

# the O E C D O B S E R V E R

WESTERN CO-OPERATION IN MONETARY MATTERS AND TRADE. EMPLOYMENT FOR AGEING WORKERS. ECONOMIC GROWTH IN DEVELOPED AND LESS-DEVELOPED COUNTRIES. TOWARDS AN INDUSTRIAL POLICY? MOTORISATION OF THE FARMS



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# WESTERN CO-OPERATION IN MONETARY MATTERS AND TRADE

by  
Thorkil KRISTENSEN  
*Secretary-General  
of the OECD*

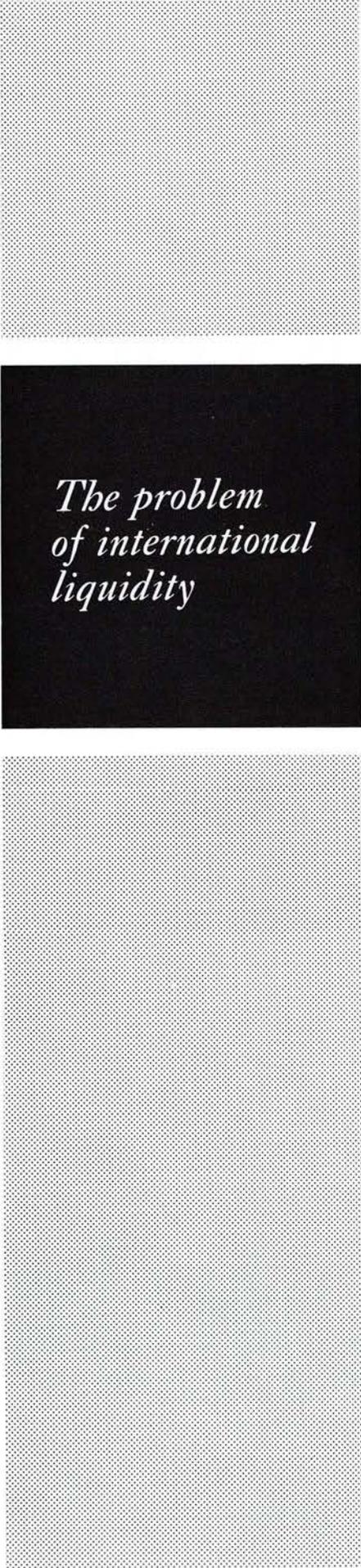
**T**he industrialised countries of the West will be faced with three major economic problems in the next few years. The way in which we are able to handle these problems will be decisive both for the economic and political relations between all the Western countries and for the relations between the West and the rest of the world.

What are these three problems? They are, first, the reinforcement of the international monetary system; secondly, the progressive abolition of barriers to international trade; and thirdly, a consistent policy for our economic relations with the less-developed countries.

These three problems are closely interlinked and the question of trade policy is, so to speak, the focal point. If we were able to reduce, on a vast scale, the economic barriers between the different countries, that would unquestionably result in remarkable changes in all the relations between the peoples of the world. But an effective monetary policy which would allow satisfactory economic growth without thereby prejudicing financial stability is obviously one of the essential conditions for a large-scale liberalisation of trade, which in its turn will to all appearances be a major element in a constructive policy towards the less-developed countries.

We must therefore begin with monetary policy, which during the coming years will be one of the most important instruments in facilitating the bold reduction of trade barriers. It must never be forgotten that it was the collapse of the international monetary system in the Thirties which led to the unfortunate wave of quantitative restrictions before the war. If, in contrast to this, the Common Market has been able to reduce internal customs tariffs in a spectacular fashion without major difficulty, the decisive reason for this is undoubtedly that Member States have generally found themselves in a favourable monetary situation during recent years.

In principle, the international monetary system is a world system. It should not be overlooked, however, that by far the greater part of international monetary transactions take place either within the Western world or between certain Western countries and other countries, especially the



## *The problem of international liquidity*

under-developed countries. It is therefore on the monetary policy of the West and very particularly on the policy of a fairly small number of major Western countries that the operation of the world monetary system will largely depend.

It is evident that each government has a national responsibility for the maintenance of the internal and external stability of its own country. Nevertheless, since the restoration of convertibility we have seen a rapidly growing inter-dependence between the industrialised countries in this field. Not only has there been a remarkable increase in trade and other current transactions but, what is perhaps even more important, long-term and short-term capital movements have assumed sometimes alarming proportions. The question has therefore arisen what is to be done to avoid the appearance in certain cases of a dangerous disequilibrium in the balance of payments.

**T**he problem is a complicated one. In the first place it is necessary to ensure that countries possess sufficient monetary reserves to finance, where necessary, what may be a substantial deficit over a certain period. In the second place countries must find themselves constrained to embark upon internal policies designed to restore equilibrium, unless the deficits and surpluses merely reflect a passing imbalance. This means that the ordinary course of international transactions must be ensured without, however, disregarding monetary discipline.

Now, the volume of a country's monetary reserves is largely governed by national government policy. Nevertheless, the total amount of reserves, and even to some extent their distribution between the different countries of the world, will increasingly depend upon international co-operation. More particularly, the countries which find themselves in a strong position can help the others to strengthen their reserves, but in doing so they can also require the assisted countries to satisfy the conditions which seem to them to be proper. How can we ensure that the results of this co-operation will be a suitable combination between the necessary financing and the necessary discipline? That is the core of the monetary problem.

In principle, the monetary system is always based on gold, but gold production is not enough to increase monetary reserves to the extent required by an expanding world economy. Other means have therefore had to be found to ensure that economic growth is not checked by the lack of national or international liquidity. National liquidity is largely the responsibility of national governments, but time and time again the economic expansion of a country has been checked by lack of foreign exchange, or in other words by insufficient international liquidity.

There has been much discussion in recent years about the problem of international liquidity. I will not recall all the different proposals which have been made. It is enough to indicate that there are four different ways of increasing the monetary reserves of a country or, in general, the reserves existing in the world as a whole.

The first would be to *raise the price of gold* from time to time so as to increase overall reserves by increasing the monetary value of gold stocks and also more indirectly by the increase in gold production which would undoubtedly result from the price increase.

The second way would be to create a growing quantity of an *international currency* by an agency, preferably world-wide, such as the International Monetary Fund, which would make this currency available to the different countries by loans on certain terms.

The third way would be to accept the system of *flexible exchange rates*. Under such a system there would be no need for monetary reserves since, if a particular country had a deficit in its balance of payments, the exchange

*The solution :  
international  
credits*

rates for its currency would fall, which, in turn, would bring about an increase in the country's exports and a fall in its imports.

Finally, the fourth way would be the *grant of credits by one country to another* either by bilateral agreements or through the intermediary of an international institution such as the International Monetary Fund.

These, then, are the four ways which might be contemplated, but it looks at the present stage as though countries would probably not be prepared to accept any of the first three.

**W**ith regard to the *price of gold* the decision in practice lies with the American Government alone, which is in any event an undesirable state of affairs from the international point of view since an increase in the price of gold would affect the situation in every country.

The fact is that the American Government has on many occasions declared that it has no intention of raising the price of gold, which seems highly reasonable. If it had been desired that the role of gold should remain unchanged from one century to another, its price should have been changed from time to time according to needs, but as everyone knows we have for a long time been in the period of monetary history when metal is more and more widely replaced by instruments of credit (bank notes, bank accounts, etc.) both in internal circulation within the different countries and in international monetary reserves.

This is an inescapable trend. Credit is much more practical than metal and in this way the manipulations and speculations in gold prices are avoided which might create some danger for monetary stability.

While it is inevitable that gold should play a constantly diminishing part in the monetary system, the best policy would no doubt be to maintain its price and to increase monetary reserves by an increase in international credits which would correspond to the development which has already virtually taken place in the internal monetary circulation of the different countries.

The *creation of an international currency* by a world institution will perhaps sooner or later be accepted as a suitable solution. At the present stage, however, it does not look as though most countries are ready to delegate such powers to an institution over which the government of an individual country would have only a very limited influence.

As to the third method, the acceptance of *flexible exchange rates*, it is against the existing rules of the International Monetary Fund. These rules were made for the very purpose of avoiding the uncertainty created by the fluctuations in exchange rates which were so frequent during the Thirties. Moreover, if there were no rule about the relative value of the various national currencies the door would be open for large scale speculation and manipulation. It therefore seems that this system also would not be generally accepted in the world as it is today.

There remains the fourth method, namely the *grant of credits by one country to another*. In fact this was the method used to solve the problems of international liquidity which arose during the post-war years.

This method may take many forms. Countries can make their currency available to the International Monetary Fund which in turn will make it available to other countries according to their needs. On the bilateral plane, a government may borrow abroad or a central bank may accept deposits from another central bank.

The most interesting cases from the point of view of monetary policy are those where two countries grant each other reciprocal credits, because this means that the reserves of both countries have increased at the same time.

*(continued page 38)*

# EMPLOYMENT FOR THE AGEING WORKER

*...a serious  
problem now -  
critical  
later...*

The meat-packing plant had been made hopelessly obsolescent by new production techniques, including automation that had revolutionised the industry. There was no alternative to closing it down for good. Of the 2,200 employees thus returned to the labour market, most of those *under* forty years old found other jobs with little or no delay. However, a survey showed that 90 per cent of those *over* forty were still without employment a year later.

The incident was cited in a booklet recently published by OECD to dramatise the mounting difficulties ageing workers are having in finding new employment. The same booklet highlights an equally important problem with a human as well as economic undertone, that of the older worker in holding on to his job. Although the meat-packing plant incident occurred in the United States, it is a problem that could be found with varying degrees of intensity in every advanced country.

Both the publication — *Age and Employment* — and new action programmes initiated by OECD's Manpower and Social Affairs Directorate emphasise the urgency of the situation. Experts agree that it has been "badly under-estimated" in most nations. One authority in economics, Professor Irvin Sobel, of Washington University, St Louis, Mo., flatly states that "a very serious problem of the over-45s is likely to face industrialised countries in the next ten years."

The situation is rooted, not in a decrease in economic progress but, conversely, in the application of advanced technological changes that are making economic growth possible but, at the same time, are rapidly and radically altering job patterns and the whole system of employment. Today the worker must have higher type skills than ever before and he must have greater precision and more speed in performance. What haunts the older worker, and creates his employment difficulty is the challenge

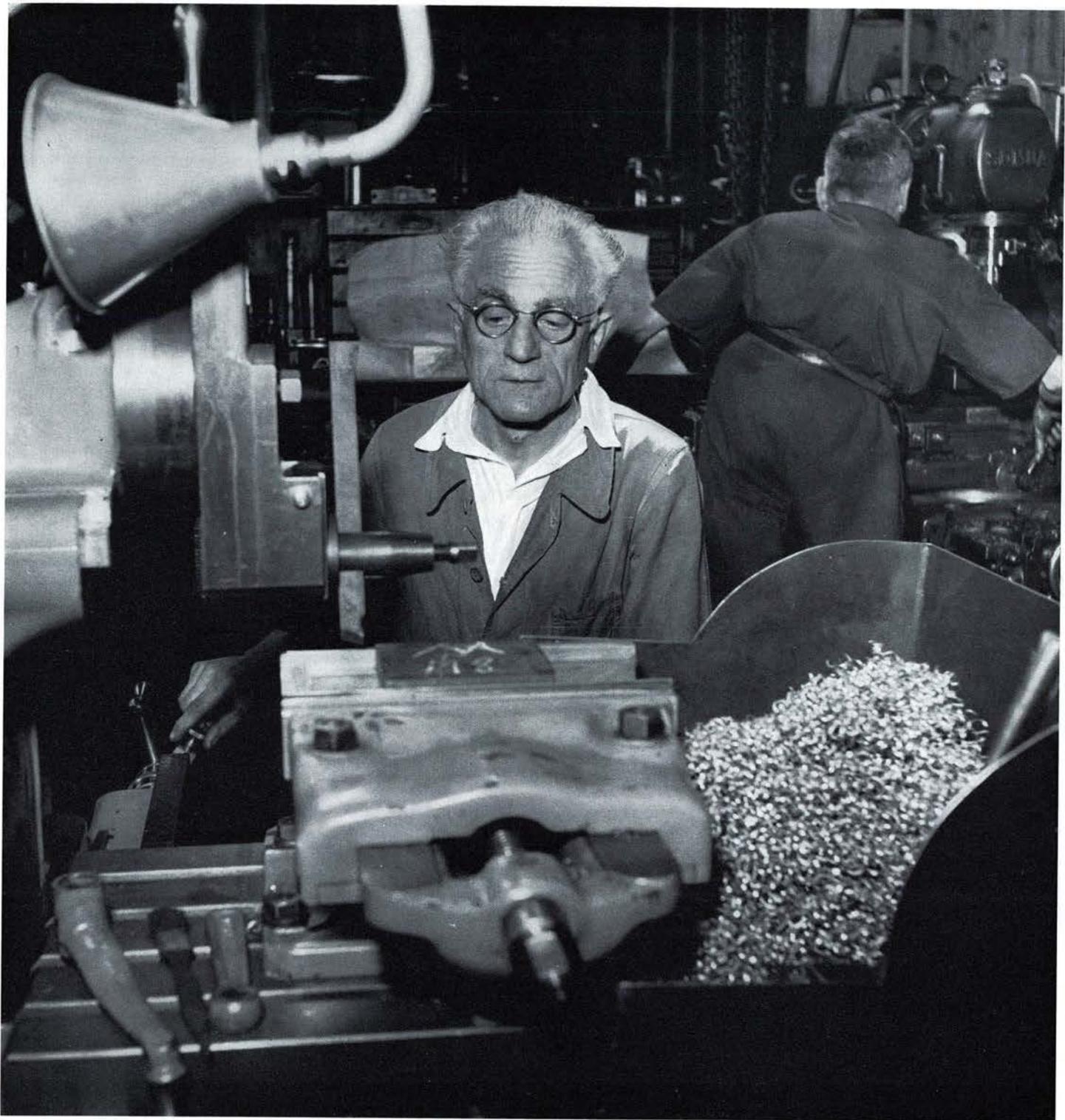
this new kind of job makes to his mental and physical reflexes or adaptive ability. In many cases the job demands can set up psychological stresses in him that may go undetected, or even if he knows he is getting beyond his depth he may want to keep it to himself.

A survey in the United Kingdom made in 1961 threw new light on the stress problem among older workers in the manufacturing industry. The sample was made in twenty firms employing over 400 men. The study found an inadequate appreciation in industry of the cost in terms of strain to the ageing worker, who stayed on a job for which he is obviously unsuited. The only transfers made were usually for men employed in physically heavy jobs, yet it was shown that stress could be caused by difficult — and remediable — working conditions which might include bad lighting, too much noise, dust, pressure in time schedules and inadequate co-operative mechanisms. The survey report continued :

"Moreover, since transfer almost always meant a change to lower paid and often menial work, there is the danger that many older men remain too long on a job involving increasing stress."

From a detailed examination of over 500 semi-skilled operations, the survey discovered that more older men — and fewer younger men — were employed on jobs carried out in bad conditions. The ratio, according to the survey, was more disparate than would normally be found if chance were merely the cause. Yet these same jobs required a high degree of responsible behaviour.

A curious change in the worker's attitude towards age occurs when he is displaced. Inquiries have revealed that workers consider age an asset while employed, based on higher income, status and seniority. The displaced older worker often found his greying hair and deepening facial lines — and the revealing statistic of age on the application for employment form — an



insurmountable obstacle to re-employment. Their wives reported that, as a reaction, they seemed to develop numerous minor ailments and, as an increased expenditure on alcoholic drinks showed, they sought, despite dwindling funds, compensatory relief in their favourite bar or cafe. It would have done them no good to have read at this point findings of a survey done in Sweden by Mr H. Olhagen among fifty industrial firms :

“Most companies reported a restriction on recruitment in terms of an age limit regulated, however, by the availability of young workers. In the case of clerical workers very few were reported being taken on

over the age of 40. In the metal-working industry the critical age appeared to be in the fifties... ”

Yet, as another study reveals, in 1976 Sweden will be the West European country that has the greatest number of persons over 45 years in the employable part of the population.

Meanwhile, in almost all industrialised nations, thanks to an increasing life span, the number of older workers in the employable population has steadily increased between 1920 and 1960 and this development is expected to continue through the remaining part of the 20th century. At the same time, looking over his

shoulder, the older worker sees a demographic phenomenon known as the "youth bulge" moving into the labour market. Most of the young workers lack the required skills industry demands and, as specialists point out, in fitting them for the new jobs through vocational on-the-job or other kinds of training programmes, industry has neglected to make the same kind of treatment available to the man who is in the second half of his working life.

This, and other aspects of the critical problem, is what the OECD through its new manpower projects is trying to bring home to Member countries. It is one thing to highlight the problem. It is another to show how it can be brought under attack. Following a meeting of OECD's Manpower and Social Affairs Committee last March, the Organisation has, with the Committee's approval, engaged several top-flight experts to do a thorough research job and provide material for three "working manuals" to be offered to Member countries. The manuals should be ready towards the end of the year. They will cite specific methods to cope with the situation. Three phases of the problem are to be undertaken :

### Retraining the Older Worker

In a seminar sponsored by OECD in Stockholm last year, attended by leading economists, employment services, and occupational health experts, among others, retraining of the older worker claimed the greatest attention. The discussions of the participants have been summarised in the current "Age and Employment" publication. The specialists agreed that new methods should be found in this activity that would give the worker, *earlier in life*, when motivation and self-confidence are high, all-round training based on his main trade and that general further training should be pursued on a regular schedule. They also urged that management set up a series of transfers to less exacting jobs before the workers' adaptive powers excessively deteriorate.

To date there have been few scientific studies made on the response of older workers to retraining procedures, but it is known, from observation, that they *can* learn even though they may take longer to reach full capability at the job. What is needed is to inspire them with a solid motivation to learn and then to find new methods of retraining that would consider their special psychological attitudes. Admittedly the ageing worker may be "set in his ways", and, as one specialist recently pointed out, he must "un-learn old habits before re-learning new skills".

In some highly industrialised countries ways of helping older workers through re-training periods with subsidies have been put into action. In the Federal German Republic, a Government agency offers financial subsidies up to 70 per cent of the worker's pay to firms recruiting and retraining older workers. In France, the Government can give similar aid to industries for retraining and redeployment of the ageing worker affected by modernisation or nationalisation. The extensive programme for retraining of adults, sponsored by the Swedish Government, is to a great extent utilised by workers in the higher age bracket.

In the United States the Armour Foundation has joined with trade unions in the meat-packing industry to set up a fund from which help can be obtained to

soften the results of displacement as automation takes over. Other plans are afoot in the same area.

### Placement of Older Workers

The OECD study in this phase of the problem will deal largely with employment services, governmental and private, as well as management. It must be shown that the older worker can bring qualities to the job, not often found in the young. Results of the 1961 inquiry in the United Kingdom, previously mentioned, show that, from the managers' and supervisors' viewpoints, the possible slowing down of the older worker as a natural result of ageing is offset by the "considerable skill, experience and conscientious attitudes acquired during years of work". Another factor in overcoming prejudices held by placement people and management against older workers is to strive for clear distinctions between "chronological age" and "functional age". The British Medical Research Unit on Ageing, at Liverpool, has an assessment project under way on this subject at the present time. Its former director, Dr Alastair Heron, has pointed out that you can take workers at any chronological age, say fifty, and you will find wide differences in their "apparent age", that is, some may seem older and others younger. But what is clearly needed is some scientific or medically-inspired index that will state a person's "functional age" as clearly as the number of years he has. What is needed is a "profile" to show where the individual stands on certain abilities — acuity in hearing, say, or intellectual alertness as well as physical fitness.

The Liverpool study has under observation for these purposes some 600 persons divided in 12 groups. These men and women are being examined regularly on a wide variety of subjects that include their educational and occupational histories, marital status, number of children and the kind of leisure activities they have. Physical and psychological tests are also made. When the experiment is complete, as it is hopefully expected, sometime this year, it will provide some objective measuring system for use by industrial medical officers in judging functional efficiency of older workers they examine for continued or new employment. Similar studies are being made in France and Sweden. Furthermore, regular examinations of ageing workers are carried out in the Netherlands, Sweden, the United Kingdom and the United States. These programmes are expected to add new research data to the "functional-versus-chronological age" problem.

### Redesigning the Job

The OECD expert who is studying this phase of the matter can find considerable data to draw upon. The research on this subject, called ergonomics, is aimed at finding ways of relieving strain in the older worker that impedes his job performance. At the same time, any progress in this field automatically would be applied to all workers regardless of age.

At the Stockholm seminar, Dr J.J. Gillon, medical inspector for France's Ministry of Labour, indicated that much more improvement could be made in the working conditions of older workers if new work management thinking were more forcefully applied. He felt



methods could be found of reducing actual working hours, altering times and abolishing work-time schedules.

Dr Gillon agreed that in the redesigning of jobs, since an analysis of the situation must be done in the actual job position, it would be difficult to generalise. He said general information did however exist regarding the number and description of specific jobs that were either suitable or unsuitable for older workers or positively limited to younger workers. Others at the seminar suggested that a listing of jobs suitable for older workers could be done at a single plant level or in a single industry. Jobs that would either have to be modified or prohibited to men over 50 years of age included all forms of severely-paced work, those involving frequent changes of extremes of temperature or those that put the worker through rapid shift changes or sharp departures from the normal daily rhythm of the worker.

Closely associated with the problem is the matter of retirement. For most it comes abruptly and, as surveys have disclosed, leaves some men, staring bleakly at a future of long empty days, with a sense of numbing shock. Studies show that most rue the loss of friendships made in working life. Of one group questioned, over half bluntly said they did not want to retire.

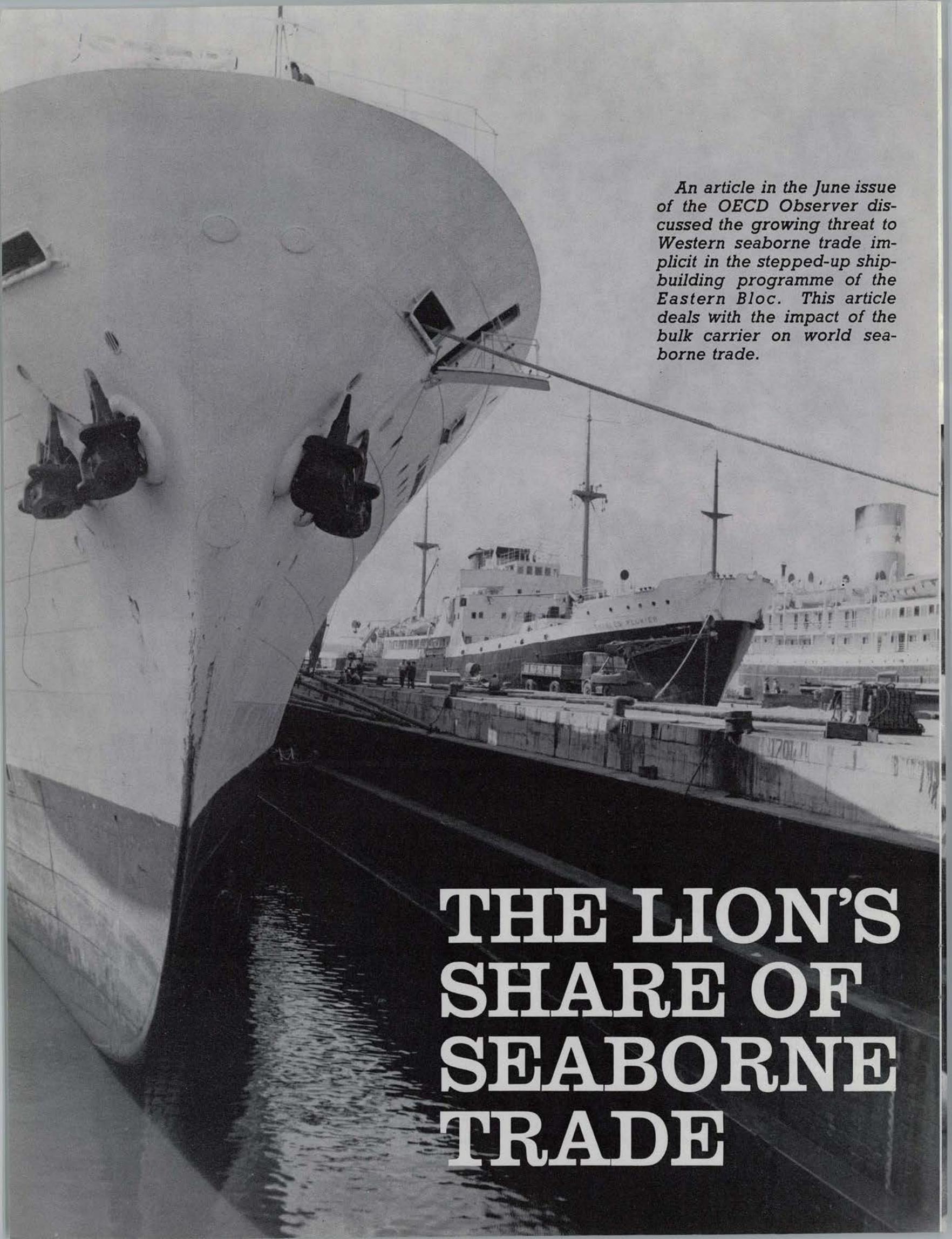
Fortunately, some countries and sectors of private industry have set afoot new and imaginative schemes of preparing the worker well in advance for retirement. One excellent plan of this kind gives the older worker "day-release" time to attend courses in adult education or other activities that will help him create new lively interests (other than the usual "gardening") to make

retirement something to cherish rather than deplore.

An interesting proposal raised at the seminar by Mr F. Le Gros Clark of the Nuffield Foundation, Great Britain, suggested three practical and remunerative ways for retired workers to occupy their time.

- Manufacturing firms would provide on their own premises workshops where retired workers could continue employment at their own pace. Several such workshops exist in Great Britain and two other countries.
- Organised aid should be provided by governments to assist retired people in finding work in service types of jobs, for householders, institutions, and small traders, as examples, where they presumably can limit their hours of work.
- Organised assistance should be given in helping retired persons find employment in voluntary welfare agencies.

In a growing economy, wastage of manpower is a burden which could be partly eased if efficient placement techniques could help to resolve technological unemployment rapidly by re-integrating workers over 40 when they were forced, by technical development, to change jobs. In some cases these adult workers will have to be trained for new job requirements. Specific training methods have already proved to be a success in different firms and countries; in many cases performance of the older worker can be improved by fitting his job to take into account psychological and physiological effects of age on his work capacity. This is in fact the conclusion of the Laroque Commission report: "Fit the worker to the job while fitting the job to the worker".



*An article in the June issue of the OECD Observer discussed the growing threat to Western seaborne trade implicit in the stepped-up ship-building programme of the Eastern Bloc. This article deals with the impact of the bulk carrier on world seaborne trade.*

# THE LION'S SHARE OF SEABORNE TRADE

**F**rom time out of mind tramp shipping has plied from port to port throughout the world picking up cargoes here and there as the opportunity presents itself or as orders are signalled to captains from owners in London, Hamburg, New York or other great maritime centres. The object has been to secure the highest possible pay-load, setting the size of cargoes offered against the necessity of keeping the ship engaged in profitable trade by not wasting time in turn-round. The cargoes loaded by these tramps have in consequence frequently been of the most diverse natures and varying quantities.

Now this concept of a versatile cargo ship of modest size — vessels as small as 4,000 tons deadweight — is being challenged by the specialised dry bulk carrier, whose development over the last few years has been outstanding for its speed and size. These ships range from 10,000 to anything up to 100,000 tons and are of the single-deck type with the machinery aft to facilitate loading and handling.

Size, speed and easy loading make for economy, which appeals to the importer of bulk commodities, who can lift large quantities as a single unit. Moreover, the violent fluctuations in tramp freight rates since the Second World War — rising to astronomical heights during times of crisis, and subsequently plummeting into the depths of freight depressions — have led large importers of bulk commodities either to build their own ships or to encourage independent owners to build them for very long charters. This applies particularly to iron ore corporations and oil companies, the latter of which began to develop their tanker fleet as long ago as the Twenties. World seaborne trade in oil, incidentally, at something over 500 million tons annually, represents about 50 per cent of the total sea movement of cargo.

**I**t is in the second main bulk commodity, ore, which at over 100 million tons annually represents another 10 per cent of the total

seaborne trade, that the development of the specialised dry cargo bulk carriers is having an enormous effect on tramp business. Until the last few years this ore trade has been carried by tramps chartered on the open market; but at the end of June 1962 there existed a fleet of about 280 specialised ore carriers of over 6 million tons deadweight, and 40 others totalling about 1.7 million tons deadweight were under construction. Already in 1961 the ore carriers had lifted 50 per cent of the total seaborne ore trade. Moreover, in June 1962 there was a fleet of some 400 bulk carriers, other than those specially designed for the carriage of ore, of about 7 million tons, with a further 215 ships of about 5.3 million under construction. This type of vessel in 1961 carried over 12 million tons of ore, 12 million tons of coal, 7 million tons of grain and 5 million tons of other bulk commodities.

**B**ulk carriers do not in general affect the liner trades, with the exception of those suitable for the carriage of motor-cars. In the last few years specialised car-carriers have seized this trade, proceeding from Europe to North America with full loads of cars and returning with cargoes of grain at knockout freight rates.

Of the total dry cargo movement by sea of bulk commodities, amounting to between 250 and 300 million tons annually, it seems probable that there may be left under 100 million for the fleet of 30 million tons of general purpose tramps, including the non-specialised bulk carriers.

But the picture is not entirely black. The chartering of tramps by liner companies, for which bulk carriers are too big, and physical problems of size and draft in many of the world's ports, will avert the eventual elimination of tramps on grounds of operational economy. It may indeed be found that the present and projected size of the bulk carrier fleet is already adequate for the volume of cargo for which they are suitable.

*As an introduction to a number of articles on specific industrial subjects dealt with by the OECD Directorate for Industry and Energy, the author discusses some problems of the development of an industrial policy.*

# TOWARDS AN INDUSTRIAL POLICY?

\*\*\*\*\*

by  
Reiner THEDIECK  
OECD Director for  
Industry and Energy

ECONOMIC systems vary between two extremes, one based on a free market economy and the other on a centrally-planned economy. Neither of these extreme forms is practicable, and the systems actually used lie between these extremes and contain a varying number of elements of each of them.

Nearly all economic systems aim to achieve economic growth, stable prices, full employment, a sufficiency of supply and social welfare; in other words, they have comparable objectives. The main differences between the various systems result from their respective basic concepts and motivations, as well as from the methods used for carrying them out. These systems are also influenced by ideological components, considerations of national security or the desire for economic autonomy; a host of other factors, comprising even geographical and climatic conditions, might determine some aspects of a given system.

Each economic system is characterised by a typical economic policy. Such a policy represents a homogeneous set of intentions and measures co-ordinated in a comprehensive and effective manner and aimed at the implementation of determined objectives. Economic policy is thus a complex structure of various elements which are closely inter-related. This restricts the degree of freedom of each individual element. A system and its elements can be symbolised by a network of horizontal and vertical lines. The horizontal lines represent those aspects of the economic policy which like the fiscal policy, monetary policy, labour market policy, social policy, etc., are equally important for all branches of the economy. Each vertical line of the symbolic network cuts out and links together those parts of the horizontal policies which are relevant to a given branch of the economy, combining these parts to a policy for the corresponding branch.

THE question arises as to whether it is possible and useful to define an individual policy for industry — as being an important branch of the economy — and develop it into an “industrial policy”.

First indications concerning the content of any rational industrial policy can be deduced from the symbols used above; industrial policy is represented by a vertical line which combines all the elements of the horizontal policies concerned with, and all ways and means aimed at, the implementation of the general economic policy in the field of industry. These aims must be achieved by the methods characterising the economic system concerned, and the interdependence between the industrial policy and the other vertical and horizontal policies must be taken into account.

It is not difficult to justify the implementation and the development of an industrial policy in those economic

systems which are characterised by centralised administration and nationalised capital. At this point, no more than a passing reference will be made to the discrepancies between theoretical conception and industrial practice and between the targets set and the practical results achieved which may be observed in such systems.

When it comes to the more liberal types of economic systems as they are established in most of the industrialised countries of the world, any attempt to lay down an industrial policy encounters a whole series of problems and claims, which can only be solved by pragmatic, non-doctrinarian compromises. Such systems are based on the interplay of supply and demand and presuppose free markets, freedom of choice by the consumer and free entrepreneurial initiative and decision. Free competition acts as the balancing factor in such systems, and any government interference in the mechanism *may* well have the result of throwing it out of balance. In practice, however, it has been shown that a basically liberal economy may achieve outstanding results even when the State does intervene drastically. Moreover, the fact should not be overlooked that even in the most liberal economic systems the State has to interfere in a number of cases, in order to maintain the freedom which is the characteristic and basic condition of a liberal system. The resulting relative liberty is therefore evolving within the scope of governmental measures which are not a restriction of, but a guarantee for, economic freedom.

**I**F a certain minimum of state measures is necessary as a guarantee for economic freedom, the question raised above can be considered as purely rhetorical and must be converted into a categorical request: all measures to influence the country's industry should constitute part of a harmonious, rational and feasible system and should be conceived as a part of a deliberate industrial policy which should be constantly subject to review.

In the first place industrial policy should constitute the legal basis for industrial activity. This requires first of all fundamental legislation concerning general matters such as finance and taxation, social affairs and manpower, patent law and fair competition, etc. In addition, some countries develop plans ranging from general, indicative recommendations to detailed, imperative instructions regarding investment, production, etc. Apart from such far-reaching measures, there are plenty of possibilities for direct intervention in industry, even in individual branches or firms, to solve a particular, actual problem on an ad hoc basis: subsidies and low-interest loans, premiums for the restriction of production capacity, export premiums and restrictions on imports, taxation of substitute products and tax exemption, state financing of industrial research projects and many other

measures are available, most of them having protectionist effects.

**M**ETHODS of implementing an industrial policy are determined by the basic concept of the prevailing economic system. While the manner in which and the extent to which the State intervenes to solve a given problem will depend on this basic concept, the specific conditions of the case and the actual political situation will also play an important part. Therefore the industrial policy of a liberal economic system can be expressed in general terms only. The nucleus of such a policy is the conviction that State intervention in the industrial economy should be kept to a minimum, that it should take place only when necessary in the public interest and that it should be subject to democratic criticism and control. The structure of the industrial policy should be broad and flexible so that there is a sufficient margin for intervention and pragmatic solutions made necessary by specific political or social situations or problems. As far as possible, governmental measures should take the form of indicative recommendations and qualified information rather than binding regulations. If rulings cannot be avoided, they should be applied as temporary measures (thus excluding protectionism) and should be in the nature of incentive systems. Recommendations covering long term development should be based on forward looking considerations and — in view of the uncertainty regarding future evolution — should leave sufficient freedom for alternative approaches.

Industrial policy in a liberal economy will only be successful if it is possible to make the leaders of industry feel that they are partners in the implementation of such a policy. This can best be done by ensuring the industrial leader sufficient initiative and freedom of decision, so that his activity in the industrial sphere remains interesting in the widest sense of the word. On the other hand the employers as well as the employees must have a legitimate opportunity to co-operate in the establishment of their country's economic policy. Furthermore the result of the industrial policy will also be influenced by the degree of trust between government and industry. A satisfying state of trust cannot be imposed, and the basis for it must be worked out in common. The example given by the State in its quality as an owner of major industrial undertakings may make an important contribution in this field.

In the industrial policy of liberal economic systems there always exists the hidden danger that an excess of industrial policy may limit unduly that very freedom which is the basis of such systems and which makes their success possible. A liberal industrial policy steers between Scylla and Charybdis and it seems to be more important to know the limitations of such policy than to attempt to attain its objectives at all costs.

# FARM MOTORISATION



**B**etween 1947 and 1960, the number of farm tractors used in the European countries of the OECD increased by 500 per cent, from 510,000 to 2,080,000. This spectacular rise is one of the most striking features in the development of European agriculture in recent years. It bears witness to the modernisation of production methods, shedding light on the decline in the agricultural labour force (1), the effects of which it has offset on the production side, and also on the reduction in draught animals and the consequent increase in the area of land available for cash crops. If the trend has been much less pronounced in North America, it has nevertheless been quite appreciable, the corresponding figures being 2,960,000 in 1947 and 5,510,000 in 1960, which represents an increase of 86 per cent.

The OECD Committee for Agriculture recently carried out a study of farm motorisation, which produced other statistics on this development. Thus, taking as a basis the number of tractors per 100 farms of over 5 hectares, the increase in Europe was from 9 tractors in 1947 to 52 tractors in 1960, and in North America from 60 tractors in 1947 to 112 tractors in 1960. The number of tractors per 100 hectares of agricultural land (2) rose in Europe from 0.8 in 1952 to 2.0 in 1960 and from 1.0 to 1.3 in North America. Conversely, the number of hectares of agricultural land per tractor fell in Europe from 124 in 1952 to 50 in 1960 and in North America from 96 to 79 hectares per tractor.

**T**he development of motorisation is even more apparent when engine power is taken into account : total tractor power in service in the OECD area rose in Europe from

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(1) See *The OECD OBSERVER* No. 3 : " From the farm to the factory. "

(2) " Agricultural land " refers to the total of arable land and permanent grassland, rough grazing land excluded, while " arable land " designates land under cultivation and temporary grassland.

9 h.p. per 100 hectares of agricultural land in 1947 to 50 h.p. in 1960, and in North America from 21 h.p. to 39 h.p. (see Diagram 1). This means that the total horsepower available for farmers in the OECD area in Europe was therefore equal to 13.5 million in 1947 and 75.8 million in 1960; for North America 90.8 million in 1947 and 169.2 million in 1960. The average density of horsepower varies considerably from one country to another : in 1960 it ranged from 236 h.p. per 100 hectares of agricultural land in Iceland to 5 h.p. in Turkey.

The breakdown into "small", "medium" and "large" tractors clearly shows that farmers tend to purchase medium and large tractors. From the technical point of view, the average power for each of the three groups will continue to increase because of the farmers' preference and their need for more powerful engines in order to be able to use without difficulty all the modern labour-saving devices and fixed or hydraulically driven tools.

**A**s regards the motor fuel used the outstanding fact to emerge from the OECD study is the increase in Europe of the proportion of tractors using gas oil and diesel oil — 38 per cent in 1947 as against 65 per cent in 1960. This change bears witness to the preference of European farmers for diesel engines. In North America farm tractors run principally on gasoline and liquefied natural gas, a fact which is explained by the relatively low price paid by farmers for these types of motor fuel. The question of the price of motor fuel is of primary importance in the matter.

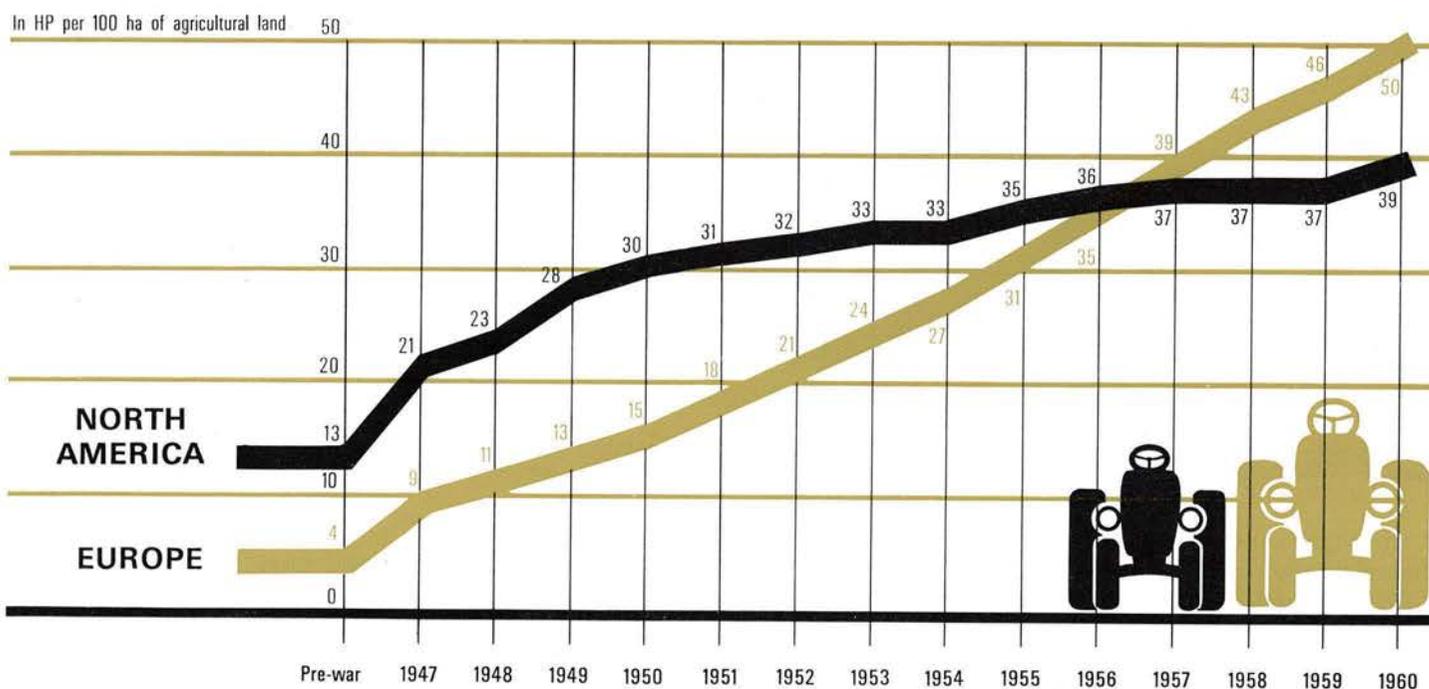
Roughly speaking, it can be said that gas oil and diesel oil cost about half the price of gasoline. Since 1 kilogram of diesel oil has the same energy power as 1.5 kilogram of gasoline when these fuels are used for tractors, it is easy to understand why farmers of Member countries tend more and more to prefer tractors with diesel engines : there is, however, little similarity between the various countries as to price. It can

be said that generally the price of motor fuel in agriculture tended to increase in most countries between 1956 and 1960 and that after this date it became stable or even declined somewhat : subsidies or tax relief are granted by several countries to farmers who use tractors.

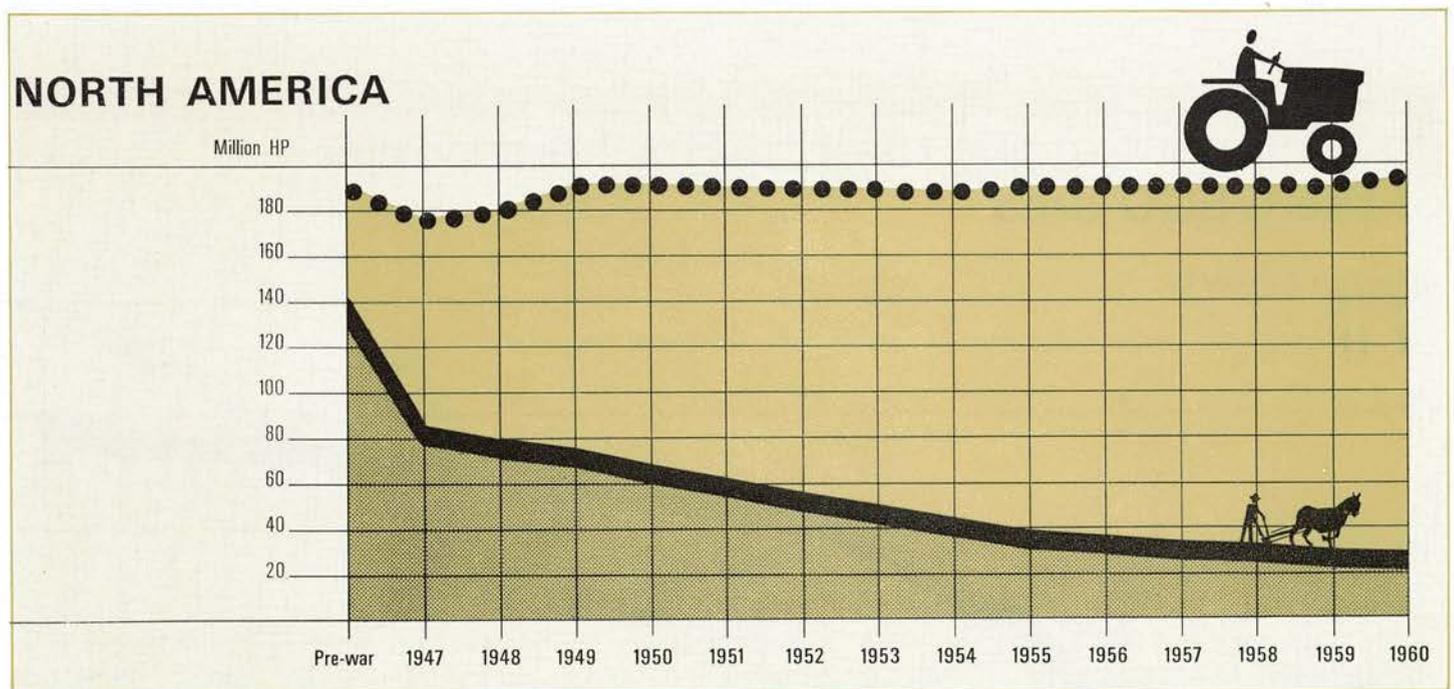
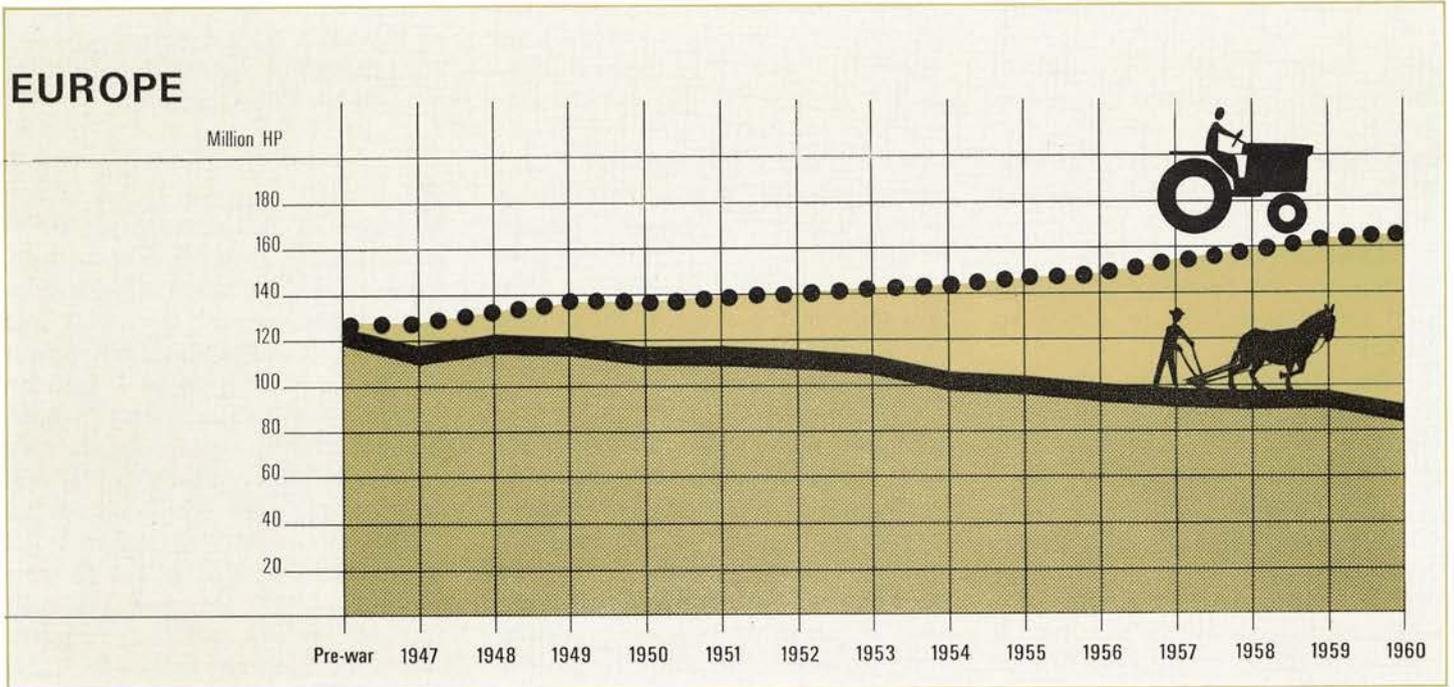
**F**inally, as the amount of horsepower used in agriculture has grown, the use of animal traction has declined correspondingly. An effort was made to estimate the horsepower equivalent of the animal traction potential available on farms in each Member country. It is thus possible to have an idea not only of the total potential available to agriculture and of the share of each type of potential in the total, but also of the proportion in which tractors have replaced draught animals, horses in particular (see Diagram 2).

In thirteen years, total traction power available to farmers rose from 127 million to 165 million h.p.; its

## development of the total tractor horsepower of the OECD area



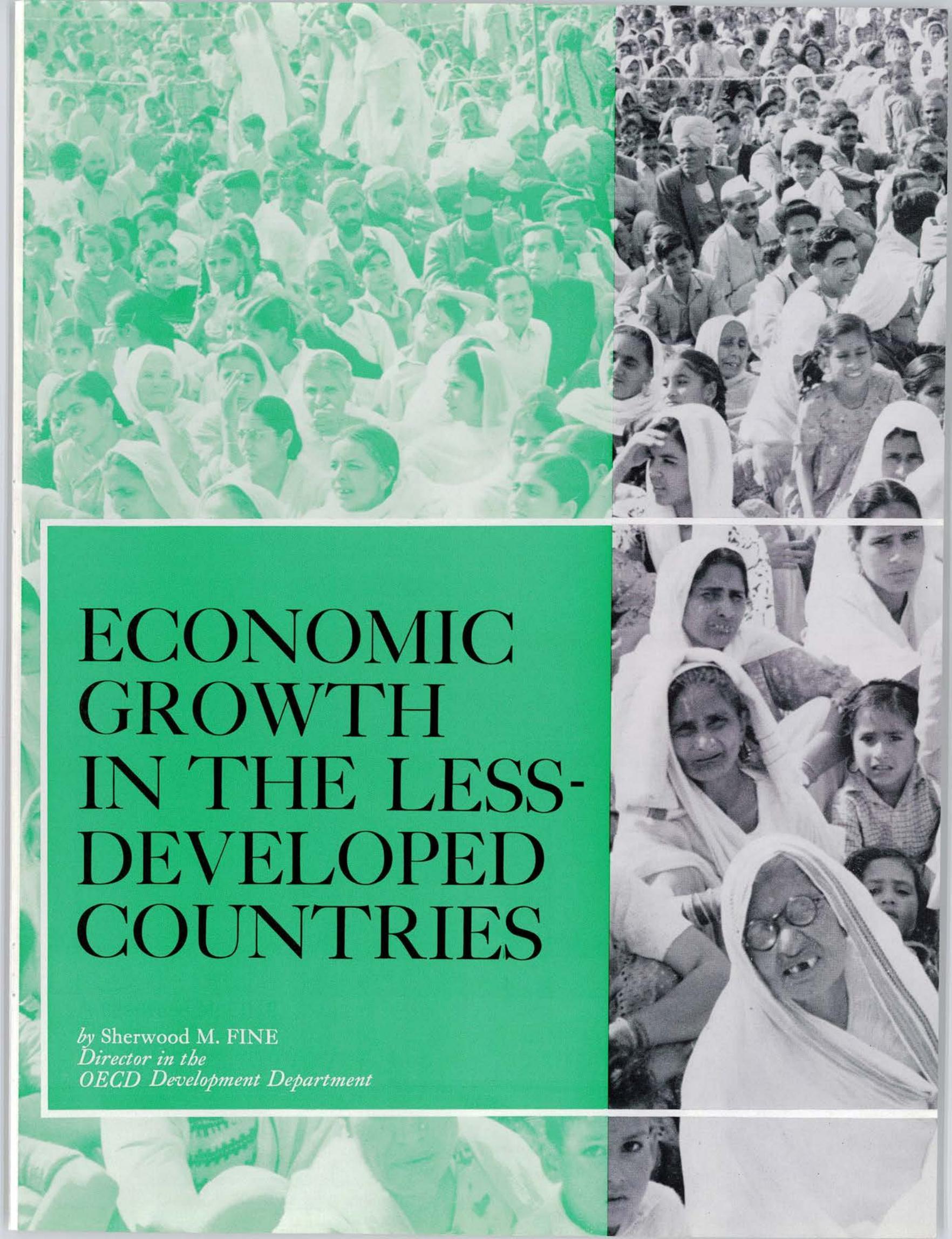
## development of the total draught power of the OECD area



distribution between mechanical and animal traction has evolved considerably and, although following the same direction in Europe and North America, is at a very different level in each of these groups of countries : in Europe, animal traction in 1947

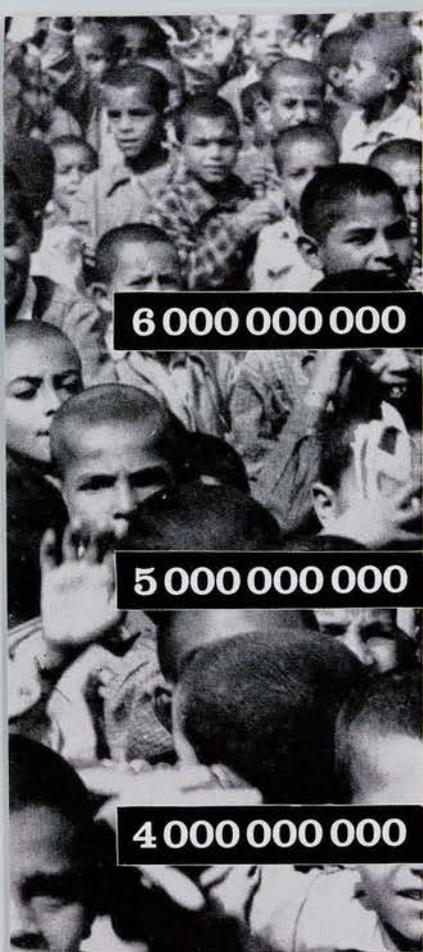
still represented some 89 per cent of the total, but fell to 54 per cent in 1960. In North America motorisation was very much more advanced in 1947. Animal traction there accounted then for only 48 per cent and has constantly declined since,

reaching 13 per cent in 1960. It is very likely that Europe will follow the same trend. When the figures for 1963 are known, they will very probably show that mechanical traction will at that date have overtaken animal traction.



# ECONOMIC GROWTH IN THE LESS- DEVELOPED COUNTRIES

by Sherwood M. FINE  
*Director in the  
OECD Development Department*



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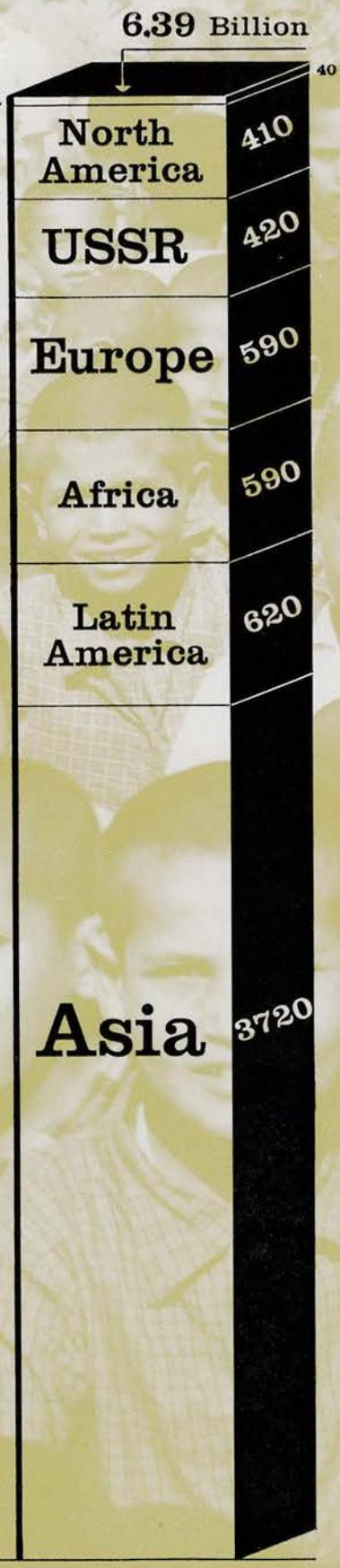
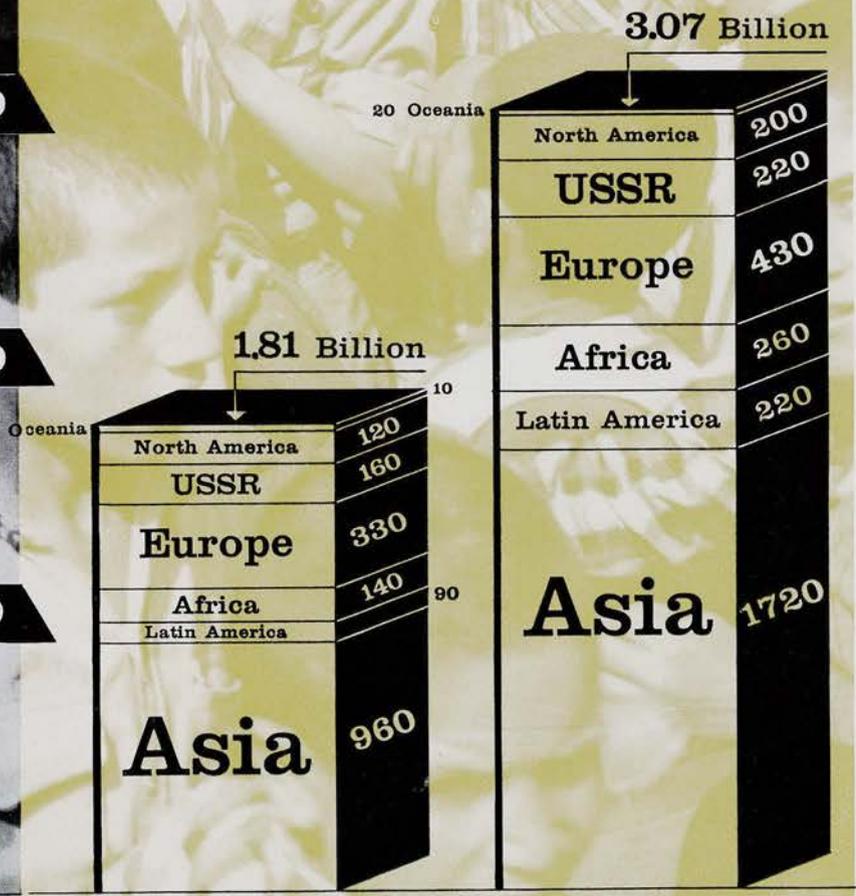
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# WORLD POPULATION AND PROJECTION FOR YEAR 2000



1920

1961

2000

*This article reviews and compares rates of economic development — in terms of per capita Gross National Product (G.N.P.) — in the less-developed countries and the more-developed countries.*

*The major economic and non-economic factors accounting for the poverty and low growth rates of the less-developed countries are discussed and the considerable differences existing among these nations delineated.*

*An effort is made to evaluate the significance of the prevailing income gap between the less-developed and the industrially advanced countries.*

*Finally, the prerequisites for more rapid growth of the less-developed nations are suggested and some assessment made of current problems and of the prospects ahead.*

## GROWTH RATES

Despite the increasing efforts by the industrialised nations to step up the economic development process in the low-income countries, and their efforts on their own behalf, the income gap between these two groups is steadily widening. In 1962 per capita GNP for the 470 million inhabitants of the more-developed OECD Member countries amounted to an average of \$1,900. This contrasts with an estimated average figure of some \$130 per capita for the approximate 1.4 billion inhabitants of the non-communist less-developed world. While these figures are of themselves interesting, it would be inappropriate to attribute any particular significance to them (see below for a fuller discussion) because of such factors as national differences in patterns of production and consumption, the difficulties of converting local currency income figures into dollars, and variations in price levels.

In the more-developed OECD countries, projected growth rates of real product (4.4 per cent) after allowing for a population increase of 1.2 per cent produce an average increase in per capita incomes of some \$ 60 per annum. Growth is estimated as progressing at only a slightly lower rate (some 4 per cent per annum) in the less-developed countries. But the resulting increase in per capita income is only about \$3 per annum after adjustment for an approximate 2 per cent annual rate of population

growth. Thus, measured in terms of absolute income, the more-developed nations, due to their greater income base, are advancing by annual increments to their income of some 20 times greater than those of the less-developed countries.

Considerable differences exist, of course, in the relative success achieved by individual less-developed nations in pursuing growth objectives. For example, compared with an average GNP growth rate for the less-developed world of about 4 per cent for the years 1953-1960, Israel achieved a rate of more than 12.5 per cent, Yugoslavia some 10 per cent, Taiwan (Republic of China) 7 per cent and Mexico 6 per cent. Below the average are Pakistan, with a growth rate of 2.7 per cent and Kenya, Egypt, Tunisia and Chile at about 3 per cent. India, the most populous of the less-developed countries — with a population greater than that of Africa and South America combined — had a growth rate of some 3.8 per cent.

## EFFECTS OF POPULATION INCREASES

The gains resulting from any given rate of increase in GNP may be largely offset by a high rate of population growth. While it is true that in the more-developed countries and certain of the resource-rich less-developed countries (viz. Brazil) a rapid population growth can be a dynamic factor in their

economies, this is not the case for the majority of resource-poor, slowly adapting less-developed countries. Paraguay, for example, but happily not representative, experienced a 1.5 per cent growth rate in GNP for the period 1953-1960, which was more than matched by a population increase of some 2.4 per cent. Result — an absolute decline in per capita income. Yugoslavia, on the other hand, with a very low rate of population growth of slightly over 1 per cent, was able to enjoy markedly improved per capita income growth over the same period.

Considered as a whole, about half of the growth in real product in the less-developed countries was offset by increases in the number of mouths to be fed. Indeed, it is quite possible that current estimates of population growth are on the low side and that, beyond this, the rates are more likely to rise rather than fall in the decade ahead. Profoundly disconcerting is the projected increase of some 300 million new population in the less-developed nations for the period 1962 to 1970. This increase equals the combined present populations of the U.S., France and the United Kingdom and means that total income of the less-developed parts of the world will have to increase by almost \$40 billion (present aggregate incomes amount to some \$180 billion) merely to maintain current per capita income levels.

The huge concentration of population in a few large under-developed countries understandably has a major impact on the income averages for the less-developed countries as a whole. Four countries, India (population 440 million), Pakistan (95 million), Indonesia (95 million) and Nigeria (40 million), account for almost 50 per cent of the 1.4 billion population of the non-communist less-developed world. They are all in the lowest per capita income range of the under-developed countries — namely under \$100 per annum.

The quality of available income data for the less-developed countries is acknowledgedly deficient. However, for present purposes they can be used without great apologies. Satisfactory information concerning the distribution of income within the individual under-developed countries is particularly scarce. Accordingly, the data do not lend themselves to making refined comparisons among the less-developed nations with respect to income levels nor with respect to its major components. It is also pertinent to observe that annual GNP growth rates constitute only an imperfect yardstick as to the real process of development.

The introduction of infrastructure (roads, harbours, schools, etc.) may not in the *short run* be perceptibly reflected in a quickening of the rate of GNP growth. Conversely, one or two good harvests may temporarily boost the growth rate appreciably. Beyond this is the fact that vital social and institutional changes which may be establishing the indispensable basis for future growth will not be reflected at all in current growth rates.

## DIFFERENCES AMONG THE LESS-DEVELOPED COUNTRIES

Despite the common denominator of low income and the preponderant importance of agriculture both in terms of employment and income, the less-developed nations differ very considerably from each other.

### • *Natural Resources*

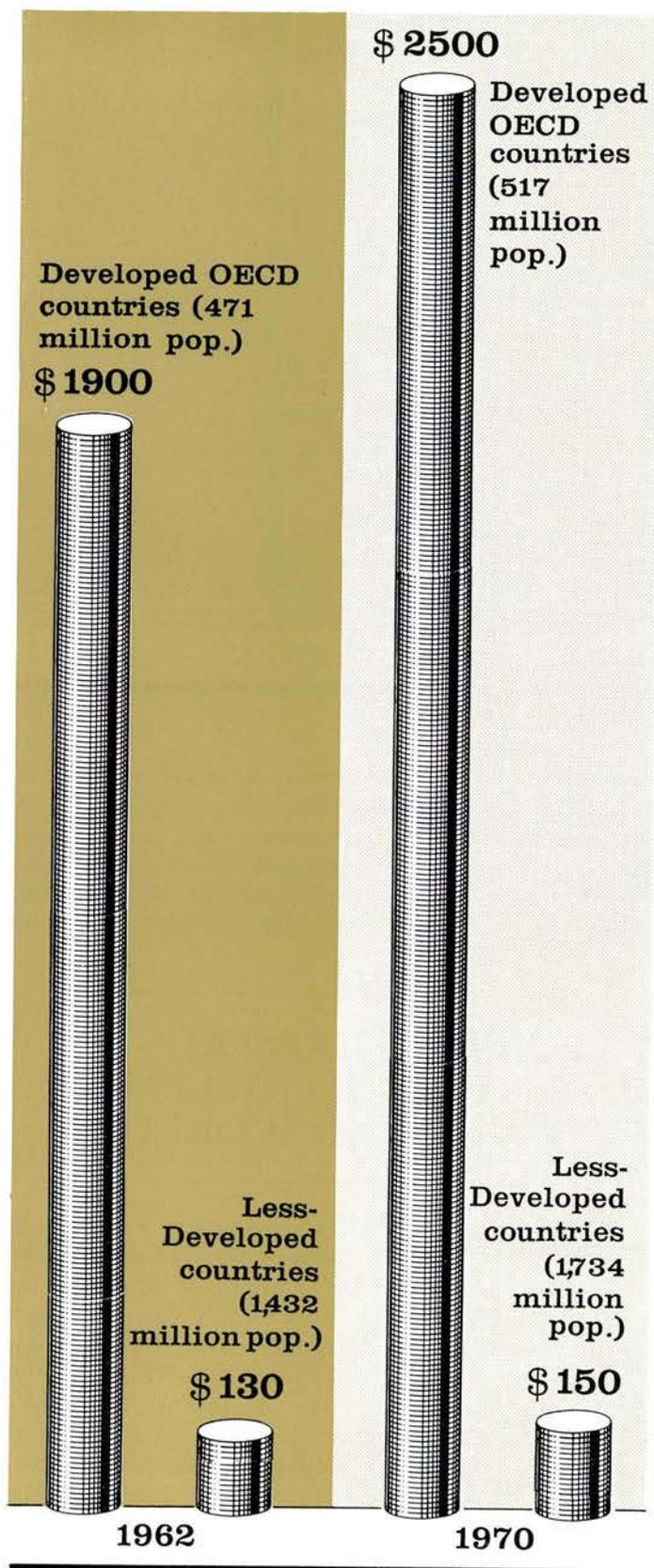
Very great differences exist in the quality of available natural resources among the less-developed countries. Some countries such as Brazil, Chile, Indonesia and Nigeria have very great untapped resources including vast agricultural and mineral potential. Others are acutely short of arable land — Greece, Egypt, Iran and India. Of greater importance than availability of arable land is the level of agricultural technology practised. This not only varies considerably among countries for the major crops, but also within the countries taken individually. Great increases in output would become possible if the low average level of farming proficiency could be brought up to the more efficient and skilled levels occasionally practiced in the individual less-developed countries.

The pattern of agriculture among the less-developed countries remains preponderantly that of subsistence farming, characterised by low output of often poorly selected crops, directed to meet the limited consumption needs of the farm family. This structure may sometimes be relieved by “islands” of efficient commercial farming concentrating on the production of crops specifically for the export market. Improvements in farm organisation and technology should supplant this dominant subsistence pattern by the progressive introduction of carefully selected cash crops produced — either for domestic or foreign consumption.

### • *Capital Formation*

The inescapable corollary of low income levels is the limited availability of domestic savings to apply to the process of capital formation. While available data on savings and gross capital investment for the less-developed world are less than satisfactory, some brief aggregate treatment may nonetheless be useful and pertinent. Considered as a whole, the under-developed world has had during recent years a rate of gross capital formation of roughly between 15 per cent and 18 per cent of GNP. In absolute terms, this figure was roughly \$30 billion for 1961. A considerable range of variations in gross capital

## FORECASTED GROWTH OF REAL PRODUCT PER CAPITA, 1962-1970



formation is apparent among the various countries. For example, over the three year period 1958-1960, countries with highest rates of gross capital formation included Israel 25 per cent, Greece 22 per cent, Taiwan and Columbia 20 per cent, and Mexico 18 per cent. In the lower range were Korea 13 per cent, Chile and Pakistan 10 per cent and the Philippines 9 per cent.

There is, however, no precise correlation between the rate of capital formation and GNP levels. The contributory factors accounting for the variable experience are highly complex and relate to such considerations as savings and spending habits, governmental economic policy, the particular stage of economic development, etc.

### • *Technical Skills*

Pronounced variations exist in the level of technical skills and the availability of technicians. Comparatively well off are Israel, Spain, Taiwan, Yugoslavia, Mexico and Chile. Less well off are Laos, Congo, Iran, India and Pakistan. There are also great differences in the degree of effectiveness with which the available technicians are used. The vital factor of technical skills is discussed at further length later in this article.

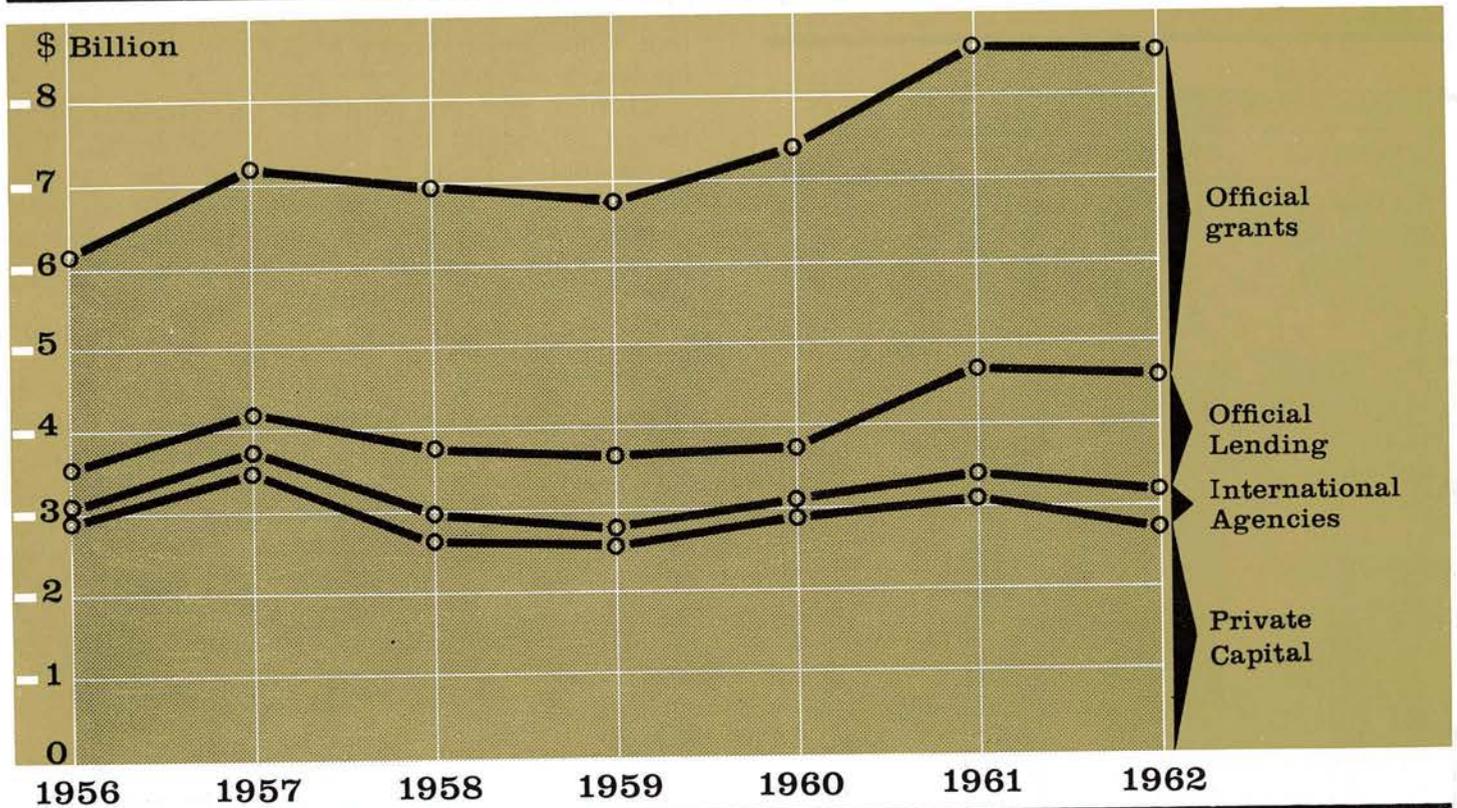
### • *Education*

Educational facilities are generally poor at all levels, from low-level vocational and technical training to special courses for middle-level manpower as well as the gamut of general education up to the university level. Literacy rates are correspondingly low on average (roughly 15 to 20 per cent), but perhaps far more significant are the low levels of training in technical skills immediately relevant to production. Considerable differences exist among the individual less-developed countries with respect to educational levels. While definitions of literacy differ widely and it is by no means a satisfactory barometer of technical skills, it is of interest to appreciate the great variety of literacy rates. Some of the less-developed countries have literacy rates comparable to those of the industrially advanced countries (viz. Israel, Argentina, Chile and Yugoslavia) while at the other end of the scale the overwhelming mass of the population is illiterate.

### • *Management and Administrative Skills*

Virtually all the less-developed countries suffer from acute shortages of management and administrative skills in both government and private enterprise. While there are a limited number of less-developed nations with an impressive private enterprise sector (including Greece, Malaya, Hong Kong, Israel, Mexico, Lebanon and Taiwan) in general both public and private resources are poorly

## THE NET FLOW OF CAPITAL FROM OECD COUNTRIES AND JAPAN TO LESS-DEVELOPED COUNTRIES AND INTERNATIONAL AGENCIES



managed and development possibilities frequently neglected. Unfortunately there do not appear to be any simple or speedy devices for meeting this deficiency locally. Foreign technical assistance has a real challenge in this field. If it can have any significant effect in remedying these deficiencies it would generate a very high "multiplier" effect indeed. But the field of training is fraught with many special difficulties and, unfortunately, even at best is unlikely to produce any adequate flow of skilled managers and administrators for quite a number of years.

### • *Level of Government Administrative Performance*

The level of government administrative performance is typically not particularly high. This is, of course, not surprising given the short history of many of these countries as responsible administrative units. Further, new fields such as economic development itself have suddenly emerged as major critical areas of decision and action. Here the level of performance varies considerably depending, in part, upon the administrative legacy bequeathed to the individual newly-emerging states. However, it has not followed that relatively competent bureau-

cracies have necessarily performed effectively in the new field of economic development. The problems of the newly-emerging states have been complicated by losses of former colonial technicians and administrators; it takes time to replace them from other sources and to build up a cadre of national experts.

### FOREIGN CAPITAL FLOWS TO THE LESS-DEVELOPED WORLD

Contributing to the approximately \$30 billion investment in the less-developed countries in 1961 was about \$8.6 billion net official and private capital movement from the OECD countries and Japan plus international organisations. Total official net contributions amounted to some \$5.5 billion while net recorded private capital investment amounted to about \$3.1 billion. While net official capital movement in 1962 was roughly comparable to 1961, it showed an increase of some 45 per cent over the average for the period 1956-1959. The figures of gross investment and net official and private capital



flow are not strictly comparable, but the official flow (which finances the purchase of consumption as well as investment goods) provides some rough order of magnitude of the relative importance of foreign capital flows to the capital formation process.

In view of the great income gap between the more-developed and less-developed countries, and the very substantial development requirements of the latter, it is hoped that the Development Assistance Committee (DAC) of the OECD will be instrumental in generating a larger total flow of capital funds for development purposes through various national and international programmes as well as private investment. As the more industrialised nations enjoy increasing income levels, their ability to participate in assisting the less-developed world will naturally improve.

Equally important to making available additional funds for the development of the poorer countries is ensuring that maximum advantage is derived through carefully formulated projects in well-considered sectorial programmes — ideally within the framework of carefully prepared overall development programmes. Qualitative factors may be far more important than the mere size of investment activities in determining the impetus provided to the development process. The less-developed world's

landscape is speckled with poorly selected projects with a limited "multiplier" effect. Further, an inhospitable institutional or political environment, an unco-ordinated development plan, ineffectual economic policy or shortages of requisite skills may largely nullify the benefits of costly development

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#### EDITOR'S NOTE :

*The Development Assistance Committee (DAC) of the OECD is composed of representatives of the principal aid-providing countries of the Organisation, with the addition of Japan and the Commission of the European Economic Community.*

*The tasks of the DAC are to*

- *increase the flow of financial resources to developing countries in general;*
- *improve the effectiveness of aid; and*
- *co-ordinate the national aid efforts.*

*To help implement these objectives and to contribute to a more equitable sharing of the burden of providing aid, the efforts of the donor nations are reviewed each year (Annual Aid Review).*

*DAC has also adopted, on a limited basis to date, the formation of informal co-ordinating groups concerned with the development plans, technical assistance issues and related activities of individual less-developed countries.*

*The Technical Co-operation Working Group of the DAC examines the overall technical assistance policies of Member countries.*

*Members of the Development Assistance Committee are : Belgium, Canada, Denmark, France, Germany, Italy, Japan, Netherlands, Norway, Portugal, United Kingdom, United States and the Commission of the European Economic Community.*

projects. To contribute to a more effective development plan the DAC has begun to study the efficacy of Members' assistance programmes.

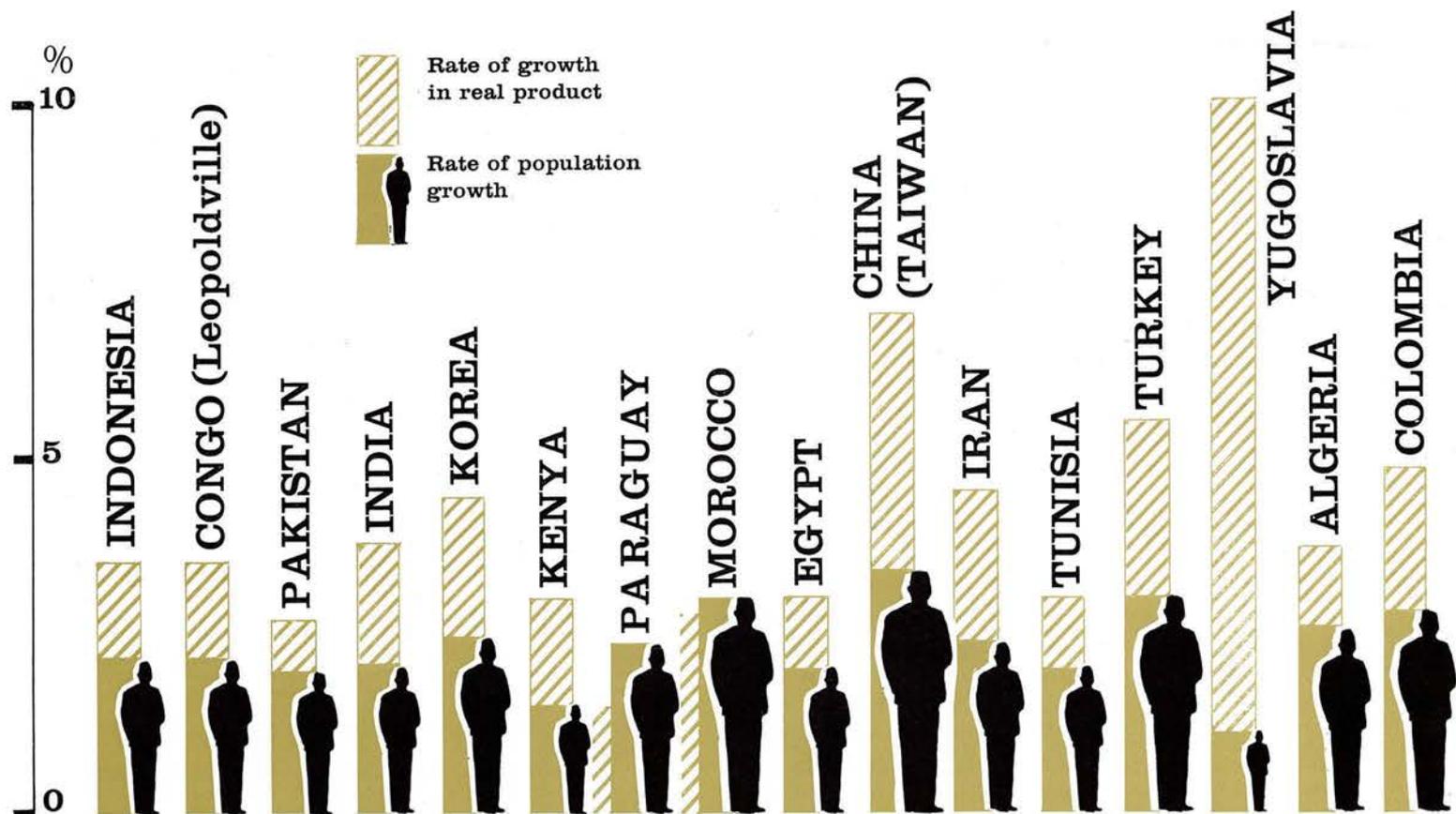
## PROBLEM OF DEPRESSED EXPORT EARNINGS

Since 1955 exports from the less-developed countries have been expanding at only one-half the rate of total world trade. A significant deterioration in the less-developed countries' *terms* of trade (prices of exports versus prices of imports) has transpired in recent years, notably since the dissipation in the mid-1950's of the price increases prompted by the Korean War. The price fall has been most severe with respect to those export commodities important to Latin America, Africa and the non-sterling less-developed countries of Asia. In the last twelve months, however, prices of a number of primary products have risen and may, if this trend continues,

correct at least part of the imbalance vis-à-vis industrial prices. The failure to secure any significant expansion in the physical volume of exports of primary products has been largely due to the limited responsiveness of demand for these commodities. This is accounted for by growing European self-sufficiency in meat and cereals and a variety of shifts in demand away from the traditional export products of the less-developed nations partly due to the increased incomes enjoyed by the more-industrialised countries as well as the development of synthetic substitute products.

The problem of development in the less-developed nations has been considerably aggravated in recent years because of the relatively poor showing of export earnings. This diminution of the development impetus has not been compensated by the stimulus provided by capital flows from the more-developed nations. The disappointing export experience heightens the issue of improving efficiency of production of export products and further underscores the importance of achieving greater economic diversification and particularly of increasing the variety of export products.

## RATES OF GROWTH IN REAL PRODUCT AND POPULATION



It is vital that the more-developed countries increase the export opportunities in their markets for the products of the less-developed nations. This is as important a factor as the flow of capital resources itself. But actions to increase the access of markets to the less-developed nations by various measures, including tariff reductions, have been slow in adoption and have assumed the highest order of urgency.

## NON-ECONOMIC OBSTACLES TO GROWTH

The social and cultural features of many of the under-developed countries, however well they may have served these societies, constitute obstacles to the many kinds of change required for contemporary economic development. Static cultures stemming from entrenched folk-ways, traditions and

(Annual average, 1953 - 1960/61)



religious beliefs, rigid class-structures and highly inequitable income distribution are characteristic of many of the less-developed nations. The populations of the representative less-developed countries are often suspicious of innovation, fearful of new techniques and reluctant to experiment. Finally, very often basic change is obstructed by the entrenched holders of political power and wealth.

The family system in a number of the most populous societies is strongly biased against personal initiative. The generally highly prized status of large-scale land ownership and officialdom — including the military — and the low status of the businessman, effectively contribute to discouraging private enterprise. The traditional bases of large fortunes are land-owning and real estate transactions — and, more recently, export and import trading with, frequently, large rapid-turnover profits. These customs militate against the investment of savings in new industrial enterprises which tie up funds for long periods and promise lower rates of return. Such investments are moreover exposed to governmental seizure and are more vulnerable to taxation.

While space limitations preclude a systematic formulation of the development problems of the poorer nations, a few comments may be ventured by way of tentative generalisations and prognostication.

## PERSPECTIVE ON INCOME DIFFERENCES

The rapidly growing disparity between the per capita GNP levels of the less-developed and more-developed nations cannot in the foreseeable future be significantly diminished. Given the existing income difference, even a doubling of current growth rates of the less-developed world would not begin significantly to narrow the great income gulf. However, the income gap is not particularly meaningful. The urgent needs of the populations of the less-developed countries do not include those items which account for a very considerable share of the GNP in the more-developed nations — such as passenger vehicles, super-highways, most durable consumer goods (though T.V. sets may not long be neglected), costly residential construction, leisure-time industries, and sophisticated military equipment. Far more pertinent are the basic minimums for health and decency. These could conceivably be achieved within a per capita income range of some \$500 to \$700 per annum. The modification of present gross inequalities of income distribution within individual less-developed countries through positive tax programmes and the institution of appropriate welfare and technical training schemes

*Yanhee Dam across the Ping River —  
to bring power and irrigation to  
North-east Thailand*

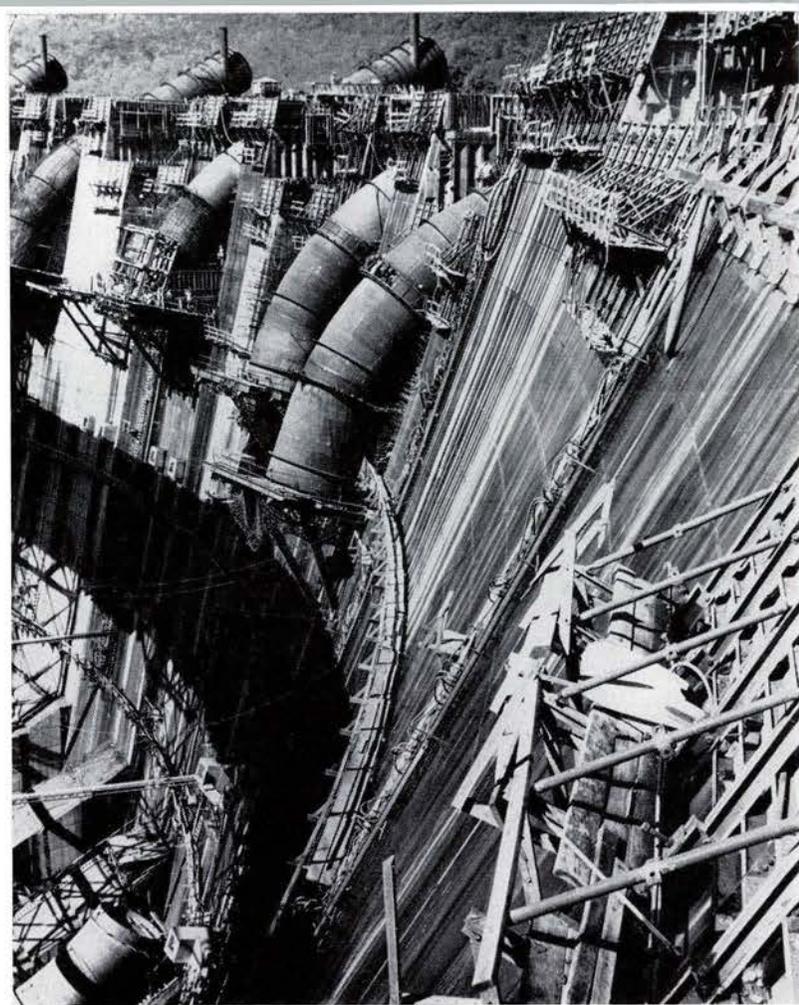
along with agricultural reform programmes, would contribute significantly to the objective of an acceptable minimum standard of living.

## SOCIAL TRANSFORMATION

Economic development is an integral part of the larger task of social engineering required to transform the pattern and structure of the less-developed countries. The complex process of social evolution will require several generations even for those nations already started on this road. The experience of most less-developed nations will most certainly continue to be characterised by unpredictable political change, costly errors and heart-breaking diversions. There has not yet been devised any certain formula for bringing about desired basic social and institutional change in any rapid and tranquil manner. Essentially this is a job that can *only* be realized over a period of time and by the leaders and peoples of the less-developed countries themselves. If social change is effectively resisted, a country is a poor candidate for satisfactory economic development.

## “SELF-HELP”

A “satisfactory” rate of economic progress can be expected in an environment characterised by at least a number of the following factors: a keen determination to pursue growth objectives, a functioning élite with a real sense of national purpose, a reasonably competent and honest government, an adequate flow of investment capital, a workable schedule of priorities among numerous claimants for investment capital, a supply of relevant technical skills and a manageable level of population increase. Unfortunately many of the less-developed countries enjoy only a few of these advantages. Some can be conferred by foreign assistance but perhaps the most critical components must emerge from the society itself. Ideally, foreign technical and financial assistance should be made available in such fashion as to precipitate a vigorous indigenous response. Given the wide range of social, political and institutional circumstances in the less-developed countries, the opportunities for such leverage are highly variable.



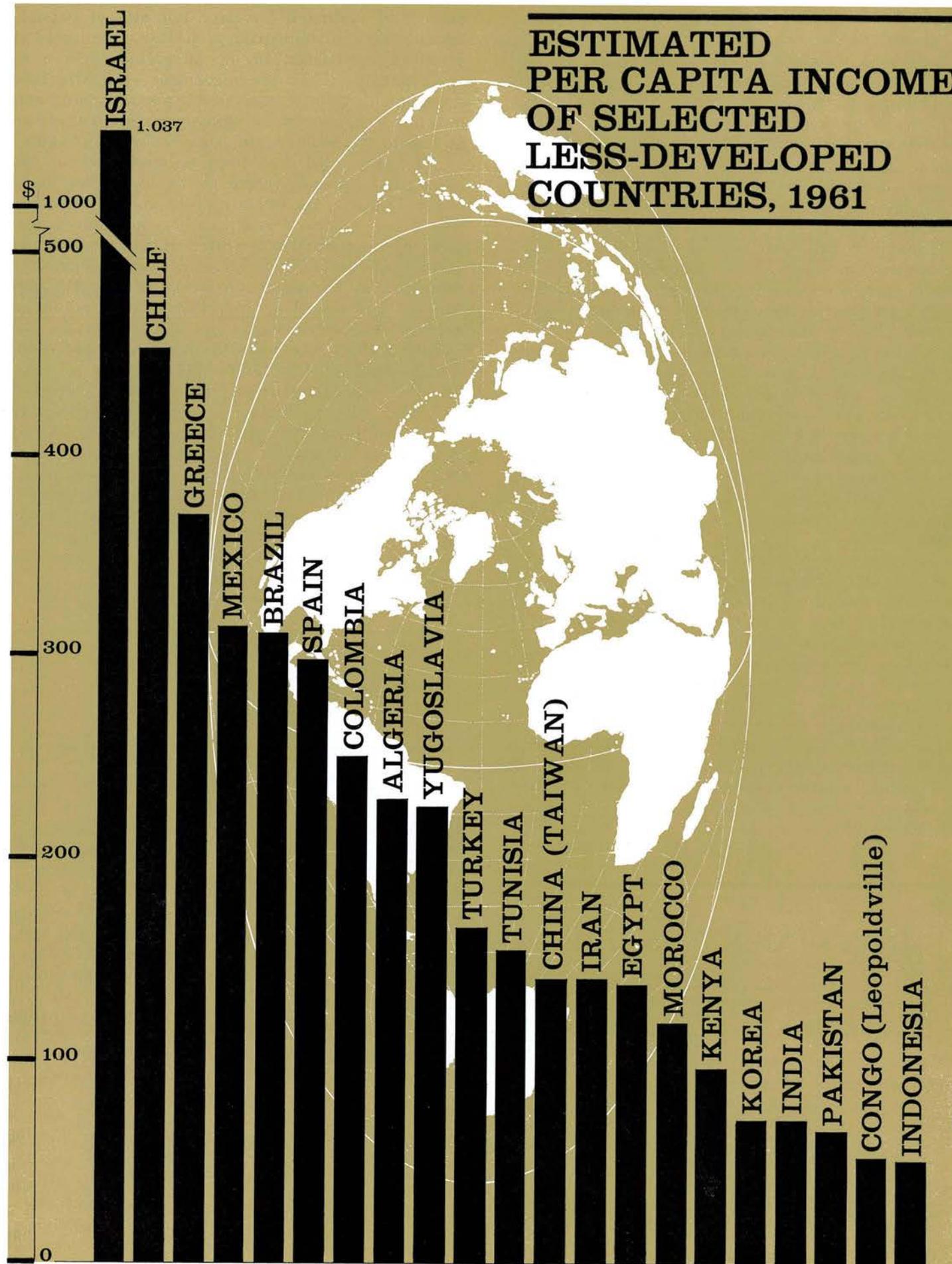
## NEEDED - A POPULATION PROGRAMME

Present rates of population growth for the less-developed nations offset approximately half of the current pace of economic growth in per capita terms and could impose an even greater burden in the next decade. The response of both the less developed and more-industrialised nations in addressing this crucial issue has not to date been particularly encouraging. A programme for joint action to meet the issues entailed in the population problem is overdue. Unless a successful effort is made in the next decade, the task and prospects of development are indeed very discouraging for many countries. The great complexity of this issue and the impossibility of securing significant short-term results make even more important the earliest formulation of a responsible long-range population programme.

## TECHNICAL ASSISTANCE NEEDS

The vast technical assistance needs of the less-developed countries have not to date been ade-

# ESTIMATED PER CAPITA INCOME OF SELECTED LESS-DEVELOPED COUNTRIES, 1961



quately assessed or programmed by the more-developed nations working in co-operation with the less-developed countries. These technical deficiencies cut across the entire range of required skills and constitute, in a real sense, the limiting factor to a higher rate of real investment. The more effective resolution of this problem deserves urgent attention. There has as yet been no commitment to meet the urgent demand for skills in the less-developed countries commensurate with the magnitude of the problem.

Though happily very recently a somewhat better orientation of studies has manifested itself, the programmes for educating the tens of thousands of students from the less-developed countries who are currently in the schools and universities of the more developed countries still bear only limited relation to the insistent requirements for skills in their own countries. For example, coming from societies where agriculture constitutes the dominant resource, only some 5 per cent of these students are studying how to advance agricultural technology. There is too little concentration on the mechanical and engineering sciences and undue devotion to the study of the prestige-loaded curricula of law, literature and humanities.

Nothing is more vital than pressing the issue of the *relevance* of educational efforts undertaken on behalf of students of the less-developed nations both overseas as well as in their own countries. The subject matter of the representative school curriculum of the less-developed nations has characteristically been modelled not surprisingly upon that of the more-developed Western nations which reflects a fundamentally different kind of environment and set of needs. Co-ordinated and imaginative action on this front by the OECD countries and Japan as well as the United Nations working with the less-developed countries is most important to the issue of development.

## INVESTMENT NEEDS

It is a commonplace to refer to the great gap between the investment requirements of the less-developed countries and the available flow of resources. Actually, we do not as yet have any satisfactory approximation of this requirement. To calculate it, we should need to make systematic economic development studies of every one of the less-developed nations — using a uniform methodology, a reasonably consistent set of assumptions concerning domestic and foreign trade, and supply and demand functions for the various sectors of the economy. Feasibility studies would have to be

made and evaluated for large numbers of possible agricultural and industrial projects — then sets of priorities established in an integrated pattern of development. The pre-investment infrastructure requirements would have to be planned, programmed and “engineered”. Manpower studies would be needed to establish requirements for essential skills.

We know much less than we should about the investment absorptive capacities of the less-developed world. Clearly, as infrastructure is created along with other structural and institutional changes, this absorptive potential will grow. It is vital that the various elements that serve to limit absorptive capacities in the short-run be systematically confronted. This must be undertaken on an individual country-by-country basis. As a corollary to the foregoing effort to expand the investment potential, consumption must be subordinated to the accumulation of capital resources to apply to development purposes. Governments are frequently inclined to shy away from the political hazards of difficult decisions in the field of taxation, fiscal policy, agricultural reform and the gamut of actions required by an ambitious development programme. Vested interests would invariably be obliged to make significant sacrifices, with the clear prospect of more to follow and the assurance of a decline in their traditional influence and authority.

## THE OUTLOOK

The task of economic development is only in its very early stages. There is considerable likelihood that this undertaking will be associated more with frustrations, new problems and limited successes than with speedy, solid accomplishment. Foreign technical and financial assistance is vital. It can only be really effective, however, when integrally related to a determined development programme which has emerged from the individual less-developed nation as an essentially indigenously-inspired enterprise. There is no substitute for forceful and effective leadership groups prepared, in their respective countries, to assume the difficult responsibilities associated with economic development. Without this ingredient success is unlikely.

Past experience affords assurance that a considerable range of economic development objectives can be achieved, given the right combination of indigenous and foreign ingredients. By working together effectively and by addressing the critical issues courageously, the less-developed and more-developed countries can undoubtedly bring about a significantly higher rate of development than has been realised to date.

# I NTERNATIONAL CO-OPERATION FOR SCIENTIFIC RESEARCH

*Sharing  
the  
fruits  
of  
modern  
progress*

**T**he OECD Central Service for International Co-operation in Scientific Research is the centre of a system of practical collaboration which operates at present between some 60 international research teams, directly involving upwards of 1,000 research scientists and about 300 laboratories in the Member countries, while many more are geared to it through national co-ordination machinery. This quite substantial scientific venture has been set in motion without the building of new research laboratories and without any financial contribution by OECD to the research as such. It is, in fact, a means whereby better use can be made of existing facilities and a much larger yield in a particular subject obtained from the work of existing researchers.

Scientific progress constantly feeds economic development by providing the basis for new and improved processes, materials and products — an increasing proportion of contemporary industry is indeed based on recent scientific discovery and depends for its development on continuing research and technical improvement. Research, as the essential basis of technological innovation is thus a dynamic force in economic growth and development.

However, the enormous promise offered by scientific research is very much greater than the resources available to cultivate it. This is why OECD countries are attempting to increase their effective scientific resources by pooling them to accomplish common programmes, freely agreed.

Some research is of immediate competitive importance and can therefore best be undertaken in the individual firm; much, however, secures the general if gradual up-building of an industry or the economy as a whole and can well be developed co-operatively. Careful selection of research topics can provide, then, a direct contribution to economic growth.

The significance of the OECD Central Service lies in the possibility it provides

for selection of topics of common interest to groups of the Member countries, and of bringing together the experts in the topic concerned in each of these countries to plan and agree a common programme of research, elements of which are carried out in the appropriate laboratories of the countries concerned.

At present co-operative research activities are being promoted in two particular directions: (a) scientific problems immediately related to technological progress, and (b) conservation of natural resources, materials and products. Individual topics already adopted, are often severely practical, frequently not at all dramatic in their appeal to the layman. A group of these are in the field of production engineering, which is of major economic importance to all industrial countries and in which research offers immense possibilities. Research on the biological deterioration of materials and products is another subject within the Service, on which it is hoped to mount a massive co-operative research effort to provide the scientific basis for preventative methods against damage which causes tremendous economic losses, amounting to many billions of francs annually in the Member countries. Precise figures have been worked out for one small project within this field, in which considerable progress has already been made — the annual loss due to the biological fouling of ships' hulls, a subject which at first sight seems trivial in the extreme. This amounts to 7 billion francs in terms of additional painting and extra fuel consumption. Investigation into the different types of fouling organisms, including research on their ecology and physiology, is necessary for a better understanding of the complex processes involved and for the development of adequate means of protection.

The resources available for research on such a topic in each country are severely limited, but by a pooling of such resources of effort and experience, a really effective research attack becomes possible for the first time.

The participants in potential fields of international scientific co-operation — the scientists and their laboratories — are dispersed over the vast area of these OECD countries and, although leading scientists concerned are usually in touch with one another and exchange their scientific results, the planning and execution of practical research co-operation is hardly possible without a mechanism for its achievement. This is what OECD provides. Until recently the Organisation considered its scheme mainly as an experiment designed to ascertain whether an effective and low-cost mechanism could in fact be devised, rather than in terms of the importance of the individual case subjects. Not only has a practical method emerged, but the totality of the existing cases has already a considerable scientific and economic significance.

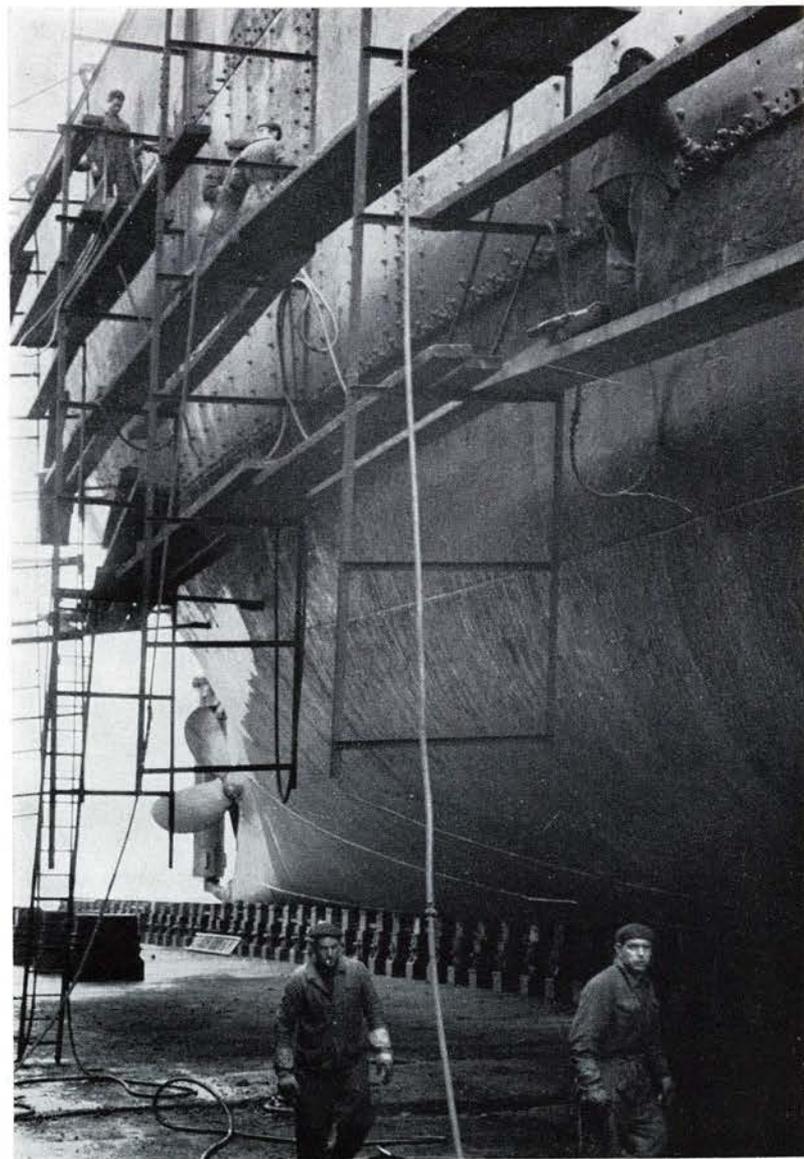
### *How the Service works*

When OECD was created, it established a Committee for Scientific Research composed of delegates of all the Member countries who come mainly from the major national research organisations. This is the policy body, working directly to the Council which, amongst other tasks, considers proposals for research projects officially submitted by or through the national research organisations. Each proposal received is carefully prepared by that part of the international secretariat of OECD which forms the staff of the Service, advised and aided by senior consultants working part-time for this activity. It is then considered by the Committee for Scientific Research, whose national members will have ascertained from experts in their countries whether interest in the topic warrants their participation. If a sufficient number of countries,

generally 5 or more are interested, the Committee for Scientific Research accepts the project in principle. The fact that all Member countries are not expected to participate in each project is an essential part of the system, since it is thus ensured that in each instance a group of countries with common interests is constituted, sufficiently serious to be willing to devote their own scarce resources to the co-operative work without external financial incentive.

When a project is accepted in principle, the question is studied in greater depth, and a detailed report prepared on which the Committee for Scientific Research can decide to go ahead in a practical sense or to reject the project as inappropriate for this type of co-operative enterprise.

Once a project is definitely accepted, national working groups, consisting of scientists wishing to co-operate, are formed in most countries, while on the international level a steering group is convened by the secretariat, which then proceeds to draw up a programme of work. Different elements of the total programme are then distributed amongst the participants to be executed in their laboratories at home. The steering group meets from time to time during the course of the work to examine the progress made and to make any modifications to the programme made necessary by the developments of the various research results. Broad or complex subjects frequently require the meeting of research groups



*Heavy costs are incurred when corroded ship's plates have to be replaced.*

to discuss sub-topics with a greater degree of specialised knowledge.

### Future possibilities

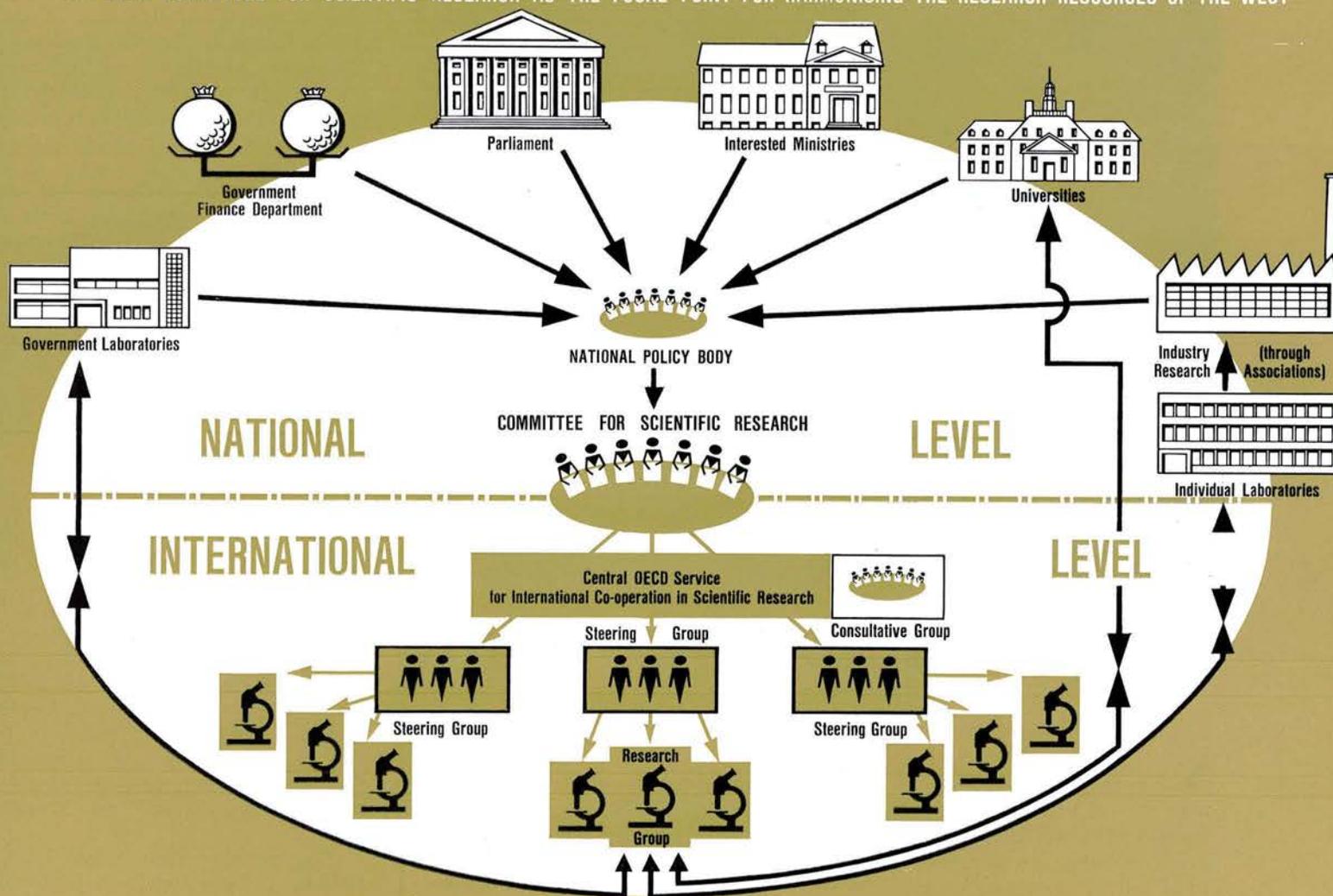
This functional approach to international research co-operation, based on a rational use of existing laboratories, within the framework of a common programme, means that costs are shared between the participating institutions. The contribution of international funds is limited to the cost of the central secretariat with its consultants and the specialist meetings it convenes. This represents only a trivial fraction of the total research costs. In its totality the system is already equivalent in effort to a large international research institution, but without any laboratories of its own or the need to assemble research workers at a single location. It thus bridges the gap between older forms of international co-operation, namely the holding of international conferences for the discussion of new research (and not its inception) on the one hand and the establishment of new international research institutions (within bricks and mortar) on the other. The system is, however, sufficiently flexible to allow for the organisation of conferences should the work on hand require them, or the creation of new institutions or other forms of

research installation in exceptional instances, for example when new and expensive equipment is required which can be most economically provided by cost sharing between the participants.

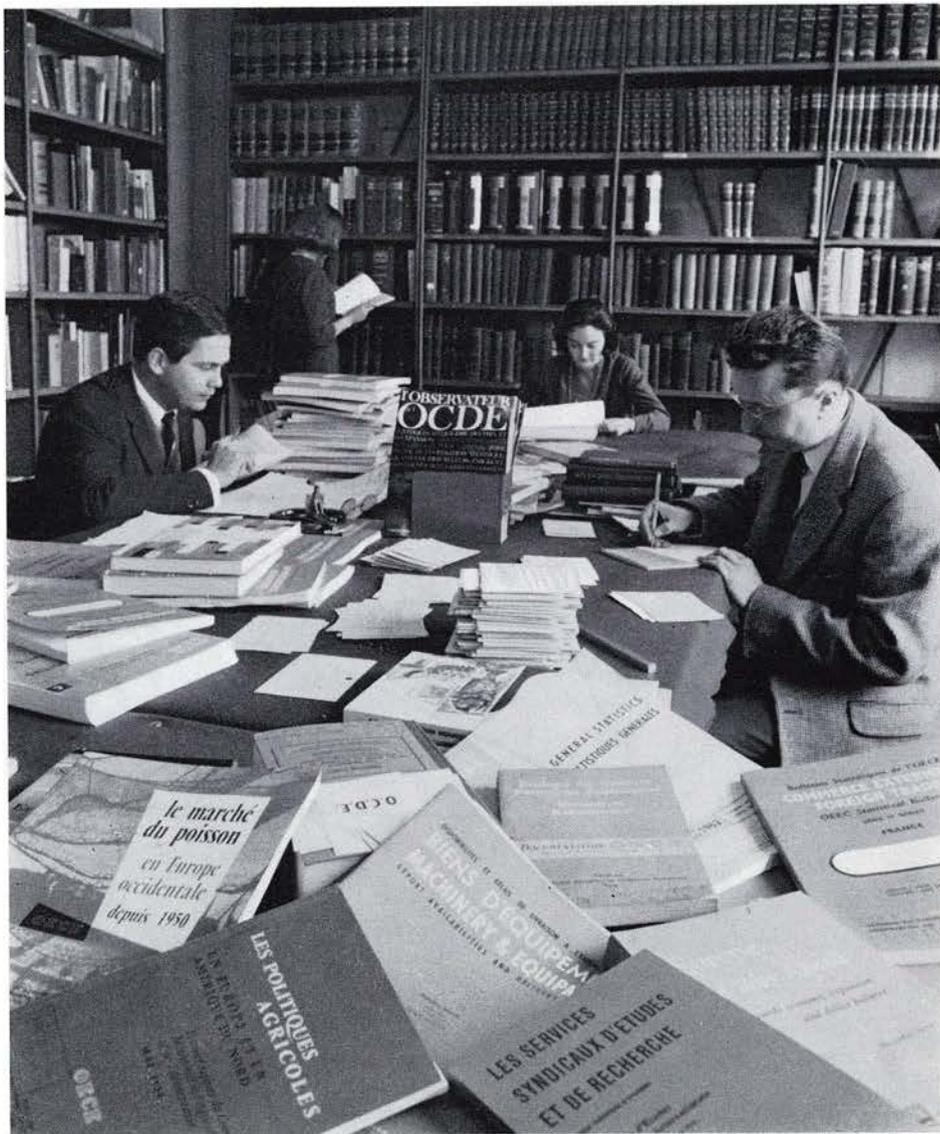
So far, most of the projects under way are applied research in nature or else background fundamental research to provide new knowledge required for the success of applied research. There is every reason to expect, however, that the method would succeed for free fundamental research in fields other than those requiring exceptionally costly equipment. Indeed the flexible and voluntary nature of the procedures, the common approach to programming and the carrying out of the actual research in existing laboratories should appeal to the scientists, to whom freedom of research is precious and indeed necessary. It should equally be of service to national science policy makers as a means whereby special emphasis can be given to subjects which it is felt require greater effort.

The value of the OECD Co-operative Research Service has been proved by practical trial through a number of common projects which are individually providing useful results. Its real potentiality lies in its existence as a proved mechanism which can make possible, by its extended use and with the minimum of overheads, a substantial increase in the effective scientific resources of the Member countries; and this can contribute significantly to their economic well-being.

THE OECD COMMITTEE FOR SCIENTIFIC RESEARCH AS THE FOCAL POINT FOR HARMONISING THE RESEARCH RESOURCES OF THE WEST



# The OECD library



*unique among its kind*

Not everyone is passionately interested in the International Whaling Statistics for 1958-1959. That 6 countries, employing twenty floating factories and 356 catchers, landed 36,261 baleen and sperm whales that bleak winter (172 got away) and processed 2,050,241 barrels of whale oil would

undoubtedly stir only a rare specialist in pelagic expeditions. But for him the OECD Library has just the right set of statistics.

It is not the number of documents in the library that impresses the visitor even though there are 30,000 volumes, 2,500 current periodicals and a card

index system that lists nearly 400,000 subjects on which literature is available; it is the uniqueness of the collection that is important. A large part of the books, pamphlets or magazines is not likely to be found in the average library and many can be obtained only at the source of publication.

The library is most commonly used by scholars bent on research; students working on theses and, more particularly, staff members of OECD and of delegations that represent the twenty Member nations of the Organisation at Paris headquarters. The demand for documentation keeps pace with the various and continuing tasks of OECD. Requests run high — and here there is an ample harvest for economists — for volumes and periodicals on statistical studies. Next there is a brisk circulation of works on all phases of agriculture, foreign trade, political economy, manpower problems and solutions, science and education as related to economic growth and the economic, social and political life of newly developing countries.

Over the years the library has kept abreast of changes in emphasis of OECD objectives. In the beginning, in 1948, the Organisation for European Economic Co-operation, OECD's predecessor and executant of the Marshall Plan, had the huge task of helping Western Europe recover from World War II. Co-operation, co-ordination, confrontation of national policies were familiar subjects, as were "progressive management techniques" and — a magic word — "Productivity".

A casual look at Library titles describes the phase: "Concepts of Terminology of Productivity"; "The Sense and Nonsense of Productivity"; "How to Increase Your Productivity"; or, "Productivity - Key to Plenty". The reader can find a book that will give him the history of the idea and of the word (it was used by the English writer, Coleridge, in a poem in the 19th century) and, if he is interested in the Marxists' view, he'll find that too in "Productivity vs. the Working Class".

A companion piece might be the section, a large one, on European industry. There are books of statistics and surveys that point up the rapid rise of industry in Europe like

"Patterns for Industrial Growth, 1938-1958". Not far away will be the doughty individualist's manual "Restoration of Pure Monopoly and the Concept of Industry".

As OECD faced additional challenges the library moved with the times. Volumes on European Integration (and the more visible Common Market) began to appear in greater number on the shelves. One could find scholarly tomes on historic integration movements such as "Genealogy of the Great European Design from 1306 to 1961". Articles tell us that the Third Europe is Fast Taking Shape only to hear that The West Does Not Go Fast Enough. One can read that The Six Edge Forward and be slightly startled that The Great Europe will be the Prime Economic Power of the World. And one might end one's research with André Giraud's quizzical: "Europe?"

The rise in recent years of international organisations, private and public, has stepped up the world's supply of publications on economic, sociological, political, scientific and related fields. Scanning briefly an inventory of periodicals received by the library in a single year one finds 4,499 sample copies of which 1,345 are from international organisations. (The rest are from sources within 98 individual countries.) In the international organisations' section, far and away the largest number received came from the United Nations — 61 titles, ranging from annual to monthly publications. They comprised reports and studies on economic subjects mostly, but also included some on international law and the rights of man, on demographic changes, world mapping activities and a long look at "non-self governing territories".

Additional periodicals were received from UN agencies. UNESCO sent nine major publications on such things as the Impact of Science on Society and the International Yearbook on Education. Twenty-seven annual or monthly periodicals on commodity problems around the world come from the Food and Agriculture Organisation.

In view of current or impending high level meetings on international trade, the abundant documentation recei-

ved by the library from such organisations as the European Economic Community and its branches, and the General Agreement on Tariffs and Trade comes in handy as background material. With OECD's prime interest in monetary affairs, the library regularly receives reports, surveys, bulletins and information publications from such sources as the International Monetary Fund, the International Association for Research in Income and Wealth and major banks all over the world. A host of lesser-known international organisations steadily provide the library with information on such things as the rubber industry, textiles, world routes, tourism, building trades, science, films, metals (Notes on Tin, for example) and the great heritage of European culture.

In 1961 OECD received its new name together with a new challenge, the co-ordination and stimulation of assistance to less-developed countries by Member countries. The library again mirrored this new emphasis with an increased number of books and periodicals running the gamut on "development" subjects. In 1961 a special bibliography was put together devoted to the subject. General headings include: Theory of Development; Trends of Development; Financial Aid; Multilateral Aid; Bilateral Aid; Technical Assistance; and the Economic Situation in developing countries.

A random glance at the shelves will show how varied this collection is. Someone at Oxford, England, wrote a book on the building of roads where none exist. Another proposed ways to create a middle class in the new countries. In solemn style, a book tells how to apply to them "Leibenstein's Theory of Under-Employment".

With interest mounting in Europe on development problems in Latin America as well as South-East Asia, the library stocks on these areas are steadily being enlarged. The serious student will find ten important volumes on the Colombo Plan alone. Documentation on Africa centres largely on economic and social affairs but the research worker in meteorology can still find, if need be, the average tem-

perature in Senegal last August (26.9 degrees centigrade) and that it rained there 21 days that month. An economist may discover that the country produced 901,754 long tons of ground nuts. If he is interested in the commodity market he will discover that Ghana crops of the cocoa bean (a transplant from Latin America in the 19th Century) now account for 35 per cent of the world's supply.

OECD's programmes are reminding Member countries and others that economic expansion is closely linked with the availability of skilled manpower. Again excerpts from books succinctly tell the story: "It is not simply the money but men who count". And the practical: "Educational training and research frequently account for as much as 37 per cent of the increase in annual economic growth". Other volumes assure us of the urgent need to develop through educational resources middle-level and highly professional skills. Someone, a title from Management Digest indicates, must attend to the "Care and Feeding of Engineers".

Many books are to be found on agriculture. Statistics again predominate but graphic studies can be found of rural worker problems, productivity, farming machinery, the dairy industry's ups and downs and, for special interest, how to raise livestock on a mountain top. Since Member countries are affected, literature reflects land problems of soil erosion, forestry irrigation and crop changes. A statistician can find here why, on a certain year, there was a down-trend in oats or why, despite bad weather and other unfavourable conditions, surplus wheat stocks steadily mounted in the storage bins of the United States.

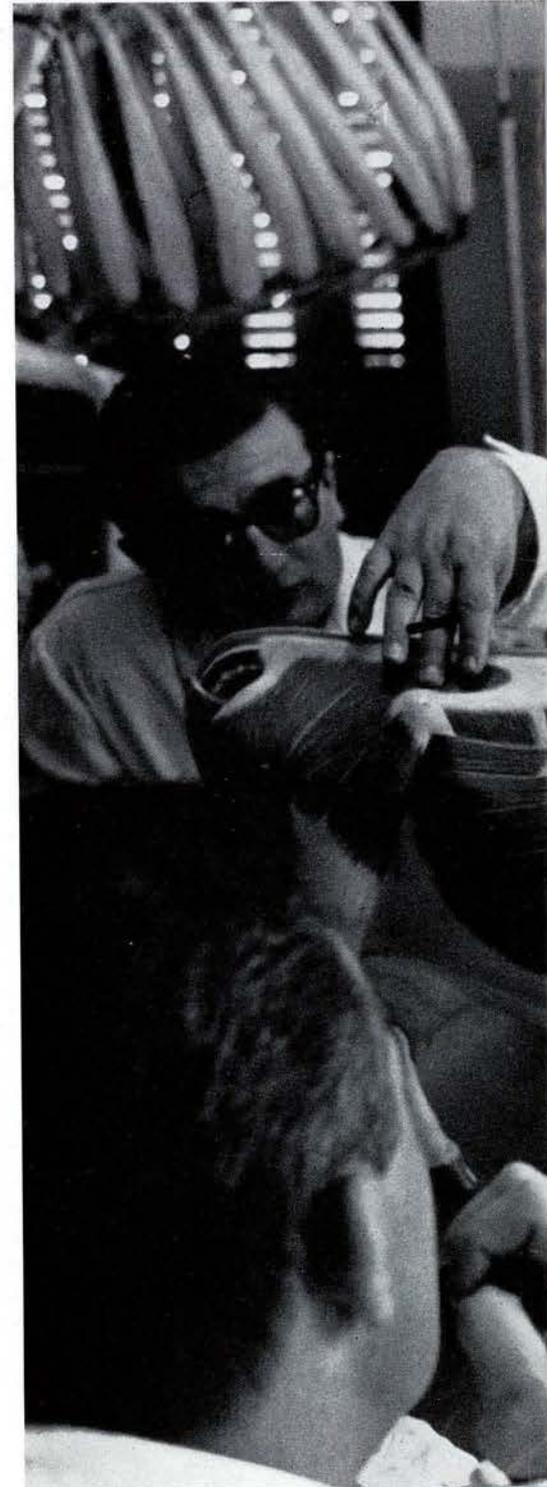
Moving around the shelves the visitor will come upon books and periodicals of exceptional if not common interest. One subject stands out for the career-minded — how in countries like France, England or the Soviet Union the civil service systems work and how to join them. He might be interested particularly in a British author's viewpoint: "Bureaucracy is clearly indispensable to modern government".



*Students from the seven member countries of the Centre, and in addition from Egypt, Jordan, Libya, Malta, Morocco, Syria and Tunisia at the Bari institute in November 1961. Here some of them examine a pre-fabricated concrete irrigation trough on a co-operative farm.*

# AGRICULTURAL EDUCATION ON AN INTERNATIONAL LEVEL

*Bovine anatomy is explained to the students with the aid of a sectional model.*



*The first graduation ceremony of the International Centre for Advanced Mediterranean Agronomic Studies took place at Montpellier (France) on 21st May, when the new buildings of the Centre's Montpellier Institute were also inaugurated. The 36 graduating members of this initial class, who came from 14 different countries, received the earlier part of their training at the Centre's other Institute at Bari (Italy); in addition, they spent several weeks at the Agro-*

conomic Institute, Valencia, at the invitation of the Spanish Government.

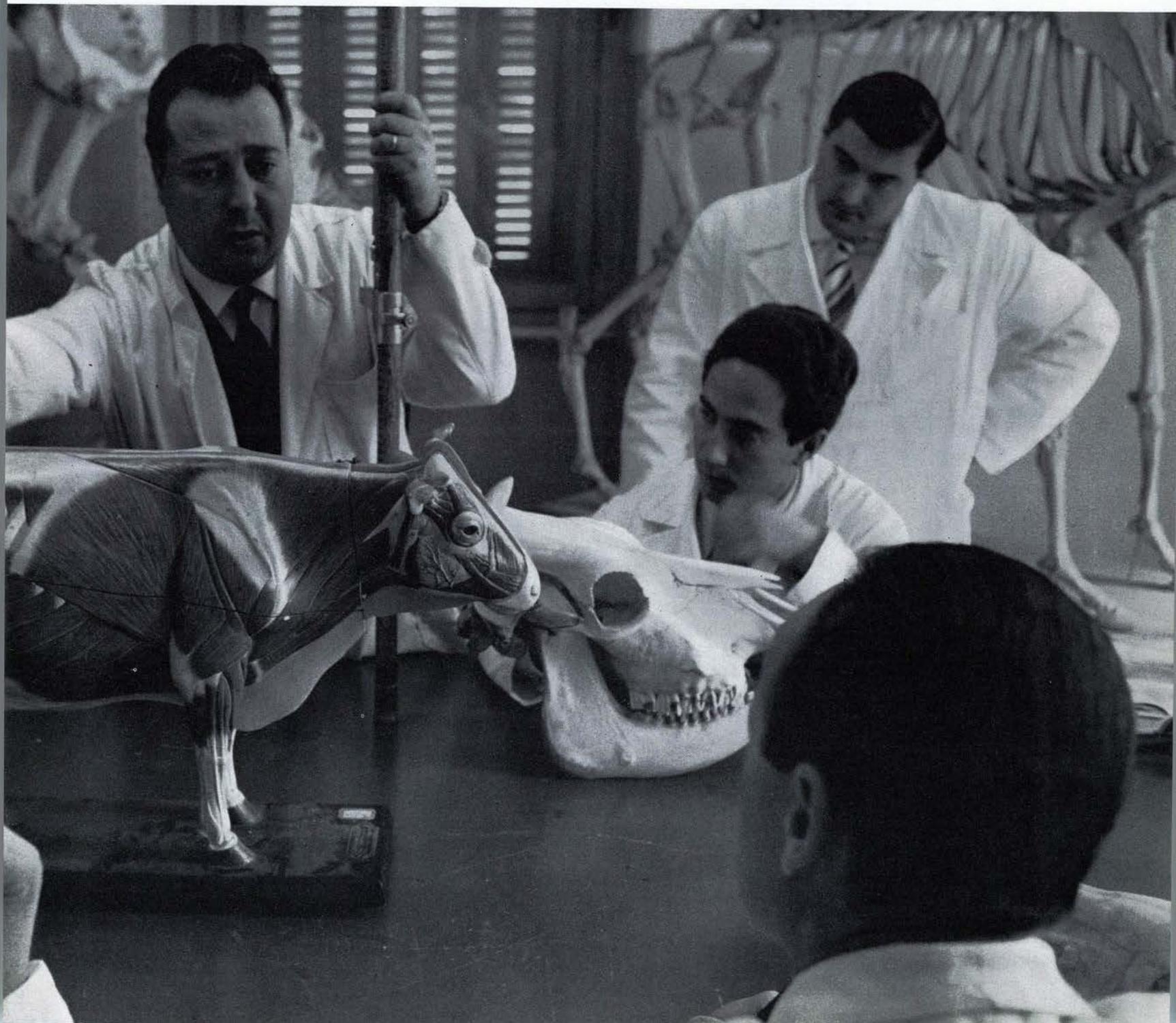
The International Centre is sponsored jointly by OECD and the Council of Europe, whose Secretaries-General are members of its Governing Body, on which sit representatives of the seven countries which set up the Centre a year ago : France, Greece, Italy, Portugal, Spain, Turkey and Yugoslavia. Its objectives are :

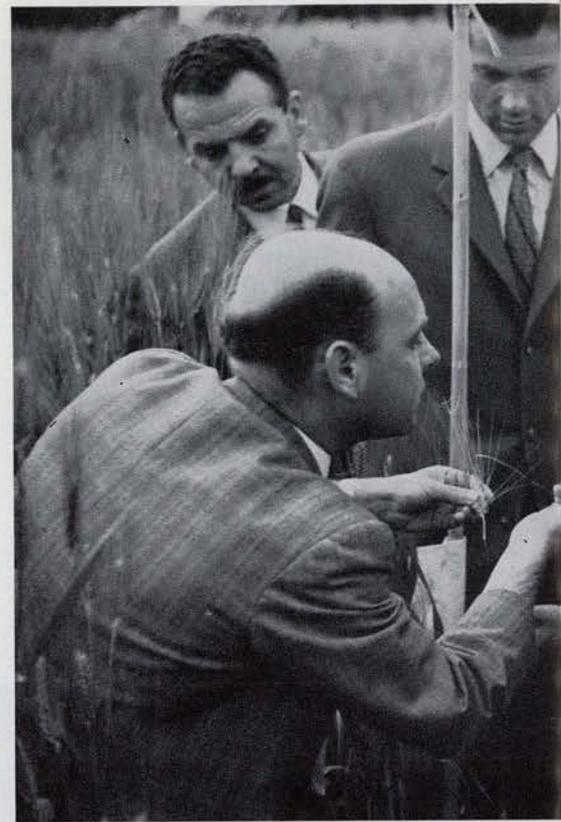
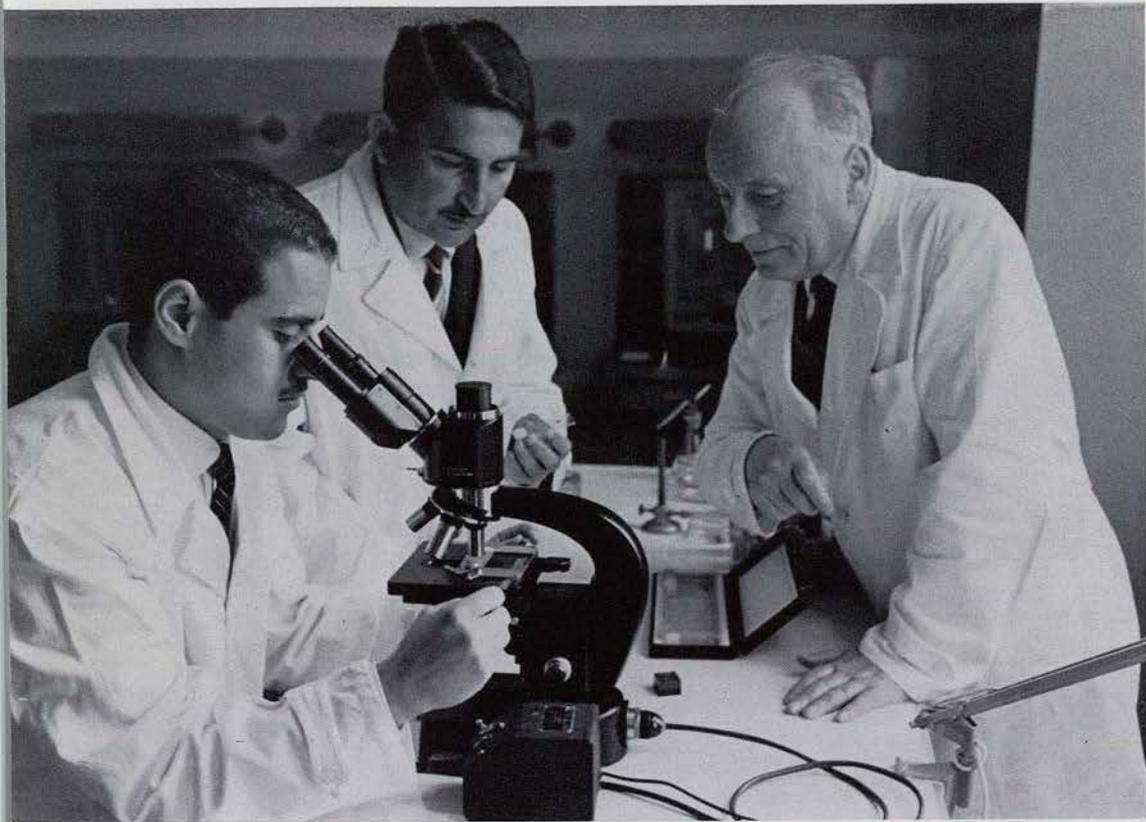
- to provide additional technical, economic and social training for graduates in agriculture and agronomics, and to investigate the international problems created by agricultural development,
- to help foster a spirit of international co-operation among the key agricultural personnel of to-morrow.

The 36 new graduates will help to break one of the bottle-

necks hampering agricultural development in the Mediterranean area : the shortage of agricultural, scientific and well-qualified executive personnel.

In future, the Bari Institute will concentrate on instruction in land-use, rural infrastructure and equipment ; that of Montpellier on economic planning and rural development. In each case the course will cover ten months.







*(TOP LEFT) A well-equipped laboratory at the Bari Institute enables the students to carry out practical studies.*

*(ABOVE) On field trips, students examine improved wheat resulting from cross-breeding and nuclear radiation treatment —*

◀ *— the rapid processing of live-stock by expert butchers in the market at Nîmes, S. France; and —*

*the technique employed for the extraction of resin in a pine forest.* ▶

*Such fields trips supplement classroom studies, laboratory work and group discussions, and provide the student with essential background knowledge for his future career.*



In other words the aggregate monetary reserves of the whole world have increased. In fact this means that so far as countries can agree together they are in a position to increase international liquidity by the creation of claims on the part of one country against the other.

It is not surprising that this was exactly the way in which the international monetary system evolved, since the *whole nature of monetary reserves is that they are claims held by one country against another*. This is easily understandable in the case of foreign exchange but in fact it also applies to gold reserves. In the case of gold, however, the claims are, as it were, against an unknown debtor country since gold is current in all countries. The same would apply to a genuine international currency created by a world institution and the position is almost the same in the case of convertible currencies because they can be changed into the currency of almost any country.

We must not overlook this fundamental fact : that monetary reserves are really claims which enable their holder to have a deficit in its balance of payments over a certain period. By accepting a quantity of these reserves, whether in gold or foreign currency, the surplus countries finance the deficits of the deficit countries.

That is why, in spite of everything, there are limits to the possibility of augmenting aggregate reserves by the grant of credits from one country to another. Countries which expect to be in surplus in the near future will not be prepared to finance the deficits of other countries without limit. In consequence if they are asked for supplementary credits, they may either fix limits or impose the conditions which they think justified or both.

*The importance  
of consultation  
among industrialised  
countries*

**F**or this very reason the most important arrangements in the sphere of international monetary co-operation in recent years have either been bilateral arrangements between two industrialised countries or arrangements among a small group of industrialised countries. The most important of these arrangements is the new loan convention, linked with the International Monetary Fund, but signed by some ten industrialised countries and valid for those countries only.

Obviously it is among the industrialised countries between whom current transactions and capital movements have taken on considerable scale that substantial deficits and surpluses must be looked for. It is therefore incumbent on these countries to come to appropriate arrangements if it is desired to avoid a dangerous disorder in the international monetary system.

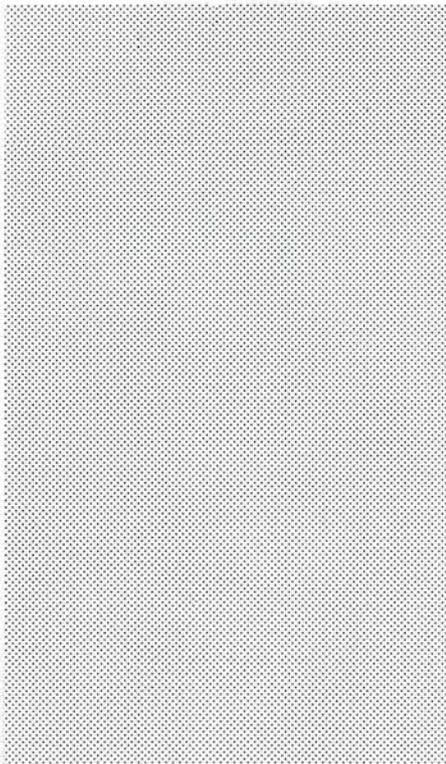
If a surplus country is to finance the deficits of some other country under arrangements of this kind, limits and conditions must naturally be imposed. In the case of large-scale arrangements there will generally be some hesitation in making use of a world-wide institution over which the countries in question have only a limited influence.

It is for this reason that *monetary consultations between industrialised countries* have in recent years become one of the most important instruments of the international monetary system. In making the necessary arrangements consideration must obviously be given to the possible effects not only on the two countries in question but also on other industrialised countries in which imbalance might appear in the near future. Bilateral consultations are therefore not enough. These problems must be discussed in a small group composed of the countries most concerned.

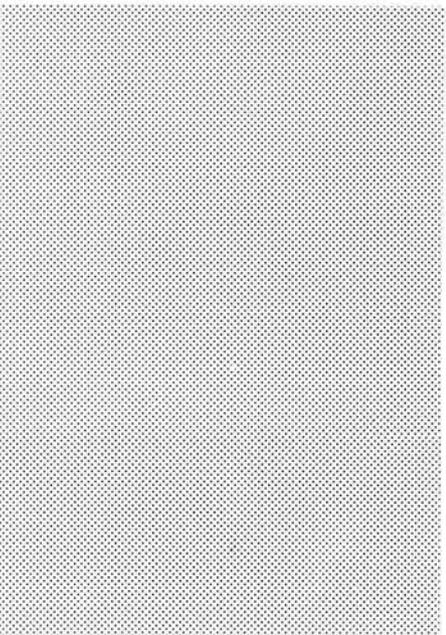
The main forum for such monetary consultations is the OECD Economic Policy Committee, and more especially its Working Party No. 3, which consists of some ten industrialised countries with major responsibilities in this sphere.

It is in consultations of this kind that attention is paid to the *monetary discipline* already spoken of. A certain degree of discipline is inherent in the monetary system itself, since in the deficit countries the private banks must buy foreign exchange from the central bank to bridge the gap in foreign payments. By these purchases the banks reduce their liquid assets, which means a reduction in national liquidity, which in turn will impel the national economy to cut down its activity and its imports. By these means therefore the deficit has unleashed forces which tend to redress the balance of payments. In surplus countries there will be a chain of similar effects but in the reverse direction.

It must be emphasized that these corrective effects come about regardless of the national organisation of the monetary system. Whether the gold standard is



*Co-operation  
put to the test*



used on its own or whether monetary reserves partly consist of foreign exchange, in both cases the banks must cut down their liquid assets if it is necessary to bridge a gap in foreign payments.

What might make monetary discipline lax is the fact that the national authorities are in a position to *counter* these automatic effects by deliberate expansion of credits in deficit countries or their contraction in surplus countries. There is no international mechanism which could *automatically* prevent national governments from following such a policy should they so desire. It is only *monetary consultations* between the industrialised countries which can bring to light all the national and international consequences of such a policy which might well be dangerous to financial stability. These consultations are therefore an essential element in the international monetary system at any rate at the present stage in world economic history.

Are there *desirable reforms* which could be gradually brought about by such consultations?

For the time being there seems no adequate answer to this question. We are in an experimental period. A number of different forms of arrangement have been tried out. It is too soon to draw any firm conclusions.

It may well be that in the future such consultations will lead to understanding on certain more or less generally accepted rules of conduct concerning the composition of monetary reserves and perhaps also on some other elements of monetary policy such as fixing the various national rates of interest in relation to each other. It must not be forgotten however that each case must be judged in the light of the concrete circumstances of the moment. No two cases will ever be exactly alike.

It follows that general rules can never completely take the place of monetary consultations between the industrialised countries of the West.

**T**here is every likelihood that the monetary co-operation of the West will be put to the test during the next two years. The Ministerial meeting of the GATT which came to an end on 22nd May, 1963, concluded with an agreement that fresh tariff negotiations would be opened on 4th May, 1964. One of the most decisive conditions for a further effort to reduce customs tariffs and other trade barriers will no doubt be the existence of a generally favourable economic climate in the industrialised countries, that is to say the maintenance of full employment with little exception and a state of approximate equilibrium in the balances of payments. Such are the precise objects of monetary co-operation.

Nevertheless in the contemplated negotiations within the GATT the co-operation of the West will be put to the test on a scale much greater than the of monetary policy alone. In practice, if it is desired to do away with trade barriers on a large scale there must be a substantial *adaptation* of industry, agriculture and manpower. Since the coming negotiations will be a very important event from the political point of view, their preparation requires exceptional care. No major aspect of the problems raised by the Geneva decision must be overlooked.

The coming negotiations have a historical basis. They are, as it were, one of the consequences of the efforts which have been going on since the Second World War towards European integration. The most important result of these efforts has been the establishment of the Common Market, which in turn has set off a chain of other events. Then followed the negotiations in Paris in 1958 for a large European Free Trade Area and after their breakdown, the establishment of the smaller free trade area, EFTA; this in turn was followed by the association of Finland with EFTA, the association of Greece with the European Economic Community, the negotiations for Britain's entry into the Common Market and finally the new American Trade Expansion Act, the main object of which was to allow negotiations with the EEC on the reciprocal reduction of customs tariffs and freer trade in agricultural products.

The issues at stake in the forthcoming negotiations are therefore of some importance. If, following the breakdown of the Paris negotiations in 1958 and the suspension of the Brussels negotiations in 1963 there were to be a failure in the tariff negotiations at Geneva in 1964, the consequences for Western co-operation as a whole might become extremely grave even on the purely political plane. On the economic plane the result would probably be a new wave of protectionism and isolationism on both sides of the Atlantic. The disappointment which follows the frustration of an attempt at progress generally has results of this kind.

*(continued next page)*

## *The adaptation of industry*

There are still many questions to be settled about the methods and formulas of the contemplated tariff negotiations, but these problems will be discussed in the organs of the GATT before the opening of the negotiations proper and we need not therefore concern ourselves with them here. Let us rather consider the *problems of adaptation* which will arise in the various sectors of the national economies if we embark upon the progressive reduction of barriers to international trade. It is only so far as we find ourselves able to surmount these difficulties that we can dare to pursue an expansionist policy in the field of trade.

*European industry* has for many years been in a period of constantly intensified competition. There was first of all the European liberalisation of trade, that is to say the progressive abolition of quantitative restrictions followed by the very rapid lowering of the internal customs tariffs of the EEC and EFTA, the result of which was an exceptional increase in trade in industrial products between Member countries. Not only was the adaptation to an enlargement of trade accomplished without major difficulty but at the same time the competitive strength of European industry in world markets was reinforced in a remarkable manner. Keener competition has unquestionably been an invaluable stimulus to European industry.

Obviously, the industrial progress of Europe has been more marked in some branches than in others, and it may well be that in some branches of industry production has declined. In a generally favourable economic atmosphere, however, the labour thus liberated can be absorbed fairly easily.

*American industry* was in the forefront of world industrial development in the twentieth century. The recovery of Europe has, however, probably deprived the Americans of some of their lead. It therefore seems that in the case of United States industry also an enlargement of markets and keener competition would be a very valuable stimulus. The initiative taken by the President of the United States in proposing the Trade Expansion Act to Congress was undoubtedly inspired by thoughts of this kind.

There is, however, one special problem which will arise for Western industry if freer entry into Western countries is accorded to manufactures from low wage countries, that is to say from countries which are now poor but are in the process of development.

An increase in the exports of these countries will be necessary and there is every indication that this problem will play an important part in the coming tariff negotiations.

It may very well be that over the next few decades a *division of labour* may be contemplated between the Western countries and the countries which are launching out on modern industrialisation. These countries will have fairly low wages but they will not have all the technical, commercial and administrative advantages of Western industry. It follows that in some branches or for some products production costs may be lower in the poor countries whereas in other branches or for other products the West will keep its lead.

We must identify these problems so as to know the tasks which will face us in connection with the adaptation of industry. During the next few years however, imports of manufactures from the poor countries will probably be fairly limited in relation to Western production as a whole, which will make our task easier.

In the sphere of *agriculture* the problems will be much more difficult because European and American agriculture are already very inadequately adjusted to modern conditions. Production per man-hour is much lower than in industry and most farmers therefore find themselves in a social position which leaves much to be desired. The reason is that there are still a large number of small farms, especially in mountain districts which do not allow the use of modern techniques or even the full use of the family labour force.

It must be admitted that adaptation to the extraordinary changes which have come about during the last hundred years is harder in agriculture than in industry. As the standard of living rises a decreasing proportion of income is spent on agricultural products. The consequence is that a steadily diminishing proportion of the population has to be employed in agriculture. This is an inescapable trend which is particularly marked in a period of rapid economic growth such as the present.

But the necessary exodus from agriculture is difficult because the life of the peasant is a traditional life and very often an isolated life. Families are therefore very reluctant to leave their villages and go to the towns. It is perhaps for

## *The necessary exodus from agriculture*

## *Towards a world economy*

this reason that agriculture has been strongly protected since the 1930s and even over a large part of Europe since the 1880s. The effort has been made, as it were, to protect the peasants against the necessary exodus. The result is that agriculture today still has a labour force which is much too large, including a great number of small farmers.

Obviously it has been possible to retard the inevitable exodus to some extent but in the long run this is a policy of despair. These measures of protection and subsidy may perhaps have made life easier for the politicians of past generations but in return they have made it much more difficult for the statesmen of today and especially for Ministers of Agriculture.

We have reached a stage where protection and subsidies have caused excess production in the West. The position has become somewhat dangerous. The traditional food importing countries desire to cut down their imports, while the exporting countries for their part desire to increase their foreign sales. It is for this reason that points of view clash so regrettably in discussions on agricultural policy. It is enough to refer to the divergence between Germany and France in the negotiations on the common agricultural policy of the European Community and the discussion between the United States and the representatives of continental Europe on the entry of American foodstuffs into Europe.

How can we get out of this impasse? It is a very serious and very complicated problem. It must be handled as a matter of urgency because if we fail to tackle this question in the immediate future not only may agriculture find itself in an unbearable situation within the next few years but European and Atlantic co-operation will perhaps be jeopardised by discord between exporting and importing countries.

It is not possible to deal with the whole of this delicate problem here. Two points which appear essential should however be emphasised.

Over the last ten years there has been large scale exportation towards some under-developed countries of agricultural products mainly from North America. Since the importing countries are poor, these exports have had to be financed by credits on favourable terms. It seems, however, that there will be a growing market in the over-populated countries of Asia during the next few years. We must therefore consider how these exports can be made an integral part of Western development assistance policy.

It is certain that exports of this kind will at the same time help to solve the agricultural problems of the West, but this policy must be pursued with caution so as to avoid further disturbance of agricultural markets. Furthermore, it seems obvious from the world point of view that the two large North American countries with a sparse population have an enormous relative advantage over certain densely-populated Asiatic countries like India and Pakistan in the supply of agricultural foodstuffs.

The other point I should like to stress is that by its very nature the problem of low incomes in agriculture is a *social problem*. It must be treated as such. It would be better to give the peasants social assistance rather than guarantee them artificial prices and thus encourage production which cannot be sold.

In the case of young people from the villages the best solution would be to provide them with general education and vocational training which would allow them to enter industry or the modern public services.

In many countries this constructive policy has already been started. It must be further extended and developed, since, as I have indicated, it is basically a *problem of adaptation* to changing circumstances.

As we know, these problems are extremely delicate. We must therefore act with some caution. We must however not be blind to the fact that the situation is becoming somewhat dangerous.

That is the core of the problem of trade. The expansion of trade is one of the inevitable consequences of modern technique. The West has been the leader and pioneer in creating this technique, among other things in the sphere of means of transport which has brought the Continents closer together. The appropriate conclusions must be drawn in the matter of trade policy.

Today the world can be circled in ninety minutes. In the face of this impressive fact the ideas of national or continental isolationism appear to be thoroughly obsolete and almost ludicrous. The only possible solution is a movement towards a genuine world economy. The West must once again take on the role of leader in this movement.

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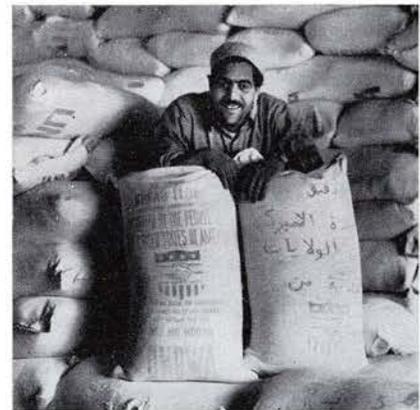
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