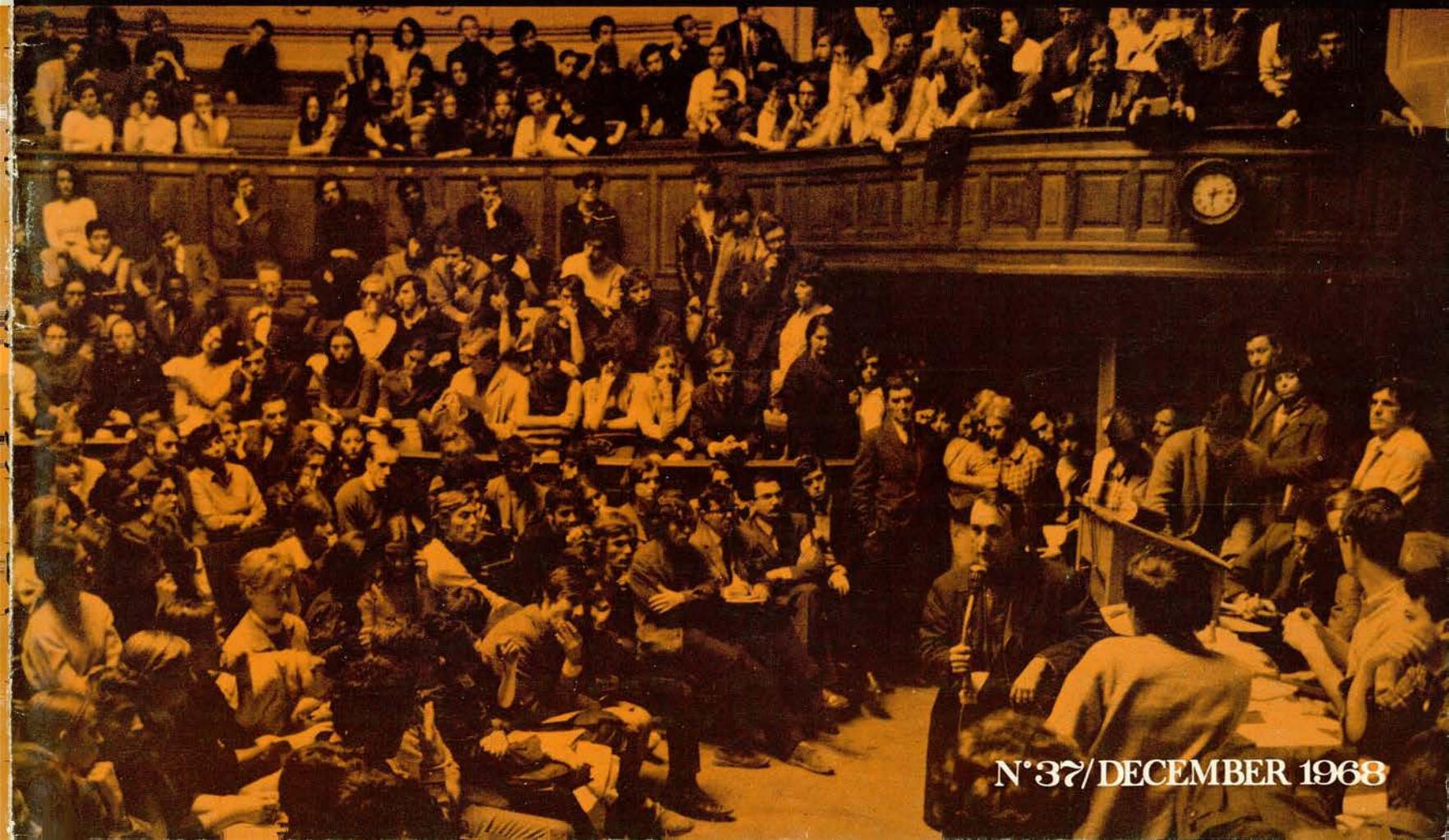


the OEECD OBSERVER

THE ECONOMIC OUTLOOK - DECEMBER 1968
FORECASTS OF GOODS TRANSPORT DEMAND
UP TO 1975 ECONOMIC AND SOCIAL IMPACT
OF STUDENT UNREST IMPROVED STATISTICS
FOR PREVENTING PROLONGED JOBLESSNESS
NEW LOOK AT POLICIES FOR AGRICULTURE



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STATEMENT BY THE MINISTERS OF AGRICULTURE OF OECD

The Committee for Agriculture of the OECD met at Ministerial level on 28th-29th November, 1968 under the chairmanship of Mr H. Höcherl (F.R. of Germany). Mr H.A. Olson (Canada) and Mr A. Diaz-Ambrona (Spain) were elected vice-chairmen of the meeting.

The discussion focussed on the outlook and problems of agriculture in OECD countries on the basis of Reports prepared by the Organisation. More particularly, Ministers considered the market situation for major commodities, in the light of current problems and the outlook for the coming years; they also discussed the longer-term problems of the balance of supply and demand for agricultural products generally. The role of agriculture in the economic growth of the Southern European Member countries was also discussed.

The agricultural sector is passing through a highly

dynamic phase : technological progress is rapid, methods of production are constantly being rationalised, farm structures are evolving and the decline in farm employment is being offset by increased use of capital. The farm population thus finds itself having to undergo far-reaching adjustments, which often give rise to difficult social problems. In spite of these adjustments, the problem of low farm incomes is far from being solved.

Ministers noted also that production of many important foodstuffs has been expanding faster than outlets in most OECD countries, even taking into account the shipments to other regions of the world. Serious market disequilibria, with in some cases competitive export subsidisation and accumulation of surplus stocks, have occurred and the prospects for overcoming these problems are not easy to assess.

(continued on page 4)



The Honourable Orville L. Freeman, Secretary of Agriculture, USA, and M. Shunichi Oguchi, Vice-Minister of Agriculture and Forestry, Japan

With this deterioration of the international market, the cost of support mechanisms to maintain prices on the domestic market is increasing and in some cases at an accelerated rate. Even with this additional expenditure on agricultural support, farm incomes have generally not improved sufficiently in relation to those in other sectors, and income disparities within agriculture remain wide.

The increase in production beyond market requirements is not only due to technological progress, but is also a consequence of price support systems, very often involving support at relatively high prices and especially support granted unselectively to all producers. The tendency towards over-production has given rise to widespread use of export aids and an intensification of import restrictions, while recently there has also been increasing resort to such measures as consumer subsidies and denaturation. Countries which are largely dependent on exports of agricultural produce are liable to encounter particular difficulties and to find themselves bearing a relatively heavy burden in the necessary adjustments.

Ministers recognised that the present situation is not due to temporary factors, but that on the contrary it is the consequence of basic factors at work. They noted that there is a growing need to adjust policies to the market situation both at home and abroad, in order to bring production and market outlets into alignment. They further noted that if appropriate measures are not taken in the near future, the imbalances are likely to grow to such an extent that the problems will be even more difficult to solve after the next five to ten years, even allowing for increased shipments to other parts of the world.

It has become evident that the need for increased farm incomes cannot be solved simply through intensifying and expanding output. It was generally pointed out that in pursuing the improvement of farm incomes it would be desirable for governments to intensify rather their expenditure on measures promoting basic structural change, which would make it possible to diminish progressively the importance of price support. The reduction of the

farm population together with the move to fewer but larger farms, must continue at the fastest rate consistent with the social, demographic and economic conditions of a country. These adjustments can be facilitated by policies that distinguish between the needs of the small-non-viable holdings and those of farms that can be run on modern commercial lines. If there should be obstacles to the reduction in the number of people dependent on agriculture it is likely that the income situation of agriculture would deteriorate.

Such policies will contribute to a solution of the farm income problem, but will not help significantly in adjusting production during the near future. Yet it has already been found necessary to control the growth of output of some major commodities and to adjust the overall pattern of agricultural production. Measures such as land retirement, the limitation of price guarantees to specified quantities, or direct restriction of quantities supplied have been applied already in some cases. Similar or other measures are needed. If such policies are to succeed at national level and if further imbalances and difficulties on international markets are to be avoided, it is important for countries not to act in isolation but for each country to share in the development and implementation of constructive policies and to participate in consultations at an international level which will help countries concerned to take effective measures.

Ministers stressed the specific importance of agriculture in the development of Southern European Member countries. The growth of the agricultural sector and its progressive integration into the national sector constitute the essential objective and need to be promoted through appropriate action. But these countries have to face the same two main problems as the other countries : to adjust supply and demand, and to improve structures, productivity and incomes. In the first place, trends in domestic demand require basic changes in the pattern of production in most countries, e.g. a relative decrease in bread grains and increase in forage and livestock production; further, difficulties may arise due to the saturation of the markets for their traditional product, and in some cases to the import restrictions imposed by importing countries. In the second place, though improvements in farm productivity and incomes depend largely on a transfer of labour to other sectors and thus on the capacity of these sectors to absorb this manpower, much can be done within the agricultural sector to develop the infrastructure, improve technical standards, create better farm structures (the development of co-operation and group farming offers interesting possibilities in this respect), develop better marketing channels, etc. Government initiative and financial support, involving where appropriate foreign aid, play a decisive role in this connection.

Conscious of the need to meet the expectations of farmers and to integrate agriculture more closely in the economy and of the need for orderly conditions on international markets, Ministers were unanimous in stressing the urgency of adjusting policies in the light of current and prospective problems. They emphasised the need for better co-ordination and consultation in the appropriate international " fora " regarding production and trade policies and in particular the importance of investigating jointly new approaches to the problems of agriculture, both at national and international level. They gave further guidance for the work within the OECD to deal with these matters.

AGRICULTURAL POLICIES RECONSIDERED

Introductory statement by Thorkil Kristensen,
Secretary-General of OECD,
at the meeting of Ministers of Agriculture of Member countries.

*“We need to have a new look at nearly all
the measures taken to help agriculture.”*

It is very appropriate for the Ministers of Agriculture to come together at this moment. Difficulties that we have known for some years have become particularly acute in recent months. Growing surpluses of some agricultural products have been accumulated and the prospects are for increasing surpluses of important products in the years to come.

The report on the long term projections seems to demonstrate that if present policies are continued, very large surpluses will develop, in particular in the field of cereals if we take the OECD area as a whole. In the fields of dairy products and of some fruits and vegetables, it can be seen that on the medium term outlook important surpluses already exist here, or are likely to come into being in the near future. It is therefore high time to reconsider agricultural policies if we are to avoid a dangerous development.

This is not to say that nothing has been done to tackle the difficult problems of agriculture. On the contrary, we all know that the subject has been given serious consideration in most countries and a number of measures have been taken which should help to improve structures in agriculture and thereby pave the way for a more healthy development of markets. The average size of farms is increasing in most countries and modern equipment is being introduced so that many farms represent a much higher level of productivity than a few years ago.

However, prices have not been determined by the market conditions. They have to a very large extent been the result of complicated political and social considerations and this is why the prices guaranteed to farmers in most countries are so high that they are leading to a production which outruns demand if we think

of the OECD area as a whole. This, of course, cannot go on and there is no hope that the reduction of the number of persons working in agriculture and in particular the reduction of the number of small farms will influence production to such an extent that the market will be brought to anything near equilibrium.

The three causes of difficulty

Why has the situation in agriculture been so difficult for many years?

There are three main reasons for that, the first being that agriculture is a relatively declining sector in all modern economies. With a rise in incomes, the part of our money spent on food becomes smaller and smaller and therefore the total demand for food rises more slowly than the demand for many other things. Furthermore, only part of the food budget represents incomes that go to farmers; another part of our food expenditure goes to the means of production in agriculture, such as fertilisers, machinery and so on. A third part of the budget for food is represented by transportation and processing of the food products after they have left the farm. In fact, that part of the food budget which is represented by the farmers' own contribution is on the whole declining. Therefore, it is not astonishing that farming as such represents a declining part of the economy as a whole.

In the first stages, this only means that the agricultural population grows more slowly than the rest of the population. However, we have now reached a stage where the number of people working in agriculture goes down rapidly in all highly industrialised countries and also the

number of farm enterprises is being reduced. This, of course, is not easily accepted by those who belong to the agricultural sector, which is the oldest part of all our societies.

There is a second reason for the present difficulties. Paradoxically enough, rapid technical progress has led to a lack of harmony. Big farm enterprises which can apply the most modern techniques and use expensive equipment have a great advantage over the small farms, particularly in mountainous or other difficult areas. Therefore, prices that would be high enough for the big modernised farms would not give the small farmers a decent living. This is why the price policy for agriculture has represented not only an economic but also a social problem.

There is a third difficulty which stems from the fact that agriculture is a sector with many producers living in many different countries. Therefore, none of them is big enough to influence the market situation or determine their own prices, which is the privilege of many big enterprises in industry and other lines of production. To the extent that the market situation is influenced by government policies, the difficulties are increased by the fact that the policies of various governments often counteract one another.

There are other sectors that have known one or other of the difficulties I have mentioned.

However, agriculture has known all of them; and for quite a long period. This is why it has been a matter for concern and governments have felt forced to take many measures that may have been helpful when they were introduced, but which have gradually brought us to a point where the situation is becoming very complicated and very dangerous.

The present situation can briefly be described as follows. In the last few years, a number of measures have been taken which will contribute to an improvement of the structure of agriculture in most countries. This is to be welcomed, but at the same time, the main element in agricultural policies in virtually all OECD countries has remained price support in one way or another. Prices of agricultural products in the national markets have been guaranteed at often very high levels and this is why production has been encouraged often very strongly. Therefore, we are getting the surpluses that I have mentioned.

There is in these policies a tragic paradox. The big farms with modernised equipment do not need these high prices. They are maintained in order to help the small farmers who often have very disappointing incomes. However, the paradox is that the big farmers are helped much more by high prices than are the small farmers. If a big farmer produces ten times as much as a small farmer, he will obviously gain ten times as much from a certain increase in the guaranteed prices, and that is what has happened in so many countries in the post-war period.

I do not think it is sufficiently realised by the public to what extent the existing price support policies favour the big farmers, who often do not need them compared

with the small farmers whose situation is not improved substantially by price increases because their production is so small.

This means that not only have the existing price support policies induced farmers, and in particular, the big farmers, to produce too much, they have also been a failure socially because we are helping the wrong people. It is therefore high time to reconsider these policies.

Possibilities for action

Now what can be done? In fact, we need to have a new look at nearly all the measures taken to help agriculture.

First, there is a need to pursue energetically the policies for structural change. In order to increase production per man in agriculture so that incomes can become higher, the number of people working in this sector has to be further reduced. The average size of farm enterprises has to be increased, often very much.

Though it must be added that in some cases a specialised production on a large scale can take place on a farm that is small in area. The production of chicken is a case in point.

However, as I have already mentioned, we cannot expect that these structural improvements can be accomplished so quickly that they can by this bring the markets into equilibrium. In fact, if small farms are replaced by bigger ones which are more efficient, production may even increase in some cases if the prices remain as they are. Other changes in policy are therefore required to bring the markets back to equilibrium.

The first question to ask in this respect is whether it is possible to increase demand for agricultural products. Here a distinction should be made between demand at home and demand abroad, in particular in the developing countries.

Concerning demand at home, there is no doubt that the consumption of a number of high quality food products in many member countries would be bigger if prices were lower. I know that in some countries government support is given in order to give consumers or some groups of consumers food at prices that are lower than they would normally be in view of the prices paid to farmers. In a more general way, it is an important consideration that lower prices will not only influence production but also consumption. In fact, what would happen in a relatively free market if there were a surplus is that prices would fall and this would both increase consumption and reduce production so as to bring about a more equilibrated situation.

Concerning food consumption in developing countries, we all know that it is often very insufficient both in quantity and in quality. The prospects are that demand in developing countries as a whole will increase faster than supply in the foreseeable future and this would in particular be so if the poor countries did not suffer from

the shortage of foreign exchange that so often hampers their economic growth.

This is why food aid has come to play a substantial role over the last ten to fifteen years. We in the OECD are examining the question of rational food aid policies. According to FAO projections, the market in these countries not only for cereals but also for dairy products could expand rather rapidly if certain conditions were fulfilled, and one of these conditions would be that foreign exchange were available. We should examine in a more systematic way in collaboration with FAO and the World Food Programme how this important question can best be handled. I do think that it is possible to provide a somewhat larger flow of aid to the poor nations and at the same time improve to some extent the market situation for some agricultural products.

However, the possibilities in this field are limited. We must not, of course, spoil the market in the developing countries for their own farmers who are as a rule very poor. Therefore, we cannot escape the question of how to adjust our own production of a number of agricultural products to demand better than we have done in the past. This is not an easy task but it is becoming more and more urgent.

Production can be influenced through price policies and through direct regulation in one way or another. Concerning prices, it is obvious that they are now too high in many countries to bring about market equilibrium. We all know that it is politically and socially a delicate question to discuss, but we cannot escape it. In this respect, may I recall what I have said about the difference between small and big farmers. It is, of course, not true that incomes are bad for all farmers. There is no doubt that many big farmers with modern equipment have excellent incomes and they could very well go on with lower prices. The problem is how could we make prices more realistic without doing harm to the small farmers.

There are in principle two possibilities : one is to reduce prices, but only for farms bigger than a certain minimum size. The small farmers would then go on having fairly high prices, maybe however with certain limitations on the quantities for which these high prices would be paid and maybe with a time limit.

The other possibility would be to reduce prices for all farmers but then give the small farmers compensation through other means. As is well known, there are various means that could be considered in this connection, for example, old age pensions obtained earlier than usual if you retired from a farm, retraining people for non-agricultural activities and so on. I need not go into detail.

To adjust production through more realistic prices is, of course, not the only way out. Another possibility is direct regulation of production in one way or another. The most well known measure taken in this field is the limitation of areas under certain crops, but there can of course be others. Again, it is not necessary for me to go into details. Whether prices or direct regulations are

used, the question of compensation should not automatically be treated in the same way for the big farmers and for the small ones.

Need for co-operation

There is another consideration that I would like to make and it is a very important one. It is that what we need in this field is concerted action by as many governments as possible. Not only can we learn from one another's experiences, particularly in the field of measures to improve structures in agriculture, it will also be necessary to bring supply and demand into better equilibrium.

It is evident that, if one country alone took measures to reduce the growth of its production, it would thereby give up some of its position in the market for the products in question if other countries are not taking similar action at the same time. Therefore, one cannot expect individual countries to take courageous steps in this direction unless they have a certain guarantee that others will do the same.

We had a similar experience during the liberalisation of European trade after the war. It would be dangerous for one country to liberalise in isolation because then its imports would increase and there might be a balance of payments difficulty. However, as it was decided in the OEEC that liberalisation would go on in all Member countries at the same time, this danger was reduced because not only would imports increase, but exports of the individual countries would also increase because of the liberalisation of other countries' imports.

It is something similar that we now need in agriculture. It will be much easier for the individual country to take measures that bring us closer to market equilibrium if other countries do it at the same time and it should be the main purpose of the work in the OECD in the near future to bring such co-ordinated action into being through our consultations.

It can be a question of harmonisation of policies concerning production and prices and of those concerning structural change. It can also be a question of international agreement concerning the conditions of trade as we have seen it in a few cases such as the International Wheat Agreement, the agreement concerning milk powder and the agreement between the United Kingdom and the exporters of bacon to the British market.

I will therefore strongly suggest that the Committee for Agriculture of the OECD should be asked to initiate a serious discussion of the policy implications of the present prospects. I would hope that Ministers can give some guidance to the Committee with a view to discussions to come, and I hope that representatives of the various countries in the Committee will be given such support by their governments that we can now begin to tackle these very important problems in a realistic way.

IMPROVED STATISTICS A First Step in Preventing Prol

In most countries it is impossible, owing to the way unemployment statistics are collected and presented, to distinguish between workers who have just lost their jobs but will quickly find another and those who have been out of work for a long time. Thus people having special employment problems may be "found" only when they are forced to apply for public assistance, and then it may be too late: discouragement and the stigma associated with prolonged unemployment make it difficult for them to be reintegrated into the productive mechanism.

Despite the generally high level of growth in OECD countries since the war, some countries have had a visible long-term unemployment problem. Thus in the United States from 1958 to 1965 more than half a million people (on average) were unemployed for more than six months at the time that labour force surveys were taken, and in one year the figure reached 800,000 or about one per cent of the labour force. Now the number has considerably diminished, but the problem of the hard-core unemployed still has top priority in US manpower policy. The same is true of Belgium where structural change has been particularly rapid. Ireland and Canada, Austria and the United Kingdom have also been concerned about the long-term unemployed, though mainly as part of another problem — that of depressed areas.

For most of the other countries the main concern during the 1950's and '60's has been with labour shortages, but the recent employment recession has brought the problem of prolonged unemployment to light again.

For many of those who appear as unemployed in official surveys of joblessness, the experience is a transitional one which has relatively little impact on their economic and social situation; in most countries the unemployed are supported, at least to some extent, by public insurance, supplemented in some cases by company-financed benefits or separation allowances.

But those who are unable to find a job for many weeks or months may be profoundly affected, not only financially but psychologically as well: employers' attitudes may aggravate the problem so that the longer a man is unemployed, the harder it is for him to find a job. When he does find one, it may have lower pay and less job security than the last and hence expose him to further unemployment and to a spiral of what Adrian Sinfield calls "downward displacement". Hence the importance of measures to prevent extended unemployment as

well as to rehabilitate those who have already experienced it.

For both types of policy measures, the first requirement is information, not only about those who remain unemployed but about those who succeed in finding jobs, for the impact of joblessness on the future work life of an individual is not always immediately evident.

The Invisible Unemployed

At present only a few governments collect regular and detailed information about the long-term unemployed. A substantial number of countries do not make any breakdown of unemployment by duration or do so only sporadically. But even in countries where it is known how long the jobless have been out of work, there is reason to think that the number of long-term unemployed may be underestimated.

Many governments base their unemployment statistics on insurance coverage with the result that men and women who have exhausted their benefits simply disappear from the ranks of the unemployed, though they are the most likely to have pressing financial problems and to be in need of government help in retraining and rehabilitation. Belgium is the only country of the ten surveyed where unemployment benefits are of unlimited duration and hence the only one in which statistics based on insurance accurately reflect the volume of long-term unemployment (1). What they show is that during the last five years between two-thirds and three-fourths of the registered unemployed have been without jobs for six months or more.

Another group which may not show up in official statistics is the "dropout" from the labour force — men of working age who have become discouraged or alienated and are no longer looking for work. It has been observed that the rate of "non-participa-

ON UNEMPLOYMENT: Prolonged Joblessness and Poverty

This is one of the main conclusions reached by Adrian Sinfield, Professor of Sociology at Essex University, the UK, in a recently published study "The Long Term Unemployed", made at the request of OECD's Manpower and Social Affairs Committee. Exploration of the problems of this and other disadvantaged groups is being carried further in the Committee's current programme.



tion" in the labour force tends to be higher in districts where unemployment is high. This probably reflects some degree of invisible unemployment.

Considerable effort has been made during the last two years by the US manpower authorities to "find" the invisible unemployed. Since US figures on the jobless are based on population surveys rather than unemployment insurance rosters, they do not exclude, in principle at least, those who have exhausted their unemployment benefits, but the Department of Labour feels that others are left out who should be counted in if the figures are to indicate the number of people having serious employment problems.

New Indices of Measurement

One experiment, carried out in city slums, where the problems of joblessness and poverty become almost indistinguishable, is the construction of a "subemployment index" — which includes not only the unemployed as conventionally defined, but all others whose potentialities are not being fully utilised. In this index, allowance is made for the labour force dropouts and for other groups as well: men who are known to be present but could not be located by the survey, part-timers who would like to have a full-time job and workers earning sub-standard wages (the definition is less than \$60 a week for a male head of household.). The discrepancy between subemployment as measured by this index and the conventional unemployment rate is striking (see chart).

Another approach adopted has been to measure the unemployment experience of a group of workers over the entire course of a year rather than at a single moment in time. This analysis is based on the observation that some workers have marginal jobs with so little security that, although they have

working spells, they are out of a job a good part of the time.

This index too is in marked contrast with the conventional unemployment rate: the number of men with 15-26 weeks of joblessness is six times as high by this count as with the usual method, and for those with longer periods of unemployment it is three times as high.

Analysing the Causes

A few countries collect information not only on the extent of long-term unemployment but also on the characteristics of the unemployed — location, age, sex, marital status, education, occupation, industry and, in the US, colour. These enable Professor Sinfield to put forward certain hypotheses about the economic and social factors involved, at least in those countries where such information is available — Canada, the United Kingdom and the United States.

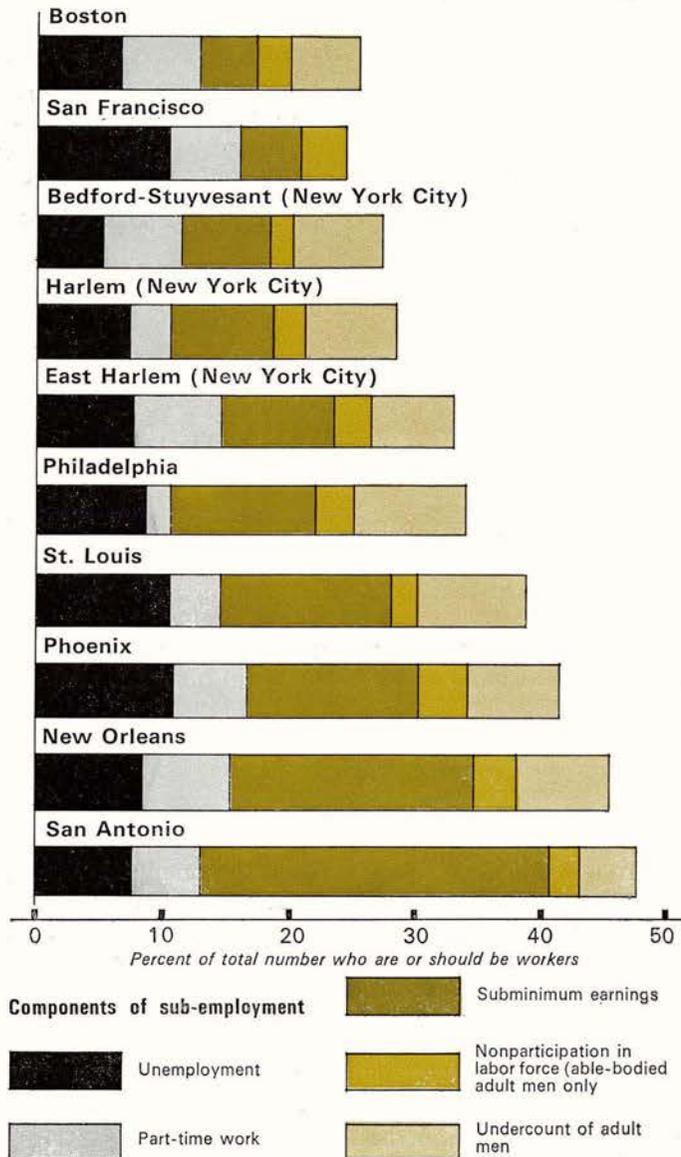
The statistics show, first of all, that the nature and incidence of long-term unemployment are very different in times of high overall unemployment and at times when unemployment is low. When unemployment rises, so — with a lag — does the number of long-term jobless. When economic conditions improve, the young, more highly skilled people find jobs again, leaving a hard core of unemployed who find it increasingly difficult to get jobs and are particularly vulnerable to extended joblessness. Professor Sinfield suggests that there are probably several

(1) *Ireland's unemployment insurance is unlimited for workers 65 - 70. In other countries the period of eligibility ranges from 30 weeks (Norway and Sweden) to a year (Canada under certain circumstances and the UK for a flat rate benefit, an income-tied supplement being limited to six months).*

THE SUBEMPLOYMENT INDEX

An Experimental Extension of Unemployment Statistics

*Unemployment and Subemployment
in 10 Slum Areas of the US*



Source: US Department of Labor.

characteristics linked to long-term unemployment in such a way that possession of more than one of them sharply increases the risk of being without a job over long periods. A similar phenomenon has been found in a study of poverty in the US (1): for 9 of 14 poverty-linked characteristics, possession doubled the likelihood of abject poverty. In the case of unemployment such traits might be: over 55 years old, disability, low-skill level, low educational attainment and residence in a depressed area. Another group of linked characteristics might be: non-white, under 25 years of age, rural farm or urban slum residence, and seasonal occupation. Rather than analysing information on the long-term unemployed according to a single trait, it

would be more fruitful in revealing the nature of the problem to use multivariate analysis, Professor Sinfield suggests.

But if the complexities of long-term unemployment are to be fully understood, other types of information and analysis are necessary. Is employment in certain occupations and certain industries more likely to produce unemployment than in others? To what extent is unemployment self-reinforcing? A recent study by R. F. Fowler of Britain's Department of Employment and Productivity (2), found that the longer a person has been on the register of the unemployed, the longer he can expect to remain on it and the less his chances of getting off. Is this related to the personal characteristics of the unemployed themselves, or is it simply the result of social attitudes on the part of others? What is the role of such institutional factors as "recall rights" in causing long-term joblessness? Do a significant number of people prefer to remain unemployed in a declining industry rather than taking a job where salary levels may be lower? To what extent does the way in which a man loses his job — plant shutdown, firing, quitting, etc. — affect the duration of his unemployment? Is someone who has been in the same job for many years more likely to be susceptible to prolonged joblessness than someone who has changed jobs several times during the course of his life?

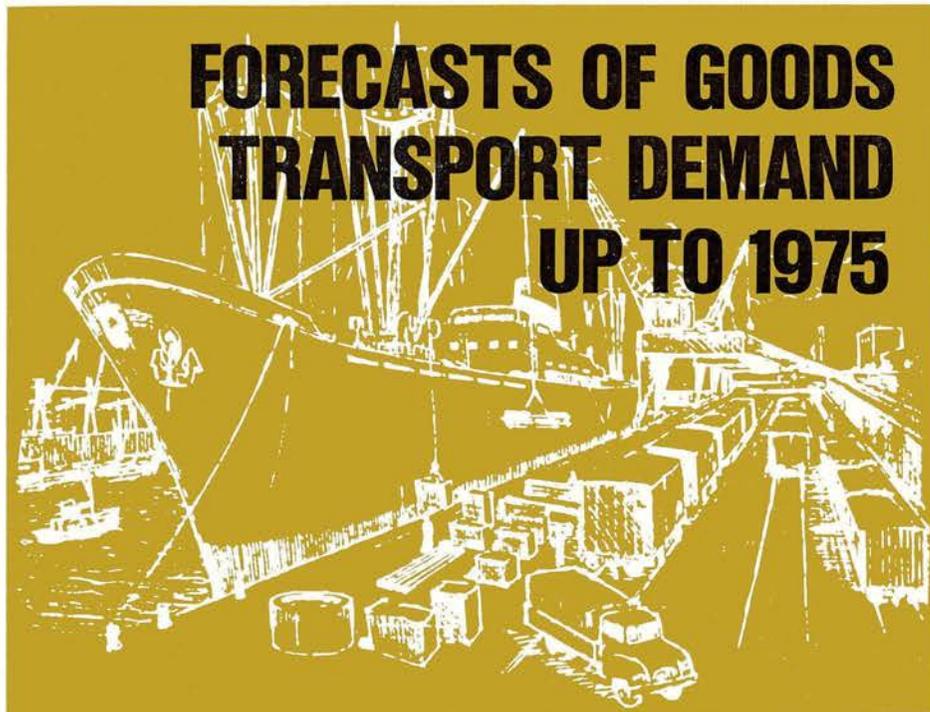
Such questions are relevant in formulating the complex of policies necessary for reducing vulnerability to unemployment — payment of insurance, the reorientation of public assistance, measures for retraining and relocation and the creation of information programmes. To answer them, further research is necessary. It would, for example, be useful, Professor Sinfield suggests, to study the work histories of a number of people over a long period of time to see what experiences in the life of someone who is not obviously a candidate for prolonged unemployment lead to his becoming one. Such a study would be useful even if the sample were small and covered only a few areas. For many governments even the most fundamental elements of analysis are not available.

Statistical information and analysis are a necessary part of any government policy but would be particularly helpful in the case of the long-term unemployed because there is a tendency for the missing knowledge to be replaced by preconception and even prejudice: in interviews with employers and employment officers in nine countries, Professor Sinfield often came up against the point of view, implicit or explicit, that "the long-term unemployed are alcoholics" or that they are "unemployables". In the absence of facts, such beliefs tend to become self-fulfilling prophecy.

(1) Oscar Ornati, *Poverty and Affluence*, The Twentieth Century Fund. New York, 1966.

(2) Mr. R. F. Fowler, "Duration of Unemployment on the Register of the Wholly Unemployed", Department of Employment and Productivity, HMSO, UK. The problem was studied by setting up a stationary register of the unemployed, similar to an actuarial life table.

FORECASTS OF GOODS TRANSPORT DEMAND UP TO 1975



The European Conference of Ministers of Transport (ECMT) has made a study of the future development of goods traffic to provide the data needed for investment policy planning. The aim was to indicate the likely changes in pattern by highlighting the trends in each form of transport. Some of the findings of the study are given below.

The experts expect the overall increase in goods traffic in fourteen countries which took part in the ECMT study (1) to vary considerably from 1960 to 1975; from roughly 60 to 380 per cent, according to the country. It is likely to be lower than the increase in general economic activity and this suggests a long-term change in the pattern. The steady decline in the railways' position in the transport market over the last ten years seems likely to continue at the same rate until 1975. Road haulage and pipelines will probably benefit most from expansion of the transport market, while inland waterway transport is likely to hold its own.

The authors of the study make it clear from the start that the basic statistics available are inadequate. This is especially true for road transport, as in most countries the figures supplied come from isolated surveys. They cannot be used as a basis for a

genuine time series, either because they omit certain important activities, such as transport for own account or short-distance hauls, or because they give no detailed information on the pattern of road transport by categories of goods, and no breakdown by transit, domestic and international traffic. The statistics for other forms of transport are considered to be generally more satisfactory, in particular those for the railways.

An outline of rail traffic prospects in terms of yearly average percentage increases up to 1975 (Table 1) shows a fairly big difference in the rate of growth in each country. A yearly increase of 3 per cent or more is forecast in some countries whereas in others, particularly Germany, Belgium, Luxembourg and Portugal, the increase is expected to be very small, ranging from 0.2 to 1.6 per cent.

The estimated yearly average growth rates should be compared with those for the period 1957 to 1965, taken from an ECMT report on the financial situation of the railways. It will be seen that the four countries which formerly had the highest rate of growth, that is to say Greece, Yugoslavia, Sweden and Switzerland expect to see a slackening off in growth

(1) Germany, Belgium, Spain, France, Greece, Ireland, Italy, Luxembourg, Norway, Portugal, United Kingdom, Sweden, Switzerland and Yugoslavia.

1. GROWTH OF RAIL FREIGHT TRAFFIC (ton-km)

Country	Yearly average rate of growth		
	Period	Forecast	Average for 1957-1965
Greece	1965-1975	6.9	+ 8.3
Yugoslavia	1965-1970	3.8	+ 4.6
Sweden	1964-1970	3.7	+ 4.6
Ireland	1965-1975	3.6	
Italy	1965-1975	2.8	+ 1.2
France	1960-1975	1.7 to 3.9	+ 2.3
Switzerland	1965-1975	2.3	+ 5.2
Spain	1965-1975	1.9	+ 0.3
Germany	1960-1975	1.6	+ 0.8
Portugal	1962-1975	0.1 to 1.2	- 0.3
Belgium	1965-1975	0.5	+ 0.3
Luxembourg	1960-1975	0.2	- 0.3

Countries listed in decreasing order of forecast growth rate.

2. GROWTH OF ROAD FREIGHT TRANSPORT (ton-km)

Country	Forecast		Previous situation	
	Period	Yearly average rate of growth	Period	Yearly average rate of growth
1. Yugoslavia	1965-1970	15.0	1960-1965	24.3
2. Sweden	1964-1970	8.3	1960-1964	9.8
3. Portugal	1962-1975	7.7 to 8.1	1955-1962	7.9
4. Spain	1965-1975	7.9	1961-1965	12.4
5. Switzerland	1965-1975	5.5		
6. France	1960-1975	3.0 to 6.4		
7. Germany	1965-1975	3.3	1955-1965	6.7
of which :				
long-distance hauls		2.2		6.9
short-distance hauls		4.6		6.4
8. Belgium	1965-1975	3.2	1955-1965	4.3

Countries listed in decreasing order of forecast growth rate.

3. FREIGHT TRAFFIC GROWTH FOR INLAND WATERWAYS AND OIL PIPE LINES (ton-km)

Country	Period	Yearly average rate of growth	
		Inland waterways	Pipe lines
Germany	1960-1975	2.4	10.6 (1)
Belgium	1965-1975	2.6	—
France	1960-1975	2.0 to 4.3	28.1 to 44.3
Sweden	1960-1970	3.2	—
Switzerland	1965-1975	1.8	31.4 (2)
Yugoslavia	1965-1970	13.0	—

(1) Average 1960-1970 : 14.0 per cent ; 1970-1975 + 4.0 per cent

(2) Average 1965-1970 : 60.6 per cent ; 1970 to 1975 : 7.5 per cent

in the future. On the other hand, the growth rate is expected to rise fairly sharply in all the other countries. The experts consider that rail traffic growth rates in the various countries are likely to be more closely in line than in the past, since countries with above average rates expect to see a decline and those with below average rates, an increase in the yearly growth of rail freight transport.

As regards road goods transport (Table 2), the yearly increase forecast is higher in the eight countries for

which statistics are available. Spain, Portugal, Sweden and Yugoslavia forecast increases of as much as 8 to 15 per cent. For the eight countries combined growth forecasts for road transport are substantially higher than for rail traffic.

Nevertheless, the rate of growth for road goods traffic would seem likely to be rather slower than over the past five or ten years. This suggests if not a levelling-off, at least a somewhat less dynamic growth than in earlier days.



To speed up goods transport, British Rail

The German figures are particularly interesting. Although long-distance hauls greatly contributed to the overall development of road transport in the past, they are expected to increase far less than short-distance hauls in the future: 2.2 per cent as against 4.6 per cent.

The rates of growth forecast for inland waterway traffic (Table 3) show little variation for five out of six of the countries supplying statistics; Yugoslavia is the only one showing a very high rate of growth. Generally speaking growth rates for inland waterways come between those for rail and road transport, except for Sweden and Switzerland where according to the forecasts for inland water transport the growth rate is likely to be slower than for the other forms of transport. It should be noted that the rate shown for Switzerland covers only traffic on the lakes and not shipping on the Rhine or traffic through the two Basle ports, for which only figures for tons loaded and unloaded are available.

The rates of growth for oil pipeline transport are very high, first because this form of transport was on a relatively small scale at the beginning of the period considered, and second, because of the big increase in traffic expected as a result of the new pipe-



ways have introduced freightliner trains

lines to be brought into service up to 1975.

The forecasts for Germany and Switzerland show the annual growth rate reaching its highest point before 1970 (14 and 60.6 per cent respectively), and then starting to decline, before leveling out at 4 per cent and 7.5 per cent respectively.

The ECMT has already made a forecasting study of passenger transport (1) and has tried, subject to a number of reservations of both form and substance, to compare the forecasts for passengers and freight. As regards the substance, the two sectors cover different categories of demand each with its own motivation and economic background. This means comparing somewhat heterogeneous elements, ranging from activities as varied as inland navigation, coastal shipping and pipelines on the one hand to international aviation on the other. A confrontation of this kind must be regarded more as a juxtaposition than a genuine synthesis.

As regards the form, different units are used to measure passenger and goods traffic so that there are only two ways of comparing them : either by taking the number of vehicle km for each category of vehicle in the two sectors, so as to get some idea of the density of traffic, and the distribution

of infrastructure utilisation ; or — and this was the method chosen — by comparing the general trend of demand for the two sectors using average percentage increases or indices.

To ensure maximum comparability, Tables 4 and 5 first give the growth rates for goods and passenger transport separately for rail and road, i.e. the two forms of general purpose transport in which the two types of traffic are of roughly equal weight. The corresponding figures — though not always for the same period — are given for nine countries in Table 4 and for seven countries in Table 5.

As the figures show, rates of growth for rail traffic are of roughly

the same order of magnitude for goods and passengers, with a few exceptions, for instance, faster growth of passenger traffic in Belgium and Portugal and faster growth of goods traffic in Italy, Sweden, Switzerland and Yugoslavia.

In the case of the railways there is no clear trend in favour of one or the other type of traffic. However, Table 5 shows that in road transport the rate of growth is slightly higher for passengers than for goods, with three exceptions, Portugal, Sweden and Switzerland, where the reverse is the case.

(1) *OECD Observer* N° 29

4. COMPARATIVE GROWTH IN RAIL, FREIGHT AND PASSENGER TRAFFIC UP TO 1975 (ton-km and passenger-km)

Country	Goods		Passengers	
	Period	Yearly average rate of growth	Period	Yearly average rate of growth
1. Germany	1960-1975	1.6	1964-1975	1.6
2. Belgium	1965-1975	0.5	1963-1975	1.3
3. Spain	1965-1975	1.9	1964-1975	2.1
4. France	1960-1975	1.7 to 3.9	1963-1975	2.6
5. Italy	1965-1975	2.8	1963-1975	2.0
6. Portugal	1962-1975	0.1 to 1.2	1962-1975	4.3
7. Sweden	1964-1970	3.7	1963-1980	—0.15
8. Switzerland	1965-1975	2.3	1963-1975	1.9
9. Yugoslavia	1965-1970	3.8	1962-1975	2.5

5. COMPARATIVE GROWTH IN ROAD FREIGHT AND PASSENGER TRAFFIC UP TO 1975 (ton-km and passenger-km)

Country	Goods		Passengers	
	Period	Yearly average rate of growth	Period	Yearly average rate of growth
1. Germany	1965-1975	3.3	1964-1975	5.9
2. Belgium	1965-1975	3.2	1963-1975	4.1
3. Spain	1965-1975	7.9	1963-1975	8.9
4. France	1960-1975	3.0 to 6.4	1963-1975	6.8 to 8.0
5. Portugal	1962-1975	7.7 to 8.1	1962-1975	6.5 to 7.6
6. Sweden	1964-1970	8.3	1964-1975	4.6 to 5.1
7. Switzerland	1965-1975	5.5	1963-1975	4.2

TECHNICAL ASSISTANCE OF YUGOSLAVIA: A STUDY

In 1962, OECD, at the request of the Government of Yugoslavia, initiated a programme of technical assistance to help the development of the backward Kosmet Region in Southern Serbia. OECD has since become the only donor of technical assistance with a programme exclusively for the Kosmet. Five years later, OECD and the Yugoslav Authorities felt that it would be helpful to make an examination of the results of the OECD effort in order to try and assess its usefulness to the economic development of the Region. This was the first study in depth undertaken by OECD with a view to evaluating the effectiveness of a particular technical assistance project.

The study was carried out by members of the OECD international staff (Secretariat) on a basis of interviews held in the Kosmet with the directors and staff of the principal farms, factories and other institutions which had received OECD technical assistance. It also drew on the mission reports of OECD consultants and consultants' replies to a special questionnaire sent out by the Secretariat in preparation for the field visits of the survey team.

The Progress of Development

By 1962, when OECD first was asked to assist the Kosmet's programme for development, the Region had already a decade and a half of progress behind it. The proportion of the population dependent on agriculture had dropped from 83 per cent in 1948 to 64 per cent, industrial production had increased three-fold, electric power production twenty-fold, and there were 17 urban centres with a population of over 15,000.

Nevertheless, per capita national income in the Kosmet was still less than one-third the national average, and almost two-thirds of personal expenditures still went on food. The Kosmet authorities realise that despite the notable progress that has been achieved in social infrastructure, the Region is still considerably below accepted standards. Further, the prospects for fully satisfying optimum social criteria in the Kosmet are tending to become increasingly difficult of realisation. While the standard of expectations is rising sharply, the rapid population growth tends inevitably to impose increasing pres-

ures on the social services and by expanding domestic consumption, keeps down the agricultural surplus available for export.

In the post-war reconstruction period, the emphasis in Kosmet planning, as in that for Yugoslavia as a whole, was to develop the basis for heavy industry. Thus, there was intensive investment to expand and modernise mineral extraction (the output of lead from the Trepca mines increased more than eleven-fold) and in particular to exploit the Region's lignite deposits as a source of electric power generation and gas. Today, a single Kombinat (economic enterprise) is proposing to expand lignite production to 25 million tons a year, has power generating capacity of 203 megawatts and provides gas for the steelworks at Skopje. In 1959, heavy industry accounted for 80 per cent of the Kosmet's industrial product.

By the time of the second Five-Year Plan however (1957-1961) the emphasis, again following that of national planning objectives, had shifted to the diversification of industry and the creation of new labour-intensive activities based on the processing of the Region's raw materials. The major effort was concentrated on exploitation of the lignite, which was to be used as the basis of a chemical intermediate industry, permitting the production of plastics, synthetic fibres, fertilisers, etc. In addition, light industries

TO THE KOSMET REGION STUDY IN EVALUATION

Interviews generally followed a check-list of questions, but no written answers were required. Nor were any questionnaires distributed in advance.

The study did not try to make a quantitative assessment of OECD's contribution to the development of the Region. It sought instead to make a qualitative appraisal, based in part on a number of detailed case studies of the major technical assistance activities undertaken under the OECD programme. In so doing, the objective was not to pass a retrospective judgment on past performance, or try to assess a percentage success rating for each activity.

The intention was rather, by revealing the strong and the weak points of the assistance provided to date, to identify those kinds of technical assistance action which appear to be of most use for the development of an area such as the Kosmet.

The present article has been contributed by Miss Margaret Wolfson, an administrator in the OECD Technical Co-operation Service, who was responsible for preparing the Kosmet study.

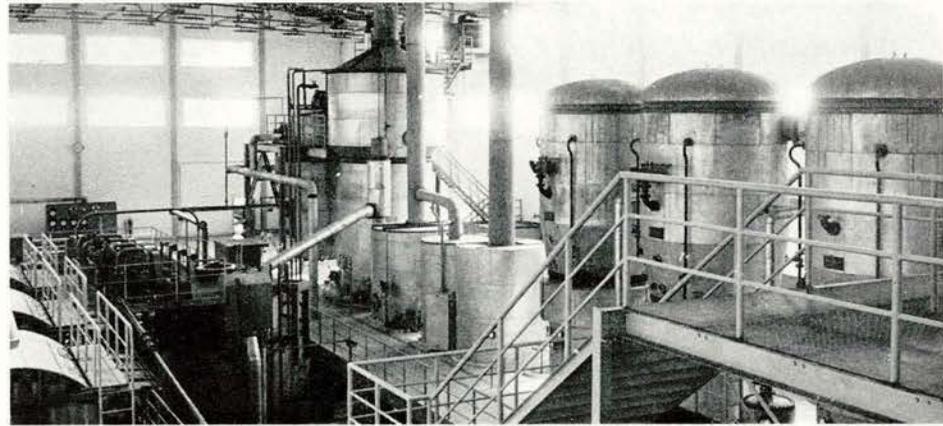
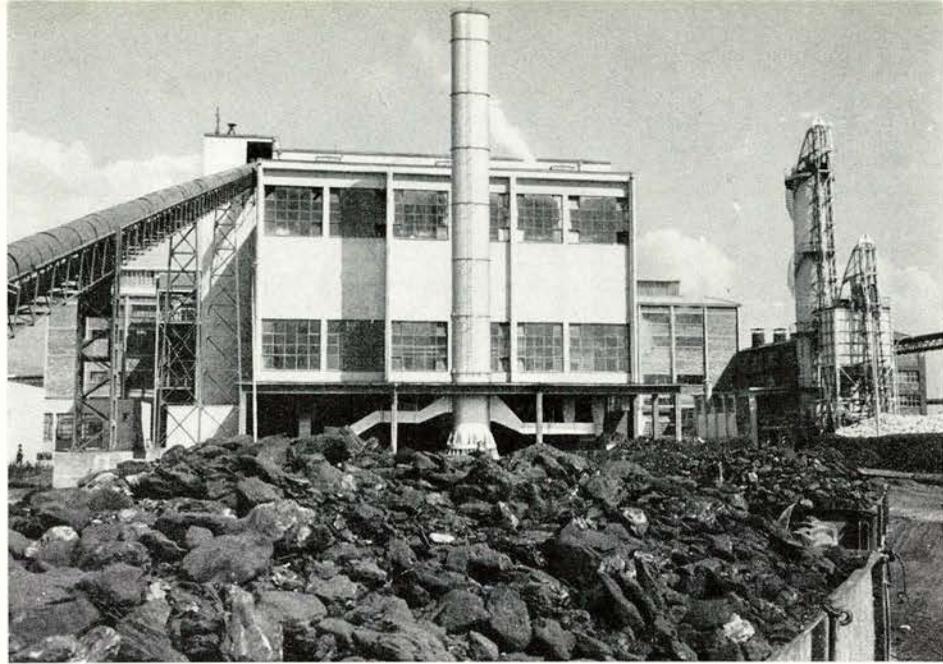
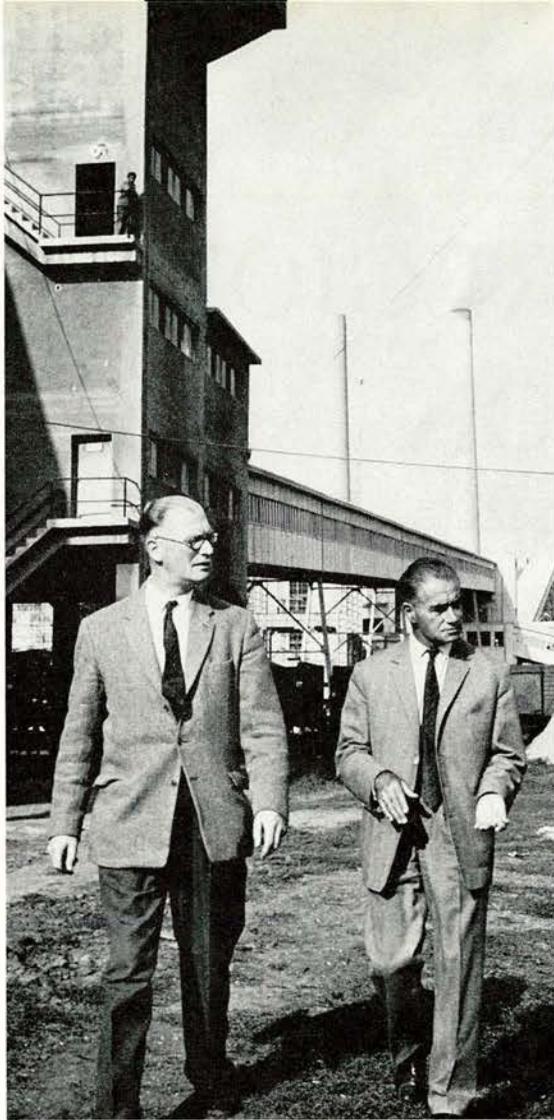
such as footwear, food-processing and building materials were to be expanded and modernised.

The Kosmet plans squarely put the best hope of remedying the economic stagnation of the Region on the development of the industrial sector. Agricultural production was however to be intensified and modernised. This goal was to be achieved in part by means of socialised farming, pioneering the advantages of modern production methods, techniques and equipment. The private farmers would be helped to emulate this example by means of co-operatives and extension services. Irrigation was to be made more efficient, livestock breeding improved, fruit and vegetable production undertaken on a larger scale and plant and animal diseases control made more effective.

These methods have brought results in overall production figures. The productivity of Kosmet agriculture, however, still remains low. One reason is that the private farms, which still represent the major part of Kosmet agriculture, consist, for the most part, of plots too small and fragmented to permit anything other than a persistence of old-fashioned extensive farming, accompanied inevitably by much concealed unemployment (over 60 per cent of Kosmet peasants own less than 5 ha and many less than 2).

The larger farms and Kombinats on the other hand, although heavily capitalised, just because of their size, are liable to a new set of problems — of organisation, management and operating efficiency.

Taking the economy as a whole, the Region has shown an overall growth rate between 1952 and 1964 of 4.4 per cent. This is well below the rate for Yugoslavia as a whole and, further, is considerably below that of the other under-developed regions of the country. The most significant feature of the Kosmet's development since the war, however, is that the rate of growth, slow at the beginning of the period, has in recent years quickened markedly. Until about 1960, the growth of Kosmet gross national product in relation to that of the rest of the country pointed up the tendency for the gap between the poorer and the richer regions of the world to become progressively wider. Since 1960, however, statistics show a reversal of this trend. Between 1960 and 1964, the total national product of the Kosmet region had increased by 50 per cent while that of Yugoslavia as a whole rose only 30 per cent. This may be explained by the development of Kosmet industry which registered an increase of almost 100 per cent over the period and would suggest that the heavy investments made in previous years in the expansion of basic industry and mineral extraction were now beginning



to pay off. The increase of agricultural production was less dramatic (21 per cent), but again notably higher than the national average. The most significant growth outside of industry occurred in the transport and communications sector (nearly 90 per cent) and trade and catering (45 per cent).

The period in which OECD was assisting the Kosmet with its development plans thus coincided with the first marked acceleration of the Region's economic growth. It also was a period of significantly increased availability of investment funds, primarily from federal sources, but partly, too, because the Kosmet economy was in a better position to generate some of its own capital formation. This generally optimistic picture is however marred by the situation on the labour front. The total employed labour force seems to have grown over the period at an average rate of 3.2 per cent a year, which is less than half the increase envisaged in the plan for 1961-1966 and clearly falls considerably short of the target of 10,000 new jobs a year. At the present time, with an average of 40,000 new births a year, the Kosmet has to reckon on exporting 7-10,000 a year of their excess manpower to other parts of Yugoslavia.

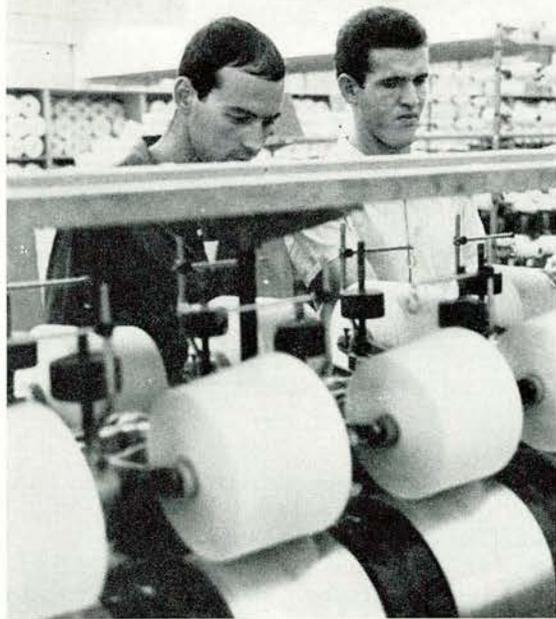
The Kosmet is now entered upon its third phase of development policy. The new emphasis, as in national policy, is on productivity, so that domestic industry can effectively compete in the international division of labour. It involves, inevitably, a new approach to the problems of planning and investment

options and a higher degree of management skills and operating efficiency.

The Programme and its Progress

The analyses of individual activities, the discussions with the enterprises and institutions which have received OECD assistance, and the comments of the consultants, all provide ample testimony that the OECD programme of technical assistance to the Kosmet has made a net positive contribution to the development of the Region. This conclusion, however, has never, been seriously in doubt. Indeed, it would hardly be expected that an input of technical assistance extending over a period of four years, costing over \$ 240,000 and covering 342 man-weeks of consultant services and 351 man-weeks of training would do otherwise than yield a net benefit to the recipient. At the same time, it would not be realistic to expect that this input would yield its maximum benefit, even making due allowance for the human, administrative and other factors that inevitably complicate the course of technical assistance operations. Less than total effectiveness is inevitable.

The principal findings of the evaluation survey are



Natural resources such as lignite play an important part in the development of the Kosmet region of Yugoslavia. On the left, OECD consultants are seen visiting the Kosovo Kombinat power plant. Above, left, lignite is delivered at a sugar beet factory, whose interior is shown in the lower picture.

Above, a modern textiles factory near Djakovica.

Right, cattle being fed at a state farm. The productivity of Kosmet agriculture remains low; farming methods are old-fashioned (lower right).

summarised below under three main headings: the content of the programme, its execution and its management.

The Content of the Programme

The drawing up of the Kosmet Technical Assistance programme has consistently been done with the greatest care. Considerable effort has been devoted to ensuring that the programme was well balanced, avoided proliferation of activities and was consistent with the objectives of the Kosmet Plan.

The programme thus can claim to have supported some of the Plan's major development targets. There are, however, a number of significant omissions. Thus, there has been no assistance directed to the development of basic infrastructure, planning techniques and methods, improvement of transport, or technical and general education.

Within the sectors of industry and agriculture, the emphasis of OECD assistance has been primarily on problems of increase of production. This clearly reflected the strong bias of Kosmet interest during the period. Apart from one major feasibility survey to explore the technical possibilities of exploiting lignite for the establishment of a chemical industry,

OECD has not been asked for advice at the pre-investment stage of a project proposal.

This preoccupation has also had the effect of diverting attention from questions of distribution and marketing. Certain projects were designed to include these problems as part of assistance to the development of an industry as a whole (e.g. textiles, fruit and vegetable processing.) They have, however, usually tended to get lost as the project has developed.

One other negative feature of the OECD programme is that it has not focussed particular effort on the building up of local institutions. Certain research institutes have been given technical advice, but there has not been any concerted action to strengthen a particular institution as a means of enabling it to perform effectively some given task. Consultants have sometimes suggested this, but the difficulty has usually been lack of finance or personnel.

Execution of the Programme

• *Consultants*

One point on which there was general agreement was that most consultant missions had been too short. This criticism applied not only to the brief

reconnaissance missions which usually precede the main task and which, while indispensable to the consultant to enable him to size up the job, are frequently a nuisance to the recipient institution, but also to the main missions that followed. The short visit (3-4 weeks) was fully effective only where what was needed was high-level consultant advice and exchange of experience between technical specialists. These cases, however, were relatively few and most of the Kosmet projects involved giving help and advice to numbers of people of varying levels of expertise and in making practical demonstrations of new techniques. Longer missions, it was felt, would make the initial "adjustment" period for the consultant proportionately less, and would give the receiving enterprise more chances of getting accustomed to the consultant's viewpoint and methods of work.

The sharing of consultant advice among a number

of different enterprises, even if their problems are very similar, (as in fruit-growing projects), has not been effective. Interchange of experience and dissemination between enterprises is not generally satisfactory and assistance organised on an "industry-basis" is not, therefore, a workable reality in the Kosmet. Where the consultant was associated for any length of time with one particular enterprise, on the other hand, mutual understanding and confidence had a chance to develop.

In the last analysis, the success of consultant missions is seen to have been determined by the attitude of the enterprise concerned. The fact that the same consultant sometimes achieved excellent results with one enterprise and poor results with another, demonstrates clearly the importance of this factor of mutual confidence. Where such confidence was established, enterprises frequently not only sought

TECHNICAL ASSISTANCE ACTIVITIES UN

The outline of the programme was first laid down by an exploratory mission carried out by an economic consulting firm in 1962. It was understood at that time and has been generally accepted since, that the preparation of the development plans for the Region would be applied to the implementation of some of the major objectives of those plans.

In order that the different technical assistance activities of OECD in the Kosmet should be co-ordinated and administered as a coherent programme operation, a Project Manager was provided as part of the OECD assistance to the Project. His functions were taken over, as scheduled, by the Kosmet Authorities themselves in 1965.

ACTIVITIES IN THE FIELD OF INDUSTRY

- Exploitation of lignite and derivatives
 - Recommendations and plans for the establishment of a chemical research laboratory;
 - Major pre-investment study on the technical feasibility

of using lignite for the establishment of a chemical industry;

- Technical advice on the large-scale expansion of lignite production;
- Proposals for the industrial uses of lignite ash;
- Study of the possibility of establishing a caprolactam industry to produce nylon-6.
- Advice on the control of industrial effluents.
- Examination of the feasibility of exploiting mining of chromates.
- Technical help for the improvement of textile production (continued over a 4-year period) (2).
- Recommendations on the improvement of industrial training.
- Study of the possibilities of developing local handicrafts.

ACTIVITIES IN THE FIELD OF AGRICULTURE

(Principally in the socialised sector and research institutions)

- Technical advice on the improvement of animal husbandry — covering breeding, feeding stuffs,

disease control, raising the quality of milk and beef production and the introduction of large-scale pig-breeding.

- Broad programme of experiments and recommendations on the better use of irrigated land — covering introduction of sprinkler irrigation, land use, cultivation of luzerne and vegetables, plant protection. (continued over a 4-year period) (2).
- Advice on quality fruit production in large-scale orchards (1).
- Technical help on the production of sugar-beet, a new crop in the Kosmet, to supply the newly-established refinery. (2)
- Study on methods of improving farm management on the large farms and co-operatives.
- Initiation of research and experiments into methods of exploiting the Region's forest resources.

THE KOSMET REGION

● *Constitution*

Two provinces (Kosovo and Metohija) of the Republic of Serbia.

the advice of "their" consultant on a wide range of problems outside the immediate scope of his mission, but often remained in contact after the conclusion of the mission and continued to write for advice and to exchange documentation.

Generally speaking, the consultants who were called upon to give practical advice on "know-how" (spinning, sprinkler irrigation, preparation of vaccines) were the most appreciated since the enterprises usually much preferred being shown *how* to do something to being advised as to *what* they should do. Where the subject of the assistance was of a more abstract or theoretical nature (e.g. cost-accounting), giving advice by means of seminars (to representatives of all the interested enterprises), proved of little real value. It is clear, on the contrary, that where the subject is one that does not readily commend itself to the imagination of a predominantly production-minded reci-

ipient, a special effort should be made to present the alternative methods recommended as persuasively and on as personal a basis as possible.

● *Consultant's Report*

Some enterprises have taken the consultants' reports very seriously, setting up special groups of managers and workmen to discuss them and putting major recommendations to the Workers' Council. In the textile industry, where contacts between individual enterprises seem to be good, representatives of other enterprises were invited to participate in these discussions. Among the agricultural Kombinats, such examples of co-operation seem to have been rare.

(Continued on page 20).

DEBT TAKEN BY OECD IN THE KOSMET⁽¹⁾

Situated in the South-Eastern part of Yugoslavia. Became an autonomous Region after the Second World War to take account of the interests of the large Albanian minority.

● *Area and Population*

10,000 sq. km. Approximately 1 million people — 5.5 per cent of the total population of Yugoslavia of which it is the most densely populated region with the highest rate of population increase.

● *Natural Resources*

Abundant and varied mineral resources; one of the largest lignite (fuel) deposits in Europe; good reserves of lead, zinc and other non-ferrous metals. Agriculture; a predominantly mountainous region, providing only a small part sufficiently extensive for intensive farming, modern methods of irrigation and mechanisation. A wide variety of crops, quality beef and dairy production, good vine and fruit-growing potential, forests.

● *Labour Force*

A major resource by reason of its abundance, but difficult to har-

ness to modern economic production. Illiteracy fell from over 90 per cent in 1945 to 40 per cent of the total population (women 56 per cent) in the census year 1961 but is still twice as high as for Yugoslavia as a whole and 20 times higher than the developed Republic of Slovenia.

Low educational level: large numbers receive some form of vocational training but in general level is below that required for industrial competitiveness or agricultural efficiency.

Policy of workers' self-management (industry, socialised agriculture, public services, banks, the administration) involves strains which call for an intensive effort of intellectual investment.

● *Financial Resources*

Largely from the Federal Government; important federal grants for development of extractive industries. Under Second Five-Year Plan (1957) Kosmet was designated as an under-developed area qualifying for special federal development funds; but 40 per cent of the national territory and 34 per cent of the total population of Yugoslavia come into the under-developed category, thus

providing severe competition for allocation of federal funds.

● *Industrial and Agricultural Output*

Kosmet provides producer resources which are largely processed, transformed and finished in other regions; a proportion of finished consumer goods is then imported to satisfy consumption needs. Result has been to transfer wealth from the poorer to the richer regions; since the economic reform of 1965, however, prices of raw materials have risen, offsetting a part of the earlier disadvantaged position.



(1) OECD technical assistance covers provision of consultant services and training only. It does not include gifts of equipment.

(2) Detailed case studies of these activities are included in the Report.

Consultants' reports came in for one general criticism. Most reports begin by a review of the existing situation in the particular field. This is useful to OECD and to succeeding consultants; but Kosmet enterprises feel that they are wasting time and money to be told facts about themselves that they have known for years. It is therefore desirable to prepare reports in two parts — the background information staying with OECD, and the advice and recommendations submitted to the Kosmet.

• *Training*

Training programmes have been arranged almost exclusively as support and follow-up of actions started by consultant missions. Most of them were arranged by or in collaboration with the consultants concerned and usually involved a study visit at the consultant's home institution as part of a broader fact-finding tour. Most of these visits, particularly those of people at the higher technical level, were a manifest success, sometimes resulting in marked improvements in the techniques employed from one year to another. The main problem in arranging training programmes has been knowledge of languages, which has sometimes made training abroad impossible for the technician most immediately concerned.

Management of the Programme

• “*Popular*” and “*Unpopular*” Activities

It was sometimes remarked to the evaluation team that such-and-such an expert had been very good “but he did not understand our conditions”. This phrase, clearly meant to indicate that the mission had not been a success, might or might not have been justified as applied to the consultant in question. The comment has, however, very real significance for the programme as a whole.

Reviewing the individual activities, it is obvious that OECD has had its biggest successes in those fields which were the most “popular”. Thus OECD has shown how to open up new mines, produce new chemicals, manufacture better textiles, produce more and better fruits, rear healthier sheep, etc. All of these were things that the Kosmet were extremely interested in doing. Technical assistance was accordingly very welcome as a means of achieving the desired results more rapidly and there was a general predisposition to take its recommendations seriously.

This raises the question as to what was the situation in respect of those activities which were not so popular. They were not necessarily the less important. Indeed some of them were probably more basic to the balanced development of the Region over the long-term than the improvement of particular branches of production. The experience has been

that assistance directed to these often fundamental but less popular activities has usually tended to founder. It is the opinion of the evaluation team that it did so, not because these projects were less well planned or executed than other technical assistance activities, but because they failed to appreciate the importance of those local “conditions” which constituted, albeit perhaps unconsciously, a built-in resistance.

The technical expert who visits the Region for the first time and stays for only a few weeks at most may be expected to try and find out whether there are any structural limitations (such as shortage of funds or legal obstacles) to the implementation of his recommendations. It is not reasonable to expect him to understand the basic attitudes of the authorities (sometimes difficult to discern) towards the particular problem with which he is concerned.

Nevertheless, such understanding is indispensable to the success of his task. Simply to prescribe a source of action which *should* be taken, without at least some appreciation of the possibilities of whether it is *likely* to be taken, is only a partial solution to the problem.

This attempt to evaluate the contribution that Technical Assistance has made to the Kosmet reveals an essential dilemma in the function of technical assistance. Technical assistance is manifestly not performing its maximum service when it is applied to activities which would have been undertaken without it, even though it may help realise those activities more economically, earlier, or possibly better, than might otherwise have been the case. Countries do not necessarily need technical assistance to tell them to invest, to expand, to produce — these are objectives that commend themselves naturally to economies seeking accelerated development. Nor is technical assistance always necessary to advise on *how* to do these things, for this is “know-how” often obtainable elsewhere.

The special contribution of technical assistance is to provide countries with help on those aspects of their development proposals that are frequently in danger of being overlooked, to advise on those actions that either do not get done at all, or else get done too early or too late, or perhaps inadequately. This very often consists of what may be termed, if not negative, at least cautionary advice: e.g. make more forecasts; study the market; check the costs; train the labour, etc. Such advice represents the correctives, the checks, the underpinning of development plans. But it is understandably not always welcome to a country bent on developing as rapidly as possible. The really valuable technical assistance, in other words, is sometimes “unpopular”.

The Kosmet programme, in its later stages, has reflected this dilemma. The production type activities are diminishing. The more recent problems for which technical assistance has been requested are, instead, tending to fall increasingly in the “cautionary” category — market studies, long-term forecasts, project analysis. Such activities will not yield speedy and visible results. They can however make for a useful mutual collaboration in the future development of the Region.

Main points from the

OECD

ECONOMIC

OUTLOOK

DECEMBER 1968

The OECD Economic Outlook, No 4 contains an assessment of economic prospects in 1969. It takes account of the November monetary crisis - the third in twelve months - and the policy changes some major OECD countries made after it.

In 1968 - and somewhat contrary to some earlier expectations (1) - OECD output and trade continued to expand strongly throughout the year. GNP probably rose by more than 5 per cent in volume against 3 1/2 per cent in the previous year. Unexpectedly strong demand in the United States and the United Kingdom generated expansionary forces in many other countries - though there was some slackening of expansion in Italy and in France output was reduced by the strikes in May. Total OECD exports and imports both rose by about 12 per cent as compared with 5 1/2-6 per cent in the previous year.

Prospects before the Crisis

Before the crisis, the prospect for 1969 appeared in many respects favourable. Outside the United States, expansion seemed likely to remain quite rapid in 1969; several countries were likely to move away from unsatisfactory levels of employment and capacity utilisation. There seemed, nevertheless, little general risk of overheating, though for dif-

(1) A slowdown in the second half of 1968 was foreseen in the last issue of the *OECD Economic Outlook* published in July.

fering reasons the rise in costs and prices constituted a particularly important problem in both the United Kingdom and France. In the United States a slowdown was expected — a necessary and desirable development.

The less satisfactory side of the picture was that disequilibria in international payments seemed likely to persist on a major scale. The buoyancy of internal demand in 1968 has delayed the improvement of the current balances of both the United States and the United Kingdom. Each country could look forward to a major improvement in 1969, but because of the delay, this was likely to go less far than previously hoped. Equally important, a major imbalance between the three biggest Common Market countries was probable. The dangers to the franc in 1968 had not been due to weakness on the current account, but this was likely to develop in 1969 at a time when Italy and Germany would be running current surpluses almost as large as 1968.

In these circumstances, there was clearly room for doubt regarding the viability of payments balances in 1969. It was uncertain how far Germany and Italy would be able to maintain the large capital exports which had helped to produce the very favourable swing in the United States' capital account in 1968. The delay in strengthening the United Kingdom's payments position had continued to breed distrust of sterling, which might stand to be magnified by distrust of the franc. The basic reason for the prevailing lack of confidence lay in the too tardy adjustment process of a number of deficit and surplus countries and it came to a head in November. Though the dollar was not directly exposed in the latest crisis, speculation was probably magnified by the speed with which it followed the gold crisis of March.

In order to protect the parity of her currency, France has acted to restrain internal demand, has shifted taxation in favour of exports and against imports, and reimposed severe exchange controls and credit policies to stem the capital outflow. Germany has introduced a temporary system of export taxes and import subsidies for non-agricultural trade and has acted to discourage speculative capital inflows. Immediately after the Bonn conference, the United Kingdom also announced actions to restrict domestic demand and introduced a deposit scheme for imports. Without necessarily solving the problem, these measures are likely to reduce payments disequilibria in 1969. Exchange rate changes were avoided. France has had to sacrifice part of the growth she might otherwise have had in 1969. Moreover, Germany, France and the United Kingdom have all adopted taxes or other devices directly to influence trade, and the freedom of invisible and capital movements has further been restricted. Such measures, even if temporarily necessary to allay the crisis, are departures from rules generally held desirable. It is nonetheless encouraging that, despite the disturbances of the last twelve months, the dismantling of tariff barriers has proceeded according to plan.

Prospects after the Crisis

The forecasts are naturally liable to be affected by further policy changes, but on present policies a reasonably firm assessment of prospects seems possible.

Despite the strength of current indicators, the pace of expansion should slacken in the United States; and given the strength of the inflationary pressures which have now built up, monetary restraint and the maintenance of at least the present degree of budgetary restraint would seem needed. In France demand is likely to increase less than capacity, with a deterioration in the employment situation to an extent depending on how long it proves necessary to maintain the present restrictive policies. Domestic demand should also rise only slowly in the United Kingdom, leaving room for the necessary improvement in the external balance. In almost all other countries the outlook is for a satisfactory rate of expansion. In Germany some easing of demand management policies may be needed to compensate for the reduction in the external surplus. And in Italy quite rapid expansion will still leave a large margin of unused resources.

In all, the total GNP of the OECD area should rise by around 4 per cent in 1969, as against more than 5 per cent in 1968 and 3 1/2 per cent in 1967. This should lead to a significant, but by no means disastrous, deceleration in the growth of world trade. Year-on-year, OECD exports and imports might both rise by 8 per cent in value compared with 12 per cent in 1968. A number of the primary producing countries could run into financial difficulties, and exports to non-OECD countries may slow down rather markedly during the course of the year.

The Need for Adjustment

The measures taken in November should result in a substantially better development of France's balance of payments, should strengthen the United Kingdom's external position, and reduce Germany's current surplus. But large imbalances in international payments still seem likely to remain, and it is clearly essential that maximum possible progress be made in 1969 towards a more balanced situation. Progress needs to be made simultaneously by all the major countries suffering from imbalance, because action by an individual country affects the others but not always helpfully. Thus, Germany's recent measures, by themselves, will help France strengthen her position but will also serve to increase Italy's large current surplus. And action by the United States to improve the external balance will help to bring down the German and Italian surpluses, but, in the absence of simultaneous action by the latter countries, will make the task of France and the United Kingdom that much harder.

One general feature of the adjustments called for

requires emphasis. Whatever the method of adjustment a deficit cannot be reduced unless domestic demand rises less than output — so that a greater proportion of output is used for export or to replace imports. Even when special measures are taken to favour exports or discourage imports — as in the case of the French tax changes — there is a concomitant role for demand management. And the same is true, in reverse, of action to reduce the current surpluses of Italy or Germany — whether these take the initial form of stimulating domestic demand, or special measures to encourage imports and discourage exports. Domestic demand will have to rise more than output so that a greater proportion of demand is satisfied by imports or by diversion of goods from export.

Primary responsibility for action lies with individual governments — and the task is difficult not only because of the complex nature of balance of payments adjustment, but because of the social and

political problems it entails. But individual action in the balance of payments field necessarily impinges on other countries, and its success is necessarily affected by the action which other countries take. It is therefore improbable that disequilibrium will be eliminated unless it is the result of co-ordinated action between the major industrialised countries; the fact that action has been inadequate over the past year reinforces the need for more determined co-operative effort in the immediate future. There is no easy way out of the problem : no reform can relieve countries of the necessity to adjust, nor make adjustment painless. Nor is it reasonable to expect that countries would be willing to accept a more rigorous system designed to force them to adjust regardless of the consequences for other policy objectives. Thus it should always be borne in mind that the international monetary system cannot do more than provide a framework which helps and encourages.

OECD DEMAND AND OUTPUT

The Current Situation

OECD industrial production rose steadily in the eighteen months up to October 1968, in spite of the French strikes in May-June and the steel stock adjustment in the United States in August. Disregarding irregularities introduced by special factors, the underlying trend seemed somewhat less strong in the spring of 1968, following the sharp upturn between mid-1967 and end-1967; since the summer, however, there has been a renewed acceleration.

Country to country experience varied widely. Out-

put has flattened out in Italy since the early spring but started to increase again in the autumn, and in France, after a relatively unsatisfactory performance in the months immediately following the strikes, output in October was well above the pre-strike level. In the United States industrial production fell slightly in August but increased again in September and October. In Germany, the rise in output accelerated considerably during the summer months, although the month-to-month changes in the index were very erratic; and in Japan, a new spurt started in the spring, while the steady upward trend continued in the United Kingdom and in most of the smaller industrialised countries.

After the hesitation in May-June caused by the French strikes, OECD imports grew exceptionally fast in the summer months. Apart from the generally strong demand conditions, this acceleration can be explained by the after-effects of the strikes, and by the tariff reductions under the Kennedy Round and the completion of the EEC customs union. But it also reflected the continuing abnormally high level of imports in relation to domestic output in the United States and the United Kingdom. In September OECD trade was further boosted by the anticipation of a dock strike in the United States, and in October by the effect of revaluation rumours on German exports and by the expected reduction in the French export subsidy from November 1st onwards.

OECD INDUSTRIAL PRODUCTION AND IMPORTS

(index numbers 1967 = 100)

	1967		1968		
	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter
Industrial production	99.8	102.1	103.3	104.2	106.8
Imports	99.1	103.8	107.3	108.6	115.4

1. CHANGES IN REAL GROSS DOMESTIC PRODUCT AND TOTAL DOMESTIC DEMAND (including stockbuilding)

Estimates and Forecasts (percentage at annual rates)

Country or group of countries	Weight (a)	From previous year				From previous half-year (b) (seasonally adjusted)			
		1967	1967	1968	1969	1968		1969	
						1st half	2nd half	1st half	2nd half
United States	GNP	52.0	2.4	5	2 ½	5.8	4 ¾	½	4
	DD		2.7	5 ½	2 ¼	6.5	4 ½	½	4
Canada	GNP	3.8	2.8	4 ½	4	6.2	3 ¾	3 ¼	5 ½
	DD		1.4	3 ½	4 ½	4.6	5 ½	3 ½	4 ¾
France	GDP	6.4	4.4	3	5 - 6 ½	—5	19	••	••
	DD		4.5	3 ½	4 ¼ - 6 ¼	—5	20	••	••
Germany	GNP	8	—0.2	6 ¼	5	5.8	8	4 ¼	3 ¾
	DD		—2.4	6 ½	6	5.9	7	6	4 ½
Italy	GDP	4.4	6	5	5 ½	5.4	5	5 ½	6 ¾
	DD		6.6	4	6	2.1	7 ¼	5 ¼	7
United Kingdom	GDP	7.1	2	3 ¾	2 ¼ - 2 ¾	4 ½	2 ¾	2	3
	DD		3	3 ¼	½ - 1 ¼	3 ¼	1 ½	—¼	2 ¼
Other Europe	GDP	10.6	4	4 ½	4 ½	4 ½	5	4 ½	4 ½
Japan	GNP	7.7	13.3	11 ¼	9 ½	10.8	11	7 ½	12
	DD		15.2	10	10	7.8	10 ½	8 ¼	12 ¾
Total OECD	GNP = DD	100.0	3.4	5 ¼	4	5.¾	5 ½	2 ½	4 ¾
<i>of which</i>									
OECD excl. U.S.A.	GDP	48.0	4.5	5 ½	5 ½	5. ½	6 ½	4 ¾	5 ½
OECD Europe	GDP	36.5	5.0	4 ½	4 ½	4. ¼	6	4 ¼	4
EEC	GDP	21.6	3.1	5	5 ¼	4. ¼	7	5	4 ¼

GDP = Gross Domestic Product GNP = Gross National Product DD = Total Domestic Demand (including stock building)

(a) Member countries' GDP for 1967 converted into dollars at current rates of exchange.

(b) The half-yearly figures for the total OECD and the three sub-totals have been adjusted for the distortions caused by fiscal measures in Germany at the end of 1967 and by the French strikes.

The Prospects for 1969

Outside the United States GDP should be growing by about 5 per cent in volume through 1969. Demand should be rising roughly in line with capacity in Germany, Italy, Japan, and several of the smaller European industrialised countries; unemployment, however, seems likely to increase in France, and probably also in Canada and the United Kingdom. There seems little likelihood of any generalised tendency towards excess demand pressures, but wage and price increases may accelerate somewhat, and both France and the United Kingdom are, for different reasons, facing a difficult cost/price situation.

In the United States a slowdown is expected in 1969,

the extent of which will depend considerably on policy decisions to be taken by the new Administration. On certain assumptions discussed further below, GNP might show a year-on-year increase of around 2 1/2 per cent in real terms, compared with 5 per cent in 1968. For the OECD area as a whole this would give a rise in GNP of about 4 per cent in 1969, and an 8 per cent growth in the value of OECD trade.

The most recent indicators suggest that demand in the United States may again be stronger than expected in the fourth quarter. The main impact, however, of the package of fiscal restraint — on both the expenditure and revenue side — will be being felt in the first half of 1969. Some part of this marked swing in the Federal Budget position may be offset by a further drop in the personal savings ratio, and there have recently been

signs of an upward revision in business investment. But monetary policy has shifted back towards a more restrictive posture in response to the unexpected strength of the economy, and if this trend continues a fairly marked slowdown in the growth of demand and output should become apparent during the course of the first half of 1969.

By mid-year, however, the impact of the tax surcharge will be wearing off. If it were to lapse, as at present planned, and if, at the same time, Federal expenditure on goods and services were to resume its normal rise, the result would be another major fiscal turnaround giving considerable new stimulus to the economy. Under these conditions the growth of domestic demand would soon again begin to exceed the capacity growth rate, with a renewed increase in demand pressures. It must be doubted whether such a short cooling off period which was then followed by such a strong upsurge in demand would have much lasting impact on the present unsatisfactory position concerning costs and prices and the trade balance.

If the tax surcharge were retained, or equivalent fiscal action taken, and monetary conditions are tight at least through the first part of the year, GNP might rise by about 2 1/2 per cent, with a pick-up towards the end of the year. Unemployment might rise towards 4 1/2 per cent but by the end of the year it would probably be moving back down to 4 per cent — regarded under the outgoing Administration as an appropriate interim target. But again, the question would arise whether, given the extended periods of excess demand the United States has experienced since 1966 (1), there would be sufficient assurance of a return to an acceptable degree of price stability. There would, of course, be some improvement, and in any case it takes time to break the back of a price-wage spiral. But the estimates made here suggest that under these assumptions about demand management, the general price level might still be rising at a rate not far short of 3 per cent, and money incomes at 8-9 per cent in the second half of next year. The prospects in this respect would probably be significantly better — not so much for 1969 as for 1970 and subsequent years — if the growth of domestic demand were to be held somewhat below that of potential output right through next year.

The dilemma facing the new Administration will be accentuated by the extremely uneven incidence of unemployment. With the present unemployment rate of 3.6 per cent, the rate for adult white males is somewhat less than 2 per cent, which implies very tight conditions in many parts of the labour market. But, at the same time, the rate for all non-whites is just below 7 per cent, that for all juveniles around 12 per cent, and that for non-white juveniles somewhat above 20 per cent. An analysis of past fluctuations suggests that a rise in the general unemployment rate would

widen these differences between the various groups (2). In other words, with a 5 per cent overall unemployment, the non-white rate would exceed 9 per cent, the juvenile rate 17 per cent and the non-white juvenile rate could approach 30 per cent.

These estimates give emphasis to the need to avoid any undue rise in the overall level of unemployment. But they also indicate to what extent the problem is related to enduring social, structural and demographic factors. This emphasises the need, within the context of an appropriate overall demand management policy, for a further strengthening of selective measures designed to reduce and mitigate the incidence of juvenile and non-white unemployment in the big cities.

Canada and Japan stand to be most affected by the course of events in the United States in 1969. By the same token, however, they are the countries whose external balance has benefited most from the pace of expansion in the United States; in the first half of 1968 they both showed a surplus on current account, taken together at annual rate of over \$800 million. On the basis of the assumptions described above for the United States, they might, together, be only about in balance on current account by the second half of 1969. This would still be a relatively comfortable position: in the eight years 1960-1967 they had a combined average current deficit of \$615 million. A longer cooling-off period in the United States — and even more the emergence of recessionary tendencies there — would have more serious repercussions on both countries.

On this basis, GNP in *Canada* is expected to rise by about 3 1/2 per cent in 1969; since this is some way below the growth of potential output (estimated at 5 per cent) unemployment might rise to 5 1/2 per cent during the course of the year. Collectively negotiated wage increases have, however, continued to be around 8 per cent, and until they can be brought down nearer in line with the underlying growth of productivity, the continuation of a cautious demand management policy seems inevitable.

Japan seems likely to experience in 1969 a fourth successive year of strong expansion, with a year-on-year increase in GNP of around 9 per cent, only slightly below the 11 per cent gain now expected for 1968. The policy-induced slowdown in the early months of 1968 proved short-lived, mainly because of the strength of export demand; pressure on capacity has recently been increasing and surveys show an upward revision of investment intentions. The rise in consumer prices has accelerated, and although this owes much to structural rather than conjunctural factors, the general domestic demand situation would seem to call for a certain degree of caution in framing the forthcoming budget (for the period April 1969 - March 1970).

(continued on page 26)

(1) Unemployment has averaged 3.6 per cent in the first ten months of this year, and 3.7 per cent in the 33 months since the beginning of 1966.

(2) Over the past 10-15 years the share of under-privileged groups in total unemployment has risen considerably due to structural changes and demographic trends. Analysis of fluctuations about this general trend suggests, however, that in the short run their proportionate share remains fairly constant.

Domestic demand has been unexpectedly strong in the *United Kingdom* in the autumn, but the new measures taken in November should ensure that enough room is left for the necessary improvement in the external balance in 1969, without an increase in demand pressures which would erode and, in time, undo the competitive advantages gained by devaluation. Domestic demand may rise by 1/2-1 1/2 per cent, depending largely on how far the credit squeeze is pushed and how much it affects stock accumulation and investment intentions. Private industrial investment may be the strongest domestic element of demand, although some projects may be deferred; public sector investment should level out, and there should be little or no rise in the volume of public consumption. After a further buying spree in the closing weeks of 1968, private consumption should flatten right out, so long as the savings ratio does not fall much further and wage increases do not significantly exceed the guidelines laid down by the authorities. Assuming that the foreign balance improved by the equivalent of 1 1/2 per cent of GNP between the second halves of 1968 and 1969, GNP would rise by around 2 1/2 per cent, or by rather less than the growth of capacity (1).

In Italy domestic demand appears to have strengthened in the second half of 1968, under the impact of the earlier stimulus from the strong increase in the external surplus, the reversal of tight fiscal policies and the cessation of temporary adverse factors such as a run-down of stocks in the first half. It is difficult to quantify the impact of the expansionary measures taken since the summer; but it seems likely that it will be small in the short run in relation to the margin of unused resources existing in the economy. On the basis of present information, it seems reasonable to expect a rise in domestic demand of around 6 per cent in 1969 with a moderate reduction in the large external surplus on goods and services.

Though the rate of expansion of output would be about the same as in 1965-1968, and somewhat above the target in the 1966-1970 Plan, it has now become clear that the growth rate needed to absorb the potential increase in labour supply has been seriously underestimated. The rate of productivity increase has been unexpectedly high and employment has risen much less than planned (Table 2). The exodus from the agricultural sector has also been much larger than assumed in the Plan, and there has so far been a net return of workers from abroad rather than a continuing out-flow. The need for a faster rate of growth of employment opportunities in the non-agricultural sector has become all the more pressing. To remedy this situation a growth rate of 7 per cent or more may be needed for several years. Such a rate would not for some time raise any difficulties with regard to costs and prices, and the large external surplus would only decline fairly slowly. For the present, the main problem would seem to be the practical difficulties, given the existing institutional framework, in lifting the economy onto a substantially higher growth path.

2. ACTUAL AND PLANNED EMPLOYMENT CHANGES IN ITALY (thousands)

	July 1965 level	Actual July 1965- July 1968	Medium-term Plan 1966-1970
		annual average changes	
Agriculture	5,111	— 260	— 120
Outside agriculture	14,379	182	280
Total employment	19,490	— 77	160
Expected change in labour supply (a)	• •	• •	120 (b)

(a) Based on demographic projections, normal trends in participation rates and an assumed net emigration of 60,000 workers per year. Actually, there has been a net immigration of 50,000 workers per year in the 1965-68 period.

(b) This figure is smaller than the expected increase in employment: the Plan foresaw a decline in the rate of unemployment from 3.6 per cent in 1965 to 2.85 per cent in 1970.

In Germany the recovery of final domestic demand appears to have accelerated strongly in the second half of 1968. The foreign surplus, however, tended to increase. With reduced stock accumulation, the underlying rate of growth of GNP may have been about 5 per cent (2).

It is difficult to assess the likely impact of the 4 per cent export tax and import subsidy introduced in November, but in the short run it could be rather limited. Since, however, the domestic recovery has now acquired considerable momentum, while restrictive pressures have been taken in France and the *United Kingdom*, the trade surplus might fall by \$1/2 billion and the balance on goods and services by rather more. If this proved correct, the rise in real GNP could be about 5 per cent in 1969, with possibly some easing of demand management policies to compensate for the trade measures. This would imply a growth rate of just over 4 per cent between the second halves of 1968

(1) After declining steadily since the summer, unemployment in October was still 2.3 per cent of the labour force (seasonally adjusted). While this is relatively high by post-war standards for the *United Kingdom*, it may involve less heavy social costs than it would have done some years ago, partly because of improvements in the system of unemployment benefits and partly because the unemployment figure itself has tended recently to include a number of people who would not have registered before the improvement in the system.

(2) The reasons for the distortions in the 1968 time-path of the German GNP figures are explained in the country note on Germany.

and 1969, with demand pressures changing little from the end-1968 position. Wage increases seem likely to accelerate somewhat, but price rises should remain moderate.

If the external surplus were to fall more sharply than envisaged here, the rise in overall demand might well fall short of the capacity growth, and additional policy measures might be required to stimulate domestic demand. On the other hand, with a development along the lines suggested above, the surplus on goods and services would still amount to not far short of 2 1/2 per cent of GNP, compared with the official medium-term target of 1 1/2 per cent of GNP. There would, therefore, be a question as to whether a faster rate of growth would create undesirably strong tensions in the labour market. At first sight, this would seem to be likely, since unemployment should come down to not far short of the official target of 0.8 per cent of total employees, which is unusually low by international standards. In terms of *employment*, however, the situation looks rather different, since even in the second half of next year employment of German nationals may still be more than 600 thousand below the 1965 level (Table 3). In part, this would merely reflect the demographic factors making for a decline in the German labour force; also 1965 was a year of clearly excessive demand pressures. Nevertheless, it seems likely that part of the apparent decline in participation rates has been involuntary; and it has been estimated that there is probably a "reserve" of 300 thousand nationals who could be re-integrated into the labour force, although there would be problems arising from lack of appropriate qualifications and insufficient geographical mobility (1). In addition, with a more active recruitment campaign, the employment of foreign workers could increase more rapidly than assumed in Table 3. There is, therefore, a question to what extent stronger demand for labour might call forth additional supplies without a further significant fall in unemployment and

return to the strained labour market conditions of 1965.

In *France*, before the currency crisis, output had recovered quite quickly after the strikes, imports and exports were at high levels, and there had been some improvement in the employment situation. The pace of expansion seemed likely to slow down after the turn of the year, but the price rise was accelerating and a substantial current deficit seemed likely to emerge in 1969.

The measures taken in November involve a cut in the budget deficit equivalent to 1 per cent of GNP, and a significant tightening of credit policies. The external account has been strengthened by a shift in taxation favouring exports at the expense of domestic sales and imports, and the re-imposition of exchange controls. At present, it is only possible to make a tentative assessment of the likely impact of these measures and the prospects for 1969. In the first place, it is difficult to judge to what extent the restrictive impact may be offset at a time of rising prices by anticipatory buying and larger wage increases; or, alternatively, whether the less optimistic employment prospects may lead to increased precautionary savings and moderation in wage demands. Equally important will be the evolution of official policy. The present strategy — probably inevitable in the circumstances — involves defending the par-value of the franc at the expense of some deterioration in what was already an unsatisfactory employment situation. To the extent that confidence is restored — which will depend essentially on bringing the cost/price situation under control — some relaxation of present policies would clearly be desirable during the course of 1969.

Depending on these factors, the rise in GNP in 1969 should be somewhere in the range of 5-6 1/2 per cent (1). This would be about 3-4 1/2 per cent above what 1968 would have been without the strikes; i.e. less than the underlying growth of capacity (around 5 1/2 per cent), so that unemployment, even with the upper figure for GNP, would be rather higher than at the end of 1967. With imports checked by the low growth rate, and exports stimulated by the tax changes and the measures taken in Germany, the current account with non-franc countries should not be far off balance.

Given the momentum that has already built up, the prospects for sustained growth in quite a number of *smaller European countries* seem reasonably good. For most of these countries this should not lead to excessive demand pressures or balance of payments difficulties, although those countries which devalued in November 1967 will need to continue to keep a careful watch on cost and price trends.

They stand to be differently affected by the restric-

3. EMPLOYMENT CHANGES IN GERMANY

(thousands)

	1965 level	Changes in				1965 to 1969 cumulative
		1966	1967	1968 (est.)	1969 (forecast)	
Germans	26,034	-196	-560	+54	+100	-600
Foreigners	1,119	+125	-230	-14	+100	-20
Total employment	27,153	-71	-790	+40	+200	-620
Estimated change in German labour supply (1)	••	••	••	••	••	-245

(1) Calculated on the basis of demographic projections, assuming constant activity rates in each age group.

(1) See *Mitteilungen des Instituts für Arbeitsmarkt- und Berufsforschung* No. 4, 1968.

(2) These figures for GNP are on the old accounting basis which has recently been revised.

tive measures taken in France and the United Kingdom on the one hand, and the German trade measures on the other, and, as usual, the outlook varies significantly from country to country.

★
★ ★

In concluding this review of 1969 prospects for demand and output and costs and prices, it should be borne in mind that considerable imbalances in international payments seem likely to continue, as discussed in the following sections. So far, the financial crises

of the last twelve months have not had much impact on the growth of output and trade, but they have probably accentuated inflationary psychology and introduced a new element of uncertainty into forward planning. The forecasts discussed above are based on the assumption that countries acting in co-operation are successful in surmounting the present difficulties of payments adjustment without further prejudice to the freedom of international trade, without imposing inflation on surplus countries, and without forcing deficit countries into overly restrictive action with a cumulative impact on world expansion and trade.

TREND AND PROSPECTS IN OECD TRADE

Despite some deceleration expected in the closing months of the year, OECD imports and exports may have grown by some 12 per cent in 1968. A significant but temporary slowdown in the growth of imports is foreseen for the first half of 1969 — largely due to the check to domestic expansion expected in the United States, the United Kingdom and France, but also to the cessation of the various special factors which tended to swell import demand in several countries in 1968. In the second half of the year, import demand may pick up somewhat in these countries, particularly in the United States. This, together with continued strong expansion in most other OECD countries, should result in a marked recovery in the growth of total OECD imports.

The impact on OECD exports of these fairly sharp swings in OECD import demand is expected to be dampened to some extent by fluctuations in demand from non-OECD countries. Exports to primary producing countries may still rise substantially in the first half of 1969, when OECD import demand will flatten out. Later in the year, however, primary producers may react to their extremely large trade deficit with the OECD area and to their resulting financial difficulties by cutting their purchases from OECD countries, and OECD exports to the rest of the world may level off. In all, the year-on-year increase in total exports may slow down to some 8 per cent in 1969.

Countries a large share of whose exports goes to the United States or the United Kingdom were favourably

4. FOREIGN TRADE OF THE OECD AREA (a)

Values, per cent changes, seasonally adjusted annual rates
Estimates and forecasts

	1967 \$ billion	From previous year			From previous half-year				
		1967	1968	1969	1967 2nd half	1968 1st half	1968 2nd half	1969 1st half	1969 2nd half
TOTAL (b)									
Imports	145.7	5.4	12	7½	5.7	14.9	12	5	8½
Exports	140.0	5.9	11¾	8½	1.4	15.8	13½	6¾	6¾
INTRA OECD	97.2	6.4	12¾	8	4.2	17.3	12	5¾	9
EXTRA OECD									
Imports	44.1	3.6	10½	6½	8.8	9.4	12¾	3	7
Exports	41.6	5.2	10¼	9	-7.3	16.0	17½	9¼	1¼

(a) Adjusted for statistical discrepancy in the recording of intra-OECD trade, and for the estimated effects of the U.K. dock strike at end-1967 and the French strikes at mid-1968.

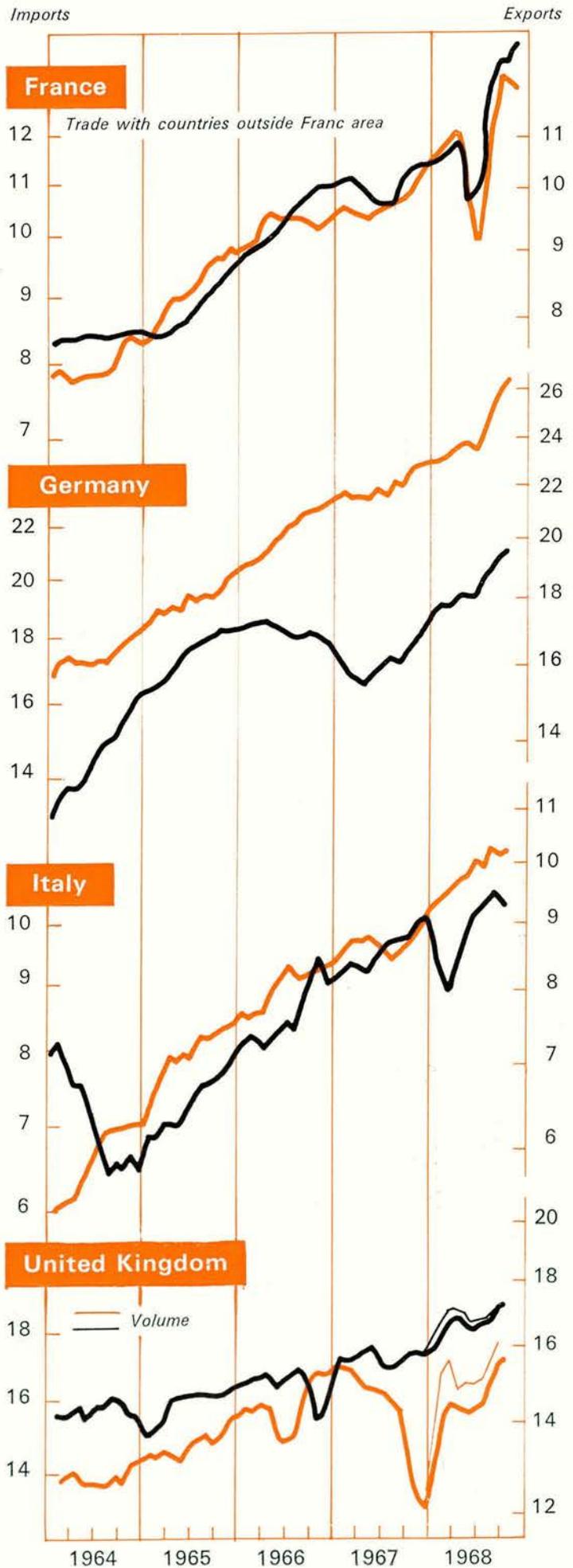
(b) Including trade with unspecified origins/destinations.

A. TOTAL TRADE OF MAJOR OECD COUNTRIES

3-month moving averages, seasonally adjusted
billion dollars at annual rates

Exports Imports

Except for the United States and Canada, the import figures are on a c.i.f. basis, but the import scale (left) has been adjusted downwards to take into account the average discrepancy between f.o.b. and c.i.f.



THE 1961 GERMAN REVALUATION

The recent trade measures taken by Germany to stimulate imports and discourage exports are in many ways similar to a temporary 4 per cent revaluation of the DM applied to trade in goods only. The experience after Germany's previous revaluation (5 per cent on 6th March, 1961) may shed some light on the possible effects of the present measures, though it must not be forgotten that at the time the German economy was confronted by a situation rather different from the present one.

In the twelve months that followed the March 1961 revaluation GNP grew by some $4\frac{1}{4}$ per cent, nearly in line with the growth of capacity. The terms of trade improved by some 3 per cent, and the seasonally adjusted trade balance (f.o.b.-f.o.b.) fell by only \$100 million. This small deterioration was more than accounted for by special factors, notably a surge in food imports which were influenced by the poor 1961 harvest. Excluding trade in food products and government imports (essentially purchases of military equipment), the trade surplus rose by \$400 million between the years ended March 1961 and 1962 though it began to decline from the autumn of 1961.

On the import side, the DM prices of imported raw materials and manufactures fell by over 3 per cent immediately after March 1961, implying only a small rise in foreign currency prices, and slipped back further later, partly under the influence of sinking quotations for primary products on world markets. In the second and third quarters of 1961 the volume of imports (excluding food and government imports) seems to have risen slightly more than would have been expected - on the basis of normal relationships between demand and imports - in the absence of revaluation, but this effect was not apparent in subsequent quarters. The foreign currency value of imports was therefore slightly higher, and the DM value rather lower, than might otherwise have been expected. While it is very difficult to isolate price elasticities from the income effects and other variables entering into the determination of imports, a superficial observation of these trends would suggest that the price elasticity over the first year was very small.

On the export side, German exporters passed on nearly the whole increase in foreign currency prices to their foreign customers. Prices of manufactured goods (90 per cent of German exports) rose by 4 per cent in foreign currencies immediately after the revaluation. For investment goods the price rise was even steeper and by March 1962 prices were $6\frac{1}{2}$ per cent above the level prevailing a year earlier, implying a $1\frac{1}{2}$ per cent increase

in DM prices. In the short run, the effect of these price changes was to increase the foreign currency value of German exports and contribute favourably to export performance results. In the year which followed the revaluation, Germany recorded a gain in market shares measured in terms of foreign currencies equal to 2 per cent of her exports, compared with an average annual gain in the 1960's of 0.5 per cent. The main explanation for this development would seem to lie in the low short-run price elasticity of demand for many of the products that weight heavily in German exports, notably investment goods. In the medium-term, however, the price elasticity seems to have risen appreciably. As alternative sources of supply were found, German export performance deteriorated. By the end of 1961 it would appear that Germany was beginning to lose market shares and in the second full year after the revaluation this loss came to some 3 per cent of her exports.

On balance, therefore, it seems that German imports and exports were faced in the year following the revaluation by relatively low price elasticities, and that the price behaviour of both exporters and suppliers of imports was such that the small volume effects of the revaluation were outweighed by the sharp improvement in the terms of trade. But the situation changed rather rapidly through the year. In the first six months after the change in parity, the terms of trade improved by nearly 3 per cent. This led to a rise in the trade surplus (in value) of some \$300 millions (annual rate) while the volume increase was only slight. In the following six months, the terms of trade improved much less and there was a sharp drop in volume terms, so that the trade balance in value deteriorated at an annual rate of \$1/2 billion.

NON FOOD TRADE BALANCE ^(a)

\$ billion, seasonally adjusted, annual rates

	1960 4th quarter	1961 2nd quarter	1961 4th quarter
	1961 1st quarter	1961 3rd quarter	1962 1st quarter
Value	4.64	4.95	4.47
Volume	4.64	4.73	4.12

(a) Excluding Government imports.

placed in 1968, and will be unfavourably placed in 1969. The rise in Japanese exports may be halved in 1969, and the rise in Canadian exports may drop very sharply. The slowdown in the exports of Germany, Italy and the smaller industrialised countries should be much less marked. In the case of Germany, the export tax is expected to raise export prices and to lead therefore

to losses of market shares in *volume* terms. The effect on total export *values*, may, however, tend to be positive in the short run. The United Kingdom and, to a lesser extent, France, will also be faced with a somewhat slower growth in their export markets. For both countries, however, a more important factor is how far their competitive performance stands to be

affected by the continuing impact of devaluation in the case of the United Kingdom, and by the strong rise of costs and prices — partly offset by recent measures to help exporters — in France. There might be some improvement in the United States' export performance in 1969 because of the expected easing of domestic demand pressures. In this case, the slowdown in the growth of exports would be modest. It is possible, however, that cost increases in the United States economy over the last two years could have a more noticeable adverse effect on export performances than assumed here.

Current Invisibles

Significant changes in the invisibles balance of several countries have occurred in 1968. The United States is likely to show a sizeable improvement (higher investment income and lower transfers and tourist spending abroad). The worsening of the Canadian tourist account is to some extent the counterpart; the latter should now fall back to the trend experienced before the Montreal exhibition in 1967 boosted receipts. The EEC's invisible account will probably deteriorate somewhat in 1968 and a certain re-distribution in invisible balances may take place within this group.

Thanks to a further sharp improvement in the reserve currency countries' invisible transactions, the OECD's total invisible account is expected to revert to near balance in 1969. The rise in United States military expenditures abroad, uninterrupted since 1964, may come to a halt, and receipts of investment income by both countries are likely to grow further. The Common Market's balance may show a new and much sharper deterioration; Germany's tourist spending and foreign workers' remittances should increase as domestic activity rises. Both these factors will be of benefit to Italy, but the growth of Italian foreign travel receipts may be hurt by the French measures, and travel expenditures and freight payments may continue their recent rise. The outcome for French invisibles will depend to a great extent on the exchange control regulations for 1969, which have not yet been announced.

Shifts in Current Account Positions in 1968

It is now useful, by way of summary, to show the implications for different countries' balance of payments of the trends in trade and current invisible transactions already described. As will already be clear, the United States suffered a substantial worsening in its current balance of payments in 1968. The inverse counterpart to this deterioration can be seen in a further increase in the EEC countries' surplus and in substantial improvements in the Canadian and Japanese current balances.

The deterioration in the United States' trade balance

in the first half of 1968 was such that, despite a substantial improvement on invisible account, the current balance swung from a surplus of nearly \$1 1/2 billion in the second half of 1967 to a deficit of \$1 billion in the first half of 1968 (annual rates). Some improvement is expected for the second half of 1968, but for the year as a whole the United States current balance will show a substantial deficit for the first time since 1959.

The United Kingdom's current balance has failed to show the improvement forecast earlier in 1968. Indeed, some deterioration is likely to emerge for 1968 as a whole, with the current deficit reaching a figure of the order of \$1 1/4 billion. For the two reserve currency countries taken together, 1968 is likely to show a current account position some 2-2 1/2 billion worse than in 1967.

Among EEC countries only France is likely to experience a deterioration in 1968, largely as a result of the May-June events. The German current surplus is likely to reach an even higher level than in 1967, while the Italian surplus is expected to rise again by some \$3/4 billion. The Benelux countries may also have improved their current account position by about \$1/4 billion. In all, the current surplus of the EEC area may have risen in 1968 by about \$3/4 billion to some \$5 1/4 billion.

Canada and Japan will both have improved their current account positions in 1968, with a big swing for Japan from a \$200 million deficit in 1967 to \$1 billion surplus in 1968. Among the smaller OECD countries, Denmark, Norway, Switzerland and Spain could have shown significant improvements in 1968.

Changes in countries' reserve positions have, however, not reflected at all closely these developments in their current external accounts. The flow of capital in 1968 to the United States has been on an exceptional scale, as was that out of the Common Market countries. Despite its very poor trading position, the United States has therefore probably had a surplus on official settlements in 1968, while the Common Market countries, despite a current account surplus even larger than in 1967, had lost reserves up to the beginning of November, with the large French losses not being totally offset by other countries' gains.

Prospects for Payments Equilibrium in 1969

One feature of the international payments scene in 1969 should be a substantial improvement in the current account positions of the United States and the United Kingdom, though uncertainties remain concerning its timing and magnitude. On the assumption of a rather marked slowdown in the United States, and of further benefits accruing to the United Kingdom from devaluation, the swing could still be of the order of \$4 billion for the two countries taken together, between 1968

5. CURRENT BALANCES IN 1968 AND 1969 AND LONGER RUN TRENDS

(\$ billion)

	Average 1960-1963	Average 1964-1967	1968 Estimate	1969 Forecast
United Kingdom	-0.03	-0.64	-1.30	0.25/0.65
United States	2.45	3.42	-0.40	1.80
Total Reserve Currency countries	2.42	2.78	-1.70	2.05/2.45
France (a)	0.80	0.27	-0.20	-0.20/+0.30
Germany	0.41	0.23	2.70	1.80
Italy	0.10	1.67	2.40	2.25
Other EEC	0.23	-0.04	0.30	0.10
Total EEC	1.55	2.13	5.20	4.20
Canada	-0.86	-0.75	-0.30	-0.65
Japan	-0.42	0.38	1.00	0.65
Other OECD North	-0.53	-0.74	-0.10	-0.45
Other OECD South	-0.20	-0.70	-0.55	-0.70
Total OECD	1.96	3.10	3.55	5.00/5.50
Adjustments (b)	-0.2	0.3	0.3	0.2
OECD current balance with rest of world	1.8	3.4	3.8	5.20/5.70

(a) Transactions with non-franc countries.

(b) For inconsistencies in recording of intra-OECD transactions.

and 1969. Their combined deficit in 1968, estimated at \$1 3/4 billion, might then give place in 1969 to a surplus of \$2 1/4 billion. Of this swing, about \$3 billion should come from an improvement in trade balances, and \$1 billion from an improvement in other current account items.

This progress towards payments equilibrium would, however, still leave a number of reasons for disquiet about the prospective developments in 1969. Despite the size of the expected swing in the position of the reserve currency countries, the level of their current account surpluses in 1969 would still be well below the average recorded in the period 1960-1967. For the United States the forecast current surplus of \$1 3/4 billion is well below what has up to now been regarded as a viable level; and that forecast for the United Kingdom for the second half of next year (a range of a surplus at annual rates from \$0.6 to \$1 billion) could be less than needed for full achievement of the official aim of a surplus on the basic balance running at a rate of £500 million (\$1.2 billion) before the end of the year. Largely as a consequence, the EEC countries' combined surplus may still be running at a rate of \$4 1/4 billion, which is well above any reasonable medium-term aim for this group of countries.

A second disquieting feature is the considerable

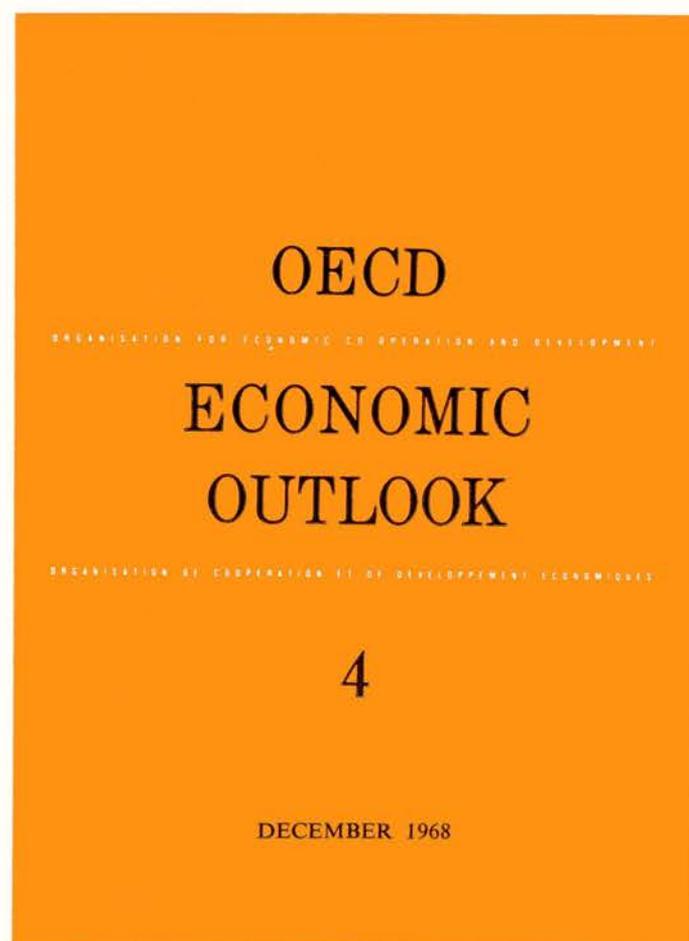
degree of imbalance likely between the three major EEC countries. The measures taken following the November crisis should result in a substantially better development for France, and should help to reduce the German surplus. Despite this however, both the German and Italian surpluses are likely to remain large in relation to GNP and appropriate medium run balance of payments aims.

Thirdly, as already noted earlier, there is a question as to whether sufficient finance will be forthcoming on a continuing basis to cover the large current deficit foreseen for the primary producing countries as a group in 1969.

Other Features

This issue also includes an analysis of international capital movements in 1968 and prospects for 1969.

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STUDENT UNREST: IMPACT ON EDUCATIONAL SYSTEMS, THE ECONOMY AND SOCIETY IN GENERAL

What is new about student unrest is not the unrest itself; nor is there anything to the notion that the current student crisis stems from recently developed "social unrest". What is new is the means through which students are now attempting to deal with this unrest and to use their newly discovered power to change the larger system.

Student manifestations have occurred in most parts of the world and have affected countries irrespective of their particular socio-economic and political regimes. The movement has applied itself equally in ultra-centralised and rigid systems of education and in more open and diversified ones.

The process of student rebellion seems to have followed a more or less common pattern, along the following lines :

- *students attempting to lay grievances before university and/or government authorities;*
- *dissatisfaction with the response to their demands leads to a determined student group taking up the issue, winning much sympathy and publicity;*
- *a hardening of position on the part of the authorities;*
- *police intervention, followed by riots;*
- *conversion of the movement into a political issue involving larger segments of the educational establishment and, in certain cases, of the working population.*

The following preliminary analysis of the underlying causes of this phenomenon is a first step towards a more sustained study of its possible impact on educational systems, the economy and society in general. It has been prepared by George S. Papadopoulos, Head of the Educational Development Division in the OECD Directorate for Scientific Affairs, bringing together the views of a number of his colleagues.

At the risk of oversimplifying and rationalising what in effect is an extremely complicated and multiple problem, both in its causes and its expression, "une révolution sans visage", the multifarious streams which feed student unrest can be conveniently grouped under three broad headings :

- uncertainty as to the permanent aims of society beyond material satisfaction, and student desire to participate as adults in shaping the destiny of the university and of a new society;
- student preoccupation with professional and career

prospects after graduation, particularly in the professionally unanchored disciplines;

- dissatisfaction with, and in many cases utter rejection of, the existing internal structure, organisation, content and methods of the educational system.

A detailed analysis of the various elements which make up these three sets of causes cannot be attempted here, as it would lead far into the social, economic, political, ethical and educational concepts which permeate modern civilisation. The analysis, therefore, will concentrate on a few of the salient points that arise under each of the three headings as these relate directly to a better understanding of the phenomenon described above.

The Price of Economic Growth

There is strong reaction among a great number of people, particularly the younger, against the very narrow and materialistic objectives of modern highly technological societies. This "growthmanship" or "index-economics" objective, because of the very clarity of its definition and purport, has tended to overshadow, even vitiate, the broader goals of society and to inculcate a view of the individual human being as merely a productive unit, which has been aptly summed up by Galbraith's allegory of St. Peter enquiring of those seeking entry to Paradise what their contribution had been to the growth of the GNP! Those responsible for investigating and promoting economic growth have, in fact, paid little attention so far to the social consequences of such growth, as is shown by the priority accorded to the rising per capita income as against the problem of income distribution in the society.

In this sense, the student rebellion is primarily directed against the "consumer" view of society; it has focussed attention on the fact that economic euphoria is not an end in itself and that, together with its close companion, technology, it carries with it unintended consequences which add new problems to those it attempts to solve. These problems are no longer ideological but technical, in the broadest sense. Yet existing political parties are still based on out-dated concepts of irrelevant ideology with a consequent decrease of idealism and a corresponding growth of cynicism.

It is not surprising, therefore, that those among the students who are concerned with understanding the world rather than manipulating it — those from what may be called the "professionally unanchored" disciplines, such as sociology and social psychology — should take the view that the university should cease to be an instrument in the hands of this materialistic society geared to producing the "narrow-minded" specialist this kind of society requires; they reject becoming what the German SDS calls "fachidioten", i.e. "occupational idiots". It is these students who are exposed to the full impact of the "école parallèle" (i.e. the multitude of educative influences in modern society outside the formal school system) only to find that what they are made to study has little relation to their burning preoccupation with the world around them. The bankruptcy of political ideologies leaves them no option but to take matters into their own hands.

This leads to the second main factor under the first group of underlying causes, namely student desire to play an effective role in shaping the university and society.

Participation

Many people have seen in the centralisation of the decision-making process in the university, and, in certain cases, in the whole politico-economic system, the main cause of recent events. The problem of participation has in any case to be seen as part of the wider issue of the more pluralistic nature of highly technological societies in which the decision-making process at all levels can no longer be manipulated by centralised procedures. Behind this lies the thesis that the old management-worker dichotomy in which participation was difficult to envisage is rapidly giving way to a more articulated "techno-structure" involving more subtle relationships in decision-making.

As far as the university is concerned, the quest for participation is probably the hub of the current problem: the fundamental demand of the students is that they be given a voice in all the essential aspects of the life of their institutions which is meaningful and commensurate with their newly-realised identities as mature people. (There is some evidence that the student population of today is 2-3 years physiologically more mature at each level than their opposite numbers 50 years ago. To this must be added their increased sophistication in terms of social, political and international experience). For them, the university or parallel institution represents a community which, however transient their association with it might be in relation to the other more "permanent" elements or groups (teachers, governors, administration, etc.) of which it is composed, leaves on them the most profound impact affecting the rest of their lives.

This standpoint of the students contests the argument generally put forward by the established authorities that the university is an entity which exists over and above, before and after, any current generation of students and, therefore, the decisive guardianship of this larger entity must be entrusted to corporate bodies transcending individual student generations.

Thus, the situation contains the elements of a power-struggle, in which not the least considerations are the growing numbers of students, and the unwillingness of authorities in democratic societies to lay themselves open to the accusation of resorting to measures of suppression usually reserved to "normal" rebellions. Moreover, there is a real sense in which this power-struggle is also a generation-conflict.

Apart from the normal psychological element of ingrained rebelliousness against authority through which young people of a certain age always go in search of their own individuality, the rapid transitions in modern societies have occurred in spheres, such as technology and mass-media, in which the younger generation participates, or anticipates entering, to a higher degree. In this sense, students may be more aware of changes in society and their consequences than the older generations. The very term "generation" today takes on a new meaning in the context of scientific and technological change.

There seems to be no way out of this dilemma unless students are encouraged, rather than challenged, to produce constructive recommendations about educational

reforms some of which could then be instituted, perhaps on a trial or experimental basis. But it remains to be seen whether students, once recognised and given a chance to participate in the formulation and attainment of societal goals, will continue to behave "rationally" and co-operate with the existing power structure in bringing about reforms.

Occupational Preoccupations and Educational Irrelevance

These two sets of causes can be conveniently grouped together; they cover an immense field of underlying conflict and dissatisfaction which has been fully documented and analysed during the past ten years under the programmes of the OECD Committee for Scientific and Technical Personnel (STP). Little, therefore, need be said here.

In essence, the occupational problem is one of the integration of students into society on completion of their studies which is stultified by society failing or refusing to create enough jobs at the graduates' level of qualifications. (It should be noted that this argument, as a cause of student unrest, has been advanced mainly by the establishment, i.e. university professors, ministries, sociologists, etc., rather than by the students themselves). Obviously a great deal can be done to alleviate the imbalances between choice of studies and job prospects, but it is doubtful whether any such measures can overcome the inherent problem of social or individual demand as the determining factor of the distribution of students over the educational physiognomy.

If this is recognised, it could then be argued that the problem for the future is how to devise an occupational structure better attuned to this educational output, on the over-riding assumption, however, that adequate flexibility is ensured in the latter to enable it to adapt easily to changing demands; hence the importance of more integrated courses, more general educational background at all levels and the deferring of specialisation to the latest stage possible, and of continuing education. It is through such means, as is clearly shown by the educational policy and planning experience of the more advanced OECD countries, that the apparent contradiction between the "manpower" approach and the "social demand" approach to education is being resolved.

For this to be done, drastic changes would have to be effected in the structure, content, methods and organisation of teaching, not only at university level but throughout the cycle. The total educational experience of students before they come to university sets the stage for the explosive expression of students' discontent with formal educational procedure and the content of education as well as the social context, and the "rules" within which this education takes place.

Though this pre-university experience results in a student group increasingly more sophisticated than former generations of students, it does not adequately or evenly prepare them for the disciplined perspectives of the adult world which they face on entering university; this is all the more so because of the growing "democratisation" of education which brings together into the educational

establishment a variegated social clientele who may be successfully trained to pass entrance examinations and courses but find themselves under strain, inadequate, frustrated and uncertain in the face of a more or less monolithic system of higher education, out of joint with the world around it, still elitist in its concepts and highly competitive in its methods.

Moreover, the position of formal education in the total educational experience is becoming increasingly marginal as the power of other sources of information grows. Educational institutions have failed to redefine their role in terms of this new situation, and there is a galloping tendency for them to become irrelevant. In this, the obsolescence of the university merges into the antiquated concepts governing all aspects of the educational system and, beyond that, the rebellious students would claim, of society as a whole.

The Challenge Ahead

If the above analysis is correct and on the assumption that the problem of student unrest has come to stay, the first conclusion to be drawn is the need to ensure a constructive outlet for it and to absorb it into the framework of social, political and educational structures. The second conclusion is that much greater understanding of social and behavioural processes is required, and this understanding will not come from the natural scientists and the engineers for whom modern industrial society shows an infinite appetite for absorption. It must come in the first place from social and behaviour scientists, who are not easily absorbed by modern society and who have not had the research support needed, so that they have been forced to concentrate on secondary problems instead of the large-scale inquiries necessary in relation to important social problems.

A similar problem faces the humanities, which are supposed to make more meaningful and enjoyable the "good life" which people nowadays can afford because of the technologically advanced society. Thus the real problem for the universities is not primarily one of science and engineering education, though much remains to be done here in the way of "humanising" it, but how to transform the frustrated intellectual and professional potential of the social sciences and humanities into a force in our society of equal weight to that of science and engineering. Such transformation imposes new and heavy tasks for the universities which would have to rethink the essence of their purpose and functions and spell it out clearly before the much discussed problem of their diversification can begin to be considered in practical terms.

Within OECD, the current programmes of the STP Committee and of CERI (the newly set up OECD Centre for Educational Research and Innovation) are directly related to the substance behind many of the issues posed above. They are unique in seeing educational and pedagogic development as part and parcel of the social and economic fabric, and in providing in this context a solid basis of technical analysis indispensable to a better understanding and management of the educational revolution of our times.

ENERGY IN THE UNITED KINGDOM: FOUR SOURCES INSTEAD OF TWO

The OECD governments have decisions on energy to make which will shape their countries' economic future, and these they discuss together in the OECD Energy Committee, the forum where relevant policies are jointly reviewed. The United Kingdom is the largest consumer of energy in Western Europe, and in 1966 used 175 million tons (1) of coal, 72 million tons of oil and 190,000 million kWh of electricity, including 21,000 million from nuclear sources. (Production capacity of nuclear power stations in the United Kingdom accounts for 60 per cent of the capacity of all such stations now existing in Europe.) The following article summarises some of the points contained in a memorandum submitted early in 1968 to the Energy Committee by the United Kingdom power authorities who describe the situation in their country.

(1) Figures are in statute tons throughout.

The pattern of the United Kingdom's energy economy will change in the next few years. Whereas two primary fuels, coal and oil, were earlier used, natural gas and nuclear energy will alter the picture.

Natural Gas

The discovery of natural gas in the North Sea has opened up entirely new possibilities for the gas industry. Drilling in British waters began at the end of 1964 with a well on the Dogger Bank and since then progress has been rapid. The first field was located by the British Petroleum Company in the autumn of 1965, from which supplies began to flow into the natural gas pipeline system in July 1967. Meanwhile three additional fields have been discovered.

Expert estimates place recoverable gas reserves in the fields so far found at some 700,000 million m³, enough to provide an annual yield of about 30,000 million m³ in the early 1970s, or nearly three times Britain's present consumption of town gas.

Under a 1964 Act, North Sea gas must be offered to the nationalised gas industry if it is to be supplied for use as a fuel. The industry plans to supply natural gas to the whole country by 1970 and a national gas-transmission system is being built for this purpose. The grid already built to carry Algerian natural gas will be absorbed into the national system, and 2,000 km of pipe are to be added.

In studying the prospects for natural gas the Government is not only interested in the price advantage which natural gas may have over other fuels but also in the real resources that can be saved when natural gas is substituted for other fuels. In general, resource savings are likely to be highest in the premium markets where natural gas is replacing manufactured gas, intermediate where it commands a moderate premium in price over oil and lowest in the bulk industrial market. Balancing the supply against the demand to best effect will raise problems which cannot be solved until it is known more exactly how successfully natural gas can penetrate the various markets.

The cost of introducing natural gas and of converting the appliances of 13 million gas consumers will be considerable, involving an outlay of some £300 million yearly during the next five years. But the benefits in terms of the savings on foreign currency and lower energy costs will also be high. To secure these benefits, the Government are planning for the rapid introduction of natural gas into the economy. Most of the gas will go to the premium markets, but there will be some supplies to bulk industrial users to assist the early build-up in supplies and to balance load thereafter.

Nuclear Power

During the 1950s electricity consumption increased by more than 8 per cent each year, but in the last five

years or so the rate of growth has slowed down. Throughout the period, electricity production has chiefly been based on home-produced coal. Oil use by power stations, which reached a level of over 7 million tons of coal-equivalent in 1959, by 1967 had not risen above the 12.6 million figure.

A step towards a new primary source came with the adoption of a programme providing for the construction of nuclear power stations with a total capacity of 5,000 MW by the end of 1969. A second programme envisages a further 8,000 MW installation between 1970 and 1975.

Changes in the pattern of fuel consumption in the electricity industry can only take place slowly, as new plant is introduced. Since it takes five years or more to build and commission a new unit of generating plant, the pattern is already largely set as far ahead as the end of 1972. The public electricity-supply industry in Great Britain will then have some 53,000 MW of coal-fired capacity, 10,000 MW of oil and dual-fired capacity, 6,000 MW nuclear and 4,000 MW of other (mainly hydro) types of plant.

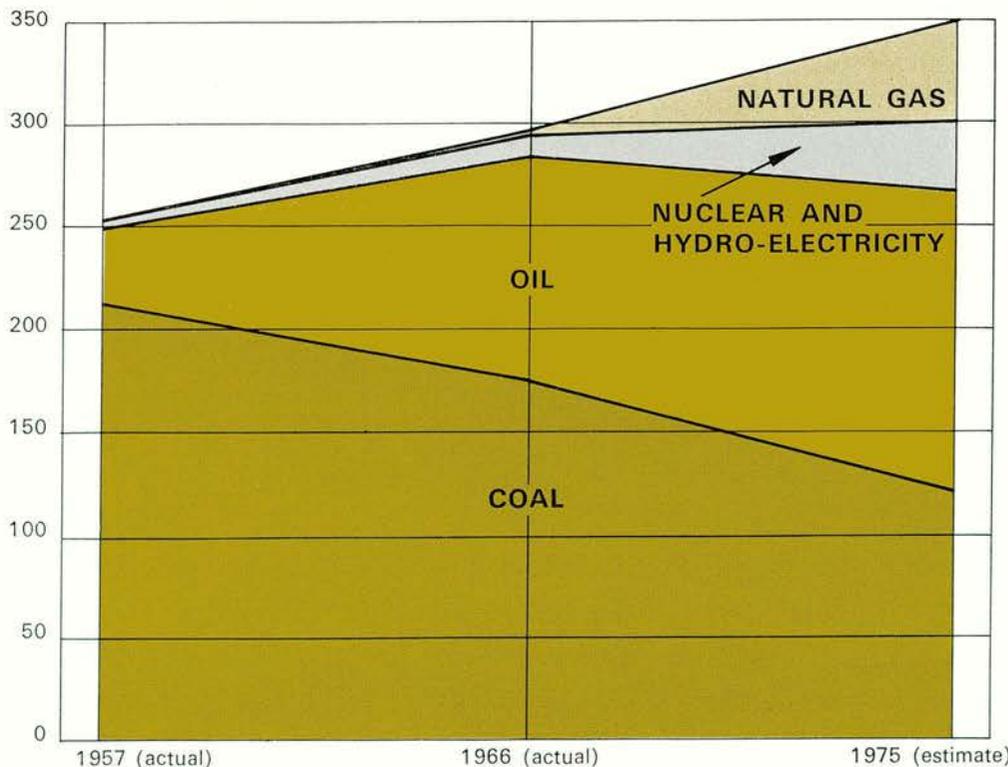
About two-thirds of the total nuclear capacity due to be completed by 1969 under the first nuclear programme is already in service. The earlier stations constructed under the programme were unable to compete with modern conventional stations, but as a result of advances since the programme was launched later stations will be able to match contemporary coal-fired stations in supplying base-load electricity in those parts of the country where they are situated away from the coalfields.

Three nuclear power stations under the second programme, each using the advanced gas-cooled reactor, are under construction. The latest tenders confirm the downward trend of nuclear costs. Because of the potential importance of nuclear power, the economics of the second nuclear programme and of nuclear energy costs in the longer term were subjected to a fresh and detailed examination. This examination confirmed the prospects held out by the initial tenders to the effect that nuclear energy produced in stations coming into service in the 1970s will be fully competitive with conventional generation. As a result of this assessment, nuclear power stations will probably predominate in the construction programmes of coming years. But proposals for particular power stations will continue to be assessed on their merits as they come up. The generating Boards will have their choice of fuel on an economic assessment of the method of generating electricity at the lowest system cost but in deciding whether to give consent to new stations, the Government will also take into account such wider economic considerations as may be relevant.

Oil

In the last ten years the demand for oil has been increasing steadily. The use of this fuel has now penetrated so deeply into markets previously dominated by coal that the rate of demand for fuel oil has

TRENDS OF PRIMARY FUEL USE (million ton coal equivalent)



The main assumptions underlying the use of primary fuel sources in 1975 are that North Sea natural gas reserves would support an average of 113 million m³ a day; the price of gas would be such that it could be sold; none of the coal-fired power stations would be converted to oil; the second nuclear energy programme would be fulfilled; the rate of the oil tax would be 2d per gallon; no coal would be imported; gross domestic product would grow at an average rate of 3 per cent per year.

These projections were made before the devaluation of the pound sterling, but devaluation is expected to have but a marginal effect on the figures.

grown faster than that for the lighter products. The greater use of oil has been accompanied by rapid development of the home refining industry, which has broadly kept pace with rising consumption.

Oil now takes up a larger proportion of the United Kingdom energy market than it used to, and demand is not expected to rise as fast in the future. Changes will also occur in the balance between the different products, but not sufficiently to cause unmanageable problems of refinery balance. Trade in oil products is recognised as being necessary for the oil companies to balance their international refining operations and to keep down costs and prices. It remains the UK's broad policy to avoid discrimination between oil companies trading in the UK market.

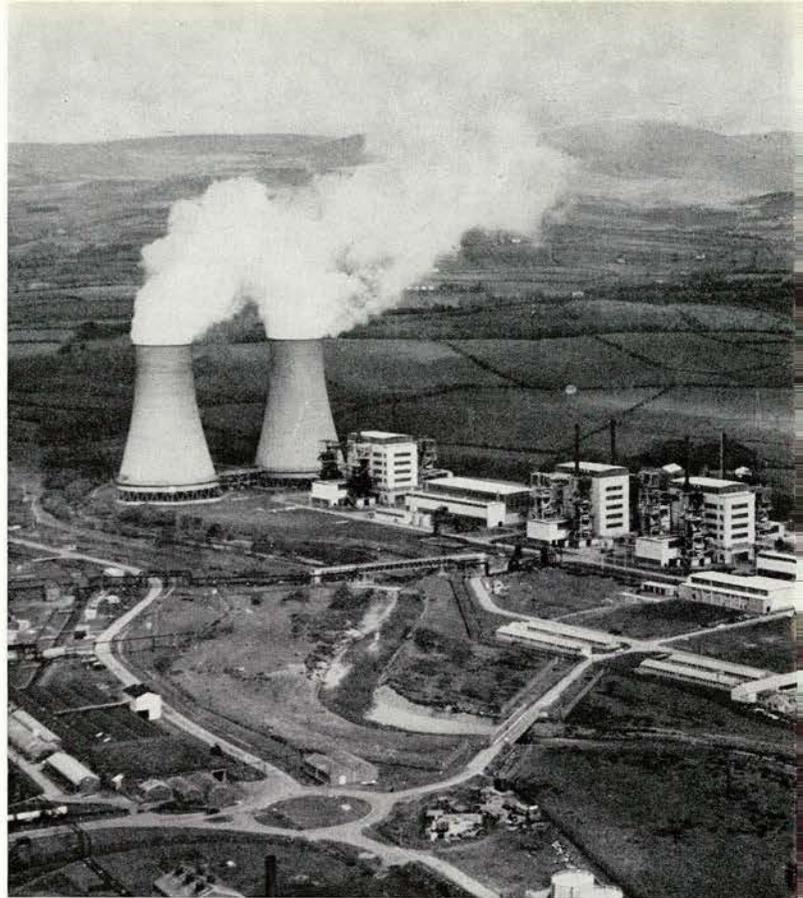
So far as the availability of required oil supplies is concerned, the world's oil reserves are adequate to meet world demand for many years to come, but the problems of interruptions in supplies remain for both the United Kingdom and other countries. Of this risk, the effects of the war in the Middle East in 1967 and the civil war in Nigeria serve as sharp reminders, even though the flexibility which the international oil companies have in their supply arrangements reduces the risks of disruption - oil supplies entering the United Kingdom come from a greater number of sources than they did ten years ago. As an important contingency measure there are sizeable stocks of oil held in the UK in line with OECD recommendations. They include stocks held by the Government itself and stocks held by the companies in excess of commercial requirements. The policies being followed were put to the test in 1967 and enabled the United Kingdom, as well as the other OECD Member countries, to weather the serious initial dislocation of oil supplies that year.

The likely trend of oil prices is an important element in energy policy. Although this is difficult to forecast, there are a number of reasons why the United Kingdom authorities do not expect prices to increase. The oil industry is continually searching for ways of cutting costs, as by using very large crude-oil tankers to reduce freight charges and increase flexibility and security of supply. Competition is strong, whether with other fuels, between companies or between sources of supply, and a surplus of available crude oil is likely to persist for many years in spite of expanded world demand.

Thus, although in the light of the Middle East war, the Government have put in hand an examination of ways in which the security of supplies might be further strengthened, Government planning proceeds in the expectation that regular supplies of oil at competitive prices will continue to be available to the UK and they believe that it would be wrong to deny to British industry the competitive advantages that oil brings.

Coal

Until about 1955 the United Kingdom fuel economy was mainly dependent on coal, which covered 90 per cent of the country's needs. The gas and elec-



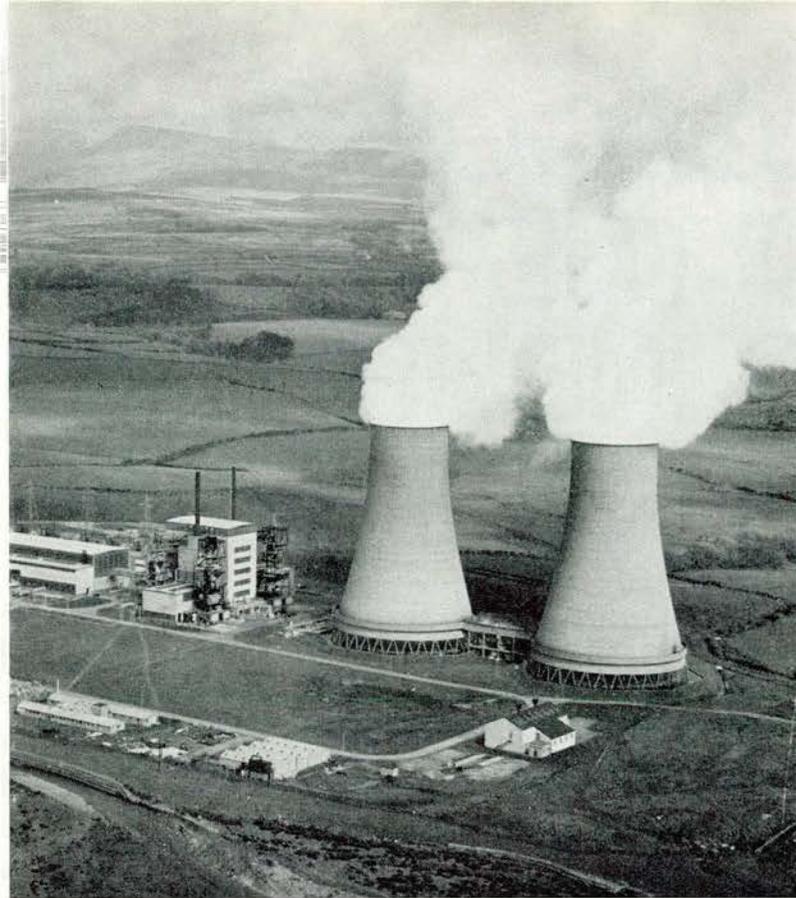
Calder Hall, Britain's first nuclear power station and the first

tricity industries then used this fuel almost exclusively, but in spite of steps taken to check the downward trend, the demand for coal has since steadily declined and in 1967 it had fallen more than 20 million tons below the 1965 level.

Mining installations are nevertheless constantly being improved. The percentage of power-loaded output rose from 75 per cent in 1965 to more than 88 per cent in 1967. The aim is not only the development of highly mechanised production methods but operation by remote control so that in future much of the labour force will consist of highly skilled technicians. The experimental colliery at Bevercotes has started production and the National Coal Board intend the methods used there to be applied progressively to other pits.

Mining productivity has risen by 50 per cent in the last ten years and will continue to rise. Because coal will continue for a long time to provide a large and indispensable part of the country's fuel supplies, the industry's modernisation and concentration on the most economic coalfields and collieries must go forward. Only in this way can the coal industry remain viable. The greater the industry's success in reducing costs, the higher coal demand is likely to be in the 1970s. This continuing progress will inevitably mean fewer miners, even if the present trend of declining coal consumption were to be checked. Mining manpower has been falling to the tune of some 30,000 workers per year over the last decade. So far, such reductions have largely been achieved through natural wastage, and in the last three years unemployment among miners has been below the national average.

While the attrition of mining labour creates no new problem, it can however aggravate existing difficulties in areas where other jobs are already harder to come by than elsewhere. As in the past, many



in the world to produce electricity on a full commercial scale.

colliery closures will occur in "development areas" where alternative jobs are relatively fewer.

The new pattern of energy supplies in the 1970s will bring the United Kingdom important advantages. But the transition from the present situation will create particular difficulties for the coal industry and the mining communities. Already coal receives protection from the tax on oil and the virtual ban on imports of coal. In addition, special measures are being taken for the transitional period up to 1970-71. The electricity and gas industries are to take more coal - up to 6 million tons or more - than would be economic for them, the additional costs being paid by the Government; there is a new scheme of supplementary benefits for older miners made redundant by colliery closures; and the Government is to pay a greater share of the social costs of colliery closures. In addition areas specially hard-hit by colliery closures will be given special help through extra inducements to attract industry and additional funds to improve roads.

Use of Resources by Nationalised Fuel Industries

One particularly important aspect of the Government's task is to ensure that the nationalised energy industries - coal, gas and electricity - whose capital investment now amounts to some £1,000 million a year, use their resources as efficiently and economically as possible. The Government has set out investment guidelines which can be summed up as follows: having adopted the best methods of investment appraisal (normally discounted cash-flow techniques) and appropriate pricing policies, the industries must look

for a return of at least 8 per cent on all new investment undertaken for purely commercial reasons. The industries are to aim at financial viability as commercial undertakings. Their revenues should normally cover their accounting costs in full, including the service of capital at its full cost to the Exchequer and appropriate provision for its replacement. In addition, financial objectives, aiming whenever practicable at modest profits, are established as an incentive to management and as one of the standards by which success or failure over a period of years may be judged. The industries' price structures are expected to be devised in reasonable relation to costs at the margin.

Efficiency in the Energy Sector

Technical advances and increased efficiency in the coal and oil industries, the emergence of nuclear power as a competitive source of electricity and the discovery of natural gas promise ample, reliable, competitively priced supplies of energy - a goal which the United Kingdom authorities are making every effort to attain. But in planning to achieve the longer-term benefits to the economy from the transition to four fuels in place of two, account has to be taken of both the economic and social consequences of shorter-term problems. Progress and change inevitably mean some painful readjustment, sometimes affecting whole communities. But too abrupt a decline in coal would put at risk the success of the coal industry's reorganisation and result in needless hardship and waste.

"Britain's energy policy", concludes the United Kingdom report, "seeks to provide the conditions in which all the fuel industries will find incentive for the most vigorous further development and progress aimed at supplying the nation with energy at the lowest possible cost in resources. Freedom of choice for the consumer and competition between the fuel industries each have their part to play in ensuring efficiency in the energy sector. At the same time, the impact of this policy on the coal industry is tempered by transitional measures to assist in its re-organisation. In framing these measures the Government have been at pains to avoid, to the maximum extent possible, distortion of the desirable long-term pattern of development in the energy sector".

"The magnitude of recent developments highlights the need to think of fuel policy as an evolving subject, requiring constant review and susceptible of continuous adjustment. This need arises not only from change within the energy sector itself but also from the impact of broader economic and social circumstances, themselves liable to change. Energy policy is kept under continuing review with the constant aim of making possible the supply of energy at the lowest total cost to the community having regard to the whole range of relevant considerations - economic and social - and to national and regional economic policies".

THE TECHNOLOGICAL GAP IN THE ELECTRONICS INDUSTRY AND ITS CAUSES

The OECD Directorate for Scientific Affairs has drawn up a series of reports on the technological gaps between the Member countries; they include a general report and sector reports, which are now being published. The report on electronic components which has just come out was examined by a group of experts including representatives of the countries studied (Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the United Kingdom and the United States), industry (Elliott Automation, Nippon Electric, Philips, SGS Fairchild, Siemens, and Texas Instruments) and private research establishments (Battelle, A.D. Little and Quantum Science Corporation).

The electronics industry, which plays a major role in the economies of advanced countries, is dependent upon the components industry for the parts it needs to make the articles that it produces for the consumer market (TV and radio-sets, tape-recorders, etc.), for industry (computers, instruments communications equipment, etc.) and for defence requirements (missiles, aircraft, guidance systems, etc.).

It is essentially an international industry and in every country the biggest firms have to compete with the world's leading suppliers. They are protected neither by distance nor by customs tariffs, and home markets are open to everyone. The only real protection available to them is the ability to compete successfully as regards innovation, prices and technology.

Particular features of the components industry are the technological gaps or disparities between the various producer countries and especially between the United

1. ESTIMATED OUTPUT OF ELECTRONIC COMPONENTS IN THE MAIN PRODUCING COUNTRIES OF THE OECD AREA (1965) (in \$ million)

Producing countries	Active components			Passive components	Total	% of GNP
	Tubes	Semi-conductors (discrete)	Integrated circuits			
United States	1,019	927	85	1,259	3,290	0.41
Japan	137		140	390	667	0.80
United Kingdom		208		454	662	0.66
Germany	122		47	404	573	0.36
France	96		59	264	419	0.43
Netherlands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Italy	n.a.		25	n.a.	92	0.16
Canada	n.a.	n.a.	n.a.	n.a.	69	0.14
Belgium	n.a.	n.a.	n.a.	n.a.	45	0.26
Sweden		2		8	10	0.05

Sources: Countries' replies to the OECD questionnaire and OECD estimates.

Notes: The definition of the passive components sector differs from one country to another; the only figure corresponding apparently to the OECD definition is that of the United States; data for other countries are probably too high, except for Canada (relays and connectors not included).

2. RATES OF GROWTH IN THE COMPONENTS INDUSTRY BETWEEN 1961 AND 1965 (1961 = 100)

<i>Producer Country</i>	<i>Passive Components</i>	<i>Active Components</i>	<i>Components Branch Total</i>
United States	131	144	138
Japon	188	127	152
United Kingdom	140	146	144
Germany	133	130	129
France	155	144	151

PASSIVE COMPONENTS

Capacitors
Resistors
Connectors
Relays, etc.

ACTIVE COMPONENTS

Tubes	Discrete semi-conductors
Receiving tubes	Transistors
Power and special-purpose tubes	Diodes
	Special types
	Integrated circuits

Source : Countries' replies to the OECD questionnaire.

Demand and Innovation

Two fundamental revolutions have taken place in the electronic components industry : the invention of the transistor by the Bell Telephone Laboratory in 1947 and the development of integrated circuits by Texas Instruments and Fairchild around 1960 (Graph A). The vigorous expansion of the electronic components industry and the extension of its field of activity stem directly from the development of new products.

Discrepancies between the achievements of the various firms are partly due to their ability or inability to judge demand correctly.

Three sets of facts confirm this. First, the success of firms established by technologists to make a better product than the firm in which they were previously working. Second, there is the example of firms that introduce a product which other firms did not manufacture because they thought there was no market for it; for example, in the computer industry Scientific Data Systems, a subsidiary of Packard-Bell formed in 1961 was the first to make a very small computer which no big firm thought profitable and as a result its turnover rose from \$1 million in 1962 to \$55 million in 1966.

Third, the better performance of firms with a sales department capable of estimating short- and medium - range demand; American companies set very high standards when recruiting sales staff; for instance, in three leading US firms, 93 to 100 per cent of the sales staff are engineering graduates.

The example of companies such as Philco, Texas Instruments and Sony shows that the real problem when a disparity exists between one firm and its competitors does not so much consist of keeping abreast of the fundamental technologies as exploiting newly acquired technologies, improving on them and bringing new products on to the market.

The turnover of Sony in Japan rose in 20 years from \$7,000 to \$103,000,000; this firm developed step by step, by creating new markets with new products such as tape recorders, transistor radios and transistorised TV sets. In the beginning it had the monopoly for these both at home and abroad. The firm expanded so rapidly because it was able to satisfy the resulting demand.

Management

Certain components manufacturers have made mistakes; the purpose of some companies was to manufacture tubes, and too little attention was paid to the discovery of the transistor which, although completely different in structure from the tube, nevertheless has a similar amplifying function. These manufacturers had not defined their aims in sufficiently broad terms.

The precise definition of a firm's aims is a primordial factor in efficient management. The experts start out from the assumption that one of the main factors responsible for the American lead in the semi-conductors industry lies in their superior organisation of the input factors, i.e. in better management. A firm's aims must be defined and then achieved. The experts point out three ways of doing this.

First, the type of organisation a firm adopts may or

States and other countries, and a rapid growth rate (Tables 1 and 2).

From the technological stand-point, the information collected shows that each country has certain specific aptitudes : Japan is well placed in the field of passive components, the Netherlands and the United Kingdom as regards power tubes, and Germany for receiving tubes.

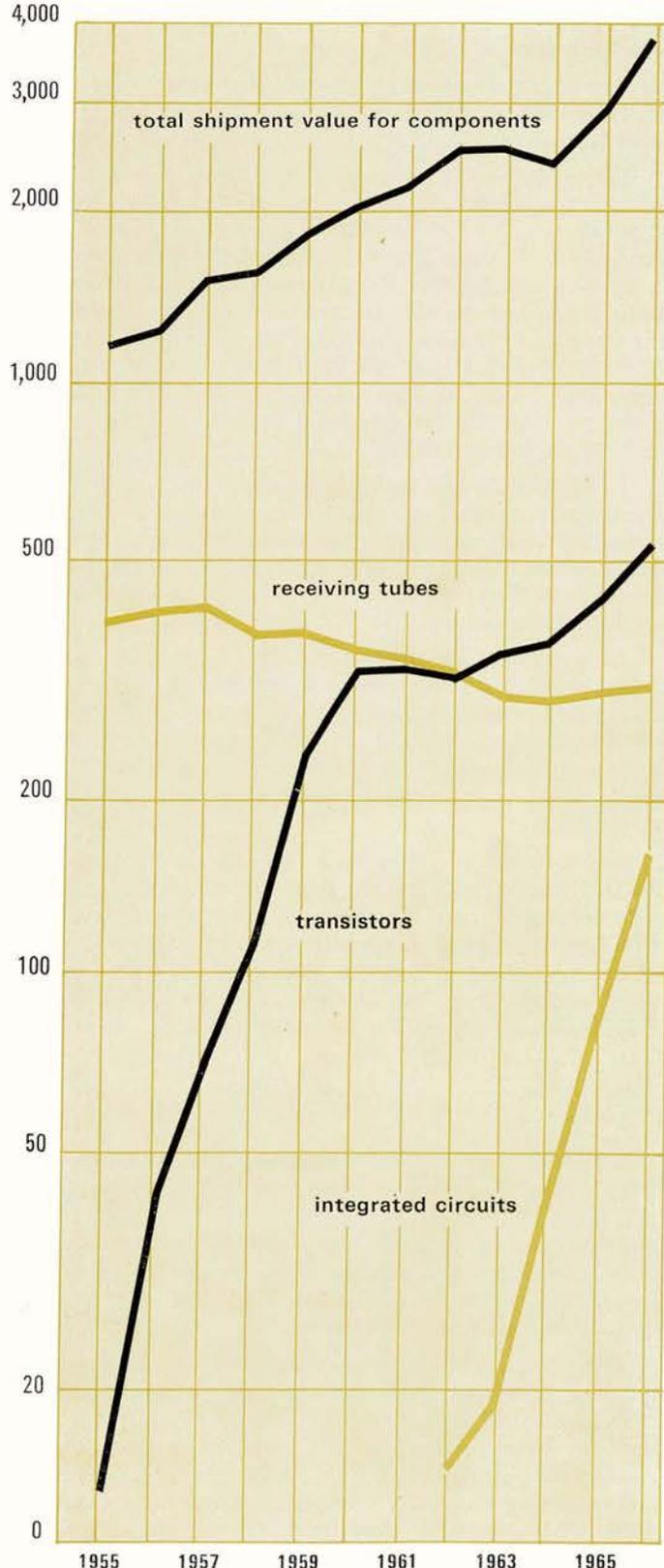
The OECD experts pay special attention to semi-conductors, which constitute a key branch of the electronics industry and where one country, the United States, is far in the lead. They have found here that :

- most new inventions and technological advances stem from a small number of US firms;
- US firms seem to be the only ones in a position to grant licences and sell their know-how on the international market;
- no foreign firms occupy a leading position on the United States market, but US firms have a substantial share of foreign markets;
- the US firms' share of world exports is steadily increasing.

The OECD expert group has identified a series of factors which could be responsible for these disparities; some of them relate to the firm itself (and especially its capacity for innovation and its management) while others concern the conditions under which it works (such as government support and the quality and size of the market).

A. ELECTRONIC COMPONENTS SHIPMENTS IN THE U.S.A.

1955-1966 (in millions of dollars)



Source : United States reply to OECD questionnaire.

may not facilitate the flow of technological information from the market; the correct functioning of this feedback mechanism is essential to the success of innovation and a firm must take this into account when deciding upon its internal organisation.

Secondly, a firm also has economic and technological tools at its disposal : technology forecasts and planning of technological developments (it is not unusual for companies in the United States to delegate this work to outside firms) ; market forecasts ; long-range planning ; comparative indicators (firms send their results to a private clearing-house which assembles this confidential information and communicates the global figures to member firms ; this system has proved an effective alarm signal) ; and refresher courses and retraining programmes for research workers and engineers.

The third way in which the firm can attain its objectives is to detect errors and correct them at once. The report gives two examples. The first is an American firm which thought that there was a market for a microminiaturised potentiometer ; six months later, it brought out the instrument but there was, in fact, no market for it ; instead of persisting, the management decided to defer launching the new product for two years.

A big European instrument manufacturer faced with the same problem adopted a different line ; the management did not look upon the development project as a mistake but considered that in view of the company's size, reputation and technical know-how it was reasonable to invest large sums of money in fields without immediate outlets.

Government Support

In 1967, total sales by the electronics industry in the OECD countries came to \$35,400 million, of which \$13,100 million - or 35 per cent - was against government contracts. The United States accounts for about 60 per cent of total sales of electronic equipment but in case of total government contracts the figure is much higher - over 80 per cent. In 1965, 29.5 per cent of the total deliveries by the electronic components industry in the United States was against government contracts, compared with 43.6 per cent in 1959 (Graph B).

In a country where the electronics industry is oriented mainly towards consumer goods, the components industry tends to mass-produce simple low-cost items but where defence contracts account for a high proportion of the electronics industry's sales it tends to turn out highly sophisticated products. Every producer country manufactures a wide range of equipment and none concentrates on a single type, but these differences in structure may help to explain some of the disparities between the principal countries producing components.

Government support makes its impact at R and D level and at market level. A National Commission in the United States has observed that "semi-conductors, numerical control, electronic computers and nuclear power generation, as well as a host of other less significant innovations, owe their development to Federal Support". In 1956, the United States Government allocated approximately \$40,000 million to the semi-conductors industry for a period of three years. And more than \$100 million was allotted to the integrated circuit branch between 1959 and 1965.

Significant support was also forthcoming from the United States Government at market level. The curve of integrated circuit or transistor costs shows that these new products were initially far too costly to be sold for industrial applications and, it follows, for incorporation in consumer goods.

Only when the production problems have been mastered can the new products find an outlet in industry, and this may take several years. But if governments are able to form a sufficiently large market when the cost of products is still prohibitive for industry, prices can be brought down more quickly and the new products can be introduced into the economy at a faster rate.

Quite often products developed for defence requirements subsequently find civilian applications. The President of Litton Industries is on record as saying : " Since almost all new products have their first application in military uses, we always want at least 25 per cent of our business in defence and space ". However, it should be noted that in the case of space programmes thousands of new products have been developed for which no application could be found either in industry or on the consumer market : here we have inventions in search of innovations, so to speak.

In the experts' opinion, the organisation and structure of government support are extremely important factors. Part of the success of the United States lies precisely in the structure of this support. Instead of being given to government agencies which had no close contact with

the market, most of the work on integrated circuits, for example, was done by private enterprise and the companies concerned were anxious to improve their position on the commercial market.

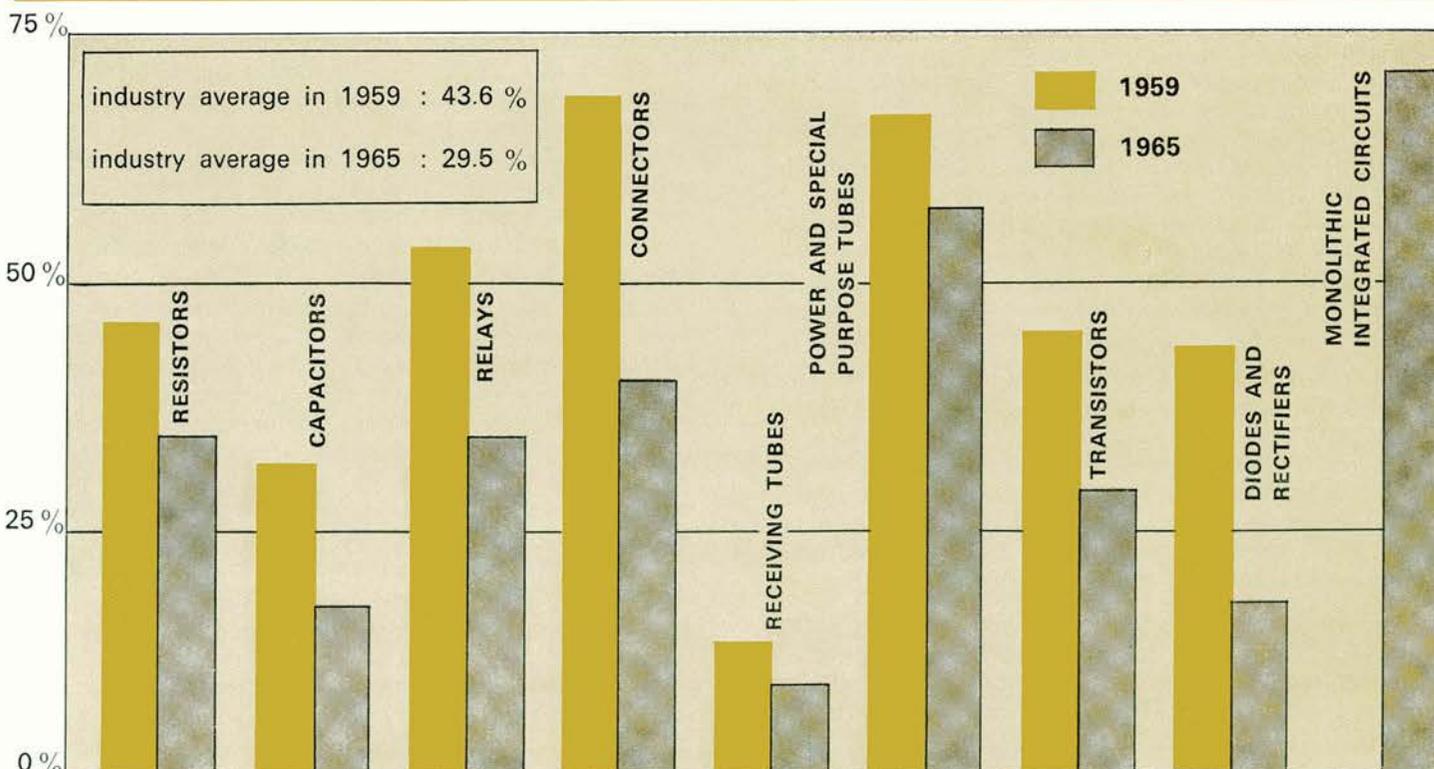
Nature and Size of the Market

The OECD experts consider that the volume of sales achieved by a sales engineer in a European subsidiary of an American firm is three to five times less than that effected in the United States by his opposite-number in the parent company. The difference is even greater when a truly European company as distinct from a European subsidiary of an American company is compared with an American firm operating in the United States.

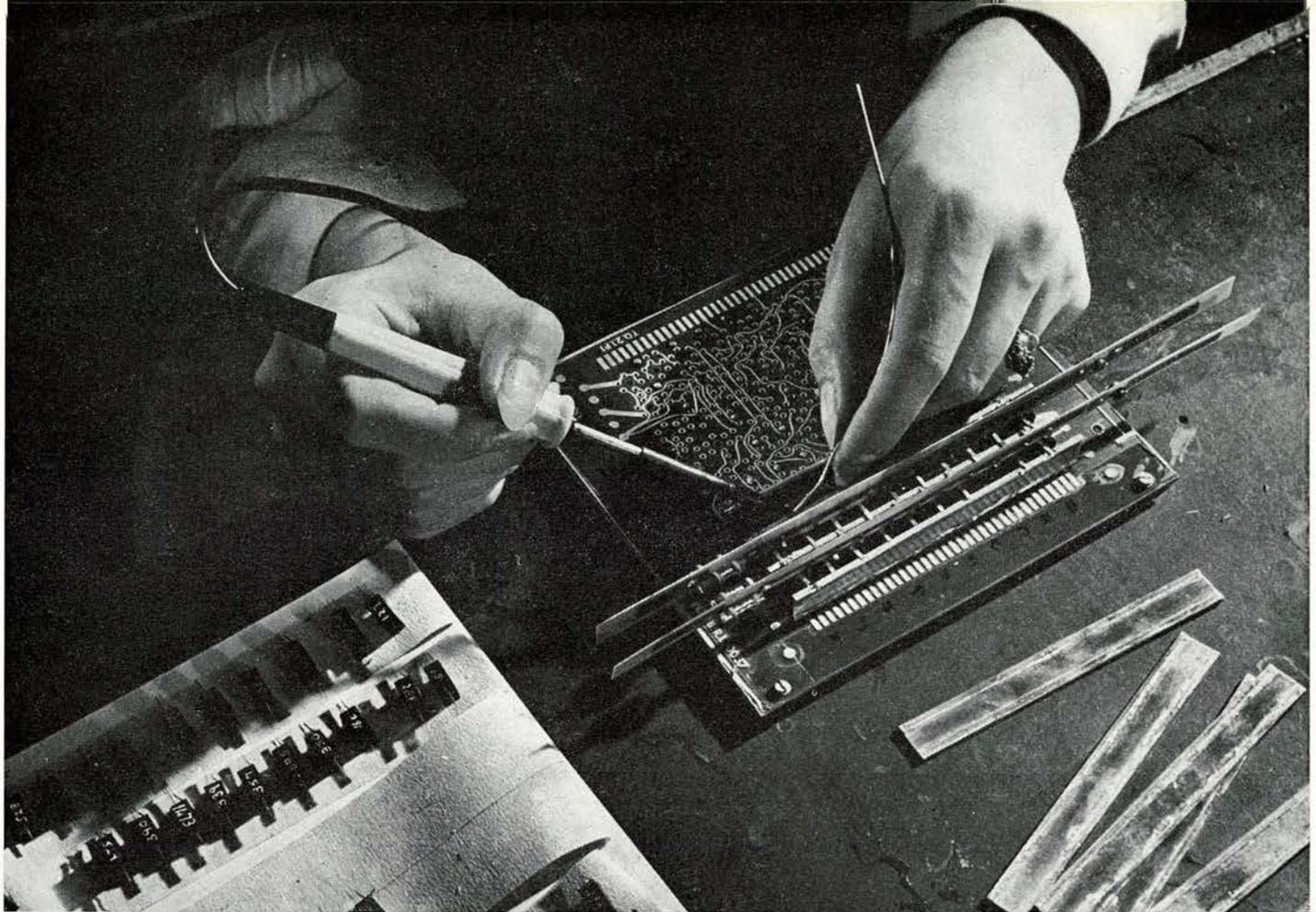
The economic environment in which a firm operates has a bearing on productivity and profits. The experts adopt the hypothesis that differences in environment are one of the main factors responsible for economic disparities between the semi-conductor industry in the United States and elsewhere.

There is very keen competition on the market for electronic equipment in the United States, which has two positive consequences. Firms which make mistakes are much more heavily penalised than in other countries ; they are compelled to take correct decisions much more rapidly, and, it follows, they must employ refined management techniques and have recourse to technological innovation.

B. DEFENCE SHIPMENTS OF THE UNITED STATES COMPONENTS INDUSTRY AS A PERCENTAGE OF TOTAL SHIPMENTS IN 1959 AND 1965



Source : United States reply to the OECD questionnaire.



Part of a prototype computer using tunnel-diodes which will be 100 times faster in operation than computers in use today

The other decisive advantage, which follows directly on the first, involves feedback. As a result of the keen competition American firms discover their mistakes very quickly from the reaction of the market; they can change course before the situation becomes irremediable.

Competition does not preclude intercompany communication, which is another favourable factor; being large in number (3,000), American component manufacturers are able to resolve technical problems more easily through such communication; the chances of overcoming a problem increase with the square of the number of firms in that particular branch of the industry. Competition does not imply that a firm will wish to keep the monopoly of an invention: in 1952, Bell Telephone organised a conference at which it offered its transistor know-how to any firms interested (Western Electric, representing Bell Telephone, received \$ 8 million under this heading between 1952 and 1963).

In terms of market size, the United Kingdom is considered to be about ten times smaller than the United States, although its population is only four times less. The question of market size and shorter production runs is, according to many American subsidiaries in Europe, the main reason for their lower labour productivity. In the few cases where production runs are as long as in the United States productivity is about the same.

Another factor is that where the market is large there will be suppliers able to produce the very high-grade materials required in the manufacture of components, such as silicon, nitrogen and helium and gold of extremely high purity. The report gives a typical example of an American subsidiary in a major Western European country which has to import high-quality helium from the United

States by air, with a consequent reduction of overall productivity.

American firms producing microwave equipment, which is one of the most specialised branches of the components industry, likewise consider that market size and unit cost are the main if not only cause of the disparity to be found between the United States and Europe and Japan. The size of the market has a considerable bearing on prices and as a result microwave components produced in Europe (apart from the United Kingdom) cannot compete on the American market.

Market size can also have certain technological consequences in the long run. Some of the newer and more capital-intensive technologies, which require relatively long production runs, may in fact never be developed except in the United States.

Prestige plays an important part in almost all of the more advanced branches of the electronics industry (microwave tubes, colour TV tubes, integrated circuits, etc.). A tendency towards self-sufficiency is developing at the present time, particularly within economic groupings that are already well-established. International companies wishing to sell their advanced products to the governments of European countries can do so only on condition that they are manufactured in the country concerned; as a result production facilities are being duplicated, with all the cost increases this entails.

The example of microwave components shows that where home markets are small, as is the case in Europe, there are probably advantages to be gained from a unified market with each country specialising in a few types of product; the small size of individual home markets would then be offset by international trade within a group of countries.

PROSPECTS OF THE MARKET FOR DAIRY PRODUCTS

The more or less satisfactory balance which was maintained in the past between the production and consumption of dairy products now bids fair to becoming permanently upset in certain European countries. For several reasons, not the least of which is the spread of technological progress, production is rising while per capita consumption seems to be marking time as prices stand at present. Measures taken unilaterally have afforded some respite although entailing certain disadvantages at international level. The experts are now of the opinion that the disequilibrium attributed first to cyclical factors is rather more of a structural nature and may well become worse in the future. The OECD Committee for Agriculture's Working Party on Dairy Products has examined the short- and medium-term position of the market on the basis of a recently published study (1). The Committee's main concern when recommending publication of this study, which is commented on in this article, was to contribute towards an understanding of the problems revealed by the prospects of the market for dairy products.

(1) Prospects of the Market for Dairy Products : problems and outlines of solutions, OECD, Paris 1968.

The rise since the beginning of the '60s in the total volume of milk production in the OECD area was small, being only about 1 per cent per annum; in other words it rose at a pace comparable with the increase in population. Except in Norway and Japan, milk production has risen less over the last few years than the general indices of total agricultural production. In the United States, Canada and most Scandinavian countries, milk production is now even falling.

On the other hand, dairy production in the United Kingdom, the Mediterranean countries and especially Japan is increasing fairly substantially, but since demand has been sustained in these countries there are no signs of their shortages being made up. However, in Ireland, Austria, Norway, Switzerland and above all in the European Communities, production has risen considerably, with a resulting aggravation of the already existing problem of surpluses. For example, in the case of EEC the average production increase of 1.1 per cent per annum recorded from 1961 to 1964 rose to 3.5 per cent per annum from 1965 to 1967.

But even this last rate could not be regarded as excessive if at the same time the demand for dairy products was greater. But the fact is that, apart from the Mediterranean countries and Japan, food consumption is falling or not rising at all except very slowly. Between 1960 and 1965, daily consumption of protides from dairy produce fell in all OECD countries by an average of 0.7 grammes per head each year, while butterfat consumption rose by only 0.4 grammes. Round about 1960, dairy products accounted for 38.5 per cent and 23.1 per cent in the average OECD consumer's supply of animal protides and lipides. By 1965, these proportions had fallen respectively to 35 per cent and 21.9 per cent.

Whereas in 1960 butter consumption accounted for 19.8 per cent of total fats consumption including vegetable oils,

the proportion was no more than 18.3 per cent by 1965. In the meantime, demand for butter had increased in the space of five years by about 110,000 tons only and demand for other oils and fats by a little over 1.3 million tons. In the EEC in particular, butter consumption, which had risen from 6 kg to 6.5 kg per head between 1960 and 1964, settled at 6.4 kg in 1965 and 1966. The difficulties at present encountered by the dairy products market would therefore seem to be as much due to sluggish demand as to excessive supply.

An attempt has been made, partly on the basis of estimates provided by Member countries, to draw up a comparative balance sheet of milk supply and demand in 1970 (see Table). Being usually an extrapolation of past trends (in other words, assuming that production would rise a little more rapidly — or fall a little less rapidly — than consumption), the result could obviously only be a very pessimistic forecast of further disequilibrium between supply and demand and the building up of non-exportable surpluses.

Depending on whether the Mediterranean countries do or do not reach their production targets in 1970, the three OECD importing areas (the United Kingdom, the Mediterranean countries and Japan) should together see their deficit rise in very unequal proportions between a minimum of a little over 200,000 tons and a maximum of some 2 million tons of whole milk. But if at the same time EEC were to have what is regarded as the maximum surplus, the OECD exporting areas (North America, EEC and the other European countries apart from the United Kingdom and the Mediterranean countries) might see their combined surpluses swell by something more than 6 million tons. The situation is of course more serious if it is assumed that the surplus production of the other exporting areas in the world (Eastern Europe and

especially the Australasian countries) is going to increase as well.

These forecasts are largely unrealistic since they lead to a state of affairs which would very soon be regarded as intolerable by certain Member countries because their balances would very soon be jeopardised by the burden of financing ever increasing stocks (Graph A) and by constantly falling prices on the world market (Graph B).

Analysis of the various known factors in the present situation shows that the difficulties encountered are due to a large number of causes. The most important include the advances which have been made, as in other branches of farming, in the breeding of dairy cows : genetic improvement of cattle breeds, control and prevention of cattle diseases, adoption of improved animal feeding systems, etc. These lead to such large increases in milk yield from dairy cows that, cattle numbers are now only rising slowly (1). At the same time, there is a movement towards the concentration of herds (2). For the reasons mentioned and although the volume of production continues to rise, the number of farms raising dairy cows is falling rapidly (3).

In view of this, national policies, which aimed very often to improve many farmers' incomes through price support for milk at the production stage, encourage a smaller number of better organised breeders.

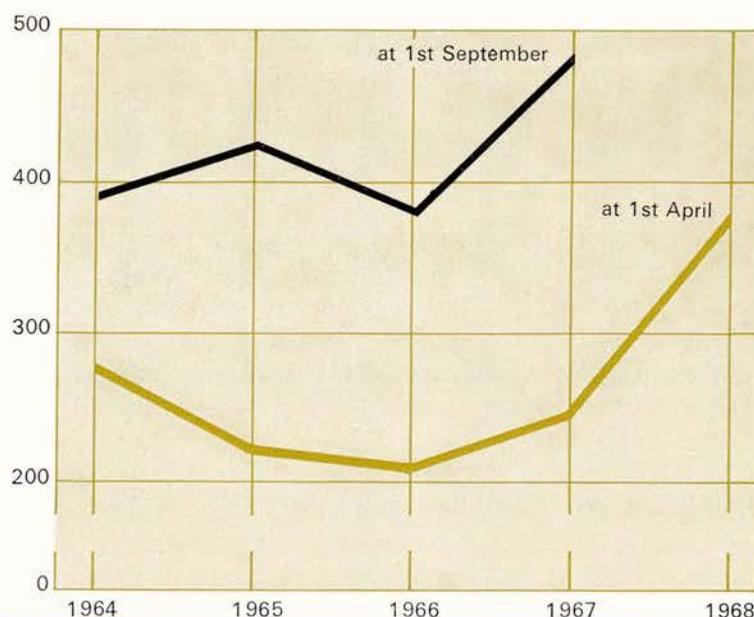
At the same time, these policies unfortunately quite often help to introduce a rift between supply and demand insofar as high production prices have repercussions at the retail stage and put a damper on consumption. This observation already applies to butterfat, the support price of milk being often indexed on its butterfat content. But it may apply increasingly to products made either from whole milk (cheese) or the non-fat part of the milk (skim milk powder), stocks of which are at present already rising dangerously in certain countries.

If the dairy market is to be put in order in any lasting fashion, it will not be sufficient to find ways of eliminating the surpluses accumulated over the last few years but wider-reaching measures will have to be worked out in order to prevent the appearance of new surpluses.

The report does not endeavour to recommend any solutions to the short - and longer - term problems which arise. The choice of solution is a policy issue and should be discussed at policy-making level. However, with a view to facilitating this choice, the last chapter in the report mentions certain possible lines of action and assesses their cost and possible effects on levels of production, consumption and employment.

A reference is therefore made to any problems which might be raised by measures to slow down production in countries with a surplus. A policy of restricting production, for instance by freezing or even lowering the prices paid to producers, would entail major difficulties because the untoward circumstances resulting therefrom would first affect small farms. But the latter are still today the most numerous while at the same time together producing a relatively low quantity of milk, since the smallest herds (which make up two-thirds of the total number) only account for one-quarter to one-third of all dairy cows according to country.

A. TRENDS IN BUTTER STOCKS OF 16 OECD COUNTRIES (thousands of tons)



SURPLUSES OR DEFICITS OF DAIRY PRODUCTS IN WHOLE MILK EQUIVALENT (thousand tons)

Country	Year		1970 (1)	
	1965		Surplus	Deficit
Countries with a surplus				
EEC	2,430		(9,000) (2)	
Austria, Denmark, Finland, Iceland, Ireland, Norway, Sweden and Switzerland	5,590		5,900 (3)	
United States and Canada	1,120		370	
Total (A)	9,140		15,270	
Countries with a deficit				
United Kingdom		12,390		12,990
Mediterranean countries		860		(0/1,800) (4)
Japan		510		(1,000)
Total (B)		13,760		13,990/15,790
Total OECD (B) — (A)		4,620		For 1970 : between a surplus of 1,280 and a deficit of 520
Australasia	7,500		••	
Eastern Europe	600		••	

(1) National forecasts or (between brackets) estimates made by the Secretariat.

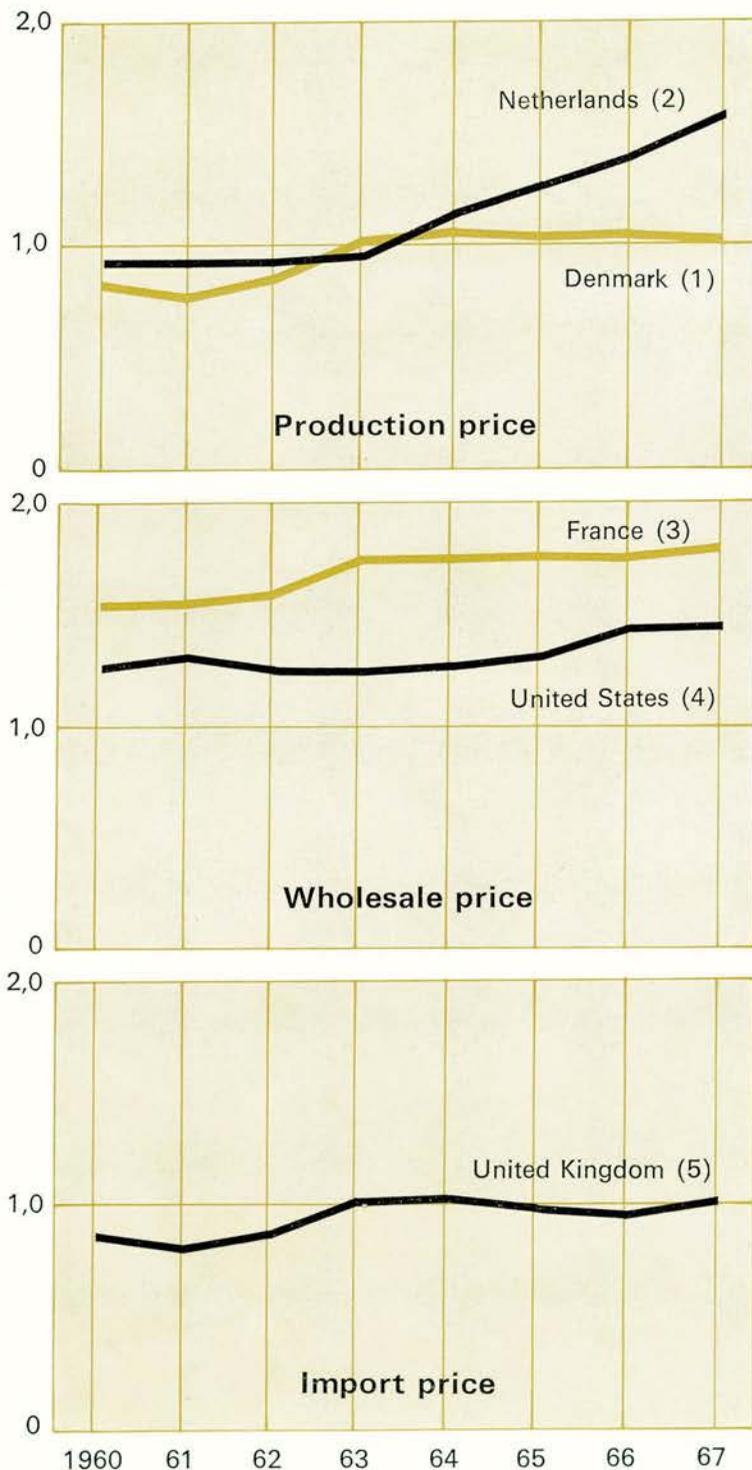
(2) Maximum assumption.

(3) Including a deficit for Sweden of 60,000 tons (as against a surplus of 120,000 tons in 1965).

(4) If national production plan targets are achieved, total production would be equivalent to national demand; deficit of 1.8 million tons on the contrary assumption.

B. PRODUCTION, WHOLESALE AND IMPORT PRICES, 1960-1967

(dollars per kg.)



- (1) Average production price fixed by the Danish Butter Export Board.
 (2) Average price paid by wholesalers.
 (3) Wholesale price including taxes in Paris.
 (4) Quality A, 92 points, wholesale price in Chicago.
 (5) Danish salted butter, dockside, in London.

Source : FAO Monthly Bulletin, Agricultural Economics and Statistics 1, Volume 17, January 1968.

The social repercussions on breeders affected by this policy would be less deep if certain measures could make up for their loss of income or if conditions on the labour market enabled some at least of the jobs thus made free to be deployed to the industry and services sectors, or else, within the agricultural sector, they could be converted to other activities such as beef production.

The study ends with a number of reflections on policies for extending home markets (stimulation of consumption, distribution in connection with dietetic education, etc.) or foreign markets (export subsidies, worldwide food aid, etc.). They reveal that demand for dairy products is not very flexible and that measures to extend the traditional trade circuit would necessitate consumer subsidies which most Member countries budgets might perhaps find difficult to support. It is therefore most probable that any measures for disposing of surpluses will be confined to operations that are strictly limited in time and space.

Although commercial export subsidies, for their part, were able for a time to stimulate the extension of foreign markets to some small extent, they have become so vast that they have made world prices collapse to a level much lower even than the production costs of the most productive exporters. This undercutting now has practically no further effect on the quantities sold. Export aids have thus become extremely expensive for the governments which practice them, without even giving these governments the satisfaction of disposing of their surpluses. Neither a solution nor a palliative can be found through unlimited export aids.

Producer nations should therefore accept a certain measure of discipline in the context of the policies that they will inevitably have to adopt, so that the world market will in future be sheltered from any too violent fluctuations. This discipline should be sought both internally by reconsidering the form of dairy producer income support with a view to checking the growth of dairy production and externally by accepting minimum "rules of good conduct" as regards export price conditions on the normal commercial market and by the co-ordinated organisation of gifts to developing countries.

When such circuits are organised, the greatest attention should be paid to requirements and to the technical details of the transport, preservation and distribution of produce, as well as to the fact that the traditional market must not be disturbed.

(1) Dairy stock is even falling in North America and the Nordic countries. It is only increasing in countries with a shortage : the United Kingdom, the Mediterranean countries and Japan.

(2) The average size of herds in North America, the United Kingdom, the Netherlands and Denmark increases by one cow every two years.

(3) Thus, the findings of the latest agricultural censuses show that in eight countries a little over 200,000 dairy farms disappear each year. The eight countries in question are Germany, the Netherlands, Belgium, Denmark, the United Kingdom, the United States, Canada and Japan, which together produced 117,000,000 tons of milk in 1966 on slightly more than 3,000,000 farms. The rate at which herds disappear is therefore about 7 per cent per annum.

HIGH LEVEL MEETING OF THE OECD DEVELOPMENT ASSISTANCE COMMITTEE

The Seventh Annual Meeting at high level of OECD's Development Assistance Committee was held at the Château de la Muette on 30th-31st October. Members welcomed the presence of Switzerland, which has recently become a member of the DAC. Ministers and senior officials representing the 17 members of the DAC (1), who among them provide well over nine-tenths of total world flows of official and private resources to developing countries, met to consider the means to improve and increase their present aid programmes.

In agreeing its work programme for the coming year, the Committee laid particular stress on the need to define a more explicit long-run aid and development strategy so as to increase the impact of individual efforts. The main document before the Committee was the 1968 Report of the DAC Chairman, Ambassador Edwin M. Martin, which is shortly to be published.

During the meeting, discussions took place among Ministers and officials on the role of OECD and the DAC, in the light of the proposed UN Second Development Decade and the establishment of the Pearson Commission on International Aid Questions. The Committee will consider what contribution it can make to these two undertakings.

Trends and Forecasts

Last year saw a significant rise in public and private resource flows to developing countries and some acceleration of the latter's rate of growth. However, expressed as a percentage of national incomes, donor flows showed only a slight increase over the previous year. Members unanimously stressed that the present assistance effort needs to be further strengthened in order to supplement the effort of developing countries towards economic and social progress.

It was noted that prospects depend heavily on the action taken by the four major donors — the United States, France, Germany and the United Kingdom.

The situation in the *United States* is important both because the United States provides half of total DAC assistance and because of its possible impact upon the collective efforts of the DAC countries. The fact that the United States currently ranks tenth among DAC members in net public and private flows as percentage of national income is a matter of great concern. Actual United States assistance expenditures will be maintained for the next year or two through drawing on undisbursed appropriations. However, the proposed reduction in new commitments and the fact that the IDA can continue to operate only on condition that the United States participates



James Mark, Under-Secretary, Ministry of Overseas Development, and Reginald Prentice, Minister of Overseas Development, United Kingdom.

in reconstituting its resources, nevertheless create a disturbing situation for the future.

In spite of economic and budgetary difficulties, *France* has not modified its aid policies. Public aid continues to be accorded a high priority and continues to increase.

The United Kingdom over the past year has maintained its aid effort, in spite of its economic difficulties.

Germany has taken welcome steps to ensure a steady expansion in its aid over the next years. However, the terms of German assistance to developing countries, like that of several other donors, do not yet meet the targets of the 1965 DAC recommendation.

Among the newer or smaller programmes, a striking and welcome feature is the continued rapid growth in the

(1) <i>Australia</i>	<i>Commission of the</i>	<i>Japan</i>	<i>Switzerland</i>
<i>Austria</i>	<i>European Communities</i>	<i>Netherlands</i>	<i>United Kingdom</i>
<i>Belgium</i>	<i>France</i>	<i>Norway</i>	<i>United States</i>
<i>Canada</i>	<i>Germany</i>	<i>Portugal</i>	
<i>Denmark</i>	<i>Italy</i>	<i>Sweden</i>	

Observers : IBRD, IMF

efforts of *Australia, Belgium, Canada, Denmark, Japan, the Netherlands, Norway and Sweden* — although several of the countries named are still far from the target of providing one per cent of their national incomes in the form of net public and private flows to developing countries. Several members have introduced plans for aid flows covering the next few years, which will assist developing countries in their own forward planning.

Public Attitudes

Members emphasised the importance of increased public understanding of the need for co-operation with developing countries. They agreed that additional steps should be taken to improve this understanding. A number of specific suggestions as to ways in which the Committee could help were put forward for further consideration.

Aid Volume and Terms

The DAC took note of the results of the Second United Nations Conference on Trade and Development, held in New Delhi in 1968, and re-affirmed the intention of its Member countries to make their best possible efforts to comply with the Recommendation relating to the aid volume, which specifies that financial resources equalling one per cent of Gross National Product at market prices should be provided to developing countries. This represents a substantial increase in the target, as compared with that adopted by the DAC in 1965.

The meeting also discussed the problem of improving the financial terms of Member countries' aid in the light of the needs of a growing number of developing countries

for assistance on very concessional terms. The meeting took note of efforts by the DAC to execute the mandate set out in the 1965 DAC Terms Recommendation, which called for a revision of the objectives after three years "in the light of other relevant factors". One of these factors is the UNCTAD II Conference at New Delhi which "noted with appreciation" that such a review was under way and expressed the hope that it would result in further liberalisation of terms. Bearing this situation in mind, the DAC instructed its Working Party on the Financial Aspects of Development Assistance to complete, as soon as possible, its efforts to arrive at a concrete expression of Members' intentions to make further improvements in their aid terms in accordance with the mandate of the 1965 Recommendation.

Sectoral Problems

As part of its continuing study of ways of effecting improvements in major sectors of external aid, the DAC agreed to pursue work which has been started this year in the educational sector (1). It is generally agreed that major stress now needs to be placed on qualitative rather than quantitative improvements so as to make better use of existing resources.

The Committee was encouraged by the growing awareness in developing and developed countries of the importance of increasing agricultural production in the developing countries and agreed that the emphasis which the Members have placed on supporting agricultural development should be continued.

(1) *The Committee noted a statement by a representative of UNESCO on this subject.*



Thorkil Kristensen, Secretary-General of OECD, Edwin Martin, Chairman of the OECD Development Assistance Committee; and Ernest Parsons and Hellmuth Führer, respectively Director and Deputy Director of the OECD Development Assistance Directorate.

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