance) and lists Russian institutions doing work in the field. There are news items about the publication of bibliographies, the establishing of translation services, the setting up of scientific libraries, and visits made by Western scientists to Russian research centres. The journal also presents articles on such subjects as the legal position of Western countries with regard to copyrights on Russian works or transliteration of the Russian alphabet.

Beginning in the spring of 1963, the review will publish special numbers, each of which will deal with a scientific field in which the Russians are particularly advanced. The first such issue will be concerned with continuous casting of steel, a process in which the Soviet Union pioneered and in which the Russian experience has been utilised by Western industrialists. Another will be devoted to solid-state physics, and later numbers possibly to processing of low-grade ores and automation.

From time to time the O.E.C.D. review covers developments concerning other Eastern European countries and China; for example the translation into English of the contents of a Chinese mathematical journal.

Turkey has her share of antiquities, among them the Temple of Hadrian shown here. New roads and hotels will help to improve tourist trade.

The O.E.C.D. Tourism Committee is composed of senior officials and persons responsible for tourism in Member countries. It studies problems connected with the development of tourism in Member countries, including the abolition of the remaining administrative obstacles with regard to visas, passports, customs, and tourist currency allowances. The Organisation has published a survey by the Committee on the development of tourism in Member countries and Yugoslavia in 1961 and the early months of 1962 under the title " Tourism in O.E.C.D. Member Countries ". This survey contains extensive statistics on the trend of tourism in 1961; the development of the hotel industry; comparative figures for earlier years; and detailed statistics for each country.

NEW HORIZONS IN WESTERN TOURISM

Holiday playgrounds ripe for development

In 1961, the latest year for which complete statistics are available for the O.E.C.D. countries, the continuously climbing curve of international tourism in European Member countries, so noticeable in the 'Fifties, somewhat flattened out: the average increase was only some 8 per cent, compared with roughly 15 per cent in 1960. The preliminary figure for the earlier part of 1962 seems to substantiate this slowing down in the overall growth of tourism.

The reasons for the slowing down may be attributed both to political and financial causes. Troubles of a political nature in some European countries have from time to time made holiday-makers chary of venturing abroad and discouraged would-be visitors. The main reason, however, was that the balance-of-payments situation in the United States had caused American tourists to refrain from visiting as many European countries as was formerly the case : though the number of American travellers abroad rose by about 4 per cent in 1961 to a total of 7.2 million, increasing numbers of them visited the Pacific area, the West Indies, South America, Japan and other overseas areas rather than Britain, France, Italy and other European countries. Moreover, those who went to Europe visited fewer countries, stayed for shorter periods, and spent less.

In the opposite direction, the United States received about 1 per cent fewer tourists in 1961 than in 1960 (5.4 million); it may well be, however, that the present heightened publicity campaign will reverse this tendency.

A further factor affecting tourism in Europe has been the rise almost to saturation point of the numbers of tourists visiting long-established holiday areas during the popular summer months. Newspapers begin to carry the advertisements of travel agencies, shipping and airlines, and holiday hotels in the days immediately following the New Year. To make certain of securing reservations on the French or Italian Riviera, the area around Naples or the Costa Brava (itself only developed since the war), the prospective tourist must make his bookings many months in advance, and even so face high-season prices and over-crowding. Attempts to induce the population to stagger their holidays are conditioned by climatic, administrative, social or economic considerations; and progress in this direction is rather slow. In Austria, however, the bringing forward of summer holidays of educational institutions has already had good results, as has a campaign in the larger French cities to spread industrial holidays; and in Belgium vigorous publicity on the theme " holidays in June " has had encouraging results.

For some years, the more highly-developed tourism centres have lagged behind in the provision of new accommodation and the modernisation of facilities which do not measure up to present-day requirements. Investment in the tourist industry in the more lately developed holiday areas, such as Greece, Spain, Turkey and Yugoslavia, has, on the contrary, increased. This tendency is now being to some extent reversed in the " older " tourist countries. In France, for example, investment in the hotel industry has increased as the result of State credits for new building or modernisation. In all, 4,300 new rooms were built and 6,200 modernised in 1961, besides the installation of over 3,100 private baths or showers. In Italy over 1,000 new hotels (mostly of a non-luxury nature), boarding houses and motels were built, representing 65,000 extra beds; government loans provided for an increase of 9,300 beds and 3,700 bathrooms.

But while the industry in traditional holiday areas is prepared to make new investments, it is evident that with growing income-levels and ever-easier travel facilities, new horizons must be sought There are signs that this is, in effect, already taking place. A new northward trend can be discerned consisting of tourists who after several visits to Mediterranean countries are now seeking a change. More important, however, is the new trend towards the eastern Mediterranean countries such as Greece, Turkey and Yugoslavia. There was already a substantial increase in 1961 in European tourist traffic in Yugoslavia (28 per cent), and Turkey (25 per cent).

A potential exists, in fact, for expanding tourism in countries which previously have not possessed the

The Acropolis draws tourists from all over the world. Greece too is improving her tourist facilities.

facilities for welcoming large numbers of foreign visitors. Greece is a case in point. For many years tourists visiting Greece did so almost exclusively in order to view the splendours of antiquity; as a result travel facilities outside the main centres were largely lacking. A first tourism development plan was drawn up in 1948, and since then some remarkable progress has been achieved. Communications have been improved, including a highway from Epirus, which has extensive possibilities for tourist development, to Athens; the car-ferry from Brindisi has also helped to open up this area. Hotel beds have increased in number from 42,000 in 1954 to 55,000 in 1961. Extensive plans are afoot for building up the general structure of facilities — electricity, water supplies, communications — as well as tourist attractions such as restaurants, cinemas, organisation of beaches and so on. An O.E.C.D. expert has proposed the installation of a ski-lift in the Zagori region, where the mountains provide opportunities for practising this sport.

This intensive effort to open up the natural beauty of Greece, with the aid of man-made attractions, has already shown handsome returns. Arrivals of foreign tourists rose by 1320 per cent between 1950 and 1961; tourist receipts grew over the same period from \$ 4.7 million to \$ 68 million. Present planning envisages an annual growth in tourism of 18 per cent over the years 1960-1964, 15 per cent over 1964-1969.

The possibility of developing Turkey as a tourist centre also provides an interesting example, since it is in its preliminary stages. An estimate of potential income from tourism, carried out within the framework of a general development study sponsored by the O.E.E.C. European Productivity Agency, shows that it might not prove beyond the bounds of possibility to increase foreign tourist receipts to \$ 200-300 million annually. In this context it is pointed out that Italy's net income from tourism rose from \$ 190 million in 1955 to \$ 410 million in 1958; this figure has continued to rise since and reached \$ 650 million in 1961.

The survey points out that Turkey possesses a coastline with a climate even more favourable than those of the French and Italian Riviera, the Costa Brava or Yugoslavia; all-the-year round bathing is possible. The coast-line is of unusual beauty, ski-ing is available on nearby mountains, and there exists an abundance of sites from antiquity and from more recent history to attract the sight-seeing tourist.

The first requirement is to make the country more accessible to tourists. At present the great majority come on organised Mediterranean cruises, living on the ship and paying only brief visits to land; development of tourist facilities could change this picture completely. It is especially necessary to improve the road system, since a very large proportion of present-day tourists prefer to use their own cars. A start has already been made on the construction of express highways.

The second requirement is the provision of moderately-priced accommodation for the middle-class tourist; in particular, the building of vacation villages such as now exist throughout the Mediterranean area would undoubtedly prove popular with the holiday-maker of moderate tastes and income.

The number of tourists visiting Turkey has risen over the last few years by an average of 12 per cent per annum. During the period of the Turkish Five-Year Development Plan, it is expected to raise this rate to 20 per cent per annum; and to increase the number of tourists from 166,000 in 1962 to 415,000 in 1967.

Mediterranean countries which are building up their tourist industry are taking advantage of the O.E.C.D. technical co-operation programme's arrangements for obtaining expert advice on their development plans or for the training of their staff in the more-developed countries.

It is certain that, with the present development of tourism, enough overspill remains to build up a prosperous tourism industry in these developing countries without in any way damaging the fortunes of the long-established holiday areas in other lands.

WHERE TO OBTAIN O.E.C.D. PUBLICATIONS

ARGENTINA
Editorial Sudamericana S.A.,
Alsina 500, BUENOS AIRES.

AUSTRALIA
B.C.N. Agencies Pty. Ltd.,
62 Wellington Parade,
East MELBOURNE, C.2.

AUSTRIA
Gerold & Co., Graben 31, WIEN 1.
Sub-Agent :
Buchhandlung Jos. A. Kienreich,
Sackstrasse 6, GRAZ.

BELGIUM
N.V. Standaard-Boekhandel,
Huidevettersstraat 57, ANTWERPEN.
Librairie des Sciences (R. Stoops),
76-78, Coudenberg, BRUXELLES.

BRAZIL
Livraria Agir Editôra,
Rua Mexico 98-B, RIO DE JANEIRO.

CANADA
Queen's Printer - Imprimeur de la Reine,
OTTAWA.
Prepayment of all orders required.

CUBA
La Casa Belga, O'Reilly 455, HAVANA.

DENMARK
Ejnar Munksgaard Forlag,
Nörregade 6, KÖBENHAVN.

FINLAND
Akateeminen Kirjakauppa,
Keskuskatu 2, HELSINKI.

FRANCE
Presses Universitaires de France,
108, boulevard Saint-Germain, PARIS (6e).

GERMANY
Deutscher Bundes-Verlag, GmbH.
Postfach 9380, 53 BONN.
Sub-Agents : BERLIN : Elwert & Meurer.
MÜNCHEN : Hueber.
HAMBURG : Reuter-Klöckner;
und in den massgebenden Buchhandlungen
Deutschlands.

GREECE
Librairie Kauffmann,
21, rue du Stade, ATHÈNES.

ICELAND
Snæbjörn Jónsson & Co. h.f.
Hafnarstræti 9,
P.O. Box 1131 - REYKJAVIK.

INDIA
International Book House Ltd.,
9 Ash Lane,
Mahatma Gandhi Road, BOMBAY 1.
Oxford Book and Stationery Co. :
NEW DELHI, Scindia House.
CALCUTTA, 17 Park Street.

IRELAND
Eason & Son,
40-41 Lower O'Connell Street, DUBLIN.

ISRAEL
Blumstein's Bookstores Ltd.,
35 Allenby Road,
and 48 Nahlath Benjamin St., TEL-AVIV.

ITALY
Libreria Commissionaria Sansoni
Via Gino Capponi 26, FIRENZE.
Via Paolo Mercuri 19/B, ROMA.
Corso Cavour 93, BARI.
P.E.M., Corso di Porta Romana 87/B,
MILANO.
Sub-Agents :
GENOVA : Libreria Di Stefano.
MILANO : Libreria Hœpli.
NAPOLI : Libreria L. Cappelli.
PADOVA : Libreria Zannoni.
PALERMO :
Libreria C. Cicala Inguaggiato.
ROMA :
Libreria Hœpli; Libreria Tombolini.
TORINO : Libreria Lattes.

JAPAN
Maruzen Company Ltd.,
6 Tori Nichome Nihonbashi, TOKYO.

LUXEMBOURG
Librairie Paul Bruck, 33, Grand'Rue,
LUXEMBOURG.

MOROCCO
B.E.P.I., 8, rue Michaux-Bellaire, RABAT.

THE NETHERLANDS
Wholesale Agent :
Meulenhoff & Co., N.V. Importeurs,
Beulingstraat 2, AMSTERDAM.
Principal Retailer :
W.P. Van Stockum & Zoon
Buitenhof 36, DEN HAAG.

NIGERIA
University Bookshop Nigeria Ltd.,
University College, IBADAN.

NORWAY
A/S Bokhjornet, Lille Grensen 7, OSLO.

PAKISTAN
Mirza Book Agency,
9-A Shah Alam Market, LAHORE.

PORTUGAL
Livraria Portugal,
Rua do Carmo 70, LISBOA.

SOUTH AFRICA
Van Schaik's Book Store Ltd.,
Church Street, PRETORIA.

SPAIN
Mundi Prensa, Castelló 37, MADRID.
Libreria Bosch, Ronda Universidad II,
BARCELONA.

SWEDEN
Fritzes, Kungl. Hovbokhandel,
Fredsgatan 2, STOCKHOLM 16.

SWITZERLAND
Librairie Payot,
40, rue du Marché, GENÈVE
et à LAUSANNE, NEUCHATEL, VEVEY,
MONTREUX, BERNE, BALE et ZURICH.

TURKEY
Librairie Hachette,
469 Istiklal Caddesi, Beyoglu, ISTANBUL.

UNITED KINGDOM and
CROWN COLONIES
H.M. Stationery Office,
P.O. Box 569, LONDON S.E.I.
Branches at : EDINBURGH, BIRMINGHAM,
BRISTOL, MANCHESTER, CARDIFF, BELFAST.

UNITED STATES OF AMERICA
O.E.C.D. Regional Office,
Suite 1223.
1346 Connecticut Ave, N.W.
WASHINGTON 6, D.C.

YUGOSLAVIA
Jugoslovenska Knjiga, Marsala Tita 23,
P.O.B. 36, BEOGRAD.

Orders and inquiries from countries where sales agents have not yet been appointed may be sent to O.E.C.D., Publications Office, 2, rue André-Pascal, Paris (16e)

Printed in France - Imprimerie Blanchard, 61, rue de la Tombe-Issoire, Paris

Organisation for Economic Co-operation and Development

Austria
Belgium
Canada
Denmark
France
Germany
Greece
Iceland
Ireland
Italy
Luxembourg
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
Turkey
United Kingdom
United States