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STRUCTURAL CHANGE IN THE COMMUNITY :
OUTLOOK FOR THE 1980s

Commission departments'
working paper

Brussels, December 1979.

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STRUCTURAL CHANGE IN THE COMMUNITY: OUTLOOK FOR THE 1980s

Technical report -

PREFACE

The European Council, meeting in Brussels in December 1978, asked the Commission to provide a study of structural development prospects until 1990, and of the implications of structural change for the economic and social situation in the Community, in time for its June meeting.

The Commission therefore instructed its staff to carry out a series of technical studies based on work done by the departments and on reports prepared by experts or groups of experts called in by the Commission dealing with the structural problems of the next ten years. In addition, Commission departments were able to draw on long-term forward studies carried out in the Member States and by public or private international bodies; they found the very detailed "Interfutures" report by the OECD particularly valuable[1].

On the basis of these studies, the Commission submitted a preliminary Communication on structural change in the coming decade to the European Council meeting in Strasbourg. The Commission believes that the most important conclusions of the technical studies carried out by the departments should be brought together in a single document, so that the results to date may be reviewed. Work on this subject is still going on in the Commission, particularly in connection with the FAST project, which is examining the long-term outlook for technology and research. But the Commission would like a wide-ranging discussion to begin as soon as possible in Community bodies; for, as the European Council so rightly pointed out, the outlook for the 1980s is of crucial importance. The purpose of this report is to contribute to the discussion.

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1 "Facing the Future : Mastering the probable and managing the unpredictable", OCDE June 1979.

PART ONE

THE MAJOR COMPONENTS OF STRUCTURAL CHANGES IN THE 1980s

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C O N T E N T S

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PART TWO : The challenges facing the Community in the next ten years

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INTRODUCTION

The structural developments and even changes that the Community will face during the next decade are already under way; they will call for radical transformations and major adjustments in economic and social development.

This prospect appears to be causing serious concern in the Community, or at least in some Member States and in broad sections of the population. And yet, the Community economies have shown themselves, over the past few decades, to be very adaptable to the vast structural changes brought about by agricultural developments, removing trade barriers and, in general, the establishment of the Community.

Indeed, it is worth while remembering that when the ambitious plans for building a Community first took shape, doubts and uncertainties were expressed very strongly in various places about whether this or that country would be adaptable enough to respect the commitments involved in this vast undertaking; it is also worth while remembering how quickly these doubts were dissipated.

These remarks help us to bear in mind that when the future is uncertain, the collective awareness tends almost instinctively to worry; however, although present apprehensions can be partially explained in this way, there is no doubt that the challenges of the next ten years will be exceptionally difficult for Europe.

First, these challenges are relatively new; they are multifarious, and increasingly acute. But, most important of all, they are arising in a socio-economic situation that makes the adjustments they require all the more difficult because of slow growth in Europe over the past few years, rising under-employment, our societies' apparent inability to deal with these problems, and the growing fragility of social cohesion.

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The changes of recent years have been particularly brutal in a Community accustomed to some degree of stability in its external relations and to rapid, sustained growth ensuring full employment and a considerable increase in the average standard of living. Moreover, the Community now feels more threatened and more vulnerable than before, not only because it is heavily dependent on the outside world for energy, raw materials and export markets, but also because its cohesion - so necessary for facing the great challenges of the period - remains fragile.

But there is no reason why Europe should meekly accept unemployment, stagflation, external dependence and gradual withdrawal from the world scene, which seem to be threatening it today. The main structural trends of the next ten years may well, it is true, lead to decline, strains and conflict at national, Community and worldwide level. But they also provide opportunities for a new type of economic and social development, if only Europe finds the way to mobilize and coordinate its intrinsic strengths and energy.

Part I of this report analyses the shape which the major structural changes expected for the next decade will take in the Community. Five main themes have been studied, some in greater depth than others: the Community's dependence on external sources of energy and raw materials; the new international economic and monetary environment; the demographic outlook; technological progress, and changes in social values, needs and behaviour patterns.

The study involved analysing from a specifically Community viewpoint (i.e. both for the Member States and for the Community as such) the extent, constraints, potentialities and Community dimension of the major trends.

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In Part II, the same approach is adopted to describe the major challenge which the employment situation will present, and then to analyse the possible choices, the constraints and the inevitable adaptations of the next ten years both as regards the rate and content of growth and as regards sectoral adjustments, the search for a new social cohesion, and the Community's relations with the rest of the world.

There are three types of challenge facing the Community in the next ten years. First, at national level, the Member States will have to achieve a type of economic and social development that is both more likely to lead to the creation of jobs, and more in keeping with new aspirations for a better quality of life. Secondly, at Community level, it is the existence of the Community as such that is at stake: the Community is threatened with gradual decomposition by the multifarious strains now appearing between Member States as a result of present problems. However, it will be able to attenuate these problems and solve them more easily as long as national efforts are more closely coordinated and the solidarity between the Member States is reinforced. The future organization and working of the European monetary system, and the enlargement of the Community, will be important and significant developments at both these levels over the next ten years. Thirdly, at global level, it is the Community's place in the world that is threatened, and its role not only as an economic power but also as a centre of negotiation capable of working efficiently towards a better balanced and fairer system of economic and financial relations. Each individual country and the Community as such must resist the temptation to withdraw, and beware of the fond hope that it can deal with new situations alone, without allowing for the legitimate rights and interests of the other nations of Europe and the world. In particular, Europe has a major responsibility to help the countries of the Third World to overcome the tragic poverty afflicting most of them. It must not decline this responsibility. The very problems the Community itself is facing are also present, and to a much greater extent, in most of the developing countries.

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The outlook for structural change in the next ten years is far from clear-cut. It is true that some of the problems described in this report seem inevitable during the coming decade. But the scope or even the nature of most of them will depend on attitudes and actions over the next ten years, which will probably affect the scope, and perhaps even the direction, of structural trends to 1990, and almost certainly after 1990. A forward study of the type carried out by the Commission departments at the request of the European Council is particularly difficult, but also particularly valuable, precisely because certain problems are already evident, because a range of options are open, and because the Member States may, on certain conditions, regain control over their future.

In spite of the limitations of this work, due both to the speed with which it was carried out, and to the extreme difficulty of the task, the Commission departments submit in this report the main results of their preliminary study.

CHAPTER 1

ENERGY AND RAW MATERIALS: THE COMMUNITY'S DEPENDENT POSITION

All the Community countries except the United Kingdom and the Netherlands are very heavily dependent on other countries for their energy supplies, and this clearly constitutes one of the Community's major areas of vulnerability (see A1). However, the risks involved in the Community's dependence on imports of mineral ores and certain agricultural products should not be underestimated.

This state of dependence is not peculiar to the EEC; it is shared by Japan, which imports about 90% of both its energy and its raw material requirements (as against 54% and 75% respectively for the EEC), and by most other European countries. It contrasts with the situation of Australia, Canada and, in particular, the United States; the latter meets 85% of its raw material requirements and almost 50% of its energy needs from indigenous supplies.

Besides the basic problem of security of supply, this dependence has inevitable consequences for the import bill, which is particularly high for the Community (see A1(a)).

It is important to realize how far-reaching this problem of dependence is. We know that energy consumption is related to the consumption of mineral raw materials, in the contexts of economizing or recycling and of producing substitutes for imported products; but we should remember too, that the Community is only relatively autonomous for agricultural products, even though its agricultural sector covers the basic food needs of its population. Indeed, the Community's highly mechanized and technology-based agricultural sector, with its high consumption of energy, fertilizers, pesticides and compound feedingstuffs, is itself extremely dependent on imports of oil and other raw materials.

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1.1. The energy problem in the 1980s

The trend in the Community's energy balance between 1973 and 1978 shows a number of satisfactory features when compared with the energy policy objectives which the Community had fixed for 1985 in the wake of the 1973 crisis.

It is true that growth has been much slower than was projected at that time; this has helped considerably to curb energy consumption. In 1978 this consumption was the same as in 1973, despite the fact that economic activity had increased in the meantime by 10%. The share of oil in energy consumption fell from 61% to 55% and dependence on imported energy from 63% to 54%.

On the other hand, it must be admitted that output of certain energy sources has not increased as was hoped; coal production is steadily declining; nuclear programmes have been delayed and sometimes even cut back significantly.

The new oil crisis of 1979 has once again made it clear that the Community's oil supplies are extremely vulnerable, and face serious threats in terms of both quantity and price; it has also emphasized the need to reduce energy dependence.

1.1.1. The world outlook

There are many substantial uncertainties which make it difficult to assess the future long-term trends of energy supply and demand; forecasting is therefore particularly hazardous in this field. However, it would seem possible, using combinations of hypotheses, to define the limits within which the market will move in the medium term.

World energy demand (including the USSR and China), which stood at 6 200 million toe in 1977, may well reach between 9 200 million and 10 600 million toe around 1990. This would represent an average annual increase of 3% to 4% over the period 1976-90, compared with a rate of 4.8% a year during the period 1960-75 (see A 2).

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Even assuming large-scale investment, the proportion of this demand covered by sources of energy other than oil (solid fuels, gas, nuclear energy and renewable sources) will probably not exceed between 5 500 million and 6 500 million toe. This already represents a considerable increase compared with their current contribution of some 3 500 million toe (see A 2).

It would not be realistic to assume a situation in which high growth of investment in energy sources other than oil would combine with weak economic growth. Consequently, demand for oil could well increase from its present level of 2 800 million tonnes in 1977 to 5 000 million tonnes per year by 1990.

To satisfy total demand of 5 000 million tonnes, OPEC production would have to be between 2 100 million and 2 750 million tonnes, taking into account production increases elsewhere (see A 3). Present OPEC production is 1 600 million tonnes per year and it is prudent to assume that OPEC countries may decide to limit production to between 1 800 million and 1 900 million tonnes by 1990. These figures indicate the potential difficulties and price increases which threaten the world market in the medium term.

Since 1974, oil reserves, which had previously almost quadrupled in twenty years, have not varied greatly. New discoveries have been made recently (e.g. in Mexico), but it is not yet possible to evaluate them precisely. In the longer term, account must be taken of "non-conventional" sources of oil(tar sands and oil shale, etc.), although the cost of setting up production is certain to be high and lead times will be long.

In view of the numerous factors which are likely to create difficulties in the oil market in the long term, the hypothesis of an easier situation on the oil market towards the end of the 1980s is too uncertain to serve as a basis for the policy of countries which, for a long time yet, will remain largely dependent on imported oil.

The Community's energy policy should therefore be based on the hypothesis that it may well be impossible to obtain more than 450 to 475 million tonnes of OPEC oil in 1990 without exacerbating the upward pressures on prices and without increasing the risks to security of supply. To this figure can be added some

50 million tonnes from non-OPEC sources.

Net Community oil imports of 500 to 525 million tonnes therefore represent, as it were, the upper limit of possible purchases in 1990, bearing in mind the likely developments on the oil market during the 1980s. The objective actually adopted by the Community institutions up to 1985 is to hold imports over the next five years to the 1978 level (i.e. 470 million tonnes).

1.1.2. The Community's energy balance for the period 1978-90

- Overall outlook based on Member States' projections

Community energy consumption for 1978 was estimated at 972 million toe (tonnes of oil equivalent). Assuming an average rate of economic growth of 3.8 % per year and an average energy coefficient (ratio of the growth of energy consumption to the growth of GNP) of 0.8 over the period, energy consumption should reach some 1 400 million toe a year in 1990 for the Community of Nine (see A 4).

The main feature of the 1990 energy balance established on the basis of Member States' projections (made in mid-February 1979) is the reduction in the share of oil in gross energy consumption (55 % in 1978; 46 to 47 % in 1990) and, to a lesser extent, in the share of solid fuels; on the other hand, the share of nuclear energy is expected to increase from 3 % to 15 %.

The degree of dependence on external energy supplies should decline, possibly falling below 50 % (oil imports alone accounting for some 40 % at most). It should be noted in this context that, although all the member countries are committed to the principle of reducing energy dependence, all (except the United Kingdom and Denmark) were still forecasting at the beginning of 1979 an increase in the volume of their oil imports between now and 1990.

- Disparities in the situation and prospects of Member States

In the energy field, relatively substantial disparities can be detected in the situation and prospects of the different Member States.

- Besides the part played by institutional factors and disparities due to geographical situations and the climate, this results primarily from the differences in economic growth; Member States are not all at the same stage of industrial development and, for this reason especially, the sensitivity of their energy consumption to changes in economic activity varies widely from country to country. It is particularly great in countries such as Ireland and Italy, whose energy consumption is still relatively low; owing to rapid industrialization and a growth rate which in the 1980s should be higher than that in the rest of the Community, these two countries are therefore likely, over the years ahead, to see a great increase in their energy consumption, outstripping that of the other Member States.

- Furthermore, some of the member countries are better placed than others because they have their own natural energy resources. The outstanding example is the United Kingdom. It has oil reserves of between 2 400 and 4 400 million tonnes and rapidly developing production (75 million tonnes in 1979), which should enable it to reach self-sufficiency in oil and energy during the 1980s.

In addition, the United Kingdom, together with a number of other Member States (such as the Federal Republic of Germany) has sizable coal reserves which leave room for higher production.

- A number of countries have stepped up their nuclear energy programmes and these will bear fruit in the 1980s. This applies particularly to France.

- Finally, the energy-saving programmes launched by all the Member States vary greatly in intensity and extent, as can be seen from the estimates for public expenditure allocated in recent years to energy saving.

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- The energy balance of the enlarged Community

Greece, Spain and Portugal are as vulnerable as the present Member States, or perhaps even more so, to the consequences of unfavourable developments on the world oil market. Their degree of dependence (Greece 74 %; Spain 82 %; Portugal 90 %) is a good deal higher than that of the Community as a whole (approximately 55 %), but lower than that of some of the individual Member States. Their per capita energy consumption is on average less than 2 toe a year at present, whereas it is already 3.6 toe in the Community of Nine, but it will probably increase sharply (see A 5). Given the economic buoyancy of these countries, the years ahead are likely to see a sharp rise in their energy consumption and therefore in their imports, since there is relatively little scope for indigenous production.

The energy projections currently available from the three applicant countries (see A 5) suggest that the Community must reckon with additional energy consumption of some 170 million toe (including imports of 97 million toe) by 1990 as a result of enlargement (see A 6).

1.1.3. The extent of uncertainty and the scope for choice in the Community

There are margins of uncertainty and scope for choice in the Community both as regards production of the various forms of energy and as regards demand.

- Production

(a) Coal

Because of its short-term and medium-term rigidity, coal production can do little to increase the elasticity of energy supply during the next decade. The time scale involved in investment in this industry means that decisions about the level of production must be taken without delay. Such decisions also presuppose complementary decisions on the user side (increase in the number of coal-fired power stations, long-term commitments) and measures to improve the competitive position of coal. The present cost of production is such that much of the coal now produced is uncompetitive, either in relation to coal imported from non-member countries or in relation to fuel oil.

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If these complementary decisions are not taken, the total market for coal will be some 40 million toe smaller than forecast by the Member States.

Increasing use may also have to be made of imported coal; this again requires that Community users enter into long-term commitments in order to enable producing countries to undertake the necessary investment.

(b) Nuclear power

There is a danger that the ambitious nuclear power programmes which were designed to increase the Community's nuclear capacity from 80 to 140 GWe between 1985 and 1990 cannot be implemented, as even the 1985 target now appears very difficult to achieve. Compared with present projections, there could then be a shortfall by 1990 of the order of 40 million toe.

The result, unless energy consumption patterns change radically, would be a higher level of oil imports: thus there is an absolute need to reinforce efforts in this field. This implies, inter alia, that the public must be better informed about the implications of the energy choices available and that more must be done to improve safety and environmental protection.

(c) Natural gas and oil

The production of natural gas will depend on various factors (the possibility of new discoveries being made in or near the Community, the rate of exploitation of known reserves, price levels, overall economic activity, etc.) which might make available, by 1990, an extra 30 million toe compared with current production and import levels.

As for oil, a policy which combines exploration incentives with production properly phased over time would make it possible to maintain in 1990 a level of indigenous production near to that likely in 1985 (between 140 and 150 million toe).

As other sources of primary energy (hydroelectric power, renewable energy) are not likely to make a significant additional contribution in the period to 1990, the flexibility of total indigenous energy supply will be fairly

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limited during the 1980s. The drive to increase this supply must be vigorously pursued and stepped up during the coming decade in order to create the conditions for satisfactory long-term supplies.

The policy choices for the production of fuels cannot be dissociated from those for the production, transformation and distribution of energy. The problem of electricity and the means of producing it is particularly relevant. The Community's heavy dependence on external oil supplies together with the fact that production costs in nuclear and coal-fired power stations are lower than in power stations using fuel oil should encourage the present strong tendency towards an increase in the share of coal and nuclear power in the production of electricity, and discourage the use of electricity when it must be produced with fuel oil.

In the longer term, differences in cost structure between nuclear power and electricity produced from fossil fuels may well play a major role. Total costs of nuclear power are determined mainly by capital costs and are more resistant to inflation as long as fixed costs remain constant over a period of years. Nuclear power stations should thus be at an advantage compared with conventional thermal power stations, which are much more vulnerable to the danger of rising fuel prices.

Generally speaking, the problems posed by supplies of different types of energy must be looked at in relation to the structure of uses with which they are related technically (because of the nature of the energy source), economically (because of changes in relative prices of the different sources of energy) and strategically (because of the degree of external dependence for supplies of each source).

- Demand

With an energy coefficient of 0.8, an increase (or reduction) of one point in the annual rate of GDP growth over the period 1978-90 would entail, by 1990, an increase (or reduction) in consumption of some 100 million toe per year for the Community as a whole.

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Even if we ignore the economic and social risks involved in a deliberate policy of low economic growth, it is clear that such a policy is not an acceptable means of saving energy over the next decade. At first sight, a low growth rate may seem to lighten the burden of oil imports, but in fact, in the long term it would probably make it much more difficult to develop energy saving and energy production in Europe, and it would not solve the problem of Europe's dependence on outside energy sources, or remove the threats that world oil disequilibrium involve for the Community. As the report "Pour une croissance économe en énergie"[2] points out, it is not paradoxical to argue that sustained growth would be a powerful stimulus in the medium term to the rational use of energy. Only growth of this kind can satisfy traditional economic and social objectives and at the same time play an active part in saving energy. It would speed up the renewal of machinery, buildings and means of transport and thus permit improvements in energy efficiency. It would generate additional finance for firms and households and thus help in adapting existing equipment and housing to the new energy situation. In the short term, however, a return to more sustained growth would make the energy problem more acute.

Whereas, therefore, the basic problem is to divorce energy demand as far as possible from GDP growth ("dissociation" is the expression used in the report referred to above), the possibility and means of achieving this are not independent of the rate of growth. There is no guarantee that the dissociation observed between 1973 and 1978 in a context of slower growth (approximately 2% a year) will continue, particularly if there is a return to a more satisfactory rate of growth.

With a rate of growth of about 4% over the period 1978-90, a reduction in the average energy coefficient from 0.8 to 0.65 would produce additional savings of 100 million toe. This estimate is based on a not unreasonable hypothesis of dissociation.

According to various studies, the potential for energy savings, estimated on the basis of techniques available in the near future, varies from 15 to 50% according to sector: between 15 and 35% in industry and agriculture; between 20 and 35% in transport; up to 50% in domestic use and the tertiary sector. These gains could be achieved by the year 2000, provided that the necessary measures are taken without delay.

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[2] This report was presented by Mr J. Saint Geours in June 1979 on behalf of the group of independent experts which met under his chairmanship to carry out this study at the request of the Commission of the European Communities.

1.1.4. The priorities at Community level

At its meetings in July 1978 and March 1979, the European Council fixed for 1985 the double objective of reducing the energy coefficient to 0.8 and of limiting oil imports to their 1978 level (i.e. 470 million tonnes). In June 1979, the European Council decided that this limit on oil imports should be observed from 1978 to 1985.

This objective adopted at Community level should be supplemented by the following two objectives proposed by the Commission for 1990:

- to reduce the energy coefficient to 0.7;
- to limit dependence on energy imports from non-member countries to 50 %.

In order to achieve these aims (see alternative energy balance in Table A 4), convergent measures by the Member States and the Community will be required in a number of priority areas.

First, in the area of energy production, the output of hydrocarbons should be increased to 145 million toe of oil and 130 million toe of natural gas by 1990, and research into new energy sources should be encouraged, as should the use of such sources.

Moreover, the share of solid fuel and nuclear power in electricity generation should be increased to 70 or 75 % by 1990. To achieve this aim, coal production must increase to its 1973 level, coal imports must expand, and additional burning capacity for solid fuels in power stations and certain industries must be created.

At the same time, energy-saving measures must be reinforced through improved information, new regulations and increased financial aids; in particular, standards of efficiency in heating and insulation systems in homes, offices and shops must be improved; fuel consumption by motor vehicles must be reduced; investments and the application of new technologies and new processes designed to save energy in industry must be encouraged.

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These convergent measures should be supported by powerful incentives to investment and to research and development in the areas of production, saving and more efficient use of energy. They should be based on a pricing policy for energy intended to:

- gradually establish consumer prices that reflect long-term movements in supply costs;
- prevent artificially low prices and limit the reductions allowed on large quantities;
- ensure market transparency;
- gradually simplify and harmonize pricing practices and consumption taxes.

Finally, these measures will need to be coupled with a drive to give the public better information on all aspects of the energy problem so as to promote an awareness of urgent needs and priorities.

Obviously national approaches to the energy problem will differ, but it is vital that the differences should not lead to increased problems and imbalances for the Community, and thus that national energy policies should be more closely coordinated.

Moreover, the Member States must try to take full advantage of the benefits that the size and the solidarity of the Community can afford at both domestic and international level. On the domestic front, new or reinforced measures for Community cooperation can support national efforts by increased use of Community financial instruments in the field of energy; by the development of joint action such as the J E T project; by the development of European energy networks (gas pipelines; international link-ups between electricity networks; oil circuits), and so on.

On the external front, besides reducing their energy dependence, the Community countries must try to diversify their external sources of supply, and to reinforce stability. The Community as such is in a much more powerful position than any of the individual Member States to negotiate with other consumer countries and the producing countries, and is therefore much more likely to achieve the cooperation required to ensure stable supplies. Nevertheless, the Community's power of negotiation depends to a large extent on how far it can promote close coordination between energy policies in the Member States, and ensure that these policies are really effective, thus setting an example to the rest of the world and demonstrating its cohesion.

1.2. Non-fuel mineral raw materials

1.2.1. The present and future world situation in outline

While there are a variety of possible developments for the very many mineral raw materials, a number of general features stand out:

(a) The improbability of a general shortage of raw materials in the period to 2000

A comparison of known resources and reserves with the cumulative demand of the next two decades (see A 7) suggests that there is no real risk of a general physical shortage of industrial raw materials through depletion of reserves up to the end of the century.

Although the ratio of reserves to demand may appear low for some minerals, it should be remembered that known resources are on average twice or three times as large as reserves.

Furthermore, seabed resources have not been included in this Table; their contribution may prove very significant to resources of chromium, nickel, cobalt and manganese, provided that legal problems relating to the law of the sea are settled. Finally, it so happens that the scarcest materials have possible substitutes (silver and bismuth for example) or are encountering increasing ecological obstacles to their use (mercury and asbestos for example).

(b) The heavy geographical concentration of known reserves

At first sight, known reserves are distributed in a relatively balanced fashion between the major groups of countries: 44 % in industrialized countries, 33 % in developing countries and 23 % in state-trading countries.

Within each group, however, there is a great concentration within a very few countries:

- the United States, Canada, Australia and South Africa possess 90 % of the industrialized countries' reserves;
- the USSR possesses 82 % of the state-trading countries' reserves (exploration is only beginning in China);

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- seven developing countries possess 77 % of the reserves of this group (Brazil 25 %, Chile 19 %, New Caledonia 8 %, Indonesia 7 %, and Zaïre, Guinea and India 6 % each).

Resources of many raw materials are very heavily concentrated in a very few countries (see A 8).

This geographical distribution of reserves means, in particular, that industrialized countries other than the United States, Canada, Australia and South Africa depend heavily on other countries for their supplies of industrial raw materials.

(c) The low level of mining investment and the danger of imbalances between supply and demand between now and 1990

For six metals representing more than 95 % of the value of mining production in 1974 (iron ore, copper, aluminium, zinc, nickel and lead), the annual investment required to meet a moderate growth in world consumption (excluding state-trading countries) for the period 1977-90 has been put by the United Nations at 12 000 million 1975 dollars (see A 9).

However, according to the regular survey by the Engineering and Mining Journal, mining investment actually planned for these six metals for the period 1979-83 is estimated at some $ 50 000 million (i.e. $ 10 000 million a year). For mineral raw materials generally (see A 10), the survey arrives at a total figure of $ 68 000 million; it states that, since last year, the volume of planned investment has fallen by $ 4 000 million despite the fact that investment in uranium has increased considerably to reach an all-time record.

Given the extreme volatility of raw material prices, it is not difficult to see that such a low level of investment and therefore of production may endanger prices or even lead to a temporary breakdown of supplies and may reinforce the cartelization tendencies of producing countries.

The poor financial position of mining companies is currently the main reason for this low level of mining investment. By taking advantage of their financial weakness to displace them, or buy them up, the oil companies are moving into this industry which offers them scope for converting their production potential. Their interest in these - at present - unprofitable activities is

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explained by the fact that they expect a substantial increase in raw material prices over the next few years. Injection of their capital, combined with the actions of international financial institutions and public authorities which have become aware of the problem, may well so stimulate mining investment that supply catches up with or even exceeds demand towards the end of the 1980s. Until this happens, however, raw material prices are likely to move up.

(d) The great probability of a substantial rise in raw material prices during the 1980s

Whereas during the last three decades - if we exclude a number of temporary upsurges such as that in 1973-74 - raw material prices have lagged well behind the rise in the price of manufactures, this situation will almost certainly be reversed in the first half of the next decade.

In "Raw Material Prices in the 1980s", the Economist Intelligence Unit forecasts price rises for iron ore, leather and skins, wool, bauxite and alumina, copper, lead, zinc, cotton, rubber, antimony, industrial diamonds, platinum, tungsten, tropical woods and tin. It reckons with a long-term fall in the prices of hard fibres, jute, magnesite and nickel only. This study may still underestimate the impact on raw material prices of the inadequate flow of mining investment in recent years, as with copper, for example.

This rise in raw material costs may well lead to an improvement in the terms of trade of producing countries and in particular of developing countries, which may consequently step up their imports from industrialized countries.

This new trend in the terms of trade compared with recent decades may thus contribute, provided the reversal takes place gradually, to a return to a better equilibrium of payments balances between developing countries and industrialized countries, while at the same time stimulating world economic activity.

Rather than a steady upward movement in raw material prices, however, we may see new and substantial fluctuations over the next few years, with less favourable consequences for all concerned. This danger remains especially

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even though negotiations on the establishment of long-term agreements between producer and consumer countries are taking a turn for the better: such agreements depend on the existence of buffer stocks and cannot therefore become operational before the second half of the decade; until then, with supply lagging behind demand, it will not be possible to build up the necessary stocks.

(e) The geographical imbalance of expenditure on investment and exploration

Estimates by the United Nations Centre for Natural Resources of the geographical distribution of 1977-90 mining investment needs for the world (excluding state-trading countries) put these needs at slightly more than $ 100 000 million in the industrialized countries and at approximately $ 50 000 million in the developing countries. This breakdown broadly matches that of known reserves (60 % in the industrialized countries and 40 % in the developing countries).

For the period 1979-83, 43 % of projected mining company investment is planned in industrialized countries, and 57 % in the developing countries (see A 10).

As lead times in mining investment are eight years or more, these investment flows often reflect implementation of previous decisions rather than future intentions.

For this reason, the geographical distribution of exploration expenditure is a better indicator of future investment. The United Nations Centre for Natural Resources estimates that more than 90 % of mining companies' expenditure on exploration has been concentrated in recent years in the industrialized countries (mainly the USA, Canada, Australia and South Africa); the 10 % spent in the developing countries has been largely concentrated in Brazil, Chile, Indonesia and the Philippines.

The causes of this geographical imbalance are fairly clear. During the last decade, non-commercial risks became much too great in many developing countries. Nationalization, withdrawal from establishment agreements, political or financial instability and the climate of antagonism towards large Western enterprises inevitably led these firms to look elsewhere. Furthermore, they were

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frequently unable to find the banking finance necessary for large-scale mining investment in countries which were no longer able, or might no longer be able, to service their external debt.

(f) The growing trend towards on-the-spot processing

On-the-spot processing is a very important objective for the raw material producing countries and the subject of substantial controversy in the North-South Dialogue. These countries use many and various means to pursue this objective: quantitative restrictions and taxes on exports; dual pricing (selling to national processors working for export at a price appreciably lower than world market prices); and the "scissors" technique, which combines dual pricing for the raw material with dumping of the processed product. Consumer countries will have to adapt to this trend.

1.2.2. The problems seen from the Community's viewpoint

Given this combination of likely problems in the next decade in the field of non-fuel mineral raw materials (uranium excluded), the Community finds itself in a rather difficult position.

(a) First of all, it is very heavily dependent on other countries for its supplies of this type of product (see A 11).

A high degree of dependence is not necessarily worrying if sources of supply are sufficiently diversified and offer lasting guarantees of access to resources. However, what is worrying for the Community is, first of all, the combination of its high degree of dependence for most raw materials and the concentration of reserves in a very small number of non-member countries. There is the further fact that it depends for its supplies of certain products (manganese, chromium, cobalt, platinum, tungsten, vanadium, etc.) on a small number of suppliers: this makes the Community especially sensitive to the uncertainties of every kind which may affect its supplies.

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This problem of dependence does not necessarily involve the raw material itself. Thus, in the case of titanium, the diversity and size of known reserves of ilmenite and rutile permit wide diversification. However, owing to a lack of production capacity for titanium sponge, the Community will depend for its supplies, since the USSR is withdrawing from the market, almost totally on Japanese producers who are its main competitors for titanium strip and tubes used in the construction of nuclear power stations and desalination plants, the potential market for which is considerable.

The scope for improving the Community's degree of self-sufficiency is limited; however, such scope does exist for lead and zinc in Ireland and Greenland. Enlargement may also bring improvements (some of them substantial), mercury from Spain being one example.

However, bottlenecks at primary processing level (e.g. for titanium) may be overcome through coordinated action on the part of private enterprise and the public authorities. Furthermore, the development of recycling and economies of use, which are frequently conditional upon increased research and development, are likely to bring tangible results.

(b) Community mining investment outside the Community is grossly inadequate.

A group of the main Community mining companies has compiled statistics on its members' investments during the period 1966 to 1977 (see A 12).

Their annual investment ranged between $ 400 and 500 million. If this figure is compared with the $ 12 000 million required for the world (excluding state-trading countries) and if it is remembered that the Community is the largest world consumer of imported raw materials, and that part of our mining companies' investment serves to ensure the supplies of non-Community consumer countries, doubts may be expressed as to the security of our future supplies.

Furthermore, European mining companies are tending to concentrate their investment expenditure (75 %) and a fortiori their exploration expenditure (60 % in 1966-67; 85 % in 1976-77) to the detriment of developing countries (see A 13). Expenditure on exploration in African developing countries has

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plummeted, falling (if we exclude uranium) to zero in 1976 (see A 14).

Tne Community thus depends increasingly on the goodwill of a number of its main industrialized, raw material producing competitors, which find it easier than the developing countries to retain close control over the production, sale and processing of raw materials. By neglecting the developing countries, where political risks are no doubt greater, it is at the same time depriving itself of the boost to exports which increased mining exploration in these countries could well provide and perhaps also of a large part of the positive effects of any rise in raw material prices.

A whole range of measures might be envisaged to stimulate Community mining investment in the Third World: exploration loans, refundable in the event of success; partial financing of feasibility studies; increased financial participation by national and international financial institutions (IFC, IBRD, the EIB for the Community) in investment projects; better support for exploration credit organizations for financing plant and equipment; improvement of systems of guarantee against non-commercial risks, etc. The provisions relating to mineral raw materials which have been incorporated in the new Lomé Convention go some way in this direction, by increasing available finance from the European Development Fund, the European Investment Bank and Commission loans, with or without interest rebates, and even in the form of risk capital, and by allowing the Community to sign specific agreements for important projects.

(c) The impact of a lasting rise in raw material prices on Community economies depends to a large extent on the use made by producing countries of the corresponding increase in their export earnings. The risks for the Community associated with such an increase in prices are as follows:

- the growth of the export earnings of the industrialized raw material exporting countries may lead to only a slight increase in imports from the Community;
- the growth in the spending power of developing countries may lead to a dispersal of their purchases among the industrialized countries, so that the Community will not receive the equivalent of the additional expenditure it incurs as a result of the increase in raw material prices. Consequently the more the Member States direct

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their raw material purchases towards the developing countries, the more they will be able to bear an increase in prices, since this policy creates export opportunities for them which they will have to exploit.

(d) Faced with the increase in on-the-spot processing, some industrialized consumer countries (in particular Japan) seem to have come to realize, apparently more than Community countries, that security of supplies does not necessarily lie at raw material level. A progressive dovetailing of the interests of producer and consumer countries at each of the stages of production, distribution and marketing may create the degree of mutual interest necessary for the long-term guarantee of supplies to meet the needs of consumer countries. However, this means that the consumer countries, and particularly the Community countries, must adjust their industrial structures, either so that they can implement suitable policies in good time, or because supplies will be getting more and more uncertain as the producer countries apply restrictive measures.

However, if the objectives of the Lima plan are to be realized, the developing countries' raw material requirements will increase so rapidly that these countries may not be able to release adequate finance at the level of on-the-spot processing to enable them to supply the industries to be developed further along the line. The only real danger is that they will carry out industrial development by stages, i.e. that they will begin by setting up processing industries, and later create on-the-spot outlets for these industries. The industrialized countries might then have to abandon the processing of raw materials, but be obliged to take it up again later.

Moreover, in view of the cost of equipment for processing raw materials, the high energy input of these activities, their low value added, their low employment potential, the instability of commodity prices and the problems of pollution, the industrialized countries have no real advantage in monopolizing this industry and in specializing in the least lucrative stage of the industrial process.

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Faced with these problems, which are common to all Member States, the Community as such has a role to play, particularly in the dialogue with producing countries. The Community dimension can give each of the Nine much more weight and effectiveness than could isolated approaches and action. However, a true Community position has yet to be defined; this is not without its problems, as was shown by the recent discussion of the Commission proposals on the promotion and protection of Community mining investment in the developing countries; the initiative taken in connection with the renewal of the Lomé Convention represents progress, even if (and also precisely because) the ACP countries contribute only slightly to EEC supplies of mineral products. This initiative should serve as an example, on which agreements with other developing countries could be based.

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1.3. Commodities of animal and vegetable origin

1.3.1. The Community's current supply pattern

The Community, which is one of the foremost agricultural producers in the world, is able to meet its requirements (see A 15) for most basic foodstuffs (wheat, meat, sugar, milk products, temperate zone fruit and vegetables) and actually exports some of these products (see A 17). Nevertheless, it is dependent on other countries for various categories of products:

- tropical products (tea, coffee, cocoa and tropical fruits); there are no direct substitutes for these;
- basic products (tropical vegetable fats and oils, soya, manioc, etc.); these are in direct competition with Community products, but are obtained at much lower prices; some (manioc and soya) have greatly contributed to the development of Community livestock production (one of the world's most advanced);
- certain products which the Community does not produce in sufficient quantities: maize, wood, leather and skins.

All in all, the Community is the largest world importer of agricultural products; in 1977, it accounted for more than one quarter of world agricultural imports (see A 16), for almost 50 % of imports of some products (oilseeds, coffee, tea, natural textile fibres), and for over 50 % of imports of others (bananas, leather and skins, fresh vegetables, cocoa and cocoa-based products, oil cakes and oil meal).

Although the Community's extra-EEC exports have increased, their share in world sales of agricultural products is tending to diminish; the Community has a growing agricultural deficit (₰ 14 800 million in 1969; ₰ 20 600 million in 1973; ₰ 29 200 million in 1978) which reflects a fairly stable ratio of exports to imports of about 30 % to 35 %.

Half of this deficit arises in trade with developing countries, which are providing an increasing proportion of EEC supplies (more than 50 % in 1977). It may thus help developing regions to finance imports of industrial products from the Community. It is therefore not so much the deficit itself which is disturbing - although it is sizable for an area with substantial agricultural potential - but rather the relative vulnerability which results for the Community from its dependence on imports for certain agricultural inputs (manioc, soya) or

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non-agricultural inputs (fertilizer, oil) that it needs because of the technological level of its agricultural production methods.

1.3.2. Problems expected for the 1980s

Even assuming that, in line with common agricultural policy principles, a restrictive price policy is pursued for products for which supply exceeds demand at Community level, agricultural productivity will probably increase further and the tendency for surpluses to develop is likely to continue and affect most areas of Community food production over the next ten years, particularly the production of wine.

On the one hand, internal and international demand will grow relatively slowly during the years ahead. The population of the Community of Nine will increase little and per capita food consumption should expand only slowly with a continued fall in the proportion of family budgets devoted to food and a tendency for demand to switch to new or high quality products involving high value added processing. The accession of three new member countries to the Community will add almost 60 million new consumers; as the growth of disposable incomes may well be more rapid in the three new Member States than in the rest of the Community, their demand for food products will be fairly strong. Nevertheless there is every reason to believe that enlargement will lead to increased imbalance between the supply and demand for certain products (olive oil, wine); it will not fundamentally alter the trend towards a general emergence of surpluses. Moreover, effective demand from Third World countries for Community basic agricultural products should remain limited and there will be stiff competition from other producing countries, whether industrialized or developing, on world markets. This, combined with a continued disparity between Community and world prices, means that, if the EEC wishes to maintain its share of world markets, effective machinery for encouraging exports in a CAP context and commercial efforts will be even more necessary.

On the other hand, production may well increase at a faster rate than demand mainly as a result of increased productivity. Farmers, anxious to safeguard the rate of growth of their incomes, may well switch to more intensive production by making still greater use of technology, equipment, fertilizers, compound feedingstuffs for cattle, etc. Labour productivity is likely to go on

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increasing more rapidly in agriculture than in the rest of the economy; between 1965 and 1977, it increased by 5.7% a year as against 3.6% for the Community economy as a whole.

Utilized agricultural area (93 million ha in the EEC of Nine; 147 million ha in the EEC of Twelve according to 1977 figures) should diminish between now and 1990 in favour of an increase in forestry land, which, in 1977, was 32 million ha in the Community of Nine and 55 million ha in the Community of Twelve. This change in the use to which land is put - already under way, though at a relatively slow pace - should be encouraged in order to reduce, if not within 10 years then at most within 20 to 30 years, the Community's very substantial deficit (more than 8 000 million EUA) in wood and derived products, for which demand is bound to increase relatively quickly.

Generally speaking, in the case of renewable raw materials such as wood, leather and skins, for which problems of access to resources will increasingly arise, the Community can develop its production. This should be combined with a policy similar to that for tropical products, aimed at diversifying sources and stabilizing conditions of supply. This policy, which should make use of the Community's importance as the foremost world importer, might take various forms. Thus, although the Community's tanneries, taweries and leather and footwear industry are experiencing supply difficulties because a number of developing countries have imposed export bans on skins and leather, virtually nothing has been done to develop the enormous potential of African countries in this field. Yet coordinated action to organize the rational slaughter of animals in these countries would make it possible to increase the food potential substantially, to guarantee our supplies of leather and skins and also to sell refrigerating equipment.

In the case of manioc and soya, which play a key part as animal feedingstuffs and are therefore crucial to the development of Community meat production, the Community's vulnerability is due to its total dependence on other countries for these two products combined with an extreme concentration on a few sources of supply. This dependence, a result of the level of technical progress in agriculture and cost differential between imported products and Community products that could be used as substitutes if they were cheaper (protein from milk as opposed to protein from soya; cereals as opposed to manioc), is a major problem which will have to be solved during the next decade.

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CHAPTER 2

THE NEW INTERNATIONAL ECONOMIC AND MONETARY ENVIRONMENT

The last decade has witnessed the break-up of the international economic and monetary order which up till then, under the protection and control of the United States, had worked after a fashion, largely to the benefit of the Western countries. This break-up has led these countries to question a number of vital elements of their economic and social development.

The salient features of our new international environment as we move into the 1980s are the disruption of the international monetary system, the surge in energy prices, the emergence of competition on world markets from countries engaged in rapid industrialization and, on a more general level, a shift in the global balance of economic and financial power and an expansion of the role of certain protagonists dominating international economic life (States; banking system; firms and particularly multinationals).

In recent years numerous studies have been conducted, often at considerable expense, with the aim of making a forward assessment of international economic and financial relations in the next few decades. Under these circumstances and particularly in view of the quality of the research carried out as part of the "Interfutures" exercise, it would have been superfluous to attempt in this report a further sketch of the world economy up to 1990 or beyond. We have instead chosen to review rapidly the issues which seem likely to dominate the next decade and to highlight the significance of the resultant phenomena, constraints and prospects for the Community as such and for the Member States as individuals and as they inter-relate with one another.

2.1. The broad outlines of the Community's foreseeable international environment in the 1980s

Apart from the fundamental problems described above of world energy and raw material supplies, the changes which can be expected in the Community's international environment in the 1980s revolve around three main phenomena: a stronger industrialization drive in Eastern bloc countries and certain Third World countries or regions; changes in the international division of labour and in the conditions

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of international competition; and an alteration in the terms and techniques of international financing and payments.

2.1.1. Industrialization of East European countries and Third World countries

The trend towards greater industrialization, already well under way in Eastern Europe and in some parts of the Third World, is likely to accelerate in the years to come. There is a general consensus on this tendency, which should be based on these countries' factor resources and on the aptitude of particular countries, with support from companies and the banking system in the industrialized countries, to exploit them: raw materials for on-the-spot processing; availability of own capital (mainly OPEC countries) or easy access to borrowed capital to develop particular highly capital-intensive industries, including the processing industries; an ample supply of easily trained and cheap labour for developing activities requiring a high input of unskilled labour.

The speed of the industrialization process depends both on a number of factors within these countries and on developments in their relations with industrialized countries: degree of openness of markets; extent, form and conditions of help from Western countries, etc. According to the forecasts of the "Interfutures" report, the Third World share of the world's industrial added value is likely to be multiplied by at least two between 1970, when it was less than 8%, and the year 2000, when it is expected to be between 16.4 and 19%. A similar trend is forecast for China whose share should increase from 4.2% to between 8 and 9.6%, whereas the share of East European countries is likely to grow at a slower rate (from 20% in 1970 to between 21 and 24% in 2000).

Two important consequences of the industrialization of new countries in a system of relatively free trade are the opening up of new markets for certain products of the developed economies and the intensification of competition in markets for some other products. Since the early 1970s there has been some increase in the developing countries' share of world trade in manufactured products (6.4% in 1960; 7.2% in 1970; 9.3% in 1977) and in the corresponding imports of industrialized countries (6.3% in 1960; 6.7% in 1970; 8.5% in 1977). This dual upward trend, moderate on average and concealing an upsurge in the share of a few countries[3] and a decline in the share of many other Third World countries, is much more noticeable for a small number of current consumption goods (textiles, clothing; leather goods and footwear, etc.) and

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[3] Primarily the newly industrializing countries (NICs) comprising the three applicant countries, Yugoslavia, Turkey, Brazil, Mexico, Taiwan, Hong Kong, South Korea and Singapore.

electrical and electronic equipment. On the other hand, exports of manufactured goods from the industrialized countries to the developing countries, even the non-OPEC developing countries, and their surplus on trade in manufactures with these countries, are growing rapidly (see A 18 and A 19).

Apart from the considerable development of trade between developing countries, a further consequence is likely to be an accentuation of the differences in situation, prospects and needs within the Third World. Only a limited number of developing countries are involved in the process of rapid industrialization, development and growing participation in international trade. On the other side of the coin we find a group of poor countries with large populations (particularly in Africa and Southern Asia) whose plight and development prospects give cause for great concern. These two groups of countries represent the extremes, constantly diverging, of a range of situations reflecting an ever-increasing diversity of abilities and needs of the countries concerned.

2.1.2. Trends in the international division of labour and international trade

The growing industrialization of East European and Third World countries is one of the new factors of change in the international division of labour and in international trade, but there are other changes which will be at least as important, if not more so, in the years to come.

Firstly, the relative competitive positions of industrialized countries have changed radically in recent years and Europe in particular is starting off the new decade in a new competitive position.

Secondly, the size of the oil bill requires all consumer countries to exercise increased vigilance over their external balance and their export performance; at the same time export demand is becoming less predictable and shows a changing pattern, illustrated by the considerable growth in purchases by the OPEC countries and the slowdown in trade between industrialized countries since 1974. This means that competition will stiffen and that a capacity for rapid adaptation to changes in geographical patterns and types of product in demand on world markets (including of course military equipment and services which are playing an ever greater part in world trade) will be a vital asset.

Thirdly, competition between industrialized countries is likely to be increasingly concentrated on capital-intensive industries employing skilled labour; those industries which have the greatest contribution to make to technological progress will take on growing strategic importance. They will to a large extent determine the ability of the various industrialized countries to cope with the

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changes in the international division of labour and to acquire or retain a certain freedom of choice in respect of the form of their economic and social development.

Lastly, the nature and terms of relationships in international trade are altered by the increasing role played by governments and multinational firms. The growing involvement of the state reflects in the first instance increasing reliance on intergovernmental agreements in trade with Eastern bloc countries, OPEC countries and most of the developing countries. But most of all this situation reflects the increased responsibilities shouldered by governments in the adjustment process between international trade and the adaptation of their countries' productive apparatus, a requirement which is frequently an excuse for the development of a variety of increasingly threatening protectionist practices, whether they involve aid to exports or restrictions on imports of particular categories of products.

At the same time the multinationals are expanding their influence on the restructuring of the geographical location of plant and of international trade. To the growth of American subsidiaries abroad has recently been added a rapid increase in direct foreign investment by Japan and, to some extent, by certain European countries as well. The most popular host countries for this growing direct international investment are the newly industrializing countries in the Third World (particularly noticeable in the case of manufacturing and service industries), but investment also takes place in Europe and North America.

2.1.3. New international financing and payments techniques

The collapse of the international monetary system conceived at Bretton Woods and the effects of the oil price rises on international settlements have led to a new style of international monetary and financial relations which have evolved in a largely informal manner.

Apart from the floating of currencies, the new relations have the following main features which may well survive in the next decade:

(i) fairly sharp fluctuation in the geographical distribution of foreign exchange reserves, which are increasing rapidly, although at a rate close

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to that of world trade. At the end of 1972 the industrialized countries held 65% of world reserves, OPEC countries around 8% and the developing countries 27%; at the end of 1976 these shares were respectively 43%, 30% and 27%, and at the beginning of 1979, 59%, 16% and 25%. The 1979 increase in oil prices is likely to change the distribution again, and the trend of gold prices should also affect it;

(ii) a shift in the role of international reserves

The practice of drawing on assets (reserves) was generally applied until the early 1970s as a means of financing a country's external deficit, except in the United States, in view of the dollar's status as a reserve currency; since then, it seems to have been partly abandoned and replaced to a large extent by the method of adjusting liabilities. Countries in deficit have tended to deal with the problem by resorting to borrowing rather than by drawing on their reserves, which are used instead as security or as a guarantee for these loans. This has new implications for the creation of international liquidity and the conduct of economic policy;

(iii) the recourse to international borrowing - sometimes on a large scale - on the part of Eastern bloc countries, some of the developing countries and even a few European countries, has been made possible by the growth in international capital markets, fed by the excess cash from countries in basic balance of payments surplus (particularly the OPEC countries or some of them), and the American deficit, and fostered by the increasingly important role played by the western private banking system. This double phenomenon has undeniably had some beneficial results; none the less it raises a number of problems which may well become acute over the next few years. The main problems for the western countries and Europe in particular are, firstly, control over the creation and movement of international liquidity and, secondly, in the absence of a lender of last resort, the vulnerability of the whole western banking system in the case of default of large debtors in transactions of this kind. From the point of view of the developing countries, the involvement of the western banking system, together with the establishment of multinational firms, poses three major types of problem. Firstly, it tends to obscure the plight of the majority of Third World countries which are unable to attract private capital and are hit by the reduction in the volume of official development assistance granted by the industrialized countries. Secondly, in the case of the few Third World countries in a position to obtain bank loans, while this system apparently affords them more freedom of manoeuvre in the use of funds and eases the traditional constraints of aid in terms of allocation, strings ("tied aid") and

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rapidity, it creates or reinforces other constraints: increased cost of credit and attendant charges; shorter repayment periods; uncertainty as to the banks' degree of commitment. Finally, it may tempt them to embark on an industrialization process which would increase the danger of their economies being dislocated. This could entail two risks: first, that the country is torn internally between growth in certain sectors and slow overall economic and social development; secondly, that growth in these sectors without a sufficient corresponding increase in mass consumption in the country sharpens competition on world markets and in western countries in particular, and increases the risk of a defensive reaction on their part.

The common denominator of most of these new features of international economic and monetary relations is that, in the absence of consistent policies coordinated both internally and internationally, they add to instability in international relations and, to varying degrees, to insecurity for all parties concerned. Among the many factors of international instability and insecurity which European countries are likely to come up against in the 1980s, the most important relate to the conditions of energy and raw material supplies (price and quantity); outlets in and financial relations with OPEC countries and newly industrializing countries by reason of the fragility of their constantly evolving economic and social structures; international monetary relations given the floating of currencies, uncertainty about the American economy and the US dollar (the influence of which, while still dominant, is diminished and under attack), the unpredictability of the attitude of the United States and finally the unchecked expansion of the Euro-markets and international liquidity.

2.2. Implications for the Community of this new international environment

There are at least three fundamental reasons why the Community will be particularly affected by these changes in its international environment over the coming decade. Firstly, throughout this period the Community is likely to remain heavily dependent on the rest of the world both for supplies and for outlets. Secondly, and again throughout the 1980s, it is likely to have only limited scope for accelerating the establishment of a new more stable and more equitable system of international economic and monetary relations; its freedom of action will in any case depend on its degree of cohesion, reflected in the future progress of the EMS. And finally, the Community Member States are already following very

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different courses in the area of international specialization and showing wide differences in their ability to adjust to foreseeable changes in the international division of labour. Community countries cover a wide range of situations and sharply divergent attitudes in their adjustment to the challenge of the rapid industrialization of developing countries, in their capacity to take on the other industrialized countries on their home markets and in the extent of their involvement in highly labour-intensive industries and those with greatest potential for technological progress.

The Community's attitude to changes in the international division of labour will without doubt be one of Europe's dominant problems over the next decade. Some of the most important aspects of the issue, described above in general terms, will be analysed in greater detail in the sections below. Clearly, from this point of view, it is still very unrealistic to regard the Community as a unified whole. While it may indeed act as such in international negotiations, the task of adaptation devolves upon the government and industry of each individual member country; moreover, for each of them international rivalry begins within the Community itself: the interplay between the competition which sets them against one another both on the Community market and overseas and that which they face from the rest of the world is a phenomenon which must not be forgotten or underestimated.

2.2.1. The Community and the newly industrializing countries

The growing industrialization of the Third World and Eastern bloc countries is bound to lead to a decline in the western countries' role in world industrial production. In particular, as indicated in the "Interfutures" report, the Community's share is likely to drop substantially between now and the end of the century: to between 15 and 16%, as against 22% in 1970. This decline, less pronounced in fact than that experienced by the United States, is not particularly significant in itself; what matters to the Community is the circumstances under which it takes place, circumstances which could reflect widely differing scenarios of growth, international trade and, more generally, economic and social well-being.

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The industrialization of the Third World should also lead to more intense competition from the developing countries in the area of trade in manufactures. Imports of manufactures by the Nine from the non-oil developing countries amounted to $22 000 million in 1978; this was similar to the value of corresponding imports by the USA, and five times as high as the figure for Japan: $4 400 million. Per capita figures were $85 for the Community as a whole (althogh the figures for the individual Member States varied widely), $101 for the USA and $38 for Japan (see A19). However, the share of manufactures from the non-oil developing countries in total imports of manufactures was much lower in the Community, at 8.3%, than their share in the total imports of manufactures by the USA (22.9%) or by Japan (24.8%).

While it is true that this new competition has affected certain categories of current consumption products in Europe, in particular a small number of textile and clothing products, leather goods and footwear, it should none the less be noted that on the whole:

(i) the market losses suffered by European producers as a result of the advent of these new competitors seem to have been limited on European markets; by contrast the effects have been limited on European markets; by contrast the effects have been more severe on some overseas markets such as the United States markets for current consumption products, office machinery and electrical goods (see A20).

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(ii) the level of penetration, that is to say the proportion of domestic demand satisfied by imports, has admittedly increased substantially in European countries for some of the products exported by the developing countries; but this increased penetration seems to be due as much to competition from other industrialized countries as to competition from the developing countries. However, it may be that the estimates of European market shares, which are based on value rather than volume, underestimate the real growth in the developing countries' market share achieved at the expense of home production and of imports from other industrialized countries (see A 21).

Generally speaking, Europe seems to lag behind the United States and Japan in adapting to competition from the developing countries and appears more vulnerable to an intensification of this competition in the future because of the trend and pattern of the external trade of most Community countries. They tend to export more and import less of the type of products produced by the developing countries (particularly products with a high unskilled labour content) than Japan and the United States, where the process of adjusting the structure of production and foreign trade to competition from these countries has been under way for longer. But one striking and worrying feature is that there are fairly wide differences between Community countries. On the one hand, the Federal Republic of Germany is comparatively less involved in exporting and much more open to importing these types of product and its manufacturing industry shows a remarkable capacity for adjustment. Italy, on the other hand, continues to specialize strongly in exports of products requiring little skilled labour and imports very few of this type. Italy's external trade surplus for this category of products has increased sharply since 1970, while the balance in the other major European countries was marking time or falling. Italy's continued heavy specialization in labour-intensive activities helps to explain the remarkable rise in Italy's industrial workforce since 1970 as compared with other countries. This is associated with the significant competitive edge that Italy has maintained over its major European partners in terms of labour costs and prices and with the fact that its rate of productive investment remains far below that of most European countries.

Productive investment is also relatively low in the United Kingdom, and here too, this may help to explain its growing but relatively new specialization in exports of

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labour-intensive products. The fact that the United Kingdom seems less vulnerable to competition when the labour input is unskilled, tends to confirm that this specialization is due more to the United Kingdom's low rate of productive investment than to exploitation of the relative decline in the country's wage costs.[4]

France, on the other hand, has significantly reduced its involvement in labour-intensive industries, particularly those relying heavily on unskilled labour, and in exports of such products. Nevertheless, despite the shift towards activities more in keeping with the maturity of its industry, its position is still precarious, particularly from the point of view of imports. This suggests that France, though to a lesser extent than Italy or the United Kingdom, will have to make a special conversion effort if there is to be growing openness to trade in products from the developing countries.

To sum up, the wide differences between Member States in their relative exposure to competition from the developing countries, and the volume of intra-Community trade liable to be affected by a growth in such competition, are already posing problems - likely to be magnified in the future - for a coherent Community strategy of trading relations with developing countries and for a Community approach to the necessary adjustments.

Moreover, it should be borne in mind that although as yet competition from the developing countries mainly involves labour-intensive activities requiring few qualifications, it already extends to other branches, and will no doubt affect an increasingly wide range of products as the years pass. Some of the non-industrialized countries of the Third World have already widened the range of their output, and, when their means enable them to do so, engage in capital-intensive activities such as the production of petrochemicals and steel, and shipbuilding. The Eastern bloc countries are moving in the same direction, and the OPEC countries, or at least some of them, might do the same in the near future.

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[4] On the trend towards specialization in the various European countries, see the report of the Group of Experts on Sectoral Analyses: "Changes in industrial structure in the European economies since the oil crisis," EEC July 1979; also the report by Mr Rollet:"Forces et faiblesses de la spécialisation internationale des pays de la CEE face à la nouvelle division internationale du Travail," EEC April 1979.

2.2.2. The Nine in international competition between industrialized countries

The Community as a whole has succeeded fairly well in defending its position in world trade in recent years and, while its share of world exports has contracted, this is essentially the result of the surge in oil prices swelling the share of OPEC countries to the detriment of the rest of the world (see A 23).

None the less, this fairly encouraging overall performance obscures internal divergences, particularly between the sharp and persistent decline in the United Kingdom's market share of world exports of manufactured products and the stability or even increase in the shares of the other major European countries.

On the eve of the new decade the major problems which the Member States are likely to face in this field may be divided into three broad categories: a shift in the geographical pattern of trade; changes in the relative competitiveness of the Nine both with one another and with the rest of the world; and Europe's position in the manufacture and trade of products with a large technology content.

A shift in the geographical pattern of Community trade

The geographical realignment of Community trade was already a feature of the 1970s as new competitors and new markets emerged; the boost to trade from Community integration lost momentum, a process which will probably continue for some years (see A 24 and A 25).

The share of intra-Community trade in the Nine's total imports of manufactured products (categories 5 to 8) increased until 1973, and is now declining: after rising from 61.7% in 1963 to 64.3% in 1973, it was only 62.1% by 1978.

This break in the trend has occurred despite the accession to the Community of the United Kingdom, Ireland and Denmark in 1973. As could be expected, enlargement led to an expansion of trade between the six founder members and the three new members, but the effect was limited and was in any case insufficient to compensate for the very sharp decline in the share of trade among the Six (see A 26).

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This represents a significant change for the Member States in comparison with previous years, particularly for the Six, whose economic growth had received a strong stimulus from the intensification of their trade within a well-defined and stable Community framework. The boost from integration seems now to be weakening; Europe is being obliged to turn increasingly towards new markets in the developing and Eastern bloc countries, markets which are more uncertain (Iran being a case in point).

Every effort must be made in the context of the EMS and market integration in the Community to re-establish stable trading conditions and a new-found buoyancy on the Community market, which accounts for more than 50 % of the Nine's trade.

Changes in the relative competitive positions of the Nine

It is not intended to speculate here on competitive trends in the Community countries during the 1980s. However, it should be stressed that the new decade will see the emergence of a new pattern of competitive relationships, both within the Nine and between them and the rest of the world.

Firstly, European wage costs, like those in the other industrialized countries, are a competitive disadvantage compared with wage costs in the developing countries. This is not a new phenomenon, although it has become more marked in recent years; what is new is that it is now showing up in spectacular fashion in trade with those developing countries undergoing rapid industrialization.

Secondly, all the Member States without exception have experienced a sharp deterioration in their competitivity since 1970 compared with the United States, both in terms of trends of unit wage costs in dollars and in terms of unit export values for manufactured products in dollars (see A 27 and A 28). The degree of deterioration varies according to Member State, and the differences reflect a change in the relative competitivity of the European countries.

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None the less, the differential trends in relative unit costs, both wage costs and total costs, have not always had the expected effect on export performances and the external balances of the countries concerned. There are three main reasons for this. First of all, the structures of these differential cost trends are not reflected in the trends of export prices (see A 28).

Secondly, they may leave untouched or even increase what can be substantial differences in level; this is certainly true of relations between industrialized countries and developing countries, but may also apply to relations between industrialized countries, e.g. between Japan, the United Kingdom or Italy on the one hand and the United States, the Federal Republic of Germany and the Benelux countries on the other. It is difficult, of course, to establish this clearly, since we possess figures for the hourly wages of workers in manufacturing industries (see A 29) but not for the level of corresponding productivity per man-hour; however, information concerning the levels of apparent labour productivity points in the same direction.[5] The third reason is that other factors influence these performances: rate of growth, nature of products traded and geographical pattern of trade; specific features of the exporting sub-sector compared with industry generally, etc.

The Community and production activities with a large technology content

We know the strategic importance for a country's future external trade and overall economic and social development of its capacity to develop activities that are in the forefront of technical progress, either because they originate it (fundamental research, advanced technology industries) or because they are its vehicles (productive capital goods) or because they incorporate it (principal intermediate goods used in the major production processes).

The external performance in respect of the corresponding products reveals a country's capacity to "control" rather than to "be controlled by" the international division of labour, i.e. to enjoy relative independence in achieving specialization and at the same time to have a degree of control over the other productive systems through the spread of its own production standards.

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[5] Report of the Group of Experts on Sectoral Analyses - July 1979.

Commission studies of trade in this type of product show a concentration of the corresponding activities in three countries: the United States, which is losing momentum, at least in external trade terms, but is still very favourably placed; Japan, which is making a remarkable breakthrough; Germany, which is maintaining its extremely strong position.

The position of the other EEC countries is less favourable: the decline of the United Kingdom, already appreciable in trade in manufactured products generally, is even more substantial in this type of product. Owing to their small size, the Benelux countries are at a disadvantage in this type of activity, where success depends not only on R & D but also on a large and buoyant domestic market. France and Italy have made appreciable progress, although still not enough to put them on a par with their major industrial competitors.

The geographical distribution of exports of advanced technology products is another element determining the relative positions of the productive systems. Thus, the Federal Republic of Germany, the United States and Japan sell a much greater proportion of this type of product to other industrialized countries than do EEC countries other than Germany.

The export successes of certain European countries (particularly for plant and equipment) have been achieved mainly on the markets of countries with a weaker industrial structure (OPEC countries, newly industrializing countries). This is by no means a negligible performance since it is essential to gain a foothold on these growing markets, nor is it an easy performance in view of the keen competition between industrialized countries on these markets. However, because of the conditions in which this competition takes place, success is frequently due more to substantial involvement by governments (granting financing facilities to the purchasing country, entering into commitments on imports, providing guarantees to exporting firms, protecting national markets, etc.) than to the technical superiority of firms alone.

No unduly simplified conclusions should be drawn from this review of some of the problems which already face or which may in future face Community countries as a result of changes in the international division of labour. For

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example, although competition from developing countries is at present concentrated mainly on product categories with a large unskilled labour content, this does not mean that all the corresponding activities are ipso facto condemned in the industrialized countries; for the industrialized countries may adapt their production processes, specialize in certain areas and capitalize on differences in quality.

Moreover, the range of products and exports of the developing and Eastern bloc countries will widen and industrial competition will increase sharply in all fields of manufacturing activity and not only in activities with a large technology content.

However, two points should be emphasized. The first is that while all the industrialized countries have alike derived advantage, in terms of exporting more sophisticated products, from the industrialization of new countries, the constraint of adjustment weighs more heavily on those which are least able to influence the long-term development of the international division of labour. Most of the EEC countries are in this situation, which is the more difficult as they are especially dependent for export growth (in particular of plant and equipment) on the dynamic expansion of the developing countries. A slowdown in this expansion, consequent, for example, upon more restrictive trading attitudes on the part of the industrialized countries, or upon a substantial and lasting deterioration in the developing countries' terms of trade, would affect this group of intermediate countries (France, Italy, the United Kingdom) far more than the Federal Republic of Germany or the United States.

Secondly, Community cohesion and solidarity may be seriously strained by disparities in the degree of adaptation of the productive systems of the various Member States to the changing international division of labour. This problem is especially acute when considered from the point of view of the Community's regions: the trend of the international division of labour may well increase the risk of widening regional disparities. The consequences of emerging competition from the developing countries will thus be all the more serious as they affect sectors that tend to be concentrated in a small number of regions. These regions are also vulnerable because they may lose activities that can be relocated in developing countries; because their industrial structures do not enable them to take advantage of the new outlets in the Third World; and because they are less likely than prosperous regions to adjust and to attract new activities. Active regional development policies are therefore vital, and the efforts of the less prosperous regions and countries to renew their structures must be supported by the countries and regions that have already succeeded.

CHAPTER 3

THE OUTLOOK FOR TECHNOLOGICAL DEVELOPMENT

Technological development is a determining factor in the industrialized countries' capacity to deal with changes, and its trend is an indication of the extent of this capacity. Over the next ten years, technological progress in Europe will be conditioned mainly by:

(i) the new supply situation for energy and raw materials;

(ii) the changing international division of labour, where the transmission of technologies and their diffusion throughout the world play a crucial role;

(iii) the emergence of a demand for better working conditions, environments and lifestyles;

(iv) the risk of lasting underemployment, arising from a combination of economic growth rates well below those of the past few decades and the rapid expansion of the population of working age;

(v) some changes in attitudes to the aims and implications of scientific research and technical progress.

The areas of innovation where research and practical applications are most likely to gather momentum over the next few years are easy to identify; however, the scope of these innovations, and the rapidity with which they will be diffused throughout the productive and social systems, are much more difficult to predict. There are certain factors of inertia such as the education and training system, which is rigid and ill-adapted, the high degree of concentration and centralization in our economies, or the lack of information about technology.

The authorities will have a major role to play in promoting and controlling the development of technology in the general interest, and in harmonizing relations between technology and society.[6]

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[6] For a general study of the problems involved in the outlook for technological development and if possible Community action in this field, see the Report by Mr A. Danzin, President of the CERD, "Science et Renaissance de l'Europe" 1978.

3.1. Main areas of development

As it usually takes at least ten or twenty years for practical applications to emerge from basic research, the main technological changes likely to have any visible and significant impact between now and 1990 will be based on knowledge that is already available. We consider here the four areas that seem most important from this point of view, as well as from the point of view of their development potential over a longer period than the coming decade.

3.1.1. Information technology

Information technology or "telematics" in its widest sense, will probably be the main factor in technological progress during the next decade. Information technology comprises all the technologies that can be used for dealing with information: generating it, converting it, storing it, processing it, transmitting it or managing and controlling it.

These new technologies use equipment which has been strongly influenced - or made possible - by new departures in electronics, such as electronic data-processing, automatic word-processing, measurement and control technologies. Progress in semi-conductor electronics (miniaturization and integrated circuits) although very important, is not the only determining factor.

At the moment, the semi-conductor element with the greatest innovation potential is the micro-processor. The prominent role of micro-processors in many parts of the economy is principally due to:

(i) the wealth of available and foreseeable applications leading to innovations in processes and products in many sectors of the economy;

(ii) the short innovation cycle in the micro-processor sector;

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(iii) the fact that micro-electronics, unlike many other advanced technologies, does not necessarily involve heavy capital investment in a small range of industries, but may have very widespread applications.

Although the micro-processor is probably the most striking factor of change, it would be misleading to separate it from general information technology; the potential of this new technology will be fully realized, and the market for it fully developed, only if micro-processor technology is combined with general computer and telecommunications techniques.

The extension of computerization will have particularly important consequences in the services sector, accentuating the existing trend towards the tertiarization of the economy, with more and more services being incorporated in production systems (particularly in industry and agriculture), and with the development of automation and robotization.

3.1.2. Energy and raw materials

During the next decade a considerable impetus should be given to reinforcing the technological basis for a new energy system to reduce the dependence of industrialized countries on oil. However, although research into the use of solar energy, nuclear energy by fusion, geothermal energy and wind energy should be continued and intensified, it will have few practical applications in the course of the 1980s.

The application of information technology to energy, on the other hand, could well give significant results in the control of energy distribution and energy-saving systems. The high price of energy will be an incentive to develop energy-saving technologies over a wide range of production processes. Here again, the means of disseminating techniques throughout the economy are as important as the techniques themselves.

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While chemicals and plastics have undoubtedly played a major role in promoting technical change, their future is sometimes questioned because they are so dependent on oil. However, a comparison of their energy content shows that plastics are still in a more favourable position than most metals (see A30). The introduction of techniques using coal could lead to a new wave of innovations. In view of the growing variety of its production, the plastics branch is therefore likely to continue to contribute to technological development in many industrial branches.

3.1.3. The exploitation of marine resources

For the moment, the exploitation of the enormous potential of the ocean is still at the stage of hopes and projects, rather than concrete achievements; aquaculture production amounts to six million tonnes a year at present, and should rise to 25 million tonnes in 1990 according to FAO forecasts; thermal energy is still at the stage of small experimental power stations; 23% of world oil resources are thought to lie in the seabed; 20% of present world production comes from marine sources and drilling is going on all over the world; the exploitation of mineral resources such as polymetallic nodules is a further possibility that has not yet reached maturity.

As the Interfutures report points out, progress in seabed mining - an area in which conflicts of interest are commensurate with the huge economic potential of marine resources - will depend as much on political decisions concerning the law of the sea, as on technological progress.

3.1.4. Biotechnology

The development of bioscience and bio-technology, and their economic and social applications, will have profound effects on the productive apparatus, the way of life and even the scale of values of developed societies. The sectors most affected will include agriculture and food, health, chemicals, energy and the environment. Indeed, some consider bioscience and bio-technology more significant in the long run as forces of development than data-processing, because of their enormous potential for guiding and controlling natural biological phenomena, including human beings (see A 31).

The aeronautics industry and the development of aero-space technologies could also be included with the above four sectors.

3.2. The role of the authorities

In the past, the authorities have played a significant role in promoting technological innovation, although sometimes with disappointing results.

Although their future role is uncertain, it should remain important, both in financing and promoting R & D, and in creating a favourable environment for technological progress and for the diffusion of innovations throughout the economic and social system.

3.2.1. Financing and promoting R & D

The rate of growth of R & D expenditure in volume has declined considerably since the early 1970s, but the share of this expenditure in the GDP of the Nine remained more or less stable at least until 1975.[7] R & D expenditure as a percentage of GDP increased rapidly in Japan, where the ratio of R & D specialists to total population is now about twice as high as in Europe for approximately equal expenditure; it declined, however, in the United States, particularly expenditure financed by the public sector.

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[7] On this point, see CREST/1211/79 "Analyse des Potentiels de Recherche et de Développement des Etats-membres de la Communauté européenne" by Mr Blossier, for the Commission of the European Communities.

The Community figure covers divergent developments in the different countries: R & D expenditure as a percentage of GDP declined noticeably in France and the United Kingdom, while in Germany it increased rapidly and is now greater than in the other two countries combined (see A 32).

These developments raise a number of questions, particularly the question of public intervention. In the Member States, public expenditure accounts for about 50 % of total R & D expenditure; over recent years, governments have been cutting down on their interventions: public financing of research as a percentage of the total budget and of GDP has remained steady or declined in most of the member countries.

Apart from the purely quantitative aspect, there is also the question of the direction and effectiveness of national R & D policies. To justify public intervention in certain areas of civilian R & D, it is usually argued that major decisions are too costly and too risky to be taken by the private sector in the context of the market.

The validity of this argument is confirmed by observation in the two main competitor countries, Japan and the United States, where government intervention in R & D is very active; moreover, the United States can count on a vast, unified domestic market, and thus on a very powerful private sector.

At present, too much R & D expenditure in the Community falls between two stools: national government policies lack the resources and the market to become economic, while even the larger national markets are too small to sustain private sector R & D on the required scale. Community buyers, particularly in the smaller Member States, therefore have a choice between Japanese or American products, and uncompetitive European products. The result of their choice is obvious.

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To solve this problem, two types of approach are possible at Community level. First, R & D policies could be better coordinated throughout the Community, so as to share costs, avoid duplication, and make the most successful results available to the whole Community. The research programme into nuclear fusion - the JET project - is a solitary and salutary example of this approach.

Secondly, the Community could speed up the integration of the Common Market, so that more large projects would be profitable in the Community, and the degree of risk acceptable to private enterprise. An important step in this direction would be the opening of public procurement policies, for example in telecommunications and aircraft.

A separate question is the reliability of R & D decisions taken by the authorities. Clearly, centralized decision-making involves a high risk of error and of excessive concentration, amply illustrated in many decisions taken by European countries in the recent past.

Scepticism about the ability of the authorities to take R & D decisions can also lead to the extreme view that governments should not choose which areas of R&D to support, but should supply general unselective support for R & D expenditure by private firms. Opinions differ widely on this point within the Community. However, non-selective R & D support is a practical option only if sufficient resources are available; moreover, both Japan and the United States have, in the main, rejected this alternative. Vigilance will obviously be required to neutralize the shortcomings of public R & D policy, whose main faults are centralization, concentration on large programmes and the difficulties of disseminating the results to the economy as a whole.

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3.2.2. The dissemination of information technology

The number of organizations operating in the information sector has been growing very quickly during recent years, and the technical and market conditions for the full development of the computer-related information sector in the industrialized countries will be ready for the beginning of the 1980s. The EURONET system is in line with this development.

However, European companies are in a rather weak position compared with US firms and organizations, which already have a major share of the European information market. Unless strong efforts are made in Europe to change this unfavourable situation, a further development of the European market may well lead only to an extension of US supremacy.

The inadequate development of the European information industry within the Community is due to a variety of factors: the small size of national markets; the attitude of users and potential entrepreneurs towards this type of activity; the lack of suitable technical and service infrastructures; the unfavourable legal and tax arrangements, and so on.

But the information industry is a key sector and its development is particularly important because:

(i) information services are an indispensable infrastructure for economic development, for effective scientific, technical and industrial activities, for reducing the Community's technological dependence, and for increasing Community exports of technology and know-how;

(ii) the European information market must be widened if the potential of the corresponding industrial sectors is to be developed (computers, telecommunications, electronics);

(iii) the development of computer-related information services can create many skilled jobs, increase value added in the branches dealing with economic, commercial and industrial information, make information more easily available to small and medium-sized firms, encourage the exploitation of new inexpensive media which could greatly increase the range of potential users, etc;

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(iv) the availability of new information services, with improved opportunities for access, will make the use of information more democratic, and, at European level, encourage all aspects of Community integration.

The extension of activity in the information sector requires active public intervention at both national and Community level, because of the risks and costs these activities involve for the private sector, and because of their economic, social and political implications. The authorities must therefore strengthen market forces and make sure that the information sector develops in a way consistent with the public interest. They should involve all public and private companies, both profit making and non profit making, which collect, process, and disseminate information, and should take account of differences between the aims and nature of all these organizations. A special effort will be needed in the areas of industrial, economic and business information, which is as yet inadequate, and for which there is a large potential demand.

3.2.3. The need for a comprehensive innovation policy

In general, national and Community authorities will have to try to encourage the more rapid transformation of the results of R & D into new products and services, in spite of the generally discouraging economic situation. Two approaches are required at the same time: specific action to improve the conditions and environment in which innovation is taking place; and special programmes to hasten innovative applications in key sectors. The authorities must be ready to reconsider fundamental policies with a view to eliminating legal, tax and other barriers to innovative solutions, and to increasing the economy's capacity to respond to new socio-economic requirements. Special importance should be given to the more flexible parts of the economy, e.g. small and medium-sized firms. Moreover, the growing problems arising in connection with relations between technology and society will have to be solved.

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3.3. Technology and society

Some recent scientific and technological developments have been widely criticized because they cause pollution, they have been, or may be, dangerous, they reduce variety and choice by standardizing products, and above all, they are seen as helping to increase unemployment.

Thus, to differing degrees in different countries and social groups, the consensus which favoured technological innovation in the 1950s and 1960s is weakening in Europe, precisely at a time when the need and opportunity for continued innovation is greater than ever before. Greater R&D efforts must therefore be accompanied by attempts to create a favourable economic and social environment for technological progress.

3.3.1. Technology and employment

The relations between technology, investment and employment are not understood well. We know that they vary considerably from period to period, sector to sector and country to country; we also know that the innovation and growth taking place in a sector are related to the size of the resources devoted to the development and application of technology.

But these relations, particularly relations between technology and employment, are surrounded by uncertainty, which is likely to increase. In particular, as new technologies appear and spread, they engender both worries and hopes, because of the radical social changes they imply, which are already apparent : the elimination of repetitive jobs; the creation of qualified jobs; the transformation of working conditions and the opportunity for decentralizing responsibility, and so on. It is difficult to analyse the mechanisms by which technology affects employment. It should be borne in mind that technological development is often intended to compensate for some short-coming in the labour force, or that it can be hampered by the lack of suitably qualified labour. Moreover, the relation between technology and employment should be considered in a very broad context including not only the elimination of jobs but also the more favourable aspects of technological progress such as the emergence of new products, or the boost to demand afforded by declining relative costs and prices.

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Telematics, for instance, will hamper the expansion of employment (or even cause a decline) in certain industrial branches, particularly where the production process involves assembly lines, and in the services sector - mainly banks, insurance, office services and telecommunications services. The effects of the new technologies on employment over the next ten years will depend on a variety of factors : the rate at which new technologies are introduced and the rate of investment; the rate of productivity gains in the economy as a whole; the extent to which administrative and office staff can be transferred to other tasks or to new types of service. They will also depend on how fast new jobs are created in the data-processing industry and in the production of new types of equipment, and in general on how fast new production processes, new products, new services and new markets appear in a number of areas: household appliances, leisure equipment, communication and information, energy production and energy saving, car manufacturing, medicine and so on.

Apart from their effects on the number of jobs, the new technologies will mean considerable changes in the level and structure of qualifications, and on working conditions. Public opinion and the working population will accept innovations all the more readily as they contribute to a genuine improvement in living and working conditions, to increased job satisfaction and to the development of individual responsibility. Technological progress will be helped along, moreover, if innovations are discussed and negotiated within industries and firms, and if suitable training schemes are organized.

3.3.2. Education and training

The capacity of present education and training systems to cope with rapid technological change and encourage greater labour flexibility varies widely from one Member State to another.

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A major problem is the time lag between technological change and the adaptation of the educational system and the labour force.

The demand for staff with new qualifications and special training over the next ten years will clearly be too large to be satisfied simply by the normal turnover of the labour force. This means that a reform of the secondary education system alone will not be adequate to solve the problems of adapting the labour force, for example by improving general knowledge and adaptability among those entering working life. It means that a considerable effort must be made to develop and improve recycling and adult education.

The capacity of the European countries to speed up the adaptation of their education systems will be reflected to some extent in unemployment trends over the next ten years. It will also have a determining influence on the position and the role of these countries in the world power league, not only the technological and economic power league, but also the intellectual and cultural power league.

3.3.3. Controlling innovation

Over the past few years, public opinion and governments have become particularly sensitive to the risks involved in certain scientific and technical developments; this sensitivity has been increased by a small number of serious accidents.

These accidents should not be used as an excuse to inhibit technological development, but they do illustrate the need to examine more severely and more generally all the consequences of introducing a new technology, and to take all the necessary safety precautions.

The first problem is environmental protection, and reduction of pollution and nuisance; the basic question of individual liberty is involved.

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Scientific and technological progress in the next few years will produce increasingly powerful and sophisticated technologies, which will contribute to the development of increasingly complex systems of organization. This trend could lead to greater freedom, decentralization, and more creative participation by individuals in social, economic and cultural life. However, if suitable social innovations are not introduced, it could also lead to more generalized and more oppressive subordination of the individual to central management and control bodies; for example, the role of the mass media, or certain developments in the social sciences (medicine, biology, psychology and so on), have clearly been ambivalent.

Not only must the authorities be particularly vigilant, but also public opinion as a whole must be aware and committed; it is therefore of primary importance to inform public opinion as completely and objectively as possible.

This is an essential condition for removing psychological barriers and unjustified apprehension that may hamper the technological development Europe needs, now more than ever.

CHAPTER 4

CHANGES IN SOCIAL VALUES, NEEDS AND BEHAVIOUR PATTERNS

From the end of the second world war until quite recently, Europe was going through a remarkable period of growth and material prosperity, rising average standards of living and widespread education and social protection.

As the satisfaction of essential needs was gradually guaranteed for the majority of the population (although it should not be forgotten that real poverty still exists in Europe), new aspirations appeared. Over the years, these aspirations have become increasingly important, and have often reflected a reaction by public opinion, or certain sectors of public opinion, to against various consequences of the economic and social development in European societies over the past thirty years:

(i) the persistence of wide inequality in the distribution of income and wealth and inequality of opportunity; these inequalities were not spontaneously reduced by growth, as some had hoped; indeed, growth has tended to aggravate rather than attenuate regional disparities;

(ii) damage to the environment;

(iii) the deterioration of certain aspects of living and working conditions: social isolation, insecurity, problems of life in large towns; long journeys to work, impersonal tasks at work and extremely fine division of labour, etc.;

(iv) the constraints of increasingly bureaucratized social and economic life;

(v) lack of economic and political democracy; etc.

The recent crisis has probably slowed down the transformation of social values and needs, and contributed to concentrating attention on more immediate requirements such as the defence of living standards and employment. However, as the Report on Economic and Social Concepts in the Community points out in its analysis of these transformations, the new aspirations have not disappeared, for they are much more than simply a luxury permissible only during a period of prosperity. They correspond to the expectation of something that goes much deeper than mass consumption, the improved living standards of the past few decades or the present ideology of necessity born of the crisis. However, there is

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no doubt that their relative importance and urgency has changed over recent years. Emphasis is now on equality of sacrifices. Similarly, regional claims now include not only the traditional objective of narrowing the differences between income levels, but also the rejection of indiscriminate geographical mobility and the defence of the specific character of the regional way of life and cultural heritage.

The changes in values and behaviour patterns, which are often imprecise and incoherent, vary in intensity and content from one Member State to another, as various studies, including the periodical Eurobarometer surveys, have shown. There is thus a great danger that any generalizations on this subject will be misleading; moreover, as the Interfutures report so rightly points out, it is very difficult to analyse the prospects for changing social values and the complicated links between these values, needs, demand and economic and social development.

We have already mentioned the changing attitude of European societies towards science and technology. We shall deal in Chapter 6 with working conditions, and with the even more basic question, for some sections of the population at least, of work as a social value. It seems useful in this Chapter to refer to three other major themes to illustrate the changes, three themes that will also be very important to the future of the Community over the next ten years: changing needs and private demand patterns; changing attitudes to the role of government; and the problem of the environment.

4.1. Needs and private demand

Ways of life and consumption habits in Europe changed radically during the post-war decades as a result of the steady and generally rapid improvement in living standards, urbanization, the increasing number of wage and salary earners and the rapid growth of the number of women going out to work. These changes led to profound alterations in the structure of private expenditure, which was devoted more and more to the purchase of consumer durables (private means of transport, domestic equipment) and services (health, education, entertainment) at the expense of necessities (food, clothing, footwear). Consumption structures in the different Community countries also tended towards greater similarity, although there are

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still some wide differences, in particular the very large proportion of total private expenditure devoted to purchasing food in Italy (see A 33).

In recent low-growth years, the earlier trends of the structure of private demand have not changed much, except for expenditure on the equipment and upkeep of homes, which slackened off and sometimes even declined, and is no longer a dynamic factor of private demand. The decline is particularly marked for expenditure on electrical domestic appliances, and is linked to the slower rate of residential building, which absorbs a large proportion of this type of new appliance, to the fact that almost all households already possess household equipment, and to the extreme sensitivity of this demand to changes in incomes. However, expenditure on transport and communications, health, leisure, education and culture have gone on increasing at a faster than average rate. As usual, for expenditure on items with a large input of services, these trends should be assessed with caution since it is very difficult to evaluate the price of services precisely.

Furthermore, the corresponding items contain both goods and services, in this connection we must stress the buoyancy of demand for goods intended for leisure and cultural activities, and the maintenance of an above-average rate of consumer expenditure on purchases of private means of transport, despite the increase in costs associated with their use.

Present behaviour patterns, unlike earlier ones, show differences between the various countries. However, a five-year period is too short to be a valid basis for forecasting the consumption trends of households over the next ten years.

It seems likely, nonethe less that the radical qualitative changes in the way of life of households that have taken place over the past few decades will slow down:

(i) first, it is probable that migration to large industrial and administrative centres will go on slowing down (see Chapter 5), and that there will be a reaction against the construction of urban centres too distant from work-places;

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(ii) secondly, even though the desire for larger homes and individual houses seems to be growing in most of the Community countries, the crisis in public finances expected for the 1980s combined with insecure employment and a slower rate of growth of incomes, which make households hesitate to go into debt, should affect the rate of residential building.

Although the construction of individual houses is expanding more rapidly than that of blocks of flats, it has also been strongly affected by the crisis; the extension of suburban estates has thus slowed down, and with it the extension of the corresponding suburban life-style and consumption pattern. The slowdown will probably be least marked where social protection against unemployment, sickness and so on is best;

(iii) since European households are already well equipped with cars and electrical domestic appliances, demand for these will be more sensitive to a lower rate of increase of incomes, even though it can still be sustained to some extent by demand for up-market replacements or supplementary goods (second or third car, etc.);

(iv) there is a tendency to retreat into the nuclear family, perhaps due both to a feeling of insecurity (at work and outside the home), and to a gradual increase in free time (shorter working hours); this tendency means that the home is a privileged centre of activity outside working hours, which should sustain demand both for furnishings and upkeep, and for individual goods required for leisure activities.

In general technological development and the trend of labour costs will strengthen private demand for consumer durables (which are becoming more efficient than before and cheaper relative to services) to enable the household to produce for itself the services it used to buy or consume outside the home. There are abundant examples of this tendency, which was already apparent in the past for domestic services: televisions, radios and hi-fi equipment in the field of cultural and leisure activities; individual tools for home improvement and repairs; camping equipment and caravans for tourism, and so on.

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Thus, as households' more basic needs are gradually satisfied, private demand is transferred to needs which require a higher than average input of services to satisfy them, but this does not necessarily mean a parallel expansion of service activities;

(v) finally, there are still substantial latent needs for health, education, communications and leisure; however, there may well eventually be a financing problem for the services mainly provided by the State, since public finances are in disequilibrium in many countries.

The main trends of private consumption structures over the next ten years can thus be summarized as follows:

(i) continued slow growth of expenditure on food and clothing;

(ii) slower growth of demand for cars and especially electrical domestic equipment;

(iii) greater importance of furnishings and goods required for leisure activities, such as consumer electronic goods;

(iv) sustained high demand for health and education services, but expanding at a slower rate because of population trends;

(v) average growth for other services to households, except tourist services and telephones.

But beyond the incidence of traditional or objective factors determining these trends (growth and expansion of incomes, changes in relative prices, population trends, amount and quality of equipment already available, etc.), the main question over the next decade will be concerned with changing attitudes to the type of need to be satisfied and to the organization of supply of the corresponding services. First, there is the changing attitude to consumption, to excessive consumption, to the social significance of consumption, to ostentatious consumption. In the final analysis, the question is how far we have advanced on the road to a "different share-out of the 'dividends' of economic and social development between tangible factors (individual or collective consumptions) and intangibles (gains in leisure time, improved environment, better social and

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personal relationships, etc.)"[8]. Increased free time, shorter working hours and in general the change in the amounts of time devoted to different activities could have a very significant effect on the structure of demand; these factors could also lead to the creation of a new non-market sector run by private enterprise and thus, as we shall see, raise the question of the changing role of government.

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[8] See the Report on "Economic and Social Concepts in the Community".

4.2. The changing role of government

The government's traditional functions have been supplemented over the past few decades by growing responsibilities in a variety of vast fields such as the general guidance of development through legal provisions and general macro-economic regulation; the organization of economic and social transfer payments; the production and management of goods and services, and so on. The gradual extension of the State's responsibilities has engendered three series of questions, or even criticisms, which are particularly significant in a context of rapid structural change.

4.2.1. The question of the importance of public finances in the national economy

The State's economic and financial importance has grown steadily since 1960, when it represented about 25% or 30% of GDP, until it now represents some 45% to 55% (see A34). The total burden of taxes and other compulsory levies and public service charges has also increased (see A35).

This percentage, and the mechanical factors of further increase, raise a serious problem concerning the optimum level of compulsory levies, the most suitable form for them, and the best allocations. In general, attempts have been made at least to stabilize the share of public expenditure in national product in most of the Member States. Most of the efforts in this direction have involved discretionary interventions (infrastructures, education, social services and so on). Attempts to cut down on social transfer payments, and in particular on social security, have been much more limited. Indeed, the autonomy of social security funds and the operation of predetermined mechanisms governing expenditure have often meant that expenditure increased steadily at a rapid rate. It is generally recognized that the burden of public finances must be lightened, because alternative uses for resources are in much fiercer competition in a period of slow growth and rapid structural adjustment. But new ways will have to be found to satisfy economic and social needs that are now dealt with by social transfer payments.

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4.2.2. The question of the government's functions

The development of the State's responsibilities in a large number of directions is giving cause for concern, sometimes for contrasting reasons, beyond the simple question of the burden of public finances in the economy and society. It is therefore impossible to make linear projections; the adaptability of government functions, and the possibility of alternative solutions, must be considered.

We have already mentioned one of the most important functions of government: organizing social transfer payments; the volume of these payments is generally expanding, however the circuits are organized. It is often very difficult to assess the economic and social impact of the financing and allocation of transfer payments, and their contribution to reducing inequality. This uncertainty, combined with the increase in these payments, has led to growing criticism - often contradictory - of the various transfer mechanisms now employed. Expected population trends, shorter working careers and more widespread demands for security are some of the other factors that will create a need for a detailed study of transfer mechanisms and for a new approach to the questions of equality and social protection.

Another important function of government is that of producing goods and services for the market and organizing non-market services such as education and public health. There again the problem of the growing burden of public finances is indissociable from the problems raised by the increasing importance of this function. The responsibilities undertaken, their scope, and the arrangements for carrying them out vary from one country to another because of different historical backgrounds. Their structural tendency to expand, however, has been sufficiently general, against a background of scarce resources, to give rise to considerations about how the relations between the public sector, the market sector and the private administrative sector could be improved. Many ways have been suggested: new mechanisms for responding to the growing demand for collective services, through the extension of non-market services supplied by associations of private individuals (the "Third sector", or "informal sector"); differential conditions for access to public services previously supplied free

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of charge to all, and financed from taxation; possibly, a specific role and specific means for the public market sector in current industrial re-organization, and so on.

The last-mentioned point is closely linked to another of the State's important functions, that of managing and controlling economic and social development. Besides laws, statutory provisions and its powers of macro-economic regulation, the State also uses more and more sophisticated and varied intervention techniques with a structural purpose. Whatever role is assigned to competition, and in spite of the reservations expressed about bureaucratic interventions in economic mechanisms, the development of the market economies has led the authorities and large private groups to attempt to influence industrial structures; in some cases, this even led to formal experiments in planning.

At the same time, various types of support to firms, and in particular investment aids, were becoming important. In general, since such action is to some extent selective, it is usually presented as a pragmatic means of helping spontaneous structural adjustments - sometimes by changing their course - and of dealing with localized socio-economic problems. Moreover, the crisis and the slackness of investment activity have led to a considerable reinforcement of incentives to capital formation in general.

An attempt was usually made to define industrial policy objectives, to apply planning to various fields and for various purposes, and to introduce general or selective incentives to investment, in the framework of a system where the market would play a major role in regulating and guiding the economy; the techniques of public intervention were designed to complement market mechanisms and not to interfere with them.

Government intervention must increasingly reckon with the growing importance of the decision-making power of large firms, trade unions, professional organizations and so on, which have also consolidated their influence and extended their scope. This situation leads to a paradox that was already apparent

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before the present crisis: the more the State intervenes in economic mechanisms, the less scope it has to exercise its powers. This paradox raises the general question of how economies and societies based on liberal principles can be regulated.

4.2.3. Relations between citizens and government, and the expression of the public interest

The extension and diversification of the role of government has led to ever-growing management problems. The traditional notion of the State as being responsible for general consistency and for protecting the public interest has come up against differences, and even contradictions between the interests of different economic, social and professional groups, different regions and so on. Individual citizens are having to deal with more and more administrative formalities, complicated criteria for assessing situations and making public decisions, and the excessive bureaucratization of information and decision-making channels. Obviously the attitude to State intervention and the intervention methods used vary from one member country to another, particularly in the extent of decentralization and the accessibility of the decision-maker to the private individual, in the responsibility of workers' and employers' representatives in industrial relations and so on. It is therefore difficult to assess the trends of public intervention without taking these factors into account, and without allowing for individual involvement in intervention decisions. In view of what has been called the "ungovernability of government", and the problems resulting from bureaucratization, it is getting more and more difficult to define and express the public interest. However, if the future is to remain under control, the public interest must be defined and expressed because the requirements for social adaptation, both now and in the future, are great, and because social needs and aspirations are so many and varied.

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4.3. The protection of the environment

In Europe, where industrial and demographic density is high, the problem of supply and rational use of natural resources is extremely important. All the Member States share this problem, and must cooperate closely to solve it, perhaps even adopting a common policy. The Community is small in terms of territorial dimension; the various countries share certain seas and river networks; trade and all kinds of exchange relations between them are intense. All this means that a strictly national approach to the problem is too narrow, and that the Community dimension is in many ways the most suitable.

The need to protect the environment has made itself felt gradually and relatively recently in Europe. Over the past fifteen years a certain amount of action has been taken, often in an uncoordinated way, but with undeniable success and usually at remarkably low cost. This action has in general concentrated on pollution: the reduction of sulphur dioxide emissions, the elimination of smog, the reduction of river pollution in some areas, and so on.

But environmental protection is not restricted to combating pollution; it also includes the use of land, the problems of urbanization, the growing supremacy of communications networks and industrial activities and the entire range of damage caused to nature, in particular by the development of certain agricultural techniques.

The environment will still be under heavy pressure over the next ten years; the exact burden will depend on the growth rate, and also on how the structures of output and consumption develop, and on technological production methods. The environment will be in danger as a result of several factors, including:

(i) the growing share of the chemicals industry, electrical engineering and mechanical engineering in industrial output; these sectors are the main producers of synthetic chemical compounds and heavy metals which are often highly toxic, persistent and bio-accumulable;

(ii) the continued high rate of increase in pollution from emissions of sulphur dioxide, in spite of the decline of some of the industries that contribute to this pollution;

(iii) the increasing use of fertilizers and pesticides in agriculture; the consumption of these products is very high in Europe, much higher, for example, than in the USA or the USSR;

(iv) the expected rapid expansion of tourism;

(v) the increase, slower than before it is true, in the number of cars and the volume of traffic, which will add to noise, congestion on roads, and emissions of poisonous gas. It is difficult to monitor exhaust fumes, and the efficiency of anti-pollution equipment, particularly for private cars, diminishes rapidly as the vehicle ages; unless suitable measures are taken, increased traffic will lead to a steady decline in the quality of urban life;

(iv) the production, distribution and consumption of energy, and in particular the development of nuclear sources and the return to the use of coal.

The demand for environmental protection will become increasingly pressing in Europe as the need for it grows; several surveys carried out in European countries have shown keen and widespread interest in the improvement of the environment.

Attention should be concentrated on preventive measures; cleaning and purifying operations are very costly and difficult, and the economy is becoming increasingly dependent on activities that damage the environment. It was estimated recently in France that by 1995, a policy for dealing with a damaged environment aiming for a return to the 1970 level of pollution could cost about 2% of that year's GDP, while a preventive policy could bring pollution 20% below the 1970 level at a cost equivalent to about 0.6% of GDP[9]. Not only is prevention less expensive, not only does it facilitate the application of the "polluter pays" principle recommended at Community level, but it also leads naturally to a comprehensive and more coherent approach to the problems posed.

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[9] "Environment et réorientation de la croissance" Ministry of the Environment, Paris 1978.

It should be borne in mind that present industrial structures are largely the result of past trends and of decisions taken at a time when environmental considerations were not given due importance.

Thus, the available State aids to facilitate structural transformations required to ensure respect for provisions concerning environmental protection must be complemented by proper allowance for environmental considerations when new, competitive industrial structures are developed.

It has often been said, for example, that the costs of pollution control are a burden on firms, hampering growth, affecting productivity, fuelling inflation, creating problems of international competitivity and, all in all, endangering employment. A number of macro-economic studies in Europe, the United States and Japan seem to indicate that these adverse effects are often negligible or non-existent. The expansion of activity in the industries producing anti-pollution equipment may even have favourable economic effects, and a number of studies have shown that environmental protection measures sometimes lead to the creation of new jobs.

Indeed, environmental protection measures are not only wholly compatible with general aims for economic and social development, and in particular with job creation, but they even contribute to achieving these aims.

The economic growth rate is not in itself a satisfactory criterion for measuring a country's economic and social development, or the improvement of welfare and the quality of life. Nevertheless, a high rate of expansion of economic activity does make it easier to create new, competitive industrial structures and to carry out investments, particularly in the area of environmental protection. Such investments contribute not only to improving the environment, but also to creating new jobs; they will therefore contribute to the industrial and regional development the Community must ensure over the next decade.

CHAPTER 5

POPULATION : THE OUTLOOK FOR THE 1980s

The main features of the outlook for population in the 1980s are a slow increase in total population combined with very rapid growth of the population of working age (particularly before 1985) while the ratio of the very young and the very old (i.e. those outside the labour force) to total population will continue to decline.[10]

Although these trends are to be welcomed on some counts, they have two worrying aspects : first, they will mean serious employment problems over the next few years, since potential labour will expand vigorously between now and 1985, and unemployment is already very high in Europe; secondly, in the longer term, these trends will mean an aging and declining population in Europe unless behaviour patterns change.

Demographic trends are expected to follow the same pattern in all the Member States except Ireland, but developments will differ in level, timing and scope from one Member State to another, and from one region to another.

5.1. The features of the next decade

Fairly reliable forecasts are possible up to the not-too-distant date of 1990. Mortality is stable, and there should not be much migration from the Community to the rest of the world. The populations of working and retirement age in 1990 are already known, and the school-age population can be estimated fairly precisely. The unknown factor, which past experience has shown to be a major source of error, is the trend of fertility rates.

Such uncertainty surrounds this determining factor that any forecasts covering more than ten years can be little better than conjectures; however, it may still be useful to analyse the possible implications of such forecasts. For example the demographic factor in economic variables such as the long-term burden of pension payments can be estimated.

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10 The data supplied here are mainly drawn from an experts' report to the Commission of the European Communities, published in June 1978, entitled "The economic implications of demographic change in the European Community : 1975-1995".

The next ten years will be decisive for any attempts to change the course of present demographic trends in Europe, which are giving cause for serious concern about the more distant future.

5.1.1. Slow population growth

Population growth depends on : (i) the trend of fertility rates and the population structure by age groups, and (ii) migratory flows.

Migratory flows

Population movements were a very important factor of Community demographic trends in the 1960s. Between 1963 and 1973, the net increase in the population of the Six due to immigration amounted to 4,600,000 people, or almost one third of the total increase in the resident population. Immigration declined somewhat with enlargement (since emigration exceeds immigration in Ireland and the United Kingdom, as in Italy - see A36), but during the 1960s it accounted for a considerable increase in the labour force : the net inflow of foreign labour into the Community of Six was 2,200,000 between 1965 and 1973. It also led to substantial changes in the population structure by age and by sex. Until the beginning of the 1970s, most of the immigrants were members of the labour force; since 1973 there has been an increasing tendency for whole families to immigrate.

In view of the present and foreseeable problems of employment, the next ten years will probably see the introduction of severely restrictive immigration policies. Two of the three Mediterranean countries now applying for membership, Spain and Portugal, have high emigration rates; when they join the Community, their nationals are more likely to replace migrant workers from non-member countries in the present Member States than to add to immigration.

Fertility rates

After rising sharply in the 1950s and early 1960s, the fertility rate has once more been declining rapidly over the past fifteen years. This development amounts to a restoration of the downward trend that had characterized fertility rates since the end of the 19th century, from which the post-war baby boom now appears to have been a spectacular but temporary deviation.

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Fertility rates in the Community now range between 1.3 in the Federal Republic of Germany and 3.5 in Ireland. In seven of the Member States the rate is lower than 2, although a rate of 2.05 is required to keep the population stable. Even in Italy it is only slightly higher than this.

The population of all the Member States except Ireland will inevitably decline if these fertility rates do not change over the next 50 years, unless there is net immigration. The decline has already begun in Germany and Luxembourg, and it will probably gain impetus after 1990.

Slower demographic growth in Europe

The main difference between Community population projections and national projections concerns the assumptions made about fertility; the Community projections are based on the dual hypothesis that fertility rates will be relatively low, and that they will tend to converge in the various Member States; although they will still remain different, the differences will be less marked than national projections imply.

However, all the projections conclude that, by the end of the century, population growth in the Community of Nine will be zero. Over the next ten years alone, the population will probably not increase by more than 0.2% a year, compared with an annual average of almost 0.6% from 1960 to 1980.

COMMUNITY POPULATION TRENDS

	Millions			Annual growth rates		Millions	
	1980	1985	1990	1980/1960	1990/1980	2015	2050
D	61.1	60.6	60.2	0.49	-0.15	53.5	38.4
F	53.5	54.6	55.6	0.79	0.39	58.9	57.5
I	56.9	57.8	58.6	0.63	0.29	60.6	58.3
NL	13.9	14.3	14.6	0.97	0.5	15.2	13.35
B	9.8	9.9	9.9	0.36	0.13	9.8	8.7
L	0.36	0.36	0.35	0.63	-0.08	0.32	0.24
UK	56.1	56.5	57.0	0.33	0.16	58.3	55.2
IRL	3.3	3.5	3.8	0.79	1.36	5.1	6.5
DK	5.1	5.2	5.3	0.57	0.26	5.4	5.2
EEC	260.2	262.7	265.4	0.57	0.2	267.1	243.4

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However, population growth is much more vigorous in Greece and the other two Mediterranean countries applying for Community membership. The populations of Spain and Portugal should each expand by more than 0.8% a year in the 1960s.[11]

5.1.2. Large increase in the labour force

There will be significant changes in the structure of the Community population pyramid over the next ten years; the changes are easy to predict, since the only uncertain factor is the percentage of children aged ten and under in the population in 1990. On the assumption that fertility rates will gradually tend together, without converging completely, the percentage of under-15s in the population should decline from 21.4% to 19.7% between 1980 and 1990. At the same time, the percentage of those aged 65 and over should decline at first from 14.1% in 1980 to 13.2% in 1985, rising again to 13.8% in 1990. The population of working age, i.e. from 15 to 65, should rise from 64.5% in 1980 to 66.9% in 1985, falling again slightly to 66.6% in 1990 (see A 37 to 39).

The development of the population pyramid in the Federal Republic of Germany in the 1980s will represent an extreme case. The percentage of those aged 15 and under should decline considerably, although less than in the Netherlands and Italy, where the initial percentage is much higher; the percentage of those aged 65 and over will also decline rapidly, as in France and Belgium, but it will still remain much higher than the average for the Community as a whole, as in the United Kingdom and Denmark. The combination of these two trends will mean that, at least until 1985, the ratio of the population of working age to the total population will increase faster than elsewhere, even though the annual growth rate of the population of working age will not be the highest in the Community (see A 37 to 39).

1985 will be an important year for population trends in the Community as in many of the Member States; for it will see changes in the trends of the various age groups. The size of the 0 to 15 age groups will decline by almost 1.3% between 1980 and 1985, but remain more or less stable between 1985 and 1990. The population aged 65 and over will decline by 1% a year in the first half of the 1980s, and then rise by 1% a year in the second half.

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11 According to UNO forecasts (medium-growth alternative), the population of Greece will rise from 9.0 to 9.9 million between 1975 and 1990; that of Spain from 35.6 to 40.5 million, and that of Portugal from 9.4 to 10.8 million; thus, the aggregate population of these three countries should increase from 54 to 61.2 million.

In particular, the population of working age will increase by 0.9% a year from 1980 to 1985, but only by 0.1% a year from 1985 to 1990 (compared with an average rate of 0.5% a year from 1950 to 1980). (see A37 to 39).

The dependency ratio (i.e. the population aged under 15 and over 65 expressed as a percentage of the population of working age) should therefore decline considerably, from 55% in 1980 to 50.2% in 1990; the lowest point will be reached in 1985 (49.5%), after which the trend will be reversed.

A mechanical extrapolation of the Community projections shows a dependency ratio of 51.2% in 2015, with a considerably smaller proportion of under-15s and a considerably larger proportion of over-65s.

In Greece, Spain and Portugal the population of working age should increase by about 0.8% a year between now and 1990, faster than in the Community. This will mean a further increase of about 3 million in the population aged 15 to 64 over the next ten years in addition to the increase of about 9 million (including 8 million between 1980 and 1985) expected for the Nine.

5.1.3. Continuing wide disparities between regions, and internal population movements

In Ireland, the Mezzogiorno and the countries applying for membership, the population of working age will rise faster and for longer than in the rest of the Community. Disparities between demographic trends are even wider at regional than at national level. The population aged between 15 and 64 in the less prosperous regions, where high fertility rates have been recorded in the past, will continue to rise faster than the Community average (see A40 and 41). There are obvious exceptions : the increase in the population of working age will be relatively moderate in the less prosperous regions of the United Kingdom, while it will be very vigorous in the eastern Netherlands.

The outlook for population movements within the Community in the 1980s is largely uncertain. Population movements have changed radically over the past

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few years. Until the end of the 1960s and the early 1970s, the population of the poorer regions was much depleted by massive emigration : about 5 million people left the Mezzogiorno and Ireland between 1951 and 1971, or a quarter of the population in one generation. At the same time, the population of the large conurbations expanded steadily. Over the past few years, these tendencies have practically disappeared, for several reasons : slack demand for labour in the more prosperous regions of the Community; better and wider national insurance cover; fewer departures from the land, partly because the rural population of working age is older than before (44% of farmers and 25% of all persons employed in agriculture in the Community were over 55 in 1975); unpleasant living conditions in the large towns, and the attractions of a more agreeable environment in some less prosperous regions (particularly on retirement); the growing desire to live and work in one's native region, and so on.

Obviously the situation varies from one region to another, and contrary tendencies are apparent within the Community. In southern Italy and the prospective Member States, there will still be massive movements from the countryside to the large towns. Serious imbalances are developing in the prospective Member States, where population, industrial activity and services are concentrated in the large towns, while many rural areas are becoming depopulated.

In other Community regions there is a tendency towards deconcentration. First, there is a movement away from the regions where traditional industries such as steel, textiles and shipbuilding are declining. This is true of Lorraine, the Saar, Nord-Pas-de-Calais and Strathclyde. Secondly, there is a movement away from large towns. During the 1960s, activities and residents were moving out of the inner cities, while the growth of large towns was slowing down, and small and medium-sized towns were developing. For the past ten years, the larger towns have actually been declining (and not just the inner cities), as retired persons and the better-off have moved away, to be replaced by young people and foreign workers.

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5.2. The implications of these trends

The expected population trends for the next ten years, and in particular the change in the trend of the population of working age in 1985, will raise a major problem : that of employment, which we consider in detail below.

The trends will also affect the structure and the rate of expansion of demand. It would seem reasonable to suppose that slower population growth will, all other things being equal, lead to slacker demand; however, the importance of this factor at European level should not be overestimated. It is true that the expansion of demand has already been affected by population trends in the Federal Republic of Germany, and that a decline in the Community population would have similar effects in the very long run. However, demand is more likely to be affected by other factors over the next ten years, and in particular by the changing shape of the population pyramid. Two aspects of demand will certainly be affected : the demand for education and the demand for health services.

There will be a considerable decline in the number of children of school age, which has been falling since 1972, when it broke all records. In 1972, there were 61,300,000 children aged between 0 and 14 years in the Nine; in 1980 there will be 55,700,000, and by 1990, according to present forecasts, only 52,200,000. Although the number of children aged between 0 and 4 years will increase considerably over the next ten years (even if fertility rates do not rise), it will still be smaller than at the beginning of the 1970s. The number of children aged between 5 and 14 years will decline rapidly, particularly up to 1985 (from 39,200,000 in 1980 to 34,800,000 in 1985); this development will affect primary education for the first half of the 1980s, and secondary education thereafter. The potential numbers undertaking higher education (if the rate of participation does not change) will increase rapidly until 1985 and then decline, in view of the trend of the population aged between 15 and 24 years. These trends should make it possible to improve the quality of education, but will lead mainly to a reduction in the number of teachers (which is already excessively large in some countries) and in the volume of investment in the education system. The system ought, however, to remain sufficiently flexible to deal with an increase in the number of young people during the last decade of this century, and

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a possible rise in the fertility rate. It will also have to deal with investment problems due to population movements.

A number of studies have shown that the curve of health expenditure as a function of age is U-shaped, if the costs of confinement and ante-natal and post-natal care are attributed to the child rather than to the mother. Expenditure declines rapidly in the early years of life, then increases again at a growing rate with age. According to present tentative estimates, health costs in the Community could rise by about 9% (at 1975 prices) between 1975 and 1995 as a result of changes in the shape of the Community population pyramid; the increase in costs for this reason will be particularly large in Ireland (22.9%) and the Netherlands (20.9%), but very small in the Federal Republic of Germany (3.5%), Belgium (2.9%) and the United Kingdom (6.1%), and close to the Community average in the other countries.

Population trends may have some effects on the demand for accommodation, but it is difficult to predict the incidence of the various factors at work : family size, large increase in the number of young people of marriageable age, regional disparities, dislike of large towns and so on.

In the longer term, the demographic outlook beyond 1990 will raise problems that should be considered as early as possible, such as the problem of the burden of retirements. This problem will not be felt for at least twenty years, unless the retirement age is reduced substantially. The population aged over 65, which increased considerably between 1975 and 1980 (particularly in Germany, Italy and the United Kingdom) will decline between now and 1985, rising gradually thereafter. By 1990, the number of those aged over 65 will be about the same (36,500,000) as in 1980 (see A39). Although there are considerable differences from one Member State to another, they are unimportant up to 1990. In fact, unless population growth regains momentum, the more rapid aging of the population will not cause serious problems of financing retirements until the year 2000. The countries most affected will be Germany, the Netherlands and Luxembourg, where the percentage of older people will increase very rapidly between 1990 and 2015.

A further, pressing problem will be that an aging European population, the result of demographic decline, could significantly damage the dynamism and adaptability of the Community, and its capacity for innovation and dialogue, in a world where the aspirations of young, poor and rapidly increasing populations will be increasingly urgent.

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5.3. Europe in world demographic trends

According to the most recent UNO projections [12], world population could increase by about 53% between 1975 and 2000, on the basis of medium-growth assumptions considered the most plausible by UNO experts. At the same time, the population of the Nine would increase by 5%, and that of the enlarged Community of Twelve by a little over 7%.

The United Nations projections cover the period from 1975 to 1995, comparable to that covered by the Community projections. The results of both sets of projections for the growth of population in the Nine are very similar (UN projections : increase of 3.3%; Community projections : increase of 3.6%). On the basis of these results, the population of the Nine will represent 4.3% of world population, that of the Twelve 5.4%, in the year 2000 compared with 6.4% and 7.7% respectively in 1975 (see A 42).

The decline in demographic growth, in all the northern European countries besides the Community, is more marked than in the other developed countries, particularly the USA and Japan, although even there the rate of demographic growth is noticeably falling (see A 42). Indeed, the share of the developed regions in total world population will drop from 28.2% in 1975 to 21.8% in the year 2000. The natural growth rate of the developing regions will still be much higher than that of the developed countries, in spite of a sharp drop in birth rates, partially offset by a drop in death rates. Between 1975 and 1980, the population in the developing countries will grow by 2.2% a year, compared with 0.7% a year in the industrialized countries; the respective rates between 1995 and 2000 will be 1.85% and 0.54%.

By the year 2000, the populations of Brazil (212 million) and Mexico (114 million) will together be equal to the entire population of the Community of Twelve (335 million), while in 1975 they were equal to only 54% of that population. The Arab countries of the Mediterranean seaboard and the Arabian peninsula could have 269 million inhabitants, or about the same number as the Community of Nine, by 2000, compared with 52% in 1975.

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12 "Demographic Estimates and Projections for the World, Regions and Countries as assessed in 1978" Provisional Report, UNO January 1979.

These populations will be young; although the proportion of those under 15 will be declining, it will still be considerable at somewhere near 40%, or even more. At the beginning of the 21st century, there will be twice as many under-15s in the Arab countries of the Mediterranean seaboard and the Arabian peninsula as in the Nine (107 million and 54 million respectively), although the numbers were approximately the same (about 60 million) in 1975. In Brazil and Mexico together, there will be 135 million young people in the year 2000, compared with 73 million in 1975; the number of under-15s will decline in the Community of Twelve from 74,900,000 in 1975 to 68,100,000 in the year 2000.

The under-45 age group will also be smaller in the Community than elsewhere in the year 2000. This group will represent about 63% of the total population of Europe, about 65% of the population of the developed countries and almost 82% of the population of the developing world, compared with 65% , 69% and 83% respectively in 1975.

These population forecasts for the end of the century may turn out to be mistaken, in particular if the birth rate falls more rapidly than expected in the developing countries; it has already begun to decline considerably, and should go on doing so at an increasing rate, especially in South-East Asia. However,the general trend towards an aging Community population and a young Third World would still be apparent.

PART TWO

THE CHALLENGES FACING THE COMMUNITY IN THE NEXT TEN YEARS

Population trends in Europe over the next ten years may make the present unemployment problems facing most of the Member States considerably worse.

The main questions now being asked about the opportunities and dangers of the next ten years are increasingly concentrated around the crucial issue of unemployment, which will determine the solutions to problems of economic and social development, sectoral adjustment, social cohesion, relations with the rest of the world, and all the challenges facing the Community. All these matters are dealt with in Part Two of this report.

CHAPTER 6

EMPLOYMENT : A major issue for the 1980s

After declining in 1975 and 1976, employment has once again been expanding in the Community over the past two years ; nevertheless, by 1978 total employment was still less than it had been in 1973. This general trend covers developments in different directions, at different rates and of varying scope in the individual Member States. For example, employment declined rapidly in the Federal Republic of Germany from 1973 to 1977, particularly in 1974 and 1975, and then recovered perceptibly in 1978 ; in Italy, on the other hand, employment increased considerably during the same period (see A 43).

Although immigration has ceased, and in spite of the economic situation, which has discouraged many potential job-seekers from entering the labour market, the recent recovery in employment was not vigorous enough to offset the increase in the labour supply due to the rapid expansion of the population of working age. The Community's civilian labour force increased by two million from 1975 to 1978, a large increase, but still smaller than the increase of 4,600,000 expected for 1975 to 1980.

The recovery of employment has not, then, been sufficient to achieve more than the stabilization of unemployment since the middle of 1977 ; as many as six million people, or about 5.5 % of the Community labour force, are now unemployed. Women are particularly hard hit (about 6.7 % of the female labour force was unemployed in 1979, compared with 5 % of the male labour force), as are young people : over 40 % of the unemployed are under 25 years old.

Unemployment trends and situations vary widely from one Member State to another. The most remarkable case is that of the Federal Republic of Germany, where the rate of unemployment has been declining since 1975, while it has increased in all the other countries except the Netherlands and Denmark (see A 43) ; unemployment structures by age and sex also vary, as do average periods of unemployment.

Differences between regions are even greater than those between countries. The total level of unemployment is very high indeed in some of the outlying areas of the Community (see A 44 and 45), where the level of unemployment among young people is sometimes particularly serious (see A 46).

The Community is therefore entering a new decade with a seriously disturbed labour market, and the problem is likely to get worse rather than better over the next few years :

.../...

(i) first, because the size of the available Community labour force will expand at an exceptionally rapid rate ;

(ii) secondly, because the changes and adjustments required in view of the new international environment, the structural development of internal demand and technological progress will involve far-reaching changes in employment because of conversion and the need for new qualifications.

6.1. The labour supply in the 1980s

According to Community demographic projections, the supply of labour (abstracting from population movements) could expand at an annual rate of 0.9% from 1980 to 1985, and of 0.66% from 1985 to 1990, or an annual rate of 0.75% over the decade as a whole (while national projections predict a rate of 0.45%). The Community figures cover a variety of differing national trends (see A 47); they correspond to an increase in the labour force of about nine million people, 65% of whom are women, between 1980 and 1990 (see A 48). 70% of this increase is due to increased population, while the rest is due to a rising participation rate among women.

LABOUR FORCE TRENDS

- Annual growth rates -

	1975/1950	1980/1975 [1]	1985/1980 [1]	1990/1985 [1]	1990/1980 [1]
F. R. Germany	0.54	0.65	0.78	0.35	0.55
France	0.65 [2]	0.98	0.84	0.59	0.72
Italy	-0.08 [2]	1.03	1.11	1.11	1.11
Netherlands	0.86	1.60	1.90	1.67	1.79
Belgium	0.15	1.13	0.78	0.78	0.78
Luxembourg	0.72 [2]	0.79	0.63	0.08	0.35
United Kingdom	0.35	0.65	0.74	0.42	0.58
Ireland	-0.49	1.24	1.90	2.00	1.95
Denmark	0.66	0.43	0.52	0.39	0.45
EEC	0.31	0.85	0.90	0.66	0.75

[1] Estimate

[2] 1975/1955

The component due to changing participation rates is not at all easy to predict. We know what factors affect participation, but they are not easy to quantify. In the long term there will probably be a decline in participation rates at both ends of the working-age range. The participation rate among those members of the working-age population who are still young enough to be undergoing full-time education has declined rapidly since the war; the decline will probably continue, but more slowly than before, since participation in higher education may have reached saturation point. At the other end of the scale, the participation rate among the over-55s is highly likely to fall because of increased opportunities for early retirement. However, the determining factor will be the participation rate among women, particularly married women aged 25 to 55. This rate will depend to a large extent on economic and social developments in the European countries.

It is much easier to assess the demographic component, i.e. the effect of increased population if there is no change in participation rates; it is larger in the first half of the decade (where it comprises 4 100 000 people) than in the second (2 200 000 people). In particular, unless participation rates in this age group decline, the number of young people aged 15 to 24 in the labour force will increase by 1 100 000 between 1980 and 1985, much more than between 1975 and 1980, when the increase amounted to 600 000; after 1985, this figure will decline, slowly at first, but very rapidly from 1990 to 1995 (see A 48).

As we pointed out in Chapter 5, trends are expected to change around 1985 in the Community as a whole, and somewhat later than elsewhere in southern Italy, Ireland and the prospective Member States, where the population of working age will expand more rapidly and for longer than in the rest of the Community (see A 40 and 41). Young people will also be arriving on the labour market in large numbers in France. It is therefore probable that these regions, which are already much less prosperous than the rest of the Community, and where unemployment rates are already higher (see A 44 and 45), will suffer increasingly from underemployment.

.../...

6.2. Qualitative and structural adjustments on the labour markets

The employment problem is not simply due to the size of the labour force; it also has a very important qualitative and structural aspect, involving two closely interdependent factors: the transfer of labour from one sector to another; qualitative imbalances between geographical regions, between the supply of and demand for specific qualifications, and between working conditions.

The transfer of labour from one sector to another is a continuous process that has been increasingly important in Europe over the past twenty years, because of movement away from the land, adjustments within manufacturing industry, and the rapid development of services. These transfers could be made relatively easily when growth was vigorous; they are now more difficult because of the slower rate of expansion, and also because some of the factors of qualitative imbalance have become much more important over recent years[13].

Qualitative imbalances have always existed; indeed, they are an integral part of the mechanism of labour markets. However, their scope has widened in recent years: a large number of vacant posts often coincides with a high rate of unemployment. These imbalances have contributed substantially to increasing under-employment, and are hampering policies to stimulate demand and reduce production costs.

.../...

[13] See Commission working document SEC(79) 634 final: "Reduction of the Qualitative mismatch between the supply of and demand for Labour : Guidelines for labour market policy and working conditions policy".

Moreover, the problems caused by qualitative imbalances now seem to be taking on a new aspect, as a result of radical changes in the economic and social environment and in the behaviour of job-seekers and potential employers.

Employers' attitudes to recruitment and training are changing. Firms are tending to reduce their expenditure on training, because of increasing financial problems, and public expenditure has probably not offset the decline in private initiative. Furthermore, firms are imposing increasingly selective conditions for recruitment, since new legal provisions have made it much more difficult to dispense with unwanted staff, outlets are subject to growing uncertainty, and potential employers are in a very strong position on the labour market. The great flexibility with which firms used to take on workers who did not necessarily meet all their requirements made conversion and restructuring much easier in the past; but this flexibility is no longer a feature of recruitment. The new situation is particularly unfavourable, not only to older and handicapped job-seekers, but also, and especially, to women and young people (and a fortiori to young women), who will represent an increasing proportion of the labour force over the next ten years. In 1977, men under 25 represented 14.5% of the labour force, and women under 25 22.3%; in September 1978, men under 25 represented 35% of registered job-seekers, and women under 25 50%.

Two main features of workers' attitudes should be noted: first, wage and salary earners are increasingly unwilling to move away in order to find a job. This unwillingness is partly due to the fact that the spouse may already have work, and to the difficulties associated with leaving or finding accommodation. Secondly, new demands in relation to production conditions and working hours are being pressed more vigorously. Living standards and educational levels in the population are rising steadily, while there are still many jobs that are excessively tiring both mentally and physically. Many wage and salary earners are employed in jobs that leave no scope for their potential qualities of initiative or autonomy.

.../...

The increasing size of production units is the more intolerable as workers feel like anonymous tiny cogs in a large and complicated machine, where production is divided into a very large number of repetitive and apparently meaningless tasks. Workers resent the low social status attached to certain jobs.

But there may be a way of reconciling the requirement for increased productivity with this growing hostility towards present working conditions and the constraints of a productivist economy. For higher productivity does not always mean gigantic production units, it may sometimes be achieved through the re-organization of production processes: management could be spread more widely, if not decentralized; tasks could be divided out differently; teams could be set up to carry out complicated work programmes, and so on.

The consequences of this hostility in some sections of the population, however, are giving serious cause for concern, when it is directed against work itself. "At a time when young people in search of their first job are very hard hit by unemployment, /this hostility is/ firmly established in a labour market that is becoming increasingly discriminatory. There is discrimination in incomes, obviously; discrimination in job security; discrimination in working conditions (risk of accidents, hours of work, time-keeping and so on). Work is still an important element of social discrimination. Indeed, the labour market itself has split into two: what the experts call the 'primary market', for the nucleus of privileged employees who are protected by law and collective bargains, and the 'secondary market', where badly protected categories such as young people, women, handicapped workers, older workers and immigrants pass through and are often exploited." [14]

It is clear from this brief analysis that the quantitative and qualitative aspects of employment and labour involve crucial problems for the future of European societies, which are seriously affected by the waste of human resources and the exacerbation of disparity and discrimination due to underemployment.

There is no doubt that the present serious situation is largely attributable to the very low growth rates that Europe has experienced since 1974; growth is not vigorous enough for the labour supply to be absorbed, and slow growth has made sectoral change and structural adjustment on the labour market much more difficult. Thus, while better and more energetic labour market policies, education policies, vocational training policies and measures to improve working conditions are absolutely essential, nothing will be achieved unless economic and social development is brought back under control, so that new jobs can be created.

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[14] Report on Economic and Social Concepts in the Community.

CHAPTER 7

THE OUTLOOK FOR ECONOMIC AND SOCIAL DEVELOPMENT IN EUROPE IN THE 1980s

Most of the European countries seem to have become trapped over the past few years in a situation of slow economic growth from which they cannot escape in spite of their efforts. The longer this situation lasts, the greater are the economic, social and political risks it involves.

First, it adversely effects employment now, as well as making any future improvement more difficult to achieve as each year passes; for it leads to a decline in productive investment and thus weakens production potential. Since new jobs are not created in sufficient numbers, strong social and political pressures build up to defend existing jobs, even those whose continued existence is unprofitable and so costly that many other jobs are endangered in their turn.

The problems experienced in certain sectors and regions are transformed in a situation of low growth rates into acute crises, which are often dealt with by uncoordinated government intervention at specific points; the temptation to take protectionist measures becomes stronger, although such measures are bound to hamper structural adjustments and accentuate the rigidity of economic structures. Low growth rates make it even more difficult to finance budgets and social security funds, and thus reduce the authorities' margin for manoeuvre by calling into question the economic and social progress achieved earlier. They contribute nothing to the satisfaction of new needs and aspirations; indeed, they make it more difficult and less likely. For example, although they encourage the tendency towards shorter working hours, the reduction in working time is not regarded as an integral part of a new plan for society, but rather as an instrument to restore balance to the labour market; the efficiency of such an instrument is questionable, to say the least, especially against an economic and social background that makes its use so much more complicated.

Although low growth rates may have helped to attenuate certain problems in Europe, they are nevertheless undesirable. But they are not inevitable. They are not due to the saturation of domestic or international demand, or to the exhaustion of technical progress. They are the result of a variety of macro-economic, structural and socio-political barriers associated with radical economic and social change, which are reinforced by the crisis itself, and by the defence mechanisms it stimulates, but which can be weakened or removed.

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The excesses of the very rapid growth in the twenty-five years leading up to the crisis, have been justly criticized, and with them the cult of the growth objective as an end in itself. The criticisms, which were already vigorous by the later 1960s, questioned the significance, the measurement and the implications of growth; at the same time, the idea of a more relaxed form of economic and social development, more in keeping with new individual and social needs and aspirations, began to appear.

The recent crisis has changed the terms of the problem of transition to a new type of economic and social progress, although it has not removed it. Legitimate concern for the qualitative aspects of growth must not be allowed to overshadow the requirement for a restored high rate of expansion, which can help the European countries to combat underemployment, although it will not provide a complete solution to the problem.

It would be useless, and indeed impossible, to try to define a European model of economic and social development for the next ten years; for the member countries have widely different collective preferences and behaviour patterns, and their socio-economic structures are not all at the same stage of development. Nevertheless, it is possible and useful to isolate the common factor of the measures which all the Member States can and must take if they are to improve the outlook for economic growth.

7.1. Improved growth prospects

Experience over recent years and a study of the main structural trends to be expected in the 1980s imply that priority should be given to: reducing the adverse effects of the energy problem on growth prospects; restoring a more stable framework for the external relations of the Member States, particularly their mutual relations; improving the conditions of growth in general.

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7.1.1. The energy problem

The outlook for growth over the next few years is seriously compromised in most of the European countries by uncertainty about supply prices and quantities of oil, and by the adverse effects of numerous past increases in price and reductions in supply.

It is therefore obvious that the Community must pursue the twofold aim of (a) reducing its dependence on external energy sources, and (b) cooperating at least at national and European level, to find ways of reducing the effects of oil crises such as those of 1973 and 1979, which may well arise once again over the next ten years.

(a) Reducing the Community's dependence on external energy sources

The oil crisis of 1979 illustrated how little progress had been made towards reducing dependence on external energy sources since 1973, and how urgent is the need for much greater efforts if European societies are to escape from the paralysing constraint of excessive dependence.

The main lines of action to be undertaken were described in Chapter 1 :

(i) to diversify the geographical sources of imported energy, stabilize political relations with oil-producing countries and replace unilateral European dependence on these countries with mutual economic dependence between them and Europe ;

(ii) to develop alternative primary energy sources in the world and within the European economies ;

(iii) to promote energy saving and weaken the link between energy consumption and economic growth.

Commission communications to the Council, and the report entitled " In favour of an Energy-Efficient Society " have already described the implications of this type of action ; we shall not, therefore, go into them here. But we may recall three of the main conclusions reached :

(i) first, that a vigorous investment drive will be required in the energy sector. The investments necessary over the next ten years to achieve the aims for national energy production in the various Member States (see table (A 49) are estimated at a relatively high figure, and even this estimate may be too low. On the other hand, we are still unable to assess how much investment expenditure will be required if certain assumptions about energy saving are verified ;

(ii) secondly, that significant energy saving and a less rigid link between energy requirements and growth rates will not be possible unless life-styles and attitudes to the use of energy change; this in turn will have important repercussions on the content of growth ;

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(iii) thirdly, that vigorous political action will be needed to change production and consumption structures by means of the entire range of available instruments used in a consistent way: better information, standard rules governing the use of energy, tax incentives and sizable financial rewards, encouragement for R&D, and in particular the readjustment of relative domestic prices for the various energy sources.

(b) Controlling the spread of the effects of oil crises

After oil prices were multiplied by four in 1973, the adverse effects of the increase on the economic situation were amplified by divergences and confrontations which influenced economic policies and the behaviour of governments and the various socio-economic groups in the oil-importing countries, particularly those of the Community. At both national and international level, vain attempts to pass on the burden of increased oil costs to other States or other economic groups led, through the ratcheting up of incomes and snowballing balance of payments disequilibria, to much faster inflation and much slower growth than would have resulted from the primary effects of higher oil prices alone.

The consequences of these developments for investment, growth, employment and productive structures, which varied widely from one Member State to another, had not yet been dealt with in spite of the substantial progress made in correcting the distortions that have appeared since 1973, when a further sudden rise in oil prices caused the same risks and problems to reappear in 1979.

Experience over the past few years shows that if further likely crises over the next ten years are to be dealt with, agreement must be reached on certain basic principles:

(i) Increases in oil prices must be passed on rapidly and entirely in energy prices in general and in the prices of finished products whether or not they are energy products. This rule should be accompanied by specific compensations for the least privileged members of society so that sacrifices may be fairly shared out; but it must be respected if energy is to be saved, if supplies are to be available for all countries and if alternative sources of energy are to be developed.

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(ii) The secondary effects of increased oil prices, both inflationary and recessionary, must be limited as far as possible. The application of this principle raises a problem of general regulation policy; its success will depend on how the behaviour of workers and employers affects incomes and prices, and on how far nominal increases can be avoided, since their final effect is to increase the burden of rising oil prices on real incomes.

(iii) The temporary deterioration of the balance of payments position resulting from changed terms of trade must be accepted ; if the two principles described above are respected, this deterioration should not be excessive, and it should eventually be neutralized by the development of exports to the oil-producing countries.
Obviously this will require the development of international financing to help the more vulnerable countries.

7.1.2. Stabilizing the framework for the international relations of the Member States.

A study of the mechanisms and effects of the system of flexible exchange rates over the past few years clearly shows that the restoration of more stable exchange rates will be vital, at least in the European countries, to improving the outlook for growth, employment and inflation.

Recent experience has shown that, in countries where the discipline of adjustment was accepted early on, the currency was often subject to strong pressure and had to be revalued, sometimes by more than relative cost trends justified. The tendency of the stronger currencies to appreciate, and the uncertainty about their future exchange rates, have affected profit margins and thus discouraged investment and reinforced the effects of stabilization policies beyond the point required by considerations of growth. Moreover, if the percentage revaluation exceeds the percentage difference in cost trends in national currencies, inflation is "exported" (or "re-exported") to the partner countries.

The depreciation of the currencies of structurally weaker and more vulnerable economies, on the other hand, weakens the constraint of foreign competition in negotiations concerning the distribution of income and thus increases the risk of an inflationary wages and prices spiral fuelled by the effects of devaluation on the terms of trade. At the same time, devaluation constitutes a disincentive to modernize and adjust structures in the exporting sector, and therefore undermines competitivity in the long term.

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By maintaining more stable exchange rates, the European Monetary System, or EMS, can considerably attenuate the problems of inflation in weak-currency countries and the problems of excessively sluggish or precipitate structural adjustment that have accompanied flexible exchange rates over the past few years. It can also reduce the uncertainty weighing down on investments and exports, and enable the growth stimuli created by concerted action to be transmitted. It can therefore be an important factor in achieving more sustained and structurally better balanced growth in the medium term. As it encourages inflation rates to converge at as low a level as possible while avoiding deflationary effects, the EMS helps to create a zone of monetary stability in Europe; this should contribute to more satisfactory economic and social development in the medium term. EMS central rates can be adjusted - preferably a little at a time - for structural reasons or when cost trends persistently diverge; this facility helps to eliminate the disadvantages of delayed exchange-rate adjustments, which were a feature of the Bretton Woods system.

The effectiveness of the EMS will depend to a large extent on how central rates are adjusted; and in particular on a fair distribution of responsibilities and burdens between the Member States; otherwise the system will collapse as a result of excessive inflation or equally dangerous deflation. If the system is to work, the Member States will have to strive for concertation and solidarity, especially since external pressures, difficult or impossible to control, will make it all the more difficult to manage.

The other threat to the external relations of the Member States, and thus, because the States are so open to the rest of the world, to their growth prospects, is rising protectionism, which is apparent not only in the rest of the world but also in the Community itself. This development is very dangerous for the Community; first, because its dependence for energy and raw materials means that exports are vital to the Community, and any barriers to free trade are undesirable; secondly, because the production apparatus of the Community economies is principally geared to exporting - much more so in fact than the economies of many other large industrialized countries - and the expansion of exports, which could be compromised by more widespread protectionism, is vital for employment.

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Moreover, a study of the external trade structures of the Member States shows that those most likely to resort to defensive measures of this type are also those liable to suffer most from the escalating protectionism their action could provoke (see Chapter 2), which could well undermine the foundations of the Community.

For all these reasons, and by virtue of the Community's international responsibilities, the member countries must work together to neutralize this danger. But they can accept the rules of international competition only if their partners do so also, particularly the rule on mutual arrangements and fairness.

It is of course true that the absence of barriers to trade with the rest of the world places a heavy burden on the Member States, and that efforts to reduce this burden in the long term should not be neglected. These efforts could be helped over the coming decade by a reduction in the Community's dependence on outside sources of energy and raw materials, the development of service activities, and a change in consumption habits and life styles. It is none the less certain that the economic and social development of the Community countries over the next ten years will depend to a very great extent on how far these countries manage to adjust to changes in the international division of labour, and to take advantage of the opportunities these changes afford ; on how well they can face up to the new requirements for competitivity and flexibility these changes create. This involves inflation control, a suitable distribution of incomes, the recovery of productive investment, technological progress, increased labour mobility and so on.

7.1.3. Improving the general conditions of growth

One of the most worrying aspects of recent economic trends in Europe is the sharp decline in the rate of investment. By 1978 the volume of gross fixed capital formation in the Community had expanded again to about the size recorded in 1973; the annual rate of investment (gross fixed capital formation as a percentage of GDP) fell from 22.4% on average in the years from 1964 to 1974 to 21% on average in the years from 1976 to 1979. Although investment trends have varied considerably from one Member State to another (see A50), the problem is urgent in all of them since the recovery of rates of investment is a basic condition for restoring growth, reducing unemployment, renewing the structure of the productive apparatus and protecting competitivity.

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This recovery will require determined efforts, more arduous in some countries than in others, to restore general conditions that are more conducive to growth, both on the supply side and the demand side :

(i) a general stable framework for economic development, and a climate of confidence such as to encourage productive investment; this means reducing uncertainty about the economic environment (inflation, exchange-rate fluctuations, energy supply, etc.) and about the legal provisions governing business activity;

(ii) steadier wage trends, more consistent with reducing inflation rates and stabilizing business profits; over the past ten years, the distribution of income has become enormously distorted (see A 51, showing the trend of the share of wages in GDP);

(iii) in the field of public finance, tax arrangements less likely to constitute a disincentive to work and investment, as well as medium-term stabilization of public finances; these conditions are generally considered necessary, but situations, and opinions on how they can be created in practice, differ from country to country and even within countries;

(iv) in the field of specific policies (competition policy, regional policy and so on), policies that are no longer geared to defending and maintaining out-of-date structures; here again, all the member countries agree on this condition in principle, but they differ widely as to the rigour with which the principle should be applied and as to how the aim of a determined adjustment policy can be reconciled with the requirements of social policy;

(v) the multifarious problems of supplies and costs could, for their part, be more easily solved once obstacles to growth have been eliminated, for demand could then begin to expand vigorously once more, and would indeed be directly stimulated (for example, new demands would arise if energy-saving and energy-production aims were achieved). The recovery of investment will require not only improved profits but also a higher capacity utilization rate and a favourable outlook for demand; demand support to boost growth can also help to reduce the adjusted share of wages by raising the rate of increase of real wages; the realization of potential productivity

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gains can weaken inflationary pressures, and neutralize the temptation to resort to defensive policies; sectoral adjustments and the medium-term stabilization of public finances are easier to achieve. A Community approach could help to realize potential demand in the less developed regions of the Community, the Mediterranean countries applying for membership, and the developing countries[15]. The use of Community financial instruments could be enlarged for the same purpose.

All these more strenuous efforts that will be required over the next ten years to restore the conditions of more sustained growth along new lines and in pursuit of new aims must be actively supported by all economic and social categories working together (we enlarge upon this point in Chapter 9). National solidarity, moreover, will have to be accompanied by greater cooperation and solidarity between nations so that national efforts are not only consistent and convergent, but also more efficient; with the introduction of the EMS, this aspect of the problem is now more than ever the central concern of the Community bodies.

7.2. Growth and the restoration of equilibrium to the labour market during the 1980s

Over the next ten years the Community will have to face the difficult task of restoring equilibrium to the labour market.

If the Community is to deal with the rapid increase in the potential labour force between now and 1990, and if it is to reduce unemployment to a more tolerable level (about 2.5% by 1990), then employment will have to increase by some 0.7% to 1% a year over the next ten years. To illustrate what this means, we note that if the trend towards shorter working hours continues along the same lines as over the past twenty years (with reduction of between 0.5% and 1% a year), or speeds up slightly, if growth rates of close to 4% are achieved, and if hourly productivity increases slightly less rapidly (by about 3% to 3.5%), then employment would expand at the rate quoted above.

.../...

[15] See the Report on Certain Structural Aspects of Growth; Commission, Brussels, June 1978.

These developments are not entirely impossible if the various constraints on growth are loosened, but they give rise to a number of questions. First, the future trend of productivity gains is the subject of great uncertainty. Secondly, even if they occur, unemployment will still be high over most of the decade. The higher rate of expansion of the labour force up to 1985 calls for a high growth rate in the early 1980s if there is to be any immediate improvement in unemployment figures; but it is in fact unlikely that the constraints on growth can be loosened far enough and fast enough to allow growth to gain much impetus so soon. Moreover, the gravity of the employment problem and the chances of restoring vigorous, job-creating growth vary from one Member State to another, and there is a great risk that regional disparities will become intolerable.

The Community must therefore be ready to fight any tendency towards protectionist measures among the Member States; it must also explore all possible ways of restoring balance on the labour market without endangering the restoration of major aggregate equilibria, and the cohesion of the Community.

7.2.1. Labour Productivity

Data concerning labour productivity should be interpreted very cautiously, since gains are difficult to assess and figures are not always internationally comparable. However, there is no doubt that since 1973, hourly productivity and per capita productivity have been increasing at a much slower rate than before in Europe and in most of the other industrialized countries. The loss of momentum, which is apparent even in the figures adjusted for cyclical variations, contrasts sharply with the rapid growth of productivity observed earlier, particularly in the industrial sector (see A 52 and 53).

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An analysis of past productivity trends and their causes is not much help towards predicting the underlying trend of labour productivity over the next ten years.

But it may reasonably be expected that the long-run rates of gain observed over the period from 1960 to 1973 will not be restored in the foreseeable future for various reasons, including: the steady rise of capital-output ratios increase in energy costs; the possible lasting slackness of foreign trade; the weakening of the favourable effects on structures of transfers associated with movement from the land (except in Ireland, Italy, Greece and the other two potential member countries); the development of the services sector, where productivity gains are on average lower than elsewhere; measures to improve living and working environments; and the problems of removing administrative, institutional and social obstacles to the geographical and occupational mobility of labour.

On the other hand, the long-term decline in productivity gains will not be too sharp, for a number of factors will help to boost productivity: for example, the improvement in training and qualifications of those arriving on the labour market, or the effects of introducing micro-electronic systems, or greater automation, in services branches. Moreover, since there has been a certain amount of unused production capacity in industry for some time, there are still reserves of productivity that could be mobilized over the next few years.

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Europe is, in fact, suffering from the productivity paradox ; productivity gains are not only the basis for improved well-being, social progress and international competitivity, but also a factor of declining employment when aggregate growth does not keep up with the underlying trend of productivity gains and with population growth. In the past few years, the adverse aspects of productivity gains have been most influential, and there could be pressure in some countries to slow down the rate of increase in the apparent productivity of labour by artificial means, in the hope of creating extra jobs or delaying the reduction in employment in some branches. The artificial means used could include defensive measures to delay required adjustments and slow down innovation, or to divorce sectors protected from international competition (particularly the public sector) from the general trend. The long-term dangers of this approach for the economy should not be ignored, nor its short-term dangers for economic equilibria, if its implications for the expansion and distribution of incomes are not fully recognized. The basic requirements for incomes should be constantly borne in mind in the context of a two-fold form of development in European societies, where a highly competitive exporting sector responsible for covering necessary imports would coexist with a protected sector that could be extended so as to provide new jobs. These requirements should also be borne in mind if working hours are reduced so as to share out existing work.

7.2.2. The reduction of working hours

A lasting discrepancy between available labour resources and the volume of demand for labour may provoke other types of intervention in the labour market. The most radical intervention, which is questionable for social reasons, consists in measures to exclude (or discourage) certain categories of potential workers. These measures include lowering the compulsory retirement age, discouraging women from working, restricting immigration, and setting a

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statutory school-leaving age higher than that required by educational considerations.

The development of insecure forms of employment (temporary employment, employment on fixed-term contracts, moonlighting and so on), is a second type of reaction to a situation of slow and uncertain growth, and of lasting underemployment. These forms of employment have been spreading recently, and will continue to do so as long as the situation described above continues to exist. They are very difficult to control administratively or legally, and they raise the question of more efficient management of the labour market.

The third major method of adjusting the labour market involves changes in how work is shared out and a more rapid reduction in working hours. Working hours (in the broadest sense, i.e. covering the working week, the working year, short-time work and part-time work) have decreased considerably over the past few years (see A 54 and 55). The process was not steady; it jerked along as a function of wage negotiations and cyclical variations in employment. In general, the reduction in working time seems to have pushed hourly labour productivity upwards. Labour productivity gains in manufacturing industry have been greatest where working hours declined most rapidly (Italy, the Netherlands, Belgium), and smallest where they declined least rapidly (the United Kingdom).

Empirical studies of the relation between shorter working hours and greater productivity seem to show that a reduction in working hours entailed in relatively equal shares an increase in productivity and an increase in numbers employed.

These empirical observations illustrate short-term relations in the past, when the growth situation was different, labour was scarce and capital intensity was high; they cannot therefore be used directly to assess the long-term repercussions of future reductions in working hours. Indeed, the whole question has changed, for the reduction of working hours at a considerably faster rate is now seen as a means of restoring balance to the labour market and not, as in the past, as a means of sharing out productivity gains, possible only because productivity gains were large and real incomes were rising fast.

The choice between shorter working hours and higher wages, i.e. the question of wage compensation for shorter working hours, is the crux of the matter. The problem is all the more difficult as output, and thus national income, grows more slowly.

A reduction in working hours, and a consequent redistribution of available employment, cannot solve all the problems of employment. However, under certain conditions, they might help to restore full employment during the period when growth, although gaining momentum, is not yet fast enough in spite of considerable efforts, and when the labour force is increasing rapidly.

However, the main point at issue over the next few decades will be the social aspect of reduced working hours, the opportunities the reduction will afford, the requirements it will create, and the consequences it will have for the economic and social development of European societies.[16]

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[16] See the Commission Communication to the Council on Worksharing, EEC, Brussels, May 1979; and for example, "le temps libre, espoir d'un nouveau développement" and conclusion to part 1 of the report by Mr Danzin "Science et Renaissance de l'Europe".

CHAPTER 8

SECTORAL ADJUSTMENT

Throughout this study, the major problem has been how to draw general conclusions from a mass of heterogeneous information about situations and attitudes; this problem is perhaps most acute in connection with the study of sectoral change: not only do national economies differ, not only do sectors differ, but there are even differences within economies and sectors, because firms are so different in size, legal status, organization and working methods.

The risk of over-generalization or excessively detailed conclusions is all the greater as so little statistical information is available about suitable aggregates that would make it possible to draw general conclusions without betraying reality by oversimplifying a complex and varied situation.

These problems are acute in the study of the industrial or the services sector; they become even more so in the study of interaction between sectors in an industrial economy; for there are increasingly complex relations between the various branches of production, and they make it very difficult and even hazardous to interpret data about sectoral changes.

After summarizing the outlook for adjustment in European agriculture, this chapter concentrates on the problems of adjustment in manufacturing industry. As for the services sector, it was not thought feasible, at the present stage of work being carried out by Commission departments, to add any further comments or questions to those found elsewhere in this report, for example on the chapters dealing with technology, or the trends of needs and private demand.

The services sector is preponderant in the Community economies: it represents about 50 % of gross value added, and employs 55 % of the labour force. Its relative importance, particularly in the creation of jobs, has increased even further with the decline in industrial expansion of the past few years. Indeed, one of the major problems of the next decade is estimating how far it can go on playing this crucial role; for new technologies are being introduced that will have far-reaching effects in a number of service activities.

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Some of the basic factors that might affect the outlook for the development of service activities supplying private consumer demand (about 40 % of output is consumed by households) have already been mentioned : the problems of public financing and organization; the production of services by households for their own consumption, with the help of consumer durables; the important effects of a radical change in lifestyles if the growth rate went on slowing down and working time decreased substantially, and so on.

However, there is a fundamental point that should be made : in the larger European countries, 40 % to 50 % of the output of services is used as inputs for other productive activities, particularly industrial activities. The percentage is even as high as 60 % to 90 % for some types of service, but it varies from country to country. In the Federal Republic of Germany, for example, where the services sector is less developed than elsewhere in the Community, the proportion of output used for intermediate consumption is higher than in any other country. The opposite is true of Italy and the United Kingdom, where the output of a highly developed services sector mainly supplies final demand. It would be difficult not to see some link between these features and the respective performance of the productive apparatus in the three countries mentioned.

The development of the services sector should be regarded not only as the corollary of a shift in private demand and social needs, but also, and perhaps more, as the necessary condition for the smooth functioning of an economy characterized by a very fine division of labour and very advanced technology, in which industry can rely on an efficient services sector.

8.1. European agriculture in the 1980s : the outlook and the problems

The relative economic importance of the agricultural sector will continue to decline in the 1980s. Agricultural output accounts for 7% of GDP in the future Community of Twelve at the moment; by 1990 this share will probably have declined to about 4% or 5%.

However, the decline in the relative importance of the agricultural sector will be offset by an increase in the importance of branches that supply agricultural inputs (equipment, fertilizers and so on) or process agricultural products; two-thirds of agricultural output is already used as inputs in these processing industries. The relative importance of the agro-food complex made up of the agricultural sector and the industries supplying its inputs and consuming its outputs should therefore remain fairly stable, accounting altogether for about 15% of GDP.

8.1.1. The development of agricultural structures

The agricultural labour force too will continue to decline : in 1977, 8 300 000 people were occupied in agriculture in the Community of Nine, and 13 600 000 in the future Community of Twelve; these figures represent respectively 8% and 11% of the total labour force. The future rate of decline will depend mainly on general economic trends, the trend of agricultural incomes and the age structure of the agricultural labour force.

By 1990, the agricultural labour force in the Community of Nine may have decreased by almost three million; it would thus represent less than 5% of the total labour force by the end of the next decade. The reduction will be even greater in the Community of Twelve; although it is difficult to estimate the reduction exactly, it is probable that some three and a half million to six million people will leave the agricultural sector during the 1980s.

The figure of three and a half million corresponds very broadly to the figure for retirement from the agricultural sector : agricultural workers in the Community are often middle-aged. In 1975, 44% of farmers and 25% of all those occupied in agriculture in the Community of Nine were over 55. In view of the general employment problem in the European economies, the rate of reduction in the number of workers and the rate of labour productivity gains in agriculture will depend closely on the rate of retirement over the next few years. Retirements, in their turn, will depend mainly on the incentives and on expectations of income.

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The number of farms should also continue to decline over the next ten years (from 9 million in 1975 to 6.6 million in 1990 in the Community of Twelve), while their average area should continue to increase (from 17.2 hectares to 24 hectares in the Community of Nine), with production increasingly concentrated in medium-sized and large farms. Moreover, part-time activity in the agricultural sector could become more widespread (in 1975, 64% of farmers worked part time, and two-thirds of these part-time workers devoted less than 50% of their total working time to agriculture), because it is difficult to leave agriculture and find a full-time job elsewhere. The trend towards part-time work in agriculture illustrates once more the importance of the general problem of job-creation in the European economies. It should also encourage the development of complementary activities in local industry and sidelines such as tourist activities in rural areas, and services. Agricultural workers will also be led to diversify their occupations as it becomes more difficult to find outlets for some of the traditional products of the agricultural sector in excessively large supply.

8.1.2. The combination of factors of production and increased costs

Operating costs will most probably increase substantially. Purchase prices and rents for agricultural land will increase steadily because of more intensive production methods, inflation and the pressure of demand for land in general (i.e. for non-agricultural purposes), except in sparsely-populated areas with poor infrastructure, where there will be little demand of this type. High rates of labour productivity may be achieved in these areas by the use of extensive agricultural methods quite different from the industrial methods used elsewhere.

Agricultural activity is becoming increasingly capital intensive; the ratio of gross fixed capital formation to value added has increased rapidly over the last ten years. It amounted to between 20% and 36% in 1977 in the Member States for which data are available, compared with between 15% and 27% in 1970. In many Member States the ratio in agriculture is close to that of the economy as a whole - and it is even higher in some. Capital intensity in agriculture will probably continue to increase as greater productivity gains are sought, and the financial costs of operating could thus become heavier.

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Europe's agricultural sector is a large consumer of fertilizers, chemical products and, directly or indirectly, energy; it will therefore suffer from rising energy prices. Energy-saving production techniques might develop in agriculture precisely because of the high cost of oil and energy.

Over the next ten years, more suitable pricing policies will have to be found for products that are in excessively large supply; one of the major problems facing the agricultural sector will be that of finding the most efficient combination of production factors, and this will raise the question how far agricultural methods can be made more intensive.

8.1.3. Prices policy, gluts and the costs of the CAP

In view of the provisions of the Treaty of Rome, any structural surplus in a Community product should lead to a cautious price policy; the problem of agricultural gluts is likely to become more serious, especially when the Community is enlarged.

The Community system of organization of agricultural markets has a threefold purpose : to stabilize markets; to ensure that the standard of living of agricultural workers is fair; to encourage the improvement of agricultural structures and conditions of production. The achievement of this threefold purpose will continue to give rise to a number of difficulties.

First, monetary compensatory amounts (MCAs) are inconsistent with the principle of a single price. It is proposed to phase MCAs out gradually in the framework of the EMS, which has already proved that it can effectively cushion sudden and unforeseen monetary fluctuations; the trend of exchange rates since the EMS was set up has already reduced the problem of MCAs, so that when remaining MCAs are phased out, the upward pressure on prices in national currencies should not be too strong. However, agricultural prices will be subject to pressure when Greek, Spanish and Portuguese agricultural prices adjust to the Community level.

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The discontinuation of MCAs, with the various changes it will lead to in prices expressed in national currencies, should stimulate structural reform in strong-currency Member States, where MCAs are positive, and particularly in their less-favoured regions. In States where MCAs are negative, prices might rise, thus enabling less-favoured regions to improve their situation.

However, regional imbalances may well be aggravated, particularly after enlargement, by the erosion of agricultural profit margins due to increased costs combined with a restrictive prices policy. This is a major dilemma for the CAP. Mountainous regions and other less-favoured areas will be hardest hit; in the Community of Nine they account for 34 million hectares, or one-third of the utilized agricultural area, and contain one-sixth of the Community stock of dairy cows. Any efforts to improve agricultural structures may conflict with the desire to maintain population density and adequate infrastructures in the less-favoured regions. These regions may be helped by incomes transfers and special structural measures to improve conditions of production; but other Community regions will obviously have to bear the burden of the increased costs such measures would involve, as well as those due to the persistent imbalances on certain markets (particularly the milk market).

The effort to be made to assist the less-favoured regions and, if it is not controlled, the continuous tendency for Community agricultural production to outstrip demand might well lead in the 1980s to a growth of public expenditure on agriculture, at a time when we are faced with the question of how the Community's own resources will develop. It may be necessary to require producers to shoulder a greater share of the growing financial cost of managing the markets with structural surpluses, in the form of a co-responsibility levy which would be tailored to the problems of the less-favoured farms and regions.

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8.2. Sectoral adjustment in the Community's industry

8.2.1. The two lessons to be learned from recent developments

The two major conclusions to be drawn from a study of the problems of manufacturing industry in the Community are first, that this sector is less able than before to create new jobs and stand up to international competition, and secondly, that disparities between the Member States are growing in terms of the adjustment of their industrial apparatus[17].

Until 1974, the persistent large structural disparities between the Member States were to some extent concealed by vigorous growth in the Community (except in the United Kingdom), and the gradual tendency of the structures of consumption, foreign trade and production to grow closer together. The disparities are deeply rooted in the economic and social histories of the countries concerned, and they affect in particular the maturity of the productive apparatus, the adaptability of employment and production structures, the extent of openness to the outside world and the choice of specialization, the extent, purpose and efficiency of industrial investment, the economic and social distribution of income, and so on. They have become more apparent and wider since the early 1970s, as a result of inflationary disturbance, the higher cost of energy, the collapse of the international monetary system, and the growing differences in economic behaviour and in economic policies during this troubled period.

All the Member States suffered from slower growth, slack investment and rising unemployment at first, but differences between them grew wider at the level of nominal and monetary trends (wage costs, prices, exchange rates, and so on). These differences were caused and maintained by differences in adjustment policies and adaptation processes. They are now reflected in economic results, and in the capacity of the different countries to deal with the structural trends of the next ten years.

In particular, manufacturing industry throughout the Community has been deeply affected by the slowdown in growth, and by the increasing pressure of foreign competition.

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[17] See in particular the Report by the Expert Working Party on Sectoral Analyses: "

The hardest hit branches have been those most heavily dependent on domestic demand, and in particular most of the activities producing intermediate goods and current consumption goods, as well as building. However, the industries that managed to turn increasingly towards foreign markets (chemicals and especially investment goods) obtained better results, although still not as good as in earlier years.

The general description of the development of industrial activity in the Community over the past few years should take into account not only these broad general features, but also the disparities between Member States. In the Federal Republic of Germany, and to a lesser extent in France and Italy, several industrial branches succeeded in recovering fairly well and fairly rapidly after the first shock of the recession. In Great Britain, however, industrial production generally declined from 1973 to 1977 in all the main branches of activity except chemicals, office machinery, data processing and precision machinery.

These differences combine with those described in Chapter 2, concerning the adjustment of the productive apparatus in the Member States to the new conditions of international competition. Some of the Member States lost no time in obeying the joint demands of monetary discipline, a thorough reform of their economy, and an adaptation to the changes affecting international competition. Thus, the Federal Republic of Germany gained a lead over all its partners by adjusting its production structures more quickly and improving the general efficiency of its productive system; its economic performance since 1977 shows that it managed better than its partners to counter and overcome the effects of the crisis. The smaller European countries that tried to take similar action were less successful; although obviously their capacity to react and to adjust autonomously is limited by their size. Other Member States allowed their currencies to depreciate steadily, and thus managed to avoid the most pressing constraints of international competition for a certain time, and to delay the required macro-economic and sectoral adjustments; but these adjustments are consequently all the more difficult and costly now. Countries like France followed the middle path, and the trend there is less well-defined;

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not insignificant results in certain advanced technology sectors (the nuclear, aeronautics and electronics branches) are combined with some delay in adapting other highly threatened activities (steel, textiles, etc.).

The Community Member States are entering the new decade with an industrial apparatus that combines strengths with weaknesses in varying degrees; the growing inconsistencies and disparities between them raise a major problem of Community cohesion.

8.2.2. Industrial adjustment in Europe in the 1980s[18]

The next ten years will certainly be difficult for European industry.

Some sectors, such as steel, textiles and clothing, are already experiencing serious problems because domestic and international demand has slackened as a result of slow growth, inadequate to ensure the full employment of available capacity, and because the comparative advantage of Europe for some activities has narrowed or even disappeared. But the problems are not always the same for all these sectors; they depend on the life of equipment, the capital intensity of production, the regional or economic concentration of the activity, the extent to which output is diversified, the employment structure, and so on. Other sectors, such as motor vehicles and chemicals, may come under pressure in the next few years to reorganize production structures because of the development of the world market and the new conditions of international competition.

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[18] On this point, see also the Report on "Some structural aspects of growth". Commission of the European Communities, Brussels, June 1978.

But although it is often difficult, for social, regional or economic reasons, for the traditional sectors to respond to pressure to adjust created by changes in the economic environment, these changes do supply enormous development potential to a large fraction of European industry if only the branches concerned manage to take advantage of the opportunities. The equipment goods industry is an example, as are chemicals and pharmaceutical products, the agro-food industry, some building materials, and precision instruments for households, among others.

Three main factors will determine the sectoral adjustments in European industry over the next ten years.

(a) Changes in the structure of demand

Many studies have shown that domestic and international demand has changed considerably in Europe since 1974 for reasons that are not basically connected with the recession, but rather with permanent factors.

The most important change for the next ten years will probably be the increase in the relative price of energy, which should lead to a radical modification in the structure of demand. It will lead to a change in the size and nature of investment in the energy sector, increase the demand for energy-saving equipment that allows more rational use of energy and of fuel as a raw material, and will affect consumption structures.

Other factors too may or will significantly affect the structure of demand : the development of new foreign outlets; the recovery of investment required to restore sustained growth and carry out the conversion operations which are essential; the introduction of new technologies, and so on.

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(b) The pressure of foreign competition

One of the causes, and one of the symptoms, of European industry's weaker international position is the deterioration of competitivity in a number of sectors relative to the United States and Japan on the one hand, and to the newly industrialized countries on the other.

It is usual in this context to distinguish between the products that are relatively standardized, which compete principally in terms of price, and the products for which factors such as technology, specific qualities, reliability and after-sales service play as important a role as the price in competitive relations. The first category comprises a wide range of European industrial output: mass-produced inputs such as steel, basic chemicals, cement, paper pulp and so on; much of the textiles and clothing industry; the down-market range of the car industry and commercial vehicles, part of the ship-building industry, and so on.

The deterioration in competitivity of European industry for all these products is a threat, but the threat is more serious in some sectors and some Member States than in others, as we have already shown. Europe's competitive position will be mainly affected in the next few years by:

(i) The trend of the relative exchange rate of the dollar against the European currencies: this may affect price-competitivity in many industrial sectors in the Community, particularly in Italy, Great Britain and Ireland, but also in France and in Belgium.

(ii) The level of wages: several Member States have wage levels among the highest in the world. This situation can be maintained in the long term only if productivity in the economies concerned is also higher than that in their main competitors. Often, it is not; the consequences of this are already making themselves felt in sectors where countries with low wage levels are increasing their output.

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(iii) The development of on-the-spot processing in countries producing oil and raw materials, which can help their own processing industry by applying double pricing. This factor will probably affect the output of oil products over the next few years (fertilizers, basic chemicals, and even synthetic fibres), which should develop in the oil-producing areas. European output of standard quality steel will also be under increasing pressure from the establishment of new plants near the richest mines or near gas fields which make it possible to carry out preliminary processing immediately.

It may seem surprising at first sight that the European industries are potentially so vulnerable to international price competition when they have concentrated on developing products with a high technology input. But the distinction between price competition and competition based on a technological lead is neither absolute nor immutable; technologies travel fast, and a technological lead is always temporary. Moreover, it may be that European firms are offering products of a quality and price higher than their customers want.

(c) Technological competition

This report has already referred several times to the problems posed to Europe by technological competition: the lead of the USA (in computers, telecommunications, aerospace, micro-electronics and so on), and that of Japan (in applied electronics, particularly industrial machine-tools and domestic equipment) in some key sectors; their occupation of new markets for products in these sectors where European industry is lagging behind; the significant disparities between Member States' technological capacities, with German industry generally in the lead, and one or two promising sectors in France and Great Britain; the importance of diffusing new technologies throughout the entire productive system so as to improve the performance of the mass-production sectors, which are, or soon will be, threatened by increasing international competition.

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The priority aim over the next ten years must be to respond to the requirements of modern technology so that European industry can compete with the other main industrialized producers and catch up with them in the advanced technology branches; this would boost European equipment goods industries. But, as the example of the machine-tool sector shows, a special effort will be required in the telematics sector, where progress is required simultaneously in the three industrial activities (telecommunications, data-processing and components) and the services (data banks) that this sector comprises.

Europe's aim for 1990 should be to conquer about one-third of the world market; this means that Europe should not only cover its own needs, but also gain appreciable shares on non-Community markets.

This is an ambitious aim, particularly where data-processing (computers, peripherals and mini-processors) and advanced components (micro-processors) are concerned. European industry's share in world output is now only 16 % and 10 % respectively for these two branches.

In the field of components, Europe's backwardness is worrying; the Community represents 25 % of booming world demand for products with varied and widespread uses in the car industry, machine tools, electrical household equipment, precision instruments and so on.

If the Community allows Japan and the United States virtually to monopolize production, many industrial sectors vital to its future will become technologically dependent. It is therefore essential to create conditions to encourage European industrialists to produce high-technology components (highly integrated circuits, rapid circuits, etc.), as well as standard components so that the cost of research into extremely efficient circuits may be borne.

Where telecommunications are concerned, the challenge is easier to take up, for European industry already supplies 30 % of world output, and European demand represents about the same percentage of a world market that should double in the next ten years. Here again, however, European firms are up against strong competition from the United States;

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the three largest US firms control between them 42% of the world telecommunications market, while the five largest European producers account for only 21%. Moreover, the introduction of a new technology in which data-processing plays an essential role will certainly raise financing problems because of the volume of investment required, as well as serious employment problems due to the lack of suitably qualified labour to produce and use the new generation of equipment.

If European telematics are to catch up with their main competitors[19], and, indeed, if promising sectors are to expand and declining sectors to be reorganized, all the potential forces of the European structure must be mobilized.

8.2.3. The need for better coordinated approaches within the Community

The first potential force lies in the existence of a market as large as that of the United States. Unfortunately, the Community market is too often broken up by rules or technical provisions and national monopolies; the resulting barriers are not conducive to the development of major projects.

The unification of the European market does not, however, mean the creation of a closed market, but rather a concerted market in which the member countries adopt a joint attitude to the setting up of international norms or standards, and to trade negotiations with the rest of the world. But an open policy on international cooperation should not prevent the Community from protecting infant industries when necessary.

Another means of action can be provided by agreements about national government orders for large infrastructure projects or new products and services. Public contracts are extremely important, their repercussions may determine the development of a given sector, and public intervention is generally made in the same fields; there is thus ample justification for enlarging government invitations to tender to the entire Community, so that their potential spill-over effects can be amplified, and economies of scale obtained.

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[19] See "European Society faced with the challenge of new information technologies : A Community response", Report by the Commission. Brussels, November 1979.

The Community coordination of public orders, national development programmes and applied research projects must, above all, be extremely flexible. There is no need for all programmes of purely local interest to be discussed at Community level, nor for systematic negotiations between the Nine (and later the Twelve); but agreements between groups of Member States should be supported if they are intended to improve Europe's industrial competitivity. The Airbus industry experiment, in which four Member States cooperated, is a good example of what can be achieved.

More fundamentally, the scale of the problems facing European industry at the moment calls for greater coordination and solidarity between the Member States, so that disparities in the scope and rapidity of adjustment processes, which have appeared in recent years, do not grow wider and endanger the entire Community structure. The introduction of the EMS is a step in the right direction: it involves monetary discipline, and should therefore contribute to the structural adjustments that are essential to improving competitivity; it involves financial solidarity with the less prosperous Member States, and should therefore contribute to reducing the widest structural disparities. But it cannot work smoothly unless economic policies and performances converge, and this is still a problem.

At all events, "some countries will have to make large industrial adjustments; the present international division of labour is a source of pressures; some sectors are in difficulty in all the European economies. Much thought will therefore be needed at European level to find a consistent line for European and national sectoral industrial policies."[20]

Moreover, the Community must have coherent aims and arrangements for industrial policies and external trade policies. This raises the problem of an acceptable international division of labour, compatible with the interests of both the industrialized and the developing countries.

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[20] Report of the Group of Experts on Sectoral Analyses, 1979.

CHAPTER 9

IN SEARCH OF RENEWED SOCIAL COHESION

It is clear from the study of the major structural trends of the 1980s that our societies will have to face up to important challenges in the areas of energy, industry, technology and population. Changes in social values, needs and behaviour patterns over the last twenty-five years have added new social demands to the challenges, although these demands may sometimes have become less pressing since the crisis. The restoration of a more favourable employment situation will be a crucial problem both because of the extent of unemployment and because of its serious economic and human aspects.

The adjustments that will be required both in our economies and in our societies if we are to react adequately to these challenges are so vast that we cannot be sure that our societies will show a sufficiently united front.

It is true that important adjustments were required during the period of sustained and steady growth; but this growth itself, and the general rise in living standards, meant that everyone agreed to accept the constraints and the costs of change.

At the beginning of a low growth period, the situation is different; some of the adjustments required are more like transformations than adaptations, for example in the field of energy; a new international division of labour is emerging rapidly, population trends are creating unprecedented problems; more and more people are adopting a critical attitude towards attempts to restore growth in its earlier form, etc.

9.1. The new conditions of social dialogue

Structural trends expected over the next ten years illustrate the need for greater flexibility in essential areas such as the use of national resources and the distribution of income, the structure and mechanisms of markets for both products and factors of production, the allocation of responsibilities between the private sectors and the public sector. If the obstacles and constraints to the restoration of more favourable growth in these three areas are to be removed, a new, less rigid and better adapted approach to the various relations and links within these areas will be required.

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But is such an approach possible, and under what conditions? The changes involved will affect basic aspects of life in our societies; their economic and social implications are multifarious, and they may call into question equilibria that have been established after a long period of development.

In the area of the use of resources, the greater burden of imported energy costs combined with the impossibility of cutting down an essential investment, particularly in the productive sector, will require quite substantial changes in the allocation of output at the expense of consumption, at least at first.

The new international division of labour will sometimes require very rapid adjustment of production structures and markets, the replacement of certain activities by others, and in general rapid movement of factors of production from sector to sector and from place to place.

The general problem of modernizing and adapting the productive apparatus will raise a similar problem, although in different national contexts: that of adjusting more precisely the relation between public sector and private sector functions and interventions.

The requirement for flexibility is most sharply felt at the moment in the Member States' adjustment policies, which are mostly based on similar notions. They aim at greater concertation and coordination of economic regulation and recovery. They accept the new international division of labour and wait patiently for a return to expanding world trade, while resisting the temptations of protectionism. They count on inflation control and a reduction in the relative cost of labour to ensure a recovery of private investment and thus eventually improve the employment situation.

It is accepted that unemployment cannot be eliminated overnight, but the delays are regarded as the price that has to be paid for permanent stabilization and lasting adjustment. From this point of view, although the reduction of inequality is a desirable aim, the distribution of incomes should not be modified in such a way as to decrease efficiency. Moreover, modernization and increased competitivity are more than ever essential to firms, so that progress towards economic democracy must not be allowed to go so fast, or to go along such lines, that modernization and competitivity are threatened.

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Once it has been decided to allow market mechanisms to function fully, the State must make a determined effort to rationalize its interventions as much as possible. New social aspirations must be assessed in the light of the criteria mentioned above.

The apparent coherence of this approach, like the convergence observed within the Community, should not conceal the fact that the economic, political and social system in which anti-crisis policies are implemented is subject to instability and uncertainty, to varying degrees in the different countries. The most uncertain factor is how far the constraints of these policies will be accepted, and whether there is sufficient social cohesion to carry them out. The longer they take to produce the expected favourable effects, particularly on unemployment, the greater is the risk of conflicting aims and aspirations among groups and individuals, and of even more fundamental contestation.

Against this background, where the field of application of adjustment policy is subject to very real constraints, it seems vital to reinforce social cohesion.

9.2. The reinforcement of social cohesion

There are no doubt a multitude of ways in which social cohesion may be reinforced, and all should be fully considered. More suitable training and information policies are probably among the most necessary : new forms of social cohesion must be based on an appeal to the citizen's sense of responsibility and on the assumption that everyone will play a role. They will be successful only if they are properly backed up by education and information so that behaviour patterns can be changed.

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Any noticeable progress towards greater social cohesion will depend mainly on how we resolve the main conflicts in our societies between schools of thought and socio-economic forces in the face of the constraints and the sacrifices that must be shared out if the crisis is to be ended. This will be a basic requirement for lasting social cohesion. In other words, the question is whether conflict can be permanently eliminated, and what concessions the various economic and social groups will be prepared to make.

Obviously, the situation is too unstable, national backgrounds too specific and complex, and purely political or ideological factors too numerous for any normative definition of desirable trade-offs to be possible. However, we may recall the main issues of the debate, and suggest some kinds of trade-off that could be acceptable.

The first issue of institutionalized debate between the two sides of industry in most of the member countries is the reduction of inequality.

The crux of inequality is the distribution of income and wealth, but the matter covers a more general field including equality of opportunity in education, professional life, culture and so on.

Some argue that inequality has often been reduced too far and too fast for present economic possibilities, and that we should wait until after satisfactory growth rates have been restored before considering further measures to change the distribution of incomes. The opponents of this view, if we except the minority movements which consider that the only suitable response to the problem of inequality is to overthrow the entire system, point out that the effort to reduce inequality should be pursued and intensified, not only for social reasons, but also because these efforts are expected to lead to an immediate recovery and to new prospects for a different type of growth.

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The second main issue of debate between the two sides of industry is the application of democratic rules in an economic context, not only to industrial relations but also, to varying degrees in the different countries, to all aspects of economic life. This discussion has been fuelled in recent years by criticism of representative institutions, demands for decentralization and regionalization, and by growing concern about the power of certain national or transnational groups. On one side of the discussion are those who consider the development of democratic processes within the firm or the nation less important than adjustment of the productive apparatus and the acceptance of domestic and international rules of competition. On the other side are those who refuse to allow these requirements to delay further progress towards industrial democracy, and more generally towards a redistribution of economic power; they hope that not only decisions within firms but also the macro-economic, social and sectoral aspects of economic regulation can be the subject of wide concertation. But there are a certain number of factors that must be considered, for they change the terms of the problem of relations within firms. They include the fact that workers are changing as a result of education and the mass media; the effects of new technologies, particularly telematics and micro-processors, on production methods; growing demands for better organized work in healthy conditions, and for job security.

The foundations of the required social agreement must be constructed upon these issues, with the specific emphasis required in each Member State. The dialogue is often extremely difficult when one side denounces the intentions of the other; if opposition is to be overcome, some arrangement must be made combining the various possible trade-offs.

One trade-off is central to such an arrangement: that of finding ways of improving growth rates and reducing structural unemployment without compromising the control of inflation and the balance of external trade. This means reconciling the gradual reduction of working time with productivity gains that outstrip the

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increase in real wages[21]. Wage discipline must be matched by price discipline and renewed efforts to reduce inequality, not only inequality of wages and other incomes, but also inequality of wealth (this raises, among other questions, that of employee participation in company profits) and inequality of access to public services.

Although this approach is not new, it should be considered more broadly and on a much longer time-scale than it has been up to now in most of the Member States, in view of the vast adjustments required in the European economies. A lasting and solid social pact requires agreement on long-term aims and willingness to compromise so as to strike a fair balance between the respective rights and obligations of all those involved in economic and social life. For example, experience in some of the Member States, and the discussion of more democratic management at all levels of economic life, show that opposition could be partially attenuated if the unions would accept a return to more economic flexibility and greater factor mobility. But this kind of trade-off is possible only if the authorities and both sides of industry cooperate in broad concertation about all the consequences of flexibility, and the means to achieve it.

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[21] See the Report on Economic and Social Concepts in the Community, referred to above.

9.3. Social cohesion in the Community

The concrete problems of the social cohesion of the Community are a very important aspect of social cohesion; it is increasingly evident that financial transfers, joint discipline and Community powers of control are not adequate to ensure cohesion in a politically, culturally and socially heterogeneous unit like the Community. What is required is a better relationship between both sides of industry at Community level, and better comprehension between the citizens of the Member States.

Although representatives of the various professional groups are consulted in the Economic and Social Committee and other advisory bodies, their actual participation in the decision-making process is not clear-cut or well organized. The Community has set up a number of tripartite managing bodies, e.g. for vocational training or living and working conditions. Moreover, since 1970 the trade unions have been trying to introduce efficient bipartite or tripartite negotiations, through such experiments as the fairly recent introduction of Tripartite Conferences.

Although all concerned agree that social dialogue is necessary at Community level, it is not certain that such a dialogue can continue for any length of time in a period of slow growth and rapid technological change unless the parties concerned enter into definite mutual commitments. The trade unions aspire to the reconstitution, at Community level, of the capacity for joint action by both sides of industry, without loss of autonomy; this would increase the scope of negotiations which are limited at national level because of the growing integration and mutual dependence of the European economies. It may be that the requirements of collective discipline and coherent economic behaviour (particularly where wages are concerned) created by integration, the European monetary system and an innovation policy cannot be met unless the present embryonic system of industrial relations at European level can develop into a system that offers a more coherent framework for collective negotiations at the level of nations and industries. At the moment, it is difficult to reply to these questions. But it is also difficult to see how the Community can take up the challenge facing it without offering both

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sides of industry more than just general recommendations : genuine opportunities for negotiation so that they can apply active forms of solidarity. The questions of the reorganization of working time and the social implications of technological development could be suitable fields.

But it is also important for awareness of the Community to develop elsewhere, as well as in industrial relations. A start has already been made in consumer protection and environmental improvement. Other fields could be explored, and there are many ways of helping mutual comprehension between individuals. For example, more systematic efforts might be made in language teaching, which is certainly a subject of interest to the Community. Individual exchanges could also be considered. There have been isolated experiments such as the exchange of young workers; these could be broadened and reinforced, for example through exchanges of businessmen or trade union officials. The barriers to the spontaneous development of such experiments should be carefully considered so that they can be more easily overcome.

CHAPTER 10

THE COMMUNITY'S EXTERNAL RELATIONS

In Part I of this report, the main changes taking place in the system of international economic and financial relations were summarized, with the changes in relations between major countries or economic areas, the appearance of new partners, the growing diversity of situations, choices and outlooks in the main groups of countries that used to seem relatively cohesive and homogeneous.

These changes throw a new light on the problem of the Community's external relations, and call for a special effort on the part of the Member States to reinforce the Community's cohesion and capacity for initiative.

10.1. The Community's relations with the other industrialized countries

The dense and ever-changing network of relations between countries or groups of countries in the industrialized world involves both antagonism and solidarity. The oil problem has accentuated the complexity of relations between western countries, particularly between the Community, the United States and Japan. For the oil problem is a new factor of instability and uncertainty; it affects the whole range of international economic and monetary relations, and creates new strains within the industrialized world.

Most of the European countries and Japan share the same worries because of their relative lack of natural energy resources - which puts them in a rather different position from the United States - and because of the consequences of the very sharp increase in US oil imports : over the past ten years, this has helped increase the oil market and international payments disequilibria which have hit these countries particularly hard.

More generally, Europe and Japan are equally concerned by the malfunctioning of the international monetary system, the uncontrolled development of Euro-markets, and the fluctuations of the dollar. These factors are largely the result of the interplay of US strengths and weaknesses : although the position of the dollar is questioned, it cannot be replaced in the short term as a means of international

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settlement; the political role of the United States in the world is growing weaker, but US firms and the US banking system are playing an increasingly active international role and spreading their influence over the whole world.

However, the problems common to Europe and Japan also help to sharpen competition between them, mainly so that they can export enough to pay for the increasingly higher cost of their energy and raw materials supplies, and ensure some degree of control over the sources of these supplies. Similarly, the depreciation of the dollar has had a rather different effect for the yen and the various European currencies, and this has helped to alter appreciably the relative competitive positions of European and Japanese firms; moreover it has prompted Japanese firms to step up their efforts on European markets, where their sales have risen sharply in recent years (see A 56). Japan's very rapid commercial expansion throughout the world, as well as the difficulties of penetrating the Japanese market - both these features are essentially connected with the Japanese mode of development and with the high level of integration and the dynamism of the Japanese industrial and commercial complex [22] -, pose a trade adjustment problem which, for the Community and for the other industrialized countries, does not only concern bilateral relations with Japan.

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22 For example, according to US estimates for 1974, US subsidiaries of Japanese firms were responsible for approximately 90 % of bilateral US-JAPAN trade, whereas US subsidiaries of European firms were in the same year responsible for 23 % of US exports and 45 % of US imports to or from the EEC.

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In general, moreover, the problems of the Community's relations with the other industrialized countries must always be seen in both a bilateral and a global perspective.

Thus the changes in the conditions of competition between industrialized countries, mentioned in Part I of this report, affect not only the mutual relationships of the Member States and of the Community with each of their industrialized competitors, but also the respective position of each of them on world markets as a whole. For example, the total or partial gaps left by European industry, mainly in the advanced technology sectors, are filled on European markets but also on external markets by US and above all Japanese firms which are thus consolidating their worldwide economic and commercial power.

In this connection we must not forget the advantage enjoyed by the US banking and productive systems because of their network of subsidiaries throughout the world, and that the external dynamism of Japanese firms has found fresh support in the recent but rapid expansion of their investment abroad. Not only does this mean that the Community must face the implications of the presence in Europe of a large number of transnational firms under foreign control : it also underlines the need to expand direct European investment abroad in conjunction with the adaptation of the industrial apparatus of the Member States.

It is true that firms in most of the Member States have in recent years launched a substantial drive to develop and strengthen their positions in the United States so as to benefit from the advantages afforded by that country - its technological lead, the size of its market, and even the opportunity for a firm to test its competitive capability; furthermore, the weakening of the dollar against most of the European currencies has helped to stimulate and assist this drive. But although its recent increase has been considerable, direct investment by EEC countries in the United States is nevertheless still appreciably below that of US firms in Europe (see A 57) These firms are very strongly established in the Community both commercially

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and through an extensive network of subsidiaries (US firms in manufacturing industry make 50 % of their direct investment abroad in the EEC) which they seem to have continued to expand while engaging in both geographical and sectoral restructuring.

The most worrying factor is the lack of increase in recent years in the volume of the Community's direct investment in the Third World. This is liable to pose problems for Europe, not only as regards its raw materials supplies, as we have already stressed, but also as regards its trade as a whole with the developing countries.

It is true that the industrialized countries maintain close traditional links with particular parts of the world (see A 58).
Two-thirds of Japan's sales to non-oil developing countries are exported to Asia, and Japanese exports account for 40 % of total OECD sales to these countries. US trade relations are particularly close with Latin America and, to a slightly lesser extent, with Asia.
Community exports, and those of the other European countries, are more evenly spread (leaving aside sales to OPEC countries which are important markets for all these countries), but the Community does have closer export relations with the European developing countries of the Mediterranean seaboard and with Africa : between 60 % and 70 % of total OECD exports to these countries come from the Community, which as yet does not seem to have much competition from the other major industrialized countries in this area (see A 59).

Nevertheless, these traditional trade flows are relatively precarious, and both Europe and the other industrialized countries are already facing the increasingly pronounced dynamism of Japanese firms, for example, in expanding their trade with and locating in the OPEC countries, Latin America, and even, for certain products, in Africa and the Mediterranean seaboard.

Hence the danger is that the lack of dynamism in investment by the EEC, or at least by certain Member States, in the developing countries, may thus deprive the Community of an important aid to commercial penetration on these markets, without, however, sparing it the sectoral difficulties caused by the increase in the number of more active firms from other industrialized countries setting themselves up in these developing countries.

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Then again, it would be sensible for the Community in the next decade to seek closer relations with industrialized countries such as Canada and Australia which are important producers and exporters of certain commodities which Europe lacks. An expansion of Europe's purchases of unprocessed raw materials or products of first-stage processing should, moreover, help to iron out certain difficulties which exist at present concerning, for example, in relations with Australia, agricultural trade and the access of European industrial products to this market. In any case, it will also be necessary for the Community to be energetic in developing its productive investment and its commercial penetration in these countries with which the relations of the United States and also - in Australia's case - Japan are already close.

The above remarks and the analysis in Part I of this report on the future international environment of the Community basically confirm how much the behaviour of the United States and Japan in international economic, trade and monetary relations will, over the next decade, remain of prime importance for the Community, its place in the world and the development of its external relations strategy.

10.2. The Community and the Third World

(a) The importance of relations between the Community and the Third World is apparent in a number of very different fields (see A 60)

First, the Community is the major trading partner of the developing countries, both oil-exporting countries and others. The network of trade relations with non-OPEC developing countries is very widespread geographically, and trade is generally balanced; the Community's growing surplus on manufactures covers its deficit on raw materials other than energy (see A 61).

Moreover, the Community is the major contributor of public aid to the Third World, even though its contribution is short of the target set; it also helps considerably with food aid to the poorest countries.

In recent years, the Community has stepped up its attempts to establish better balanced and fairer relations between the industrialized countries and the Third World. It has been, and still is, an important source of dynamism, proposals and concertation in the North-South dialogue. It pioneered the Generalized Preference Scheme for imports of manufactures from developing countries. It set up important bilateral association agreements,

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in the form of comprehensive contracts, with the countries of the Southern Mediterranean, and it will have to take care that these agreements are not threatened by the accession of three new Member States. With the Lomé and Yaoundé Conventions, it introduced new types of cooperation with most of the African developing countries and with some Caribbean and Pacific countries; both the extent of this cooperation and the instruments used (e.g. STABEX) are new. The Lomé agreement, which has just been renewed, is in many ways exemplary. A long term, comprehensive agreement covering raw materials, manufactures, financial aid, technological transfers and so on, the Lomé Convention is a framework in which the means and ends of cooperation are defined jointly by the Community and the developing countries concerned (the ACP countries), and in which regional cooperation and development within the Third World are encouraged. The EEC has also set up, or is in the process of setting up trade agreements and aid and cooperation programmes with a number of other developing countries.

(b) The Community and the new, multifarious needs of the developing countries

In its strategy of relations with the Third World, the Community must take into account two new and very important features of the needs of the developing countries over the next few years. The first is the growing heterogeneity of situations, needs and prospects in the Third World. The rise of the OPEC countries is the clearest illustration of this heterogeneity, and it calls for a specific policy of Community relations with the OPEC with a view to :

(i) ensuring the security of oil supplies, and stabilizing supply conditions;

(ii) reinforcing the Community's position on OPEC markets, and particularly the position of the Member States that have lost ground;

(iii) interesting the surplus OPEC countries in co-financing investment projects in other developing countries;

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(iv) promoting the coordination of heavy industrial investment by the OPEC countries in certain industries with investment planned in western countries.

The growing heterogeneity of the Third World is further illustrated by the emergence of rapidly industrializing countries, whose development contrasts sharply with the aggravation of abject poverty in other parts of the Third World. All the long-term projections of economic growth in the developing countries show that the gap will probably widen. At the level of the continents, it is already apparent that the outlook for South-East Asia and Latin America is relatively favourable, while that for Africa and Southern Asia (the Indian sub-continent) is much gloomier. What is more, needs differ between, and even within, these groups of countries. For example, Latin America has a serious problem of external debt, while for South-East Asia the problem is that of finding outlets for its rapidly-expanding output of manufactures. The problems in the poorer countries are also varied, and depend on such factors as raw material resources, agricultural potential and so on.

The Community must therefore adapt and adjust its cooperation to the country involved, while respecting the political solidarity which the countries of the Third World are trying to maintain. It must also see to it that, as in the Lomé agreement, cooperation covers all possible fields of action in a coherent and coordinated way.

But, beyond this heterogeneity, the second feature common to all the non-oil developing countries is that of their increasingly serious financing difficulty, which has been aggravated by the rise in oil prices. These countries have long-standing trade deficits but can be covered only at high risk and high cost by international financing; the rising price of oil has accentuated this problem dramatically. The demand for energy in the non-oil developing countries increases with the industrialization process, but there is little scope for energy-saving; moreover, with a few exceptions, these countries are not in a position to take advantage of new outlets in the OPEC countries; and they suffer

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from the decline in trade and the adverse effects on aid resulting from the reaction of the industrialized countries to slow growth and sectoral difficulties.

There is no doubt that trade between developing countries must be encouraged, and the disparities from which they suffer reduced; however, this alone is not enough. Europe must realize that a decline in exports to the developing countries - which represent a significant share of its foreign trade and domestic production - will be inevitable unless it increases its financial aid to the non-oil developing countries, and its imports from these countries, especially imports of manufactured products.

(c) Increasing financial flows to the developing countries

A special effort will be required in the field of official development assistance (ODA), which has expanded much more slowly over the past few years than private sector contributions to development finance. The real value of official aid increased very little between 1970 and 1978, and aid declined as a percentage of the GNP of the contributor countries. Although the Community's ODA effort is greater than that of the USA or Japan, the aggregate is still less than the aim of 0.7 % of GNP adopted in agreement with the DAC countries. Moreover, some Community countries make a much greater contribution than others : Italy contributes 0.06 % of its GNP, and Germany 0.38 %, while the Netherlands contributes 0.82 % and the Community average was 0.45 % in 1978 (compared with 0.27 % for the USA and 0.23 % for Japan).

More ODA from the Nine, in collaboration with the other industrialized countries and the OPEC countries, is essential if the existing considerable difficulties are not to become worse in the large regions of the Third World suffering from extreme poverty; these regions cannot do without official assistance, for they have little chance of attracting private capital or developing industrial exports.

The problems involved in private development aid, which has increased so rapidly over the past few years, although to only a very small number of countries, have already been referred to several times. In this

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context we concentrate on the specific problem of bank financing. The European banks, with those of the USA, are heavily committed to huge financing operations which involve them in an uncoordinated process which they do not control. To ensure that these financing operations, which are so essential to the Third World, develop satisfactorily, and to make them more easily accessible to a greater number of Third World countries while reducing the risks and costs they involve, the Community should contribute as actively as possible to finding new roles for national and international monetary institutions in the supervision and perhaps even the refinancing of these banking transactions.

(d) Opening the Community to manufactures from the developing countries

The most decisive contribution the Community can make to development in the Third World is to provide developing countries with more outlets for their products.

The Community's commercial policy must therefore be geared to ensuring that a larger number of these countries have access to Community markets. Although some of the present provisions of commercial policy, in particular the Generalized Preference Scheme, do seem to have led to an increase in purchases by the Nine, this increase has been concentrated on a few mass consumption products imported cheaply from a small number of developing countries, mainly newly industrializing countries. This concentration was certainly a factor in the growing public awareness of the problem of imports from developing countries, which seems to be accorded much more importance than is warranted by the relative share in trade of these imports, or their volume in relation to Community output.
The scheme could perhaps fulfil its purpose better if it were modified next time it comes up for renewal, in such a way as to give preference to the less industrialized developing countries and the less developed sectors in the newly industrializing countries. At the same time, the newly industrializing countries might reasonably be expected to give preferential treatment to the Third World countries which are less developed than they are.

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The Community must persuade these newly industrializing countries, whose economic development is bringing them out of the developing countries group and closer to the development level of the industrialized countries group, gradually to accept the same duties and obligations as the latter, especially as regards the reciprocity of trade concessions.

But arrangements of this type will not be sufficient to eliminate the growing difficulties which some Member States put forward at sectoral or regional level as an excuse to try to limit the opening of the Community market to imports from the developing countries. Sectoral adjustment is occurring at different rates, and even in different directions in the various Member States, and this makes it difficult to define and implement a Community commercial policy, particularly in the sensitive sectors. The complexity and urgency of this problem are amply demonstrated by the increase in the number of cases, in recent years, in which certain Member States have taken protective measures (pursuant to Article 115 of the Treaty of Rome) in the area of textile products, even though access for these products to European markets is the subject of agreements on voluntary restraint by non-member countries.

In general, apart from defensive reactions to obvious forms of unfair competition, temporary protective measures can be considered only in very narrowly-defined situations :
they may be justified to protect infant industries; to prevent the disappearance of industrial complexes that are viable in the long run, but threatened by disorganized competition in a market crisis situation; to protect branches although threatened by the changing international division of labour, may, after structural reorganization, stay in or return to a system of trade obeying the requirements of international competition. In all these situations, the solidarity of the Member States must be as strong as possible, so that the measures, which should always be exceptional, may be discontinued as soon as possible, and so that the necessary structural reorganization may be carried out.

The Community must also endeavour to use the means at its disposal in such a way as to take advantage of the international division of labour, and to influence its development. It must therefore exploit its comparative advantages to the full, and acquire further comparative advantages, for example by developing technology and integrating its internal market. But it must also, through its external policy and the action of its firms, encourage a better

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spread of income and know-how in the world, and sectoral diversification and social progress in the developing countries, so as to enlarge effective world demand, and reduce strains on trade between developing and industrialized countries [23].

10.3. Relations between the Community and the State-trading countries

Since the mid-1960s, the share of the State-trading countries in the Community's external trade (not counting trade between Member States) has gradually increased, latterly reaching 7 % to 8 % of imports and 8 % to 9 % of exports (see A 62) for trade in chemical products and Community exports of machinery this share is over 11 %.

Within the State-trading countries, a distinction should be drawn between China, on the one hand, and Eastern Europe (including the Soviet Union) on the other. China accounts for about 1 % of the Community's total external trade, and can be considered a developing economy from all points of view, as is shown, for example, by the structure of its trade with the Community. This trade has been held back for political reasons in the past, but the medium-term outlook now seems favourable.

The State-trading countries of Eastern Europe are already highly industrialized, but the general level of modernization in the agricultural and services sectors is well below that in Western industrialized countries. About 30 % of the European State-trading countries' volume of external trade is with OECD countries, and about half his share is with the Community. The Community which has the advantage of geographical proximity, is therefore their main trading partner, far ahead of either the USA or Japan (although Japan has greatly increased its trade with these countries in recent years (see A 58). In trade with the European State-trading countries, Community exports of machinery and chemical products, and Community imports of fuel and chemical products have particularly expanded (see A 62).

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23 For a fuller analysis of these matters, see the Report by the Group of Experts under the chairmanship of Mr Paul-Mard HENRY entitled :"The European Economic Community and Changes in the International Division of Labour", EEC Brussels, January 1979.

Trade between the Community and the European State-trading countries benefits from the fact that the two trading partners are complementary in some ways. The economic difficulties experienced both by the Community and by the East European countries in the past few years have not affected complementarity, which could be the basis for developing mutual economic relations.

The USSR and, to some extent, Poland possess large reserves of fuels and other raw materials; output and exports of gas, coal, copper, timber and some other commodities could be increased, and this would enable the Community to diversify its sources of supply for raw materials and fuel. Then again, the technological superiority of the Community, as of the other Western industrialized countries, over the East European countries is evident in most industrial branches : this enables the Community to sell high-technology plant and equipment to the European State-trading countries, which need them to carry out their long-term programmes for modernizing the economy. Moreover, the structural backwardness of the agricultural sector in Eastern Europe, its slow growth rate and its inadequacy to cover domestic demand could also be factors in the development of Community exports to those countries.

Apart from complementarity between sectors, which is at present the main feature of Community relations with the European State-trading countries, there may be complementarity within sectors too, particularly such branches of manufacturing as chemicals, engineering and metallurgy. It would obviously take a long time to exploit all the possibilities here, and the best approach might be through a series of bilateral agreements between the Community and the different countries involved. In all cases, the Community must take care that the development of relations with the East is not the direct or indirect cause of disturbances on the Community market. There is a danger of such disturbances for certain capital-intensive and labour-intensive products.

In considering its prospective relations with East European countries, the Community should bear in mind the considerable differences between their economic situations (in terms of growth, employment, standards of living, productivity and "inflation"), their natural resources, and their ability to react to world economic trends, in particular rising energy costs (even within the COMECON).

These differences make a bilateral approach even more advisable, since such an approach to relations between the Community and the European State-trading countries can be more efficiently organized and adjusted to individual countries' needs and capacities, although agreements between the Community and COMECON as a whole may be more suitable for certain products.

The East European countries tie more and more trade and cooperation deals with the Community and the West in general to "compensation" or "buy-back" agreements. These practices may be acceptable in principle for fuels and other raw materials, but the Community should oppose any tendency towards their generalization. Compensation makes East-West economic relations less flexible by discouraging new Western operators (particularly small and medium-sized firms) from entering the East European market, and by transferring the burden of marketing East European goods in the West to Western firms.

The external debt of the East European countries was about $60 000 to $65 000 million (including a large amount owed to the Community) in 1978; it might increase further over the next few years. The Community will therefore have to follow short-term economic trends in Eastern Europe very attentively, particularly in Poland and Bulgaria, where the present level of aggregate debt is several times as high as the annual value of exports in convertible currencies.

The Community's strategy towards State-trading countries must be harmonized with its strategy towards developing countries. In certain areas, such as the supply of fuels and raw materials, the Community might be faced with the choice between investing in one group of countries or the other. Moreover, competition on Community markets between the products of the two groups of countries could undermine the Community's generalized preference policy towards the developing countries.

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The Community's main task, in the face of the uncertainty resulting from the development of international relations over the next ten years, will be to reinforce its internal cohesion and reinvigorate its development as a zone of growth and stability.

First, the Community must exercise to the full its specific powers in external relations; further vigorous efforts are required here. At present, the Community is mainly exercising its powers only in the field of traditional commercial policy, i.e. customs tariffs and barriers to trade. The Community plays an important role in this field, as the Tokyo Round negotiations, for example, have shown. But this role is limited by the fact that export credits, export drives and direct investment abroad are under the individual control of the Member States, as are most of the financial aspects of relations with the Third World. Furthermore, some of the Member States are still taking the initiative in matters that are theoretically the responsibility of Community bodies. All this weakens the Community's position in international negotiations and deprives the Member States of the advantage to be gained from joint bargaining-power.

The Community affords the Member States an opportunity to attenuate the effects of external disturbances by strengthening the links that bind them together, and to lay solid foundations for the development of their external relations and the strengthening of their negotiating power in the world; the Member States must take advantage of this opportunity.

Thus, the Community market absorbs about 50 % of exports by the Nine, and constitutes a vast market with opportunities for economies of scale; until recently, trade within the Community was expanding much faster than sales to the rest of the world. This enormous market is a considerable advantage for the Member States. And yet they do not exploit it to the full, for it is not yet completely and genuinely integrated.

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The numerous distortions and obstacles to trade that have reappeared over the past few years must therefore be removed, and the integration process must be encouraged. In the advanced technology industries in particular, the Community will not be able to compete satisfactorily with its main competitors, Japan and the USA, in relation to which it is at present in a position of inferiority and even to some extent of dependence, unless the barriers to integration - national preferential treatment, technical and statutory barriers, even national monopolies - are removed, and unless R & D policies are more closely coordinated. These two developments must be combined if the Community industries are to enjoy all the advantages of a unified market, and if this market is not to serve mainly the interests of Japanese and US firms, already often well-established in Europe.

The EMS, and the consequent stabilization of exchange rates within the Community, should attenuate the adverse effects on the Member States of malfunctions in the international monetary system, and enable the Community to make an effective contribution to setting up a new and better-balanced system. This will be even more true when all the Member States participate in the EMS, and when it has been extended and supplemented according to the programme initially agreed.

All in all, the Community's economic weight and the importance of its relations with the rest of the world give it greater influence than any individual Member State in international relations. But the Community's influence depends to a large extent on its cohesion and its internal and international dynamism, and on how far it can implement an external relations strategy, the overall coherence of which is fully assured.

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STRUCTURAL CHANGE IN THE COMMUNITY :

OUTLOOK FOR THE 1980s

Statistical Annex

of the Technical Report

Table A1 Dependence on imported energy (a)

	FR Germany	France	Italy	Nether-lands	Bel-gium	Luxb.	UK	Ire-land	Den-mark
1963	23,7	53,6	72,3	67,7	52,0	99,7	29,7	74,8	96,8
1970	49,1	72,1	83,4	51,3	83,0	99,2	50,3	82,6	99,9
1973	56,5	79,6	84,3	22,0	88,0	99,6	53,1	84,4	99,6
1978	58,9	76,4	82,4	4,8	87,3	99,2	25,7	83,6	98,9

(a) : $\frac{\text{net imports}}{\text{gross domestic cons. +}} \times 100$

Source: Eurostat

Table A 1 (a) Net imports, totals and per capita, of petroleum and petroleum products, other non-energy raw materials

	Oil and Petroleum, Products 1978		Other non-energy raw materials					
			TOTAL		of which:			
					agricultural and food products		other raw materials	
	$ '000 million	$ per head of popul.	$ '000 million	$ per head of popul.	$ '000 million	$ per head of popul.	$ '000 million	$ per head of popul.
USA	42,6	195,0	26,3	121,4	14,6	67,3	11,7	54,0
Japan	27,6	240,2	26,2	230,1	10,3	90,5	15,8	138,8
EEC:	48,9	188,7	60,5	233,4	29,7	114,6	30,8	118,8
- D	14,5	236,5	16,2	263,9	7,5	122,2	8,7	141,7
- F	12,0	225,2	10,2	192,2	5,4	101,7	4,8	90,4
- I	9,5	167,6	8,4	148,8	3,6	63,8	4,8	85,0
- NL	3,6	258,3	6,6	476,4	3,9	281,5	2,6	187,7
- BLEU	2,9	295,0	4,0	392,8	1,6	157,1	2,5	245,5
- UK	4,1	73,3	12,8	228,7	6,3	112,6	6,4	114,4
- IRL	0,6	188,0	0,5	156,6	0,3	94,0	0,8	157,2
- DK	1,7	333,0	1,8	353,7	1,1	216,2	0,2	62,7

Table A 2 World energy consumption and production

World gross energy consumption

(in million toe)	1976 (Source: UN)	1990 (*)	
		High hypoth.	Low hypoth.
EEC	955	1460	1200
USA	1830	2510	2230
Japan	330	650	570
Other industrialized countries	610	1000	840
OPEC	150	400	300
Other developing countries	540	1100	950
USSR	970	1920	1830
Other countries with centrally planned economies	865	1560	1330
World trade	6250	10600	9250

(*) Commission estimated based on various studies.

Hypotheses of world gross energy production

(in million toe)

	1976 (actual) Source UN	1990 (forecasts)*	
A. Non-oil sources		High	Low
Solid fuels	1890	3450	2950
Nuclear energy	90	900	500
Natural gas	1160	1800	1800
Renewable energy	335	500	400
Total	3475	6650	5650
B. Demand hypotheses	6250	10.600 - 9.250	10.600 - 9.250
C. Theoretical balance to be covered by oil	2775	3.950 - 2.600 (80 - 50 mb/d	4.950 - 3.600 (100 - 70 mb/d)

(*) Commission estimates based on various studies.

Table A 3 Necessary maximum level of world oil production

(in millions of tonnes)	Actual		Hypotheses (**)
	1972 Source : UN	1977 Source : UN	1990
Western Europe	20	70	175 - 200
USA	550	480	450 - 500
Other industrialized countries	115	100	100 - 110
Developing countries (excluding OPEC countries)	115	215	365 - 615
USSR	415	565	750 - 800
Other countries with centrally planned economies	65	120	360 - 625
Total	1.320	1.550	2.200 - 2.850
Probable demand	(2725)	(3.150)	4.950
Balance: OPEC countries	1.405	1.600	2.750 - 2.100 (55 m b/d (42 m b/d

** Commission estimates based on various studies.

Table A 4 — Community energy balance 1978-90

	Indigenous production in million toe (1)			Net imports in million toe (2)			Gross consumption in million toe (1 + 2)			Structure %		
	1978	1990(a)	1990(b)	1978	1990(a)	1990(b)	1978*	1990(a)	1990(b)	1978	1990(a)	1990(b)
Solid fuels	172,8	194	175	25,6	57	55	203,2	251	230	21	18	18
Oil	64,5	87/147	145	470,0	572/497	470	541,7	659/644	615	55	47/46	47
Natural gas	135,1	115/130	130	30,8	121	120	163,4	236/251	250	17	17/18	19
Nuclear energy	28,3	204	160	-	-	-	28,3	204	160	3	15	12
Other	32,7	39	40	2,7	4	5	35,4	43	45	4	3	4
Total	433,4	639/714	650	529,1	754/679	650	972,0	1,393	1,300	100	100	100
%	46	46/51	50	54	54/49	50	100	100	100			

* : Any differences between the sum of the first two columns and the third column are due to changes in stocks.

(a) National 1990 projections made in mid-February 1979, corresponding to an average rate of economic growth of 3,9 %.
(b) Alternative projection by Commission staff.

Source : 1978 estimates and national 1990 projections: COM(79) 316 of 14 June 1979, "Energy objectives of the Community for 1990 and convergence of policies of Member States".

Table A 5 Energy consumption per head (kg oe per year)

	1978 (estimates)	1990 (forecasts)
EUR - 9	3,6	4,9
Greece	1,6	3,3
Spain	2,0	3,7
Portugal	1,2	1,5

Energy forecasts of the applicant countries for 1990

	Production		
	Greece(1)	Spain (1)	Portugal
Solid fuels	9	15	0,1
Oil	1	9	-
Natural gas	0,2	-	-
Nuclear	3	23	1,4
Hydro	1	9	1,5
Total (million toe)	14,2	56	3,0
	Net imports		
Solid fuels	1	3	0,5
Oil	18	52	11
Natural gas	-	11	-
Nuclear	-	-	-
Hydro	-	-	-
Total (million toe)	19	66	11,5
Gross internal consumption	33,2	122	14,5
Degree of dependence	57,2 %	54%	79,3%

Table A 6

1990 Energy balance for the Community of 9, 10 and 12

	EUR-9	EUR-10 (*)	EUR-12 (**)
	million toe	million toe	million toe
Production			
Solid fuels	193	202	217
Oil	87/147	88/148	97/157
Natural Gas	116/131	116/131	116/131
Nuclear	208	211	235
Hydro	39	40	51
Total	643/718	657/732	716/791
Net imports			
Solid fuels	55	56	60
Oil	580/505	598/523	661/586
Natural gas	122	122	133
Nuclear	-	-	-
Hydro	4	4	4
Total	761/686	180/70(	858/783

	EUR-9		EUR-10		EUR-12	
T O T A L	million toe	(%)	million toe	(%)	million toe	(%)
Solid fuels	248	(18)	258	(18)	277	(18)
Oil	667/652	(48/46)	687/672	(48/47)	758/743	(48/47)
Natural gas	238/252	(16/18)	238/232	(16/17)	249 /263	(16/17)
Nuclear	208	(15)	211	(15)	235	(15)
Hydro	43	(3)	44	(3)	55	(3)
Total	1404	(100)	1437	100	1574	100

*) EUR-9 plus Greece

**) EUR-9 plus Greece, Spain and Portugal

Source: "Energy objectives of the Community for 1990 and convergence of policies of Member States", Commission communication to the Council, COM(79)316 final.

TABLE A 7

Life of reserves and ratio reserves to cumulative demand in the period 1976-2000

	Iron	Copper	Lead	Tin	Zinc	Aluminium	Titanium [1]
Ratio of reserves to current demand (in years)	194	54	29	42	27	284	16,3
Ratio of reserves to 1976-2000 cumulative demand	5,1	1,4	1,2	1,5	0,9	6,2	3

	Chromium	Cobalt	Columbium	Manganese	Molybden.	Nickel	Tantalum
Ratio of reserves to current demand (in years)	320	44	800	185	108	125	60
Ratio of reserves to 1976-2000 cumulative demand	10,3	3,2	17	4,6	2,2	3,3	1,8

	Tungsten [2]	Vanadium	Bismuth [1]	Mercury [1]	Silver	Platinum [1]	Asbestos [2]
Ratio of reserves to current demand (in years)	57	340	30	30	20	110	22
Ratio of reserves to 1976-2000 cumulative demand	1,4	8,2	0,8	0,9	0,6	3	0,5

1) figures for 1974 and the period 1974-2000.

2) figures for 1975 and the period 1975-2000.

TABLE A-8

Regional distribution of known and reported reserves in 1977

Raw material	Share of first three countries	Share of first five countries	Percentage share of certain countries
Iron	59.4	76.7	USSR 30.2, Brazil 17.5, Canada 11.7, Australia 11.5, India 5.8
Copper	44.9	58.7	USA 18.5, Chile 18.5, USSR 7.9, Peru 7.0, Canada 6.8, Zambia 6.4
Lead	47.8	61.4	USA 20.8, Australia 13.8, USSR 13.2, Canada 9.5, South Africa 4.1
Tin	50.2	68.1	Indonesia 23.6, China 14.8, Thailand 11.8, Bolivia 9.7, Malaysia 8.2, USSR 6.1, Brazil 5.9
Zinc	45.8	58.6	Canada 18.7, USA 14.5, Australia 12.6, USSR 7.3, Ireland 5.5
Aluminium	62.8	74.8	Guinea 33.9, Australia 18.6, Brazil 10.3, Jamaica 6.2, India 5.8, Guyana 4.1, Cameroon 4.2
Titanium	58.2	81.8	Brazil 23.2, Canada 18.7, India 16.3, Norway 15.2, Australia 8.4, USA 7.4, South Africa 4.3
Chromium	96.9	97.9	South Africa 74.1, Rhodesia 22.2, USSR 0.6, Finland 0.6, India 0.4, Brazil 0.3, Madagascar 0.3
Cobalt	49.6	71.9	Zaire 12.3, New Caledonia 10.6, Philippines 11.9, Zambia 8.2, Cuba 21.8, Indonesia 15.5
Columbium	88.5	95.3	Brazil 76.6, USSR 6.4, Canada 5.5, Zaire 3.8, Uganda 3.0, Niger 3.0
Manganese	90.5	97.7	South Africa 45.0, USSR 37.5, Australia 8.0, Gabon 5.0, Brazil 2.2
Molybdenum	74.3	86.9	USA 38.4, Chile 27.8, Canada 8.1, USSR 6.6, China 6.0
Nickel	48.8	70.6	New Caledonia 18.8, Cuba 17.8, Canada 12.8, USSR 11.0, Indonesia 10.8, Philippines 10.0
Tungsten	69.6	80.6	China 46.9, Canada 12.1, USSR 10.6, North Korea 5.6, Australia 2.7
Vanadium	94.9	97.2	USSR 74.8, South Africa 18.7, Chile 1.4, Australia 1.4, Venezuela 0.9, India 0.9
Bismuth	47.9	60.9	Australia 20.7, Bolivia 16.3, USA 10.9 Canada 6.5, Mexico 6.5, Peru 5.4
Mercury	65.2	78.3	Spain 38.4, USSR 18.2, Yugoslavia 8.6, USA 8.6, China 4.5, Mexico 4.5, Turkey 4.5, Italy 4.1
Silver	54.9	76.5	USSR 26.2, USA 24.8, Mexico 13.9, Canada 11.6, Peru 10.0
Platinum	99.5	99.9	South Africa 82.3, USSR 15.6, Canada 1.6 Colombia 0.3, USA 0.1
Asbestos	81.3	91.8	Canada 42.7, USSR 32.3, South Africa 6.3, Rhodesia 6.3, USA 4.2

TABLE A-9

Mining investment needs 1977-90 [1]

- Millions of 1975 US dollars -

Estimated consumption growth

	Low growth		Probable growth		High growth	
	Developing co.	Indust.countries	Developing co.	Indust.countries	Developing co.	Indust.countries
Iron ore	15,997	33,993	21,674	46,056	28,231	59,991
Copper	13,193	12,178	15,764	14,552	18,537	17,112
Aluminium						
Bauxite	1,277	688	2,042	1,100	2,924	1,575
Alumina	1,708	5,125	2,800	8,400	4,058	12,175
Aluminium	5,971	19,992	7,982	26,722	10,299	34,480
Zinc	920	1,868	1,180	2,397	1,460	2,964
Nickel	1,533	2,501	2,189	3,571	3,037	4,954
Lead	1,179	723	1,318	808	1,414	866
TOTAL	41,778	77,068	54,949	103,606	69,960	134,117
Annual average	3,214	5,968	4,227	7,970	5,382	10,317

1) Estimated percentage consumption growth.

	Low	Probable	High
Iron ore	3	4	5
Copper	3	3,5	4
Aluminium	5	6	7
Zinc	2,5	3	3,5
Nickel	3,5	4,2	5
Lead	2,5	2,8	3

Source: Financial Requirements for Mining in Developing Countries (New York: United Nations Centre for Natural Resources, Energy and Transport, 1977), background paper nº 1 for the United Nations Panel on International Mining Finance, Tables9 and 20.

TABLE A-10

Investment planned by mining industry for 1979-83

- millions of dollars -

Products	U S A	Canada	Central and South America	Europe	South Africa and Rhodesia	Other African	Japan	Other Asian	Australia and Oceania	Total
Aluminium	1.595	207	5.670	1.864	-	2.000	-	2.707	5.356	19.399
Copper	295	756	9.103	585	-	555	-	770	1.632	13.696
Lead and Zinc	610	427	883	416	414,5	53,5	22	248	28	3.102
Iron ore	668	-	2.155	340	-	2.833	-	2.881	1.972	10.849
Nickel	-	-	510	450	-	-	-	55	1.857	2.872
Gold	-	15,6	-	-	325	-	-	-	3,1	343
Uranium	565	1.184	175	46	380	8	-	-	839	3.197
Other metals	559	276	414	199	68	217	-	233	128	2.094
All metals	4.292	2.865	18.910	3.900	1.187,5	5.666,5	22	6.894	11.815	55.552
Phosphates	786	-	1.091	20	200	3.440	-	1.467	-	7.004
Other non-metallic products	366	3.268	350	36	90	1.041	-	407	240	5.798
All non-metallic products	1.152	3.268	1.441	56	290	4.481	-	1.874	240	12.802
Total for all products	5.444	6.133	20.351	3.956	1.477,5	10.147,5	22	8.768	12.055	68.354

TABLE A-11

Community, United States and Japanese import dependence

- imports as percentage of consumption -

	EEC	USA	JAPAN
Aluminium	61[b]	85[b]	100[b]
Copper	81	-	90
Lead	53	4	76
Nickel	100[a]	71	100
Tin	87	75	97
Zinc	68	64	80
Iron ore	89	29	94
Manganese	100	99	90
Antimony	95[a]		
Cadmium	36 + (almost 100 including the ore)		
Chromium	100	91	100
Cobalt	100[a]	98	
Niobium	100	100	
Germanium	100	35	
Mercury	33	73	
Molybdenum	100	-	
Platinum	100[a]	80	
Selenium	100	42[a]	
Tantalum	100	95	
Titanium	100		
Tungsten	99	54	
Vanadium	99	36	
Zirconium	100		
Uranium	59[c]		
Phosphate	99	-	100
Potassium	20		
Sulphur	43	-	
Asbestos	100	83	100

The figures for the EEC are 1974-76 averages; those for the USA and Japan relate to 1974 and 1972 respectively. Consumption refers to second melt.

a excluding scrap.

b including bauxite, alumina and imported metal; the figures for the USA are taken from "Mineral Development of the Eighties. Prospects and Problems BMAC 1976"; Japanese 1972 figures are taken from Report of United States Council on International Economic Policy - "Critical Imported Materials" - December 1974.

c The proportion will increase rapidly when Community consumption grows and French production supplies a smaller proportion.

TABLE A-12

Evolution of investment expenditure by European enterprises - including uranium - from 1966 to 1977

(in millions of 1976 US dollars)

A. DEVELOPED COUNTRIES

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
AFRICA	19557	25046	27338	29585	25042	25687	19350	19699	26710	53016	41925	20251
AUSTRALIA	129308	124674	67396	58000	106908	104743	84604	51327	50043	45305	32295	115049
EUROPE	70389	69855	70808	21159	32219	75519	52003	27605	26360	63659	49614	70241
NORTH AMERICA	38745	54328	30036	33435	46758	71173	20749	20055	54422	103940	114662	126296
OCEANIA	54059	9392	10022	83140	146508	80982	59661	8892	11968	13488	22200	42305
SUB TOTAL	312059	283295	205599	225399	357514	439103	244367	128378	169511	280207	260696	382942

B. LESS DEVELOPED COUNTRIES

AFRICA	77703	24083	39435	26721	29394	19326	24325	18668	34411	49244	107790	62971
ASIA	0	4217	1151	156	83	2859	1842	1395	92	506	2200	8381
LATIN AMERICA	9225	6077	9353	15225	22788	9047	9288	11970	11507	37313	42530	35419
OCEANIA	0	0	0	0	138564	145557	11300	16553	3797	8430	17244	19524
NOT SPECIFIED	0	0	0	0	0	0	0	922	3588	3206	0	0
SUB TOTAL	86928	34378	49939	42102	190830	176790	46755	49503	53396	98779	169764	126295
TOTAL	398987	317672	255538	267501	548344	614893	291122	177885	222907	378986	430460	509237

PERCENTAGE DISTRIBUTION BY COUNTRY GROUP

DEVELOPED	78	89	80	84	65	71	84	72	76	74	61	75
LESS DEVELOPED	22	11	20	16	35	29	16	28	24	26	39	25
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Note: "Not specified" refers to expenditure in the categories identified.

Source: Groupement Européen des Entreprises Minières

II/532/79-EN

TABLE A-13

Evolution of exploration expenditure by European mining companies - including uranium - from 1966 to 1977

(in millions of 1976 US dollars)

A. DEVELOPED COUNTRIES

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
AFRICA	2417	2553	4083	6046	10413	5097	4556	5750	6120	6811	7290	7727
AUSTRALIA	4386	6727	14351	20472	25161	35033	33471	38201	28367	28135	30925	32859
EUROPE	13079	18095	22075	23666	25266	49623	50337	48175	42386	56620	60635	62565
NORTH AMERICA	5742	13907	9959	14053	26231	14266	17202	16705	36860	33688	47775	48343
NOT SPECIFIED	3764	5985	10198	14308	20250	23748	38000	39112	32773	30230	34310	43619
SUB TOTAL	30100	47268	60667	78546	107321	127767	143647	147104	146515	163484	180943	195713

B. LESS DEVELOPED COUNTRIES

AFRICA	3734	1007	2173	6935	4377	3138	2661	4674	1437	1806	700	453
ASIA	701	3030	5946	10444	7242	4298	2006	2393	2899	3005	4123	6063
LATIN AMERICA	0	0	0	655	621	1025	1175	1257	3555	8779	7247	14072
OCEANIA	3984	8056	8601	22339	0	0	0	0	0	0	375	1247
NOT SPECIFIED	15775	16464	16159	14640	16151	23844	11377	11664	12859	14814	9620	25523
SUB TOTAL	24193	28559	32958	55022	28391	32304	17218	19988	20750	29203	22065	47358
TOTAL	54381	75826	93625	133567	135712	160071	160965	167092	167265	192768	203008	243082

PERCENTAGE DISTRIBUTION BY COUNTRY GROUP

DEVELOPED	56	62	65	59	79	80	89	88	88	85	89	81
LESS DEVELOPED	44	38	35	41	21	20	11	12	12	15	11	19
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Note: "Not specified" refers to expenditure in the categories identified.

Source: Groupement Européen des Entreprises minières

Table A 14

Evolution of exploration expenditure by European mining compagnies - excluding uranium - from 1966 to 1977 (in millions of 1976 US dollars)

A. DEVELOPED COUNTRIES

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
AFRICA	2417	2553	1804	1744	2195	2674	4246	5750	6128	6811	7298	7727
AUSTRALIA	4339	5769	13315	19729	24553	33574	31397	36274	26603	25823	20268	20428
EUROPE	13079	18095	16464	17938	20944	45126	42032	37250	28763	37407	38440	37903
NORTH AMERICA	4769	11027	7981	10369	23453	12072	15332	13966	20538	20430	31195	26747
NOT SPECIFIED	3764	5985	8741	10277	12053	18921	32183	20711	18516	17250	15900	18381
SUB TOTAL	29167	43430	48305	60557	83199	112267	125991	113952	100547	107721	121101	119186

B. LESS DEVELOPED COUNTRIES

AFRICA	3734	1007	1813	3930	2509	2028	2127	3598	400	119	0	368
ASIA	701	3030	5946	10444	7242	4298	2006	2393	2784	3780	3623	5396
LATIN AMERICA	0	0	0	655	621	1025	1175	1257	3439	8147	6347	12934
OCEANIA	3984	8056	8681	22339	0	0	0	0	0	0	375	1247
NOT SPECIFIED	15775	16464	7634	7192	8388	14994	6764	7027	8198	9050	6270	7714
SUB TOTAL	24193	28558	24074	44568	18760	22244	12071	14275	14822	21095	16615	27559
TOTAL	53360	71988	72379	105125	101959	134511	138062	128227	115370	128816	137716	146745

PERCENTAGE DISTRIBUTION BY COUNTRY GROUP

DEVELOPED	55	60	67	58	82	83	91	89	87	84	88	81
LESS DEVELOPED	45	40	33	42	18	17	9	11	13	16	12	19
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Note : "Note specified" refers to expenditure in the categories identified.

Source : Groupement européen des Entreprises minières.

Table A 15

Degree of self-supply in certain agricultural products

(in %)

1	2	EUR 9	D	F	I	NL	UEBL BLEU	UK	IRL	DK
		3	4	5	6	7	8	9	10	11
Cereals										
— Total cereals (excluding rice)	'1968/69'	86	79	147	69	38	48	63	80	99
	'1975/76'	88	80	153	71	25	39	65	68	104
— Total wheat	'1968/69'	94	86	154	95	56	62	45	68	103
	'1975/76'	106	95	188	92	56	64	60	50	142
— Rye	'1968/69'	100	100	110	103	106	90	45	100	85
	'1975/76'	96	95	115	89	66	85	37	0	121
— Barley	'1968/69'	103	80	158	22	90	64	99	97	103
	'1975/76'	101	82	156	37	68	56	99	100	107
— Oats	'1968/69'	96	92	105	69	138	85	102	96	99
	'1975/76'	95	92	104	81	172	82	96	92	94
— Grain-maize	'1968/69'	45	12	148	47	0	0	0	0	0
	'1975/76'	49	16	120	54	0	0	0	0	0
— Rice	'1968/69'	:	0	45	225	0	0	0	0	0
	'1975/76'	76	0	14	206	0	0	0	0	0
Potatoes	'1968/69'	100	95	102	97	121	99	95	105	102
	'1975/76'	98	93	96	97	131	92	89	102	101
Sugar	'1968/69'	82	89	120	94	101	148	34	94	124
	'1975/76'	98	108	158	82	136	173	26	113	156
Fresh vegetables	'1968/69'	98	54	95	112	184	111	78	101	92
	'1975/76'	94	34	94	114	193	116	73	107	72
Fresh fruit										
excluding citrus fruits	'1968/69'	80	58	95	116	82	70	34	20	71
	'1975/76'	79	47	92	132	61	59	32	27	57
Citrus fruits	'1968/69'	:	0	1	135	0	0	0	0	0
	'1975/76'	43	0	2	121	0	0	0	0	0
Wine	'1968/69'	97	56	92	110	2	11	0	0	0
	'1975/76'	98	54	99	118	0	8	0	0	0
Milk products										
— Fats	'1968'	100	100	101	99	101	100	100	100	100
	'1976'	100	102	101	94	100	100	100	100	101
— Proteins	'1968'	113	104	122	93	125	114	87	119	131
	'1976'	112	118	120	69	138	113	98	205	151
— Fresh milk products (excluding cream)	'1968'	100	100	99	100	100	102	100	100	100
	'1976'	101	100	101	100	99	114	100	100	105
— Whole-milk powder	'1968'	169	84	169	0	347	219	66	543	386
	'1976'	263	105	317	19	334	391	164	.	.
— Skimmed-milk powder [4]	'1968'	140	146	183	0	48	187	91	426	128
	'1976'	126	187	129	0	69	132	160	766	153
— Concentrated milk	'1968'	142	93	186	93	345	115	108	0	1 243
	'1976'	148	110	157	71	316	23	110	0	343
— Cheese	'1968'	98	84	109	90	225	52	44	456	234
	'1976'	103	87	112	79	246	43	65	526	310
— Butter [1]	'1968'	91	104	119	67	298	110	10	198	332
	'1976'	104	132	111	58	390	101	20	255	322
Margarine	'1968'	:	:	:	:	:	:	:	:	:
	'1976'	102	99	92	90	107	120	102	88	102
Eggs	'1968'	99	86	100	94	135	135	99	100	141
	'1976'	100	79	102	97	181	165	99	94	108
Meat [2]										
— Total [3]	'1968'	93	88	97	77	160	109	62	270	387
	'1976'	97	85	98	74	191	123	74	279	322
— Total beef and veal	'1968'	90	87	108	62	108	90	61	590	252
	'1976'	99	95	113	60	130	93	77	575	283
— Beef	'1968'	89	87	111	65	83	88	61	596	251
	'1976'	98	97	114	59	97	92	76	575	287
— Veal	'1968'	94	84	101	51	561	104	97	150	400
	'1976'	106	70	108	65	743	102	143	500	157
— Pigmeat	'1968'	100	95	87	88	171	130	58	162	495
	'1976'	99	87	85	74	212	176	64	137	364
— Poultrymeat	'1968'	101	49	102	99	350	132	99	104	351
	'1976'	104	54	112	98	343	99	102	105	236
— Sheepmeat and goatmeat	'1968'	56	95	82	74	289	42	42	139	100
	'1976'	64	46	72	55	530	13	56	121	17
Oils and fats — Total [4]	'1968'	:	:	:	:	:	:	:	:	:
	'1976'	41	37	50	53	31	31	18	87	92
— Vegetable [5]	'1968'	:	:	:	:	:	:	:	:	:
	'1976'	22	7	26	49	3	1	5	0	8
— Slaughterhouse fats [5]	'1968'	:	:	:	:	:	:	:	:	:
	'1976'	84	109	100	78	70	77	41	660	100
— Of marine animals [5]	'1968'	:	:	:	:	:	:	:	:	:
	'1976'	25	10	8	1	0	0	8	44	287

Source: Eurostat.

[1] Including butteroil.
[2] Including slaughterhouse fats.
[3] Excluding offal.
[4] Includes whole-milk powder for Italy.
2 years (1975-76).

Source : "The Agricultural Situation in the Community, 1978 Report", EEC January 1979, pp. 214-215.

Table A 15 (continued)

1	2	EUR 9	Deutsch-land	France	Italia	Neder-land	UEBL/ BLEU	United King-dom	Ireland	Dan-mark
- Whole-milk powder	»1968«	169	84	169	0	347	219	66	543	386
	»1977«	310	111	409	0	506	423	290	x	x
- Skimmed-milk powder (4)	»1968«	140	146	183	0	48	187	91	426	128
	»1977«	110	168	112	0	52	115	160	735	132
- Concentrated milk	»1968«	142	93	186	93	345	115	108	0	1 243
	»1977«	155	118	165	62	310	25	119	0	575
- Cheese	»1968«	98	84	109	90	225	52	44	456	234
	»1977«	103	90	111	80	234	43	65	425	332
- Butter (1)	»1968«	91	104	119	67	298	110	10	198	332
	»1977«	111	135	110	61	493	105	30	320	308
Margarine (5)	»1968«	:	:	:	:	:	:	:	:	:
	»1977«	102	99	91	89	109	120	102	88	103
Eggs	»1968«	99	86	100	94	135	135	99	100	141
	»1977«	100	78	99	97	205	159	100	96	104
Meat (3)										
- Total (3)	»1968«	93	88	97	77	160	109	62	270	387
	»1977«	96	86	94	75	190	120	73	258	305
- Total beef and veal	»1968«	90	87	108	62	108	90	61	590	252
	»1977«	97	96	108	61	128	92	75	570	300
- Beef	»1968«	89	87	111	65	83	88	61	596	251
	»1977«	96	98	109	60	93	91	74	571	308
- Veal	»1968«	94	84	101	51	561	104	97	150	400
	»1977«	106	70	106	68	841	99	168	367	100
- Pigmeat	»1968«	100	95	87	88	171	130	58	162	495
	»1977«	100	88	85	75	219	173	64	144	354
- Poultrymeat	»1968«	101	49	102	99	350	132	99	104	351
	»1977«	104	56	112	98	318	96	103	104	235
- Sheepmeat and goatmeat	»1968«	56	95	82	74	289	42	42	139	100
	»1977«	64	42	74	56	442	15	58	120	0
Oils and fats										
- Total (2)	»1968«	:	34	41	52	25	26	:	:	:
	»1977«	42	37	50	53	33	33	18	65	93
- Vegetable (2)	»1968«	:	:	:	:	:	:	:	:	:
	»1977«	22	7	25	48	3	1	5	0	7
- Slaughterhouse fats (2)	»1968«	:	:	:	:	:	:	:	:	:
	»1977«	84	109	100	85	64	82	41	429	100
- Of marine animals (2)	»1968«	:	:	:	:	:	:	:	:	:
	»1977«	25	10	10	1	0	0	8	57	287

Source: Eurostat.

(1) Including butteroil.
(2) Including slaughterhouse fats.
(3) Excluding offal.
(4) Includes whole-milk powder for Italy.
(5) Two years (1976–77) D, UK, DK and EUR 9 (1975–76).

TABLE A 16

World exports and EC foreign trade in all products, agricultural products(1) and other products

(Mrd USD)

	1969	1973	1974	1975	1976	1977	1978
1	2	3	4	5	6	7	8
World exports[2]							
— all products	334,7	468,0	704,0	720,0	820,0	929,0	1 073,4
of which: agricultural products	64,7	99,0	126,0	129,0	140,0	157,0	172,5
other products	270,0	369,0	578,0	591,0	680,0	772,0	905,9
External EC trade[2]							
Exports							
— all products	73,1	99,5	132,0	143,0	158,0	189,8	221,6
of which: agricultural products	6,3	9,4	11,7	11,6	11,8	14,0	16,9
Imports							
— all products	72,9	103,8	156,0	155,0	176,2	197,6	227,6
of which: agricultural products	21,1	30,0	33,3	32,3	36,9	42,7	46,1
% World exports of agricultural products as percentage of total world exports	19,3	21,2	17,9	17,9	17,1	16,9	16,0
% EEC exports of agricultural products as percentage of total EEC exports	8,5	9,4	8,5	8,1	7,5	7,4	7,6
% EEC imports of agricultural products as percentage of total EEC imports	28,5	28,9	21,3	20,8	21,0	21,6	20,3
Index changes (1969 = 100)							
World exports:							
— all products	100	139,8	210,3	215,1	245,0	277,6	322,2
— agricultural products	100	153,0	194,7	199,4	216,4	242,6	266,6
— other products	100	136,7	214,1	218,9	251,8	285,9	335,5
External EEC trade:							
Exports							
— all products	100	136,1	187,4	195,6	216,1	259,6	303,1
— agricultural products	100	149,2	185,7	184,1	187,3	222,2	268,3
Imports							
— all products	100	142,4	214,0	212,6	241,7	271,0	312,2
— agricultural products	100	142,2	157,8	153,1	174,9	202,4	218,5

Source: Statistique du GATT - Le Commerce international en 1976/77, and Eurostat.

1 SITC 0, 1, 21, 22, 23E1, 24, 261-265, 29, 4.

2 Excluding intra-Community trade.

Remark:
When comparing statistical series of trade expressed in value terms, it is important to remember that because of exchange-rate movements the use of one monetary unit rather than another may alter the apparent trend. For example, the relationship between the EUA and the USD changed between 1975 and 1976 by about 10 %.

Table A 17

Community agricultural trade by product

		Mio UCE		% change		
		1977	1978	1978/1973	1977/1976	1978/1977
1	2	3	4	5	6	7
	EEC imports					
0	Food products	22 352	20 979	9,2	15,5	- 6,1
04	of which : - cereals	2 931	2 344	0,3	- 25,3	- 20,0
05	- fruit and vegetables	5 336	5 398	10,1	10,1	11,6
011.1	- beef and veal	246	261	- 23,7	4,2	6,0
1	Beverages and tobacco	1 481	1 952	11,3	3,9	31,8
21	Skins and furs	1 186	1 120	4,4	1,8	- 5,6
22	Oilseeds	3 023	2 974	11,6	21,9	- 1,6
232	Natural rubber	581	548	8,6	10,9	- 5,7
24	Timber and cork	4 102	4 066	5,0	7,3	- 0,9
261 - 265	Natural textile fibres	2 344	2 194	0,7	4,4	- 6,4
29	Agricultural raw mater.	852	868	11,7	15,1	1,8
4	Oils and fats	1 514	1 421	8,0	37,1	- 6,1
592.11) 592.12)	Starches, gluten	9	5	- 36,4	- 10,0	- 44,4
	Total	37 453	36 127	8,2	13,2	- 3,5
	EEC exports					
0	Food products	7 941	8 515	11,9	16,3	7,2
04	of which : -cereals	1 257	1 785	10,4	- 17,8	42,0
05	- fruit and vegetables	942	888	9,5	15,7	- 5,7
011.1	- beef and veal	115	112	10,8	- 27,2	- 2,6
1	Beverages and tobacco	2 348	2 811	15,5	16,8	19,7
21	Skins and furs	310	327	11,3	20,6	5,4
22	Oilseeds	25	22	- 7,8	- 34,2	- 12,0
232	Natural rubber	7	6	3,7	- 12,5	- 14,3
24	Timber and cork	215	203	10,4	- 0,5	- 5,6
261 - 268	Natural textile fibres	288	204	- 7,2	6,3	- 29,2
29	Agricultural raw mat.	576	567	10,5	16,4	- 1,6
4	Oils and fats	563	601	19,1	34,7	6,7
592.11) 592.12)	Starches, gluten	34	31	2,8	25,9	- 8,8
	Total	12 308	13 287	12,1	16,5	7,9

Source: EUROSTAT - CTCI

TABLE A18

Exports, imports and balance on trade in manufacturers[(a)] between industrialized areas[(b)] and (i) the Third World; (ii) the Eastern bloc.

Destination	Exports				Imports				Balance			
	1963	1970	1973	1978	1963	1970	1973	1978	1963	1970	1973	1978
All developing countries	16.80	31.70	53.40	163.00	3.10	9.35	15.75	41.50	+13.70	+22.35	+ 37.65	+121.50
including:												
(i) oil exporting countries	n.d.	6.40	13.25	67.20	n.d.	0.25	0.65	1.20	n.d.	+ 6.15	+ 12.60	+ 66.00
(ii) others	n.d.	25.30	40.15	95.80	n.d.	9.10	15.10	40.30	n.d.	+16.20	+ 25.05	+ 55.50
Eastern block	2.30	6.60	12.65	32.45	1.20	3.35	5.55	12.00	+ 1.10	+ 3.25	+ 7.10	20.45

(a) Categories 5 to 8 of the SITC, except non-ferrous metals (subdivision 68).

(b) North America, Japan, EEC, EFTA and less developed countries of the Mediterranean seaboard.

Source : GATT

TABLE A 19

Trade in manufactured products by the USA, Japan and the EEC with non-oil developing countries (1)

	USA		JAPAN		EEC	
	1973	1978	1973	1978	1973	1978
IMPORTS from developing countries						
Total in $ 100 million	8,01	22,17	2,25	4,38	7,49	22,10
Total in $ per capita	38	101	21	38	29	85
as % of total imports of manufactured products by each country	18,8	22,9	22,8	24,8	6,2	8,3
as % of total exports of manufactures products by non-oil developing countries	29,0	30,7	10,7	6,7	24,4	23,8
EXPORTS to developing countries in $ 1000 million	11,28	25,18	10,52	27,13	24,18	52,37
Balance	+3,27	+3,01	+8,27	+22,75	+16,69	+30,27

(1) Including European developing countries of the Mediterranean seaboard
(2) Excluding European countries

Source: GATT

TABLE A 20

Changes in the percentage shares of the EEC, Japan, other OECD countries and developing countries in the United States imports of certain manufactures products

	EEC				JAPAN				OTHER OECD				DEVELOPING COUNTRIES			
	65	70	73	77	65	70	73	77	65	70	73	77	65	70	73	77
Metallic ores	19,9	19,4	24,0	19,5	15,7	20,1	17,5	21,2	30,6	33,7	31,3	29,3	32,6	25,6	25,2	28,7
Non-metallic ores	42,8	41,1	40,4	32,1	12,7	12,5	10,6	10,2	19,2	20,3	18,3	15,9	24,3	24,1	28,9	40,4
Office machinery	50,4	38,9	31,5	25,6	19,0	30,2	36,5	40,8	28,9	24,2	21,6	13,9	1,3	6,6	10,2	19,4
Electrical equipment	27,8	17,9	14,8	12,3	50,2	49,1	40,8	41,6	15,7	15,3	10,0	7,3	6,2	17,6	34,4	38,6
Foodstuffs	17,1	20,0	19,4	14,4	2,0	2,2	1,6	1,1	9,8	19,1	22,0	9,9	69,8	57,5	55,8	73,1
Textiles-clothing	25,4	24,7	20,9	13,8	20,4	20,8	11,9	8,3	5,6	8,4	7,3	3,5	48,3	45,8	59,0	72,6
Leather and footwear	44,7	47,8	36,7	23,0	23,7	14,7	5,1	2,2	12,1	16,9	20,1	13,7	17,9	19,5	36,9	59,4
Wood and furniture	5,0	5,4	4,3	4,5	11,5	8,7	4,1	3,2	63,2	60,7	67,3	66,9	20,0	24,2	24,0	24,9
Rubber and plastics	40,4	36,9	42,6	34,7	35,3	19,8	14,9	15,3	12,2	17,2	23,0	23,8	11,9	25,9	19,6	25,8
Miscellaneous consumer prod.	42,2	30,4	32,9	27,2	23,9	20,0	15,3	11,8	11,3	10,1	14,3	9,5	21,7	38,8	36,9	50,9

TABLE A 21

Changes in the penetration rate [1] of current consumer goods from developing countries and other countries on the main European markets in 1970 and 1976

	Germany		France		Italy		UK		Netherlands		Belgium		Denmark	
	1970	1976	1970	1976	1970	1976	1970	1976	1970	1976	1970	1976	1970	1976
Penetration rate for current consumer goods (except food)	11,9	16,8	11,5	16,8	10,8	12,5	17,4	21,9	39,2	47,7	38,0	54,5	35,1	41,4
including: developing countries	2,0	4,3	1,8	3,0	2,6	3,3	4,6	5,7	3,0	5,7	3,6	5,3	3,5	6,0
other countries	9,9	12,5	9,7	13,8	8,2	9,2	12,8	16,2	36,2	42,0	34,4	49,2	31,6	35,4
including: penetration rate for textiles, clothing, leather and footwear	17,8	29,3	11,9	19,9	11,0	13,1	15,3	25,0	49,9	68,8	46,0	71,0	46,1	57,1
including: developing countries	4,1	10,6	3,0	5,0	4,0	4,7	7,8	11,6	5,0	13,1	6,7	9,7	7,7	15,4
other countries	13,7	18,7	8,9	14,9	7,0	8,4	7,5	13,4	44,9	55,7	39,3	61,3	38,4	41,7

1) Penetration rate = Imports/ Output minus net exports.

TABLE A 22

Distribution of total exports by major areas

$ 1000 million, fob, % of world exports

Origin \ Destination		(a) Industrial regions		OPEC		Other developing countries		Eastern bloc		(b) World total	
	Year	Value	%	Value	%	Value	%	Value	%	Value	%
Industrial regions	1963	69,3	44,8	3,8	2,5	18,1	11,7	3,5	2,3	99,0	64,0
	1968	116,6	49,0	6,1	2,6	24,8	10,4	6,3	2,6	160,7	67,6
	1973	289,0	50,3	16,0	2,8	52,8	9,2	18,1	3,2	391,3	68,1
	1978	579,5	44,5	78,9	6,1	120,6	9,3	41,7	3,2	846,8	65,0
OPEC	1963	6,7	4,3	0,1	-	1,9	1,3	0,2	0,1	9,2	5,9
	1968	10,7	4,5	0,1	-	2,2	1,0	0,2	0,1	13,9	5,9
	1973	31,8	5,5	0,3	-	8,0	1,4	1,0	0,2	42,1	7,3
	1978	105,7	8,1	1,5	0,1	28,5	2,2	2,7	0,2	142,3	10,9
Other developing countries	1963	15,5	10,0	0,4	0,3	4,3	2,7	1,6	1,0	22,7	14,6
	1968	20,5	8,7	0,7	0,3	5,8	2,3	2,0	0,8	29,8	12,5
	1973	47,2	8,2	2,3	0,4	12,5	2,2	4,3	0,8	68,3	11,9
	1978	107,5	8,3	10,7	0,8	30,7	2,4	9,5	7,3	163,3	12,5
Eastern bloc	1963	3,5	2,3	0,2	0,1	2,3	1,5	12,4	8,0	18,7	12,1
	1968	6,1	2,6	0,4	0,2	3,1	1,3	16,6	7,0	27,0	11,3
	1973	15,4	2,7	1,3	0,2	5,3	0,9	32,4	5,6	57,2	10,0
	1978	33,9	2,6	5,0	0,4	11,6	0,9	69,2	5,3	124,5	9,6
World total	1963	98,6	63,7	4,5	2,9	27,2	17,6	17,9	11,6	154,7	100,0
	1968	158,5	66,6	7,4	3,1	37,1	15,6	25,4	10,7	237,8	100,0
	1973	394,3	68,7	20,2	3,5	80,9	14,1	56,3	9,8	574,3	100,0
	1978	844,2	64,8	97,3	7,5	196,1	15,0	124,2	9,5	1303,0	100,0

(a) defined as in Table A 18

(b) including Austria, New Zealand and South Africa

Source: GATT

TABLE A 23

THE SHARE OF THE NINE IN WORLD TRADE

	WORLD IMPORTS					WORLD EXPORTS				
	. 1963	. 1970	. 1973	. 1974	. 1978	. 1963	. 1970	. 1973	. 1974	. 1978
TOTAL TRADE by the Nine including trade:	37,8	38,0	39,0	36,8	37,6	33,6	35,7	36,6	33,0	35,6
within the EEC	15,6	18,6	20,2	17,3	19,1	15,2	18,0	19,3	16,7	18,4
with non-member countries	22,2	19,4	18,8	19,5	18,5	18,4	17,7	17,3	16,3	17,2

TABLE A 24

Geographical structure of EEC of Nine imports

- as % -

	Year	OECD countries			Non-OECD countries			
		Total	EEC	other OECD	Total	Eastern Bloc Countr	OPEC	Other developing countries
Agricultural and food products	65	52,8	29,0	23,8	47,2	4,0	4,6	38,6
	73	66,1	42,6	23,5	33,9	3,9	2,3	27,7
	77*	64,1	44,4	19,7	35,9	2,4	2,5	31,0
Energy products	65	25,9	19,7	6,2	74,1	4,1	63,6	6,4
	73	23,8	19,7	4,1	76,2	5,0	62,5	8,7
	77	21,8	18,1	3,7	78,2	6,6	63,7	7,9
Intermediate products	65	76,1	49,3	26,8	23,9	3,2	1,3	19,4
	73	80,3	57,7	22,6	19,7	3,2	0,5	16,0
	77	82,8	59,4	23,4	17,2	3,5	0,7	13,0
Equipment products	65	96,9	66,9	30,0	3,1	0,8	0,1	2,2
	73	96,3	67,4	28,9	3,7	1,2	0,2	2,3
	77	95,8	65,6	30,2	4,2	1,2	0,2	2,8
Current consumption products	65	68,0	40,1	27,9	32,0	4,8	1,1	26,1
	73	79,0	48,9	30,1	21,0	4,3	0,9	15,8
	77	77,2	49,6	27,6	22,8	4,5	0,7	17,6
All products	65	66,8	42,4	24,4	33,2	3,3	9,0	20,9
	73	74,9	51,2	23,7	25,1	3,2	8,2	13,7
	77	70,6	49,0	21,6	29,4	3,5	12,7	13,2

TABLE A 25

Geographical structure of EEC of Nine exports

- as % -

	Year	OECD countries			Non-OECD countries			
		Total	EEC	Other OECD	Total	Eastern Bloc countr.	OPEC	Other developing countries
Agricultural and food products	65	81,5	61,6	19,9	18,5	3,1	3,8	11,6
	73	84,5	67,4	17,1	15,5	3,0	2,7	9,8
	77	82,4	68,3	14,1	17,6	1,9	5,9	9,8
Energy products	65	83,7	59,9	23,8	16,3	0,2	1,6	14,5
	73	87,2	63,7	23,5	12,8	1,2	1,1	10,5
	77	82,2	61,2	21,0	17,8	1,4	2,2	14,2
Intermediate products	65	71,0	44,8	26,2	29,0	4,0	4,0	21,0
	73	77,7	51,9	25,8	22,3	5,3	3,4	13,6
	77	74,2	50,2	24,1	25,8	5,9	5,9	14,0
Equipment products	65	65,1	37,3	27,8	34,9	2,6	4,8	27,5
	73	75,2	45,1	30,1	24,8	3,9	5,1	15,8
	77	65,5	41,6	23,9	34,5	4,3	13,7	16,5
Current consumption products	65	78,0	50,2	27,8	22,0	1,6	4,1	16,3
	73	85,6	58,8	26,8	14,4	2,7	2,1	9,6
	77	82,3	58,5	23,8	17,7	2,4	6,3	9,0
All products	65	71,6	45,5	26,1	28,4	2,8	4,2	21,4
	73	79,2	52,6	26,6	20,6	3,8	3,7	13,1
	77	73,0	50,5	22,5	27,0	4,0	9,1	13,9

Table A 26

Share of manufactured products trade * with the six founding members and the three new members of the EEC

- as % of member countries' total trade

	GERMANY		FRANCE		ITALY		BELGIUM		NETHERLANDS		UNITED KINGDOM		DENMARK		IRELAND	
	Six	Three	Six	Three	Six	Three	Six	Three	Six	Three	Six	Three	Six	Three	Six	Three
[illegible]																
[illegible]	42,2	7,2	46,5	7,3	41,8	8,1	58,3	9,3	60,0	7,7	18,3	6,9	39,7	13,9	17,6	58,3
[illegible]	48,2	5,8	56,3	6,1	51,1	5,8	61,7	7,1	63,7	7,2	20,8	7,0	37,2	13,9	18,3	58,6
[illegible]	50,6	5,8	57,7	6,6	55,1	6,0	66,5	7,9	63,9	7,1	27,8	6,7	37,7	10,7	21,8	54,9
[illegible]	46,7	7,3	54,5	7,6	53,6	7,0	65,4	9,8	59,5	9,1	36,0	6,4	39,8	11,0	21,2	51.5
Exportations																
1965	34,0	7,5	40,4	5,6	38,9	5,9	62,4	6,3	51,8	7,8	18,3	5,8	21,6	25,7	112,7	70,1
[illegible]	39,1	6,3	47,2	4,8	42,6	4,8	69,0	4,7	60,7	7,2	20,8	6,5	19,0	21,3	13,4	62,4
1973	38,9	7,4	47,0	7,3	44,0	5,9	68,1	5,5	60,5	8,8	23,8	6,6	23,2	21,6	21,7	53,9
1977	36,0	7,8	41,1	7,4	40,1	6,4	64,4	7,7	56,8	9,6	28,0	6,5	27,0	15,4	29,6	47,5

* : Including food products

TABLE A 27

Average annual percentage change in in unit labour costs

in manufacturing industry in the major industrialized countries

COUNTRY	Costs in national currency			Costs in US $		
	1960-68	1968-73	1973-78	1960-68	1968-73	1973-1978
United States	0.7	3,6	7,9	0,7	3,6	7,9
Canada	0,6	3,2	9,6	- 0,8	4,8	6,7
Japan	3,0	7,1	10,2	2,9	13,5	16,1 (est.)
Belgium	3,3	4,0	7,8 (est.)	3,3	9,4	12,0
Denmark	4,1	4,7	9,0	3,0	9,3	10,9
France	2,8	5,3	11,1	2,7	7,7	10,8
Germany	2,7	7,2	5,1	3,3	16,4	11,1
Italy	3,2	10,2	18,0	3,3	11,7	9,4
Netherlands	4,8	6,1	7,0 (est.)	5,3	11,9	12,2 (est.)
Sweden	2,7	4,3	14,6	2,7	7,9	13,8
United Kingdom	2,2	7,9	19,6	0,2	8,4	13,9

Source: US Department of Labor (July 1979)

TABLE A 28

Changes in unit wage costs, unit export values and volume of manufactured product exports of a number of major industrialized countries

	Unit wage costs in manufacturing industry in $ [1]					Unit export values of manufactured products in $ [2]				Volume of manufactured product exports [2]			
	Indice 1975 = 100					Indice 1975 = 100				Indice 1975 = 100			
	1960	1970	1974	1977	1978	1960	1970	1974	1978	1960	1970	1974	1978
United States	64	76	94	110	118	51	63	86	121	36	66	104	110
Japan	29	40	83	115	145	54	56	101	131	12	61	97	135
EEC (of Nine)	n.d.	n.d.	n.d.	n.d.	n.d.	45	52	88	127	31	75	105	123
of which:													
F.R.of Germany	28	47	88	112	133	42	48	88	131	30	79	113	121
France	40	47	76	101	118	44	51	82	121	29	67	104	123
Italy	31	49	75	96	110	52	55	85	117	18	70	95	140
United Kingdom	44	54	79	100	127	47	57	86	136	51	78	103	116
Netherlands	27	44	81	109	n.d.	44	51	91	124	25	69	108	117
BLEU	35	48	82	109	n.d.	47	54	93	124	29	78	109	126

(1) Source: US Department of Labor (July 1979) Index numbers base 100 in 1967 converted to base 100 in 1975

(2) Source: UN Monthly Bulletin of Statistics

TABLE A 29

Total hourly compensation of employees in manufacturing industry

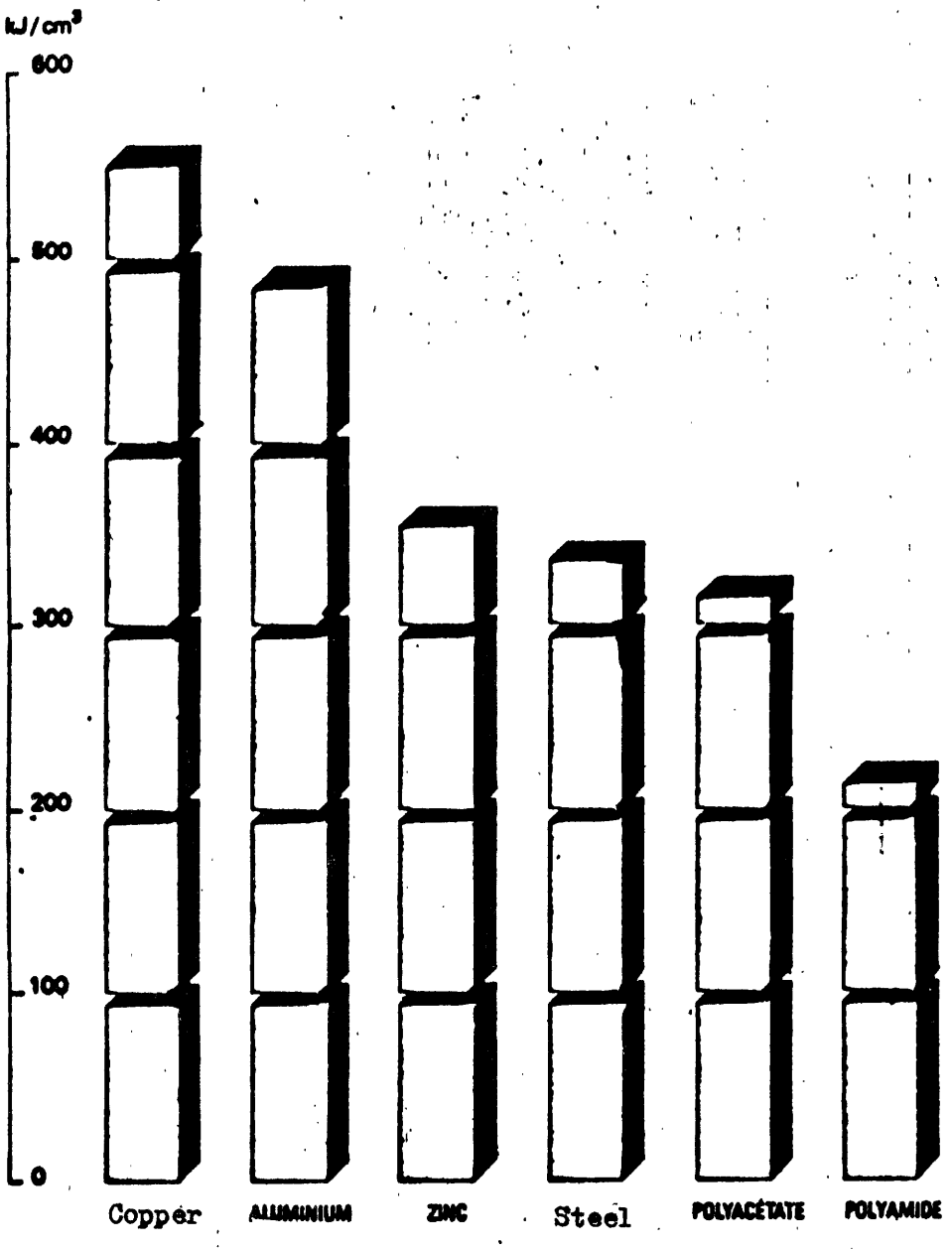
- in current dollars -

	United States	Canada	Japan	Belgium	France	Germany	Italy	Nether-lands	Sweden	United Kingdom
1960	2,67	2,07	0,26	0,83	0,83	0,85	0,63	0,68	1,19	0,83
1965	3,14	2,28	0,48	1,32	1,24	1,41	1,13	1,24	1,86	1,15
1970	4,19	3,46	0,99	2,08	1,74	2,35	1,27	2,14	2,96	1,48
1977	7,60	7,40	3,97	8,40	5,40	7,73	5,17	8,21	8,82	3,30

Source: US Department of Labor, October 1978

TABLE A 30

Energy imports required for various materials



Source: Premiers éléments pour un programme national d'innovation
Ministère de l'industrie, France, 1979

TABLE A 31

The main applications of biotechnology over the next 15-20 years

AGRICULTURE AND FOOD

- biological pesticides
- plant-growth regulators
- bio-chemical fertilizers
- genetic selection of new varieties
- "in vitro" reproduction
- biomass for huan and animal food

CHEMICALS

- chemical products from fermentation
- chemical products extracted from living organisms
- enzymes as catalysts
- carbohydrate chemistry

HEALTH HUMAN BEINGS

- natural drugs
- biologically active products
- genetic engineering
- treatment of hereditary disease
- artificial organs

ENERGY

- biomass for energy
- biogas from organic waste
- photobiological production of hydrogen
- hydrocarbons and resins from plants
- microbiological exploitation of poor minerals

ENVIRONMENT

- liguid effluent
- fertilizer from solid urban waste

TABLE A 32

EVOLUTION DES DEPENSES INTERIEURES DE R & D

TREND OF DOMESTIC R & D SPENDING

ENTWICKLUNG DER INLANDISCHEN F & E - AUSGABEN

en % du PIB
as % of GDP
in % des BIP

	Total public and private expenditure (a)				including: Expenditure financed from the budget (b)		
	1967	1971	1975	1977 *	1971	1975	1977 *
D	1,8	2,2	2,2	2,2	1,1	1,2	1,1
F	2,2	1,9	1,8	1,8	1,3	1,2	1,1
I	0,8	1,0	1,0	1,0	0,5	0,4	0,4
NL	2,2	2,2	2,1	n.d.	0,9	1,0	1,0
B	1,3	1,4	1,3	1,4	0,8	0,7	0,8
UK	2,4	2,1 1)	2,1	n.d.	1,3	1,3	1,2
IRL	0,6	0,8	0,9	0,8	0,3	0,5	0,5
DK	0,8	1,0 2)	1,1	1,0	0,6	0,6	0,6
EUR (9)	1,8	1,9	1,9	n.d.	1,1	1,0	1,0
USA	2,9	2,5	2,3	2,4	1,5	1,2	1,3
JAPAN	1,5	1,9	2,0	2,0			

Source: (a) Analysis of the R&D Potential of Member States of the EEC
E.C. Brussels 1979

(b) Public expenditure on R&D 1970 - 1978
Eurostat. December 1978

* provisoire / estimate / geschätzt

1) 1972

2) 1970

TABLE A33

Changes in Consumption Structures, in Volume[1] by major functions

%

		Food products, drink tobacco	Clothing, footwear	Housing, heating, light	Furniture and Equipment	Health	Transport and Communications	Education, Leisure	Other goods and services
FR Germany	1960	37.3	12.5	10.2	13.6	3.9	8.6	6.9	4.5
	1970	31.8	13.0	11.7	13.7	3.7	12.7	7.0	5.5
	1970	23.9	9.9	15.0	10.9	9.7	12.8	7.4	10.2
	1977	21.7	8.9	15.2	11.0	12.2	13.5	7.8	9.6
France	1960	42.0	11.0	10.1	8.9	6.9	8.7	6.6	5.7
	1970	34.3	10.5	10.6	9.9	10.3	10.3	8.2	5.9
	1970	27.1	8.6	14.5	10.0	9.9	11.6	6.1	12.2
	1977	22.6	7.2	15.3	10.6	12.0	12.2	7.2	12.9
Italy	1960	47.3	9.5	13.2	5.8	5.9	7.2	6.3	5.0
	1970	42.5	9.6	12.0	6.8	7.0	11.4	5.5	5.2
	1970	39.9	9.3	12.9	5.7	6.9	10.7	6.1	8.6
	1977	37.4	8.6	13.2	5.9	8.9	11.0	6.4	8.6
U.K.	1960								
	1970	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
	1970	33.0	8.9	17.7	7.4	0.9[2]	12.2	9.9	9.9
	1977	31.9	9.5	17.8	7.2	1.0[2]	12.7	11.0	8.9
Nether-lands	1960	38.1	12.8	12.8	15.0	5.6	4.2	3.8	7.8
	1970	32.6	10.7	15.7	18.4	4.5	6.0	4.0	7.7
	1970	28.3	10.6	12.4	12.7	8.3	9.4	7.8	10.7
	1977	26.3	8.5	12.4	10.8	8.6	12.0	10.4	10.8
Belgium	1960	35.0	9.1	16.8	11.1	6.1	9.0	4.7	8.4
	1970	31.1	8.8	15.2	13.3	6.7	11.4	4.5	9.0
	1970	28.1	8.8	15.6	11.8	6.9	10.4	4.7	13.7
	1977	23.6	8.8	15.1	13.2	8.9	11.1	6.7	12.6

Source : National accounts ESA

(1) The comparison 1960-70 is for constant 1960 prices;
the comparison 1970-77 is for constant 1970 prices.

(2) N.B. Health expenditure in the UK is mainly part of public expenditure.

Table A 34

General government expenditure and its composition as a percentage of GDP, 1960, 1975 and 1975-79

	Total expenditure					Consumption					Other current expenditure [1]					Capital expenditure (net) [2]				
	1960	1975	1977	1978	1979	1960	1975	1977	1978	1979	1960	1975	1977	1978	1979	1960	1975	1977	1978	1979
DK	25,0	44,9	46,8	45,8	47,7	12,7	23,3	24,0	24,3	25,0	9,0	17,3	18,3	17,4	18,4	3,3	4,3	4,5	4,1	4,2
D	32,5	46,4	46,6	46,7	46,4	13,6	20,9	20,0	20,0	19,8	14,6	20,0	21,3	21,3	21,0	4,3	5,5	5,3	5,4	5,6
F	35,5	43,5	44,5	45,6	46,4	13,0	14,4	14,9	15,1	15,3	18,8	24,8	26,0	27,0	27,7	3,7	4,3	3,6	3,5	3,5
IRL	27,6	48,5	47,0	47,6	49,3 [4]	12,1	19,0	18,4	18,7	19,9	12,4	23,7	22,2	22,8	22,5	3,1	5,8	6,3	6,2	6,9
I [3]	32,1	48,9	42,7	47,0	46,3	12,2	13,8	15,1	15,9	16,3	15,8	28,0	23,2	26,0	24,9	4,1	7,1	4,4	5,1	5,1
NL	35,3	54,5	55,4	56,1	58,3	13,4	18,2	18,3	18,3	18,7	16,7	30,7	32,6	33,4	34,4	5,1	5,6	4,5	4,4	5,3
B	30,5	45,5	49,2	50,9	52,0	12,8	17,1	17,3	18,0	18,1	15,6	24,9	27,8	28,8	29,5	2,1	3,5	4,1	4,2	4,4
L	30,5	49,1	54,9	54,3	54,4	10,1	14,4	15,8	15,8	15,9	15,4	26,9	30,1	30,3	30,1	5,0	7,8	8,9	8,2	8,4
UK	31,7	47,7	43,3	42,6	42,8	16,4	22,4	20,7	20,2	20,6	12,5	19,0	18,6	18,9	19,2	2,7	5,9	4,0	3,5	3,0
EC	32,7	46,6	45,9	46,7	46,9	14,0	18,3	18,1	18,3	18,4	15,1	22,9	23,3	24,0	24,1	3,6	5,4	4,5	4,5	4,5

[1] Current transfers and property and entrepreneurial income paid (mainly interest).
[2] Capital formation, purchases of land and intangible assets, capital transfers (net of capital transfers received).
[3] From 1977, percentages are calculated from the new GDP series, revised upwards.
[4] See footnote [5], Table 6.1

Sources 1977-79: Economic budgets.
1960-75: ESA and OECD national accounts.

Table A 35

General government current revenue and its composition as a percentage of GDP, 1960, 1975 and 1977-79

	Total current revenue [1]					of which														
						indirect taxes					direct taxes					social security contributions [2]				
	1960	1975	1977	1978	1979	1960	1975	1977	1978	1979	1960	1975	1977	1978	1979	1960	1975	1977	1978	1979
DK	28,1	43,3	46,6	45,3	46,6	12,2	15,2	17,3	18,1	18,9	11,6	24,6	24,6	24,5	25,4	1,5	0,7	0,7	0,6	0,7
D	35,8	40,7	44,0	43,9	43,3	14,3	12,3	12,4	12,8	12,9	9,3	12,0	13,7	13,0	12,6	9,7	14,9	15,5	15,5	15,3
F	36,4	41,2	43,2	43,3	44,8	16,3	14,0	13,8	14,1	14,5	6,2	7,2	8,4	7,9	7,9	11,1	17,1	18,4	18,5	19,5
IRL	25,4	37,2	38,0	36,8	38,9 [4]	16,4	16,9	17,3	16,5	16,7	4,7	10,3	11,6	11,2	12,0	1,1	6,7	4,8	4,5	4,8
I [3]	31,2	34,4	34,6	36,4	34,7	13,0	9,5	10,3	10,1	9,3	5,7	7,3	8,6	10,3	9,7	10,5	15,2	13,8	14,1	14,2
NL	36,0	51,8	53,7	54,1	56,0	10,8	11,5	12,4	12,6	12,5	12,5	16,5	16,4	16,5	17,9	8,9	19,7	18,0	18,2	18,5
B	27,6	41,6	43,6	44,6	44,8	11,3	11,5	11,8	12,0	11,9	7,6	16,6	17,0	18,2	18,5	7,1	12,8	12,7	12,4	12,4
L	33,6	50,2	55,3	57,1	56,2	9,5	12,8	13,1	13,2	12,8	11,9	17,4	20,5	22,0	21,5	9,0	15,1	17,0	16,5	16,4
UK	30,7	42,6	40,0	38,8	39,6	13,1	13,4	14,5	14,6	16,0	10,9	17,0	14,4	13,9	13,5	3,6	8,3	6,7	6,2	6,2
EC	33,4	41,0	42,6	42,7	43,0	14,0	12,5	12,9	13,2	13,4	8,7	11,8	12,5	12,4	12,2	8,1	14,1	14,2	14,1	14,2

[1] The difference between the total and the sum of taxes and social security contributions is accounted for by miscellaneous current receipts (property and entrepreneurial income, current international cooperation, gross operating surplus).
[2] Including imputed social security contributions.
[3] From 1977, percentages based on new GDP figures, revised upwards.
[4] See footnote 5, Table 6.1.

Sources 1977-79: Economic Budgets;
1960-75: ESA and OECD national accounts.

Table A 36

MIGRATION TRENDS IN EUROPE

COUNTRY	1963-1973 Net migration		Foreign wage earners in EEC - 1973						
	Thousands	% of resident population	Total			of which from other countries			
			Thousands	1	2	Thousands	1	2	3
Belgium	+ 197	0.17	211	6.8	3,2	91	2.9	1,9	43.1
Germany	+3386	0.52	2519	11.4	38,4	1945	8.8	40,4	77.2
France	+1531	0.28	1900	11.0	29,0	1600	9.2	33,2	84.2
Italy	- 638	-0.11	55	0.4	0.8	33	0.2	0.7	60.0
Luxembourg	+ 23	0,63	43	35.0	0.7	14	11.0	0.3	32.6
Netherlands	+ 137	0,12	121	3,2	1.8	70	1.8	1.4	57,8
Denmark	+ 33	0.06	36	1.9	0.6	28	1.5	0,6	77.8
Ireland	- 111	-0,33	2	0.3	0.0	1	0,1	0,0	50.0
United Kingdom	- 621	-0,10	1665	7,4	25.4	1033	4.6	21,4	62.0
Community of Nine	+3937	0,16	6552	7.8	100.0	4815	5,7	100,0	73.5

Source: "The economic implications of demographic change in the European Community: 1975 - 1995, Part I, pp. 89 and 95, EEC, June 1978.

+) Net Immigration: + / Net immigration: -

1. Share of total employed population of host countries.
2. Share of total employed foreign labour in the EEC.
3. Share of foreign workers from non-EEC countries.

Table A 37

POPULATION BETWEEN 0 AND 14 YEARS '000 000

	1975	1980	1985	1990	1995	2015	2050
D	13,5	11,3	9,7	9,9	10,3	7,7	5,7
F	12,7	12,1	12,0	11,8	12.2	11,6	11,1
I	13,5	12,9	12,2	11,9	12,0	11,6	11,0
NL	3,5	3,2	2,9	2,9	3,0	2,6	2,2
B	2,2	2,0	2,0	2,0	2,0	1,8	1,6
L	0,07	0,07	0,06	0,06	0,06	0,05	0,04
UK	13,1	12,0	11,3	11,3	11,9	10,8	10,3
IRL	1,0	1,0	1,1	1,2	1,2	1,3	1,5
DK	1,1	1,1	1,1	1,1	1,1	1,0	1,0
EEC	60,6	55,7	52,3	52,2	54,0	48,5	44,5

ANNUAL GROWTH RATE OF POPULATION 0-14 YEARS

	1980/1975	1985/1980	1990/1985	1995/1990	2015/1995	2050/2015
D	-3,47	-2,94	0,39	0,79	-1,45	-0,88
F	-0,92	-0,25	-0,23	0,65	-0,28	-0,12
I	-0,81	-1,11	-0,51	0,21	-0,17	-0,15
NL	-1,87	-1,43	-0,18	0,78	-0,81	-0,41
B	-1,70	-0,45	0,40	0,61	-0,67	-0,33
L	-1,38	-0,85	0,16	-0,55	-0,96	-0,80
UK	-1,65	-1,30	0,06	1,09	-0,49	-0,14
IRL	0,45	1,17	1,44	1,28	0,20	0,38
DK	-0,63	-0,63	0,15	0,23	-0,25	-0,12
EEC	-1,65	-1,26	-0,05	0,68	-0,54	-0,25

POPULATION AGED 0+14 YEARS AS PROPORTION OF TOTAL

	1975	1980	1985	1990	1995	2015	2050
D	21,8	18,5	16,1	16,5	17,3	14,4	14,7
F	24,1	22,6	21,9	21,3	21,6	19,6	19,3
I	24,2	22,7	21,2	20,3	20,3	19,2	19,0
NL	25,6	22,8	20,7	20,0	20,3	17,0	16,8
B	22,4	20,6	20,0	20,2	20,8	18,5	18,4
L	20,2	18,9	18,1	18,4	18,1	16,3	16,1
UK	23,3	21,6	20,0	19,8	20,7	18,6	18,7
IRL	31,4	30,6	30,4	30,4	30,3	25,3	22,5
DK	22,7	21,6	20,7	20,6	20,6	19,2	19,2
EEC	24,2	21,8	19,9	19,7	20,2	18,2	18,3

Source: "The [illegible] implications of demographic change in the European Communities 1975-95, EEC, June 1978

Table A 38

POPULATION OF WORKING AGE, 15 - 64 YRS. '000 000

	1975	1980	1985	1990	1995	2015	2050
D	39,6	40,4	42,3	41,5	40,4	35,9	24,8
F	32,9	34,1	36,0	36,7	36,9	38,6	36,4
I	35,5	36,5	38,2	38,7	38,9	39,4	37,1
NL	8,7	9,2	9,7	9,9	10,0	10,2	8,5
B	6,2	6,4	6,6	6,6	6,6	6,6	5,7
L	0,2	0,2	0,3	0,2	0,2	0,2	0,2
UK	35,1	35,9	37,0	37,3	37,3	38,7	35,5
IRL	1,8	2,0	2,1	2,3	2,5	3,4	4,2
DK	3,2	3,3	3,4	3,4	3,5	3,5	3,3
EEC	163,4	167,9	175,7	176,7	176,3	176,6	155,7

ANNUAL GROWTH RATE OF WORKING POPULATION '000 000

	1980/1975	1985/1980	1990/1985	1995/1990	2015/1995	2050/2015
D	0,39	0,92	-0,37	-0,56	-0,58	-1,05
F	0,67	1,13	0,39	0,10	0,23	-0,17
I	0,55	0,98	0,24	0,10	0,07	-0,17
NL	1,16	1,06	0,50	0,23	0,08	-0,53
B	0,55	0,73	-0,07	-0,18	0,04	-0,42
L	0,19	0,41	-0,25	-0,43	-0,51	-0,84
UK	0,42	0,64	0,13	0,02	0,18	-0,25
IRL	1,27	1,55	1,53	1,60	1,61	0,62
DK	0,33	0,51	0,21	0,31	0,07	-0,16
EEC	0,54	0,91	0,12	-0,05	0,01	-0,36

WORKING AGE POPULATION AS PROPORTION OF TOTAL

	1975	1980	1985	1990	1995	2015	2050
D	64,0	66,1	69,8	69,0	67,8	67,2	64,6
F	62,6	63,7	66,0	66,0	65,2	65,5	63,4
I	63,8	64,1	66,3	66,1	65,6	65,2	63,7
NL	63,7	65,8	67,7	67,7	67,1	66,9	63,3
B	63,7	65,4	67,4	66,7	65,8	67,5	65,3
L	66,8	67,6	69,1	68,7	68,1	67,1	65,3
UK	62,7	63,9	65,6	65,4	64,7	66,4	64,3
IRL	57,8	58,7	59,3	59,7	60,5	66,6	64,6
DK	64,1	64,2	64,9	64,8	65,1	64,7	63,7
EEC	63,3	64,5	66,9	66,6	65,9	66,1	64,0

Source: see Table A 37

Table A 39

RETIREMENT AGE POPULATION 65 YEARS AND OVER

'000 000

	1975	1980	1985	1990	1995	2015	2050
D	8,9	9,4	8,6	9,7	8,9	9,8	8,0
F	7,0	7,3	6,6	7,1	7,5	8,8	10,0
I	6,7	7,5	7,3	7,9	8,4	9,5	10,1
NL	1,5	1,6	1,7	1,8	1,9	2,5	2,7
B	1,4	1,4	1,2	1,3	1,3	1,4	1,4
L	0,05	0,05	0,05	0,05	0,05	0,05	0,05
UK	7,8	8,2	8,2	8,5	8,4	8,8	9,4
IRL	0,3	0,4	0,4	0,4	0,4	0,4	0,8
DK	0,7	0,7	0,8	0,8	0,8	0,9	0,9
EEC	34,3	36,6	34,7	36,5	37,6	42,0	43,3

ANNUAL GROWTH RATE OF RETIREMENT AGE POPULATION

'000 000

	1980/1975	1985/1980	1990/1985	1995/1990	2015/1995	2050/2015
D	1,21	-1,85	0,39	0,30	0,52	-0,60
F	0,88	-2,05	1,37	1,12	0,78	0,37
I	2,28	-0,65	1,77	1,21	0,59	0,18
NL	1,73	0,97	1,55	0,92	1,32	0,22
B	0,21	-2,01	0,87	0,57	0,15	0,10
L	0,84	-1,24	0,10	1,22	0,46	-0,46
UK	0,98	-0,14	0,71	-0,16	0,22	0,20
IRL	0,78	0,44	0,52	-0,00	0,47	2,05
DK	1,69	0,63	0,60	-0,25	0,66	0,08
EEC	1,29	-1,05	1,02	0,58	0,56	0,09

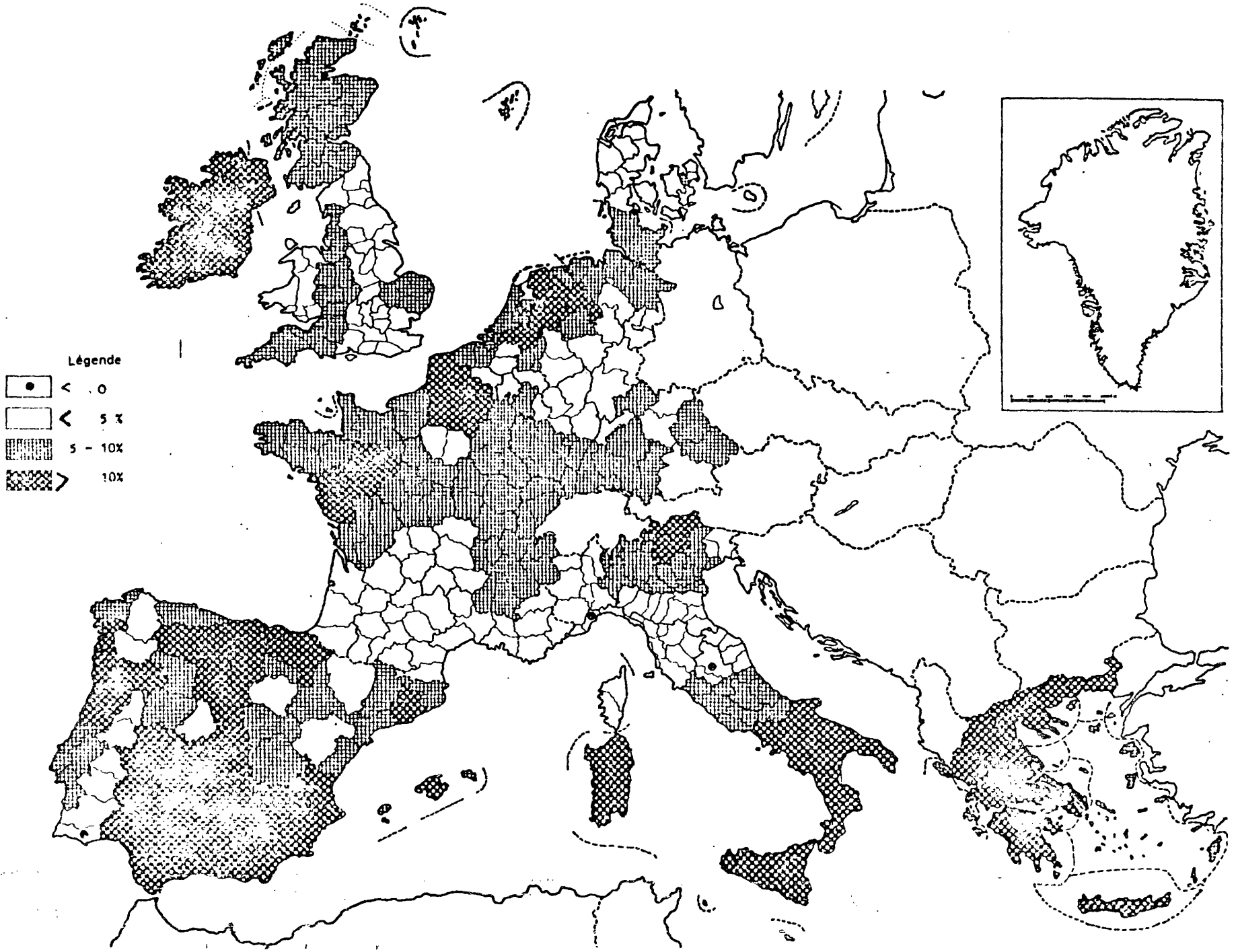
RETIREMENT AGE POPULATION AS PROPORTION OF TOTAL

	1975	1980	1985	1990	1995	2015	2050
D	14,3	15,4	14,2	14,5	14,9	18,4	20,7
F	13,3	13,7	12,1	12,7	13,2	14,9	17,4
I	12,0	13,2	12,6	13,5	14,2	15,6	17,3
NL	10,7	11,4	11,7	12,3	12,6	16,1	19,9
B	13,9	14,0	12,6	13,1	13,4	14,0	16,3
L	13,0	13,6	12,8	12,9	13,9	16,7	18,6
UK	14,0	14,6	14,5	14,8	14,6	15,1	17,0
IRL	10,9	10,8	10,3	9,9	9,2	8,1	12,9
DK	13,3	14,2	14,4	14,7	14,4	16,1	17,1
EEC	13,3	14,1	13,2	13,8	14,0	15,7	17,8

Source: see Table A 37

Map A 40

Natural changes in population of working age 1975-85



Map A 41 Population of working age (annual average change 1975-90 as o/oo)

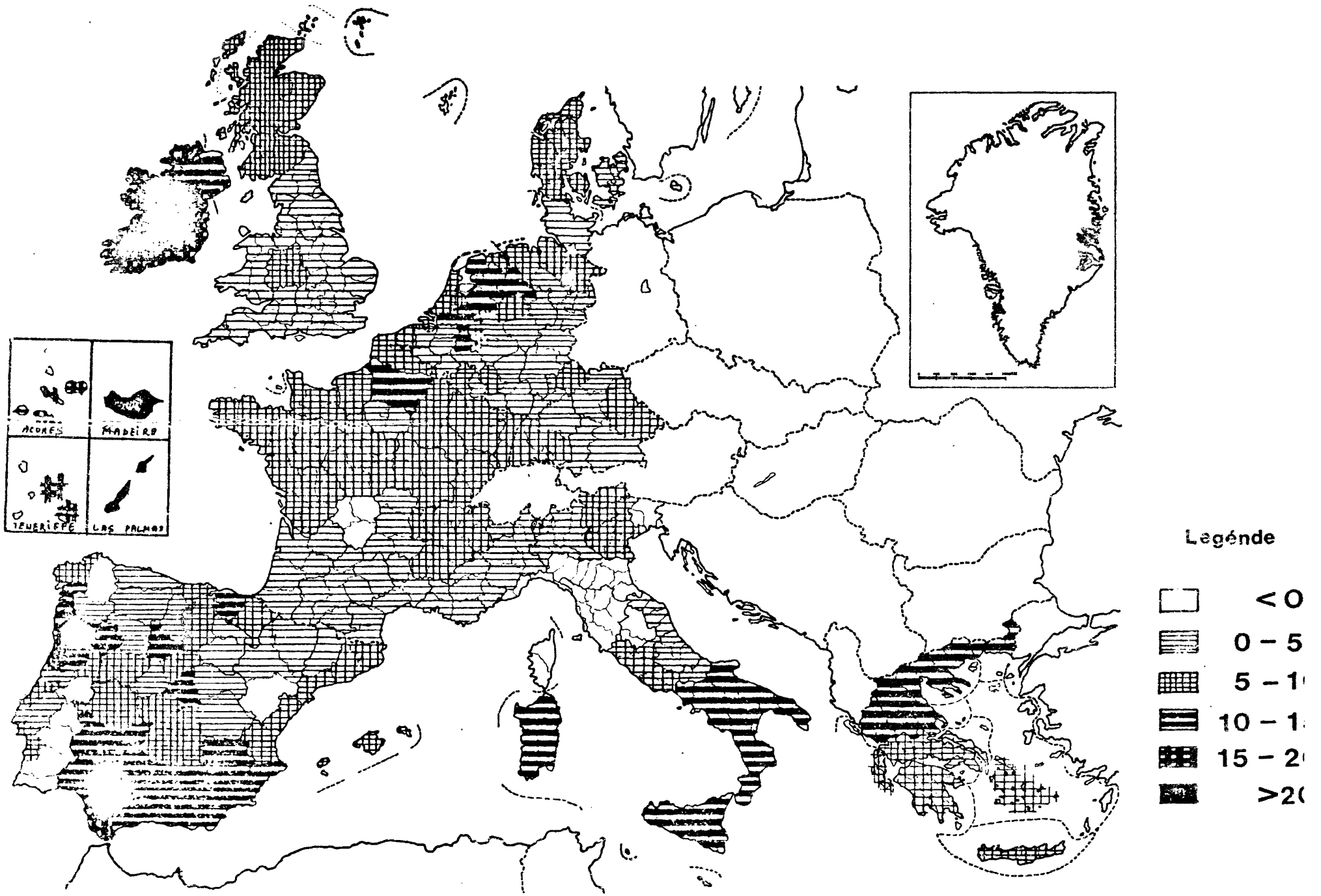


TABLE A 42

Total world and major region population trends

REGION	Population - Millions			% change		% share		
	1950	1975	2000	1975/1950	2000/1975	1950	1975	2000
World total	2513	4032	6196	60	54	100	100	100
Most developed regions	855	1137	1348	33	19	34,0	28,2	21,8
Least developed regions	1658	2894	4848	75	68	66,0	71,8	78,2
Europe *	415	518	596	25	15	16,5	12,9	9,6
EEC-9	215	258	270	20	5	8,6	6,4	4,3
Other Western European countries	95	133	179	40	35	3,8	3,3	2,9
Eastern Countries *	105	127	147	21	16	4,1	3,2	2,4
North America*	166	236	289	42	22	6,6	5,9	4,7
of which United States	152	214	260	41	21	6,0	5,3	4,2
Latin America	164	323	608	97	88	6,5	8,0	9,8
Central America	54	108	215	100	99	2,1	2,7	3,5
Temperate South America	25	38	51	52	34	1,0	0,9	0,8
Tropical South America	85	177	342	108	93	3,4	4,4	5,5
Eastern Asia	673	1063	1406	58	32	26,8	26,4	22,7
China	557	895	1190	61	33	22,2	22,2	19,2
Japon *	84	112	129	33	15	3,3	2,8	2,1
Other East Asian countries	33	56	87	70	55	1,3	1,4	1,4
South Asia	683	1211	2129	77	76	27,2	30,0	34,4
of which India	363	619	1037	71	68	14,4	15,4	16,7
Africa	219	405	826	85	104	8,7	10,0	13,3
Australia	13	21	29	62	38	5,2	5,2	4,7
New Zealand *	10	17	22	70	29	4,0	4,2	3,6
Other countries	3	4	7	33	75	1,2	1,0	1,1
Russia *	180	254	312	41	23	7,2	6,3	5,0

* Most devloped regions

Source : U.N. Statistics 1979

Table A 43

EMPLOI (1) ET CHOMAGE (2) DANS LA COMMUNAUTE, AUX ETATS-UNIS ET AU JAPON
ERWERBSTÄTIGKEIT (1) UND ARBEITSLOSIGKEIT (2) IN DER GEMEINSCHAFT, DEN VEREINIGTEN STAATEN UND IN JAPAN
EMPLOYMENT (1) AND UNEMPLOYMENT (2) IN THE EUROPEAN COMMUNITY, THE UNITED STATES AND JAPAN

	TOTAL EMPLOYMENT							UNEMPLOYMENT RATE					
	Variations en 1000 Veränderungen in 1000 Changes in 1000			Taux annuels moyens en % Jährliche durchschnittl. Veränderungsraten in % Average annual changes in %				(percentage of active population)					
	1963-68	1968-73	1973-78	1961-68	1964-68	1969-73	1974-78	1963	1968	1973	1974	1975	1978
D	- 757	809	- 1637	-0.1	-0.6	0.6	-1.3	0.7	1.3	1.0	2.2	4.2	3.9
F	483	1075	- 120	0.5	0.5	0.1	-0.1	0.7	1.3	1.8	2.3	3.9	5.3
I	- 554	71	682	-0.6	-0.6	0.1	0.7	5.2	4.7	4.9	4.9	5.3	7.1
NL	178	120	- 27	1.1	0.8	0.5	-0.1	0.6	1.5	2.3	2.9	4.0	4.1
B	58	124	- 46	0.6	0.3	0.7	-0.2	1.5	3.1	2.9	3.2	5.3	8.4
L	- 1	15	- 11	-0.0	0.0	3.5	-0.1	0.2	0.1	0	0	0.2	0.8
UK	127	110	- 34	0.3	0.1	0.1	-0.2	2.3	2.3	2.5	2.4	3.8	5.7
IRL	- 3	- 6	- 10	0.1	-0.0	-0.1	-0.2	4.5	5.2	6.0	6.3	8.7	8.9
DK	97	100	39	1.1	0.9	0.9	0.3	1.5	1.7	0.7	2.0	4.6	6.6
EG	- 372	2418	- 1170	0.1	-0.2	0.5	-0.2	2.1	2.3	2.5	2.9	4.4	5.5
USA [1]	11298	7191	9433	2.2	2.9	1.6	2.0	5.7	3.6	4.9	5.6	8.5	6.0
JAPAN	4070	2570	1631	1.5	1.7	1.0	0.6	1.3	1.2	1.3	1.4	1.9	2.2

Source/Quelle/Source: (1) Comptes nationaux SEC 1963-1977 Eurostat
et pour 1978: Budgéts économiques (Services de la Commission) et OCDE
Wirtschaftsbudgets (EG-Dienststellen) und OECD
Economic budgets (Services of the Commission) and OCDE
(2) Economie Européenne Novembre 1978 et Eurostat

TOTAL UNEMPLOYMENT RATE
LABOUR FORCE SURVEY 1977

Maps A 44

TAUX DE CHOMAGE
ENQUETE FORCES DE TRAVAIL 1977

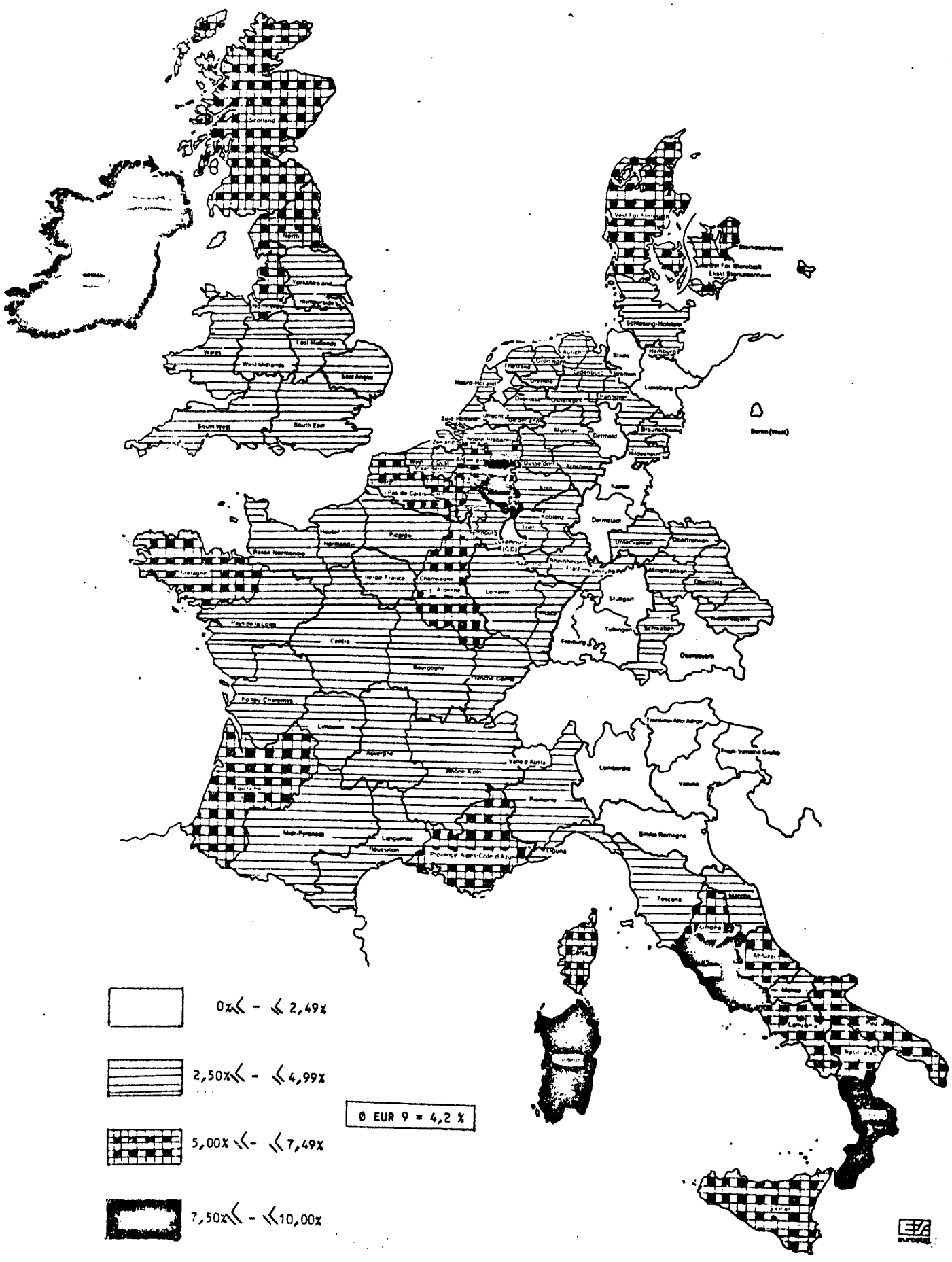


Table A 45

Unemployment rates

Country	Year	Region with highest rate	rate	Eur-9 =100	Region with lowest rate	rate	Eur-9 = 100	ratio of extremes
Denmark	-	-	-	-	-	-	-	-
Germany	1970	Aurich	2,7	136	Stuttgart	0,1	7	27
	1975	Aurich	7,7	181	Tübingen	2,9	68	2,7
	1976	Aurich	8,1	168	Tübingen	2,5	52	3,2
	1977	Aurich	8,3	157	Tübingen	2,1	41	4,0
France	1970	Provence-Alpes Côte d'Azur	2,7	137	Alsace	0,3	16	9,0
	1975	Provence-Alpes Languedoc, Corse	5,5	129	Bourgogne	2,7	63	2,0
	1976	Provence-Alpes Côte d'Azur	6,3	130	Bourgogne	2,8	59	2,3
	1977	Languedoc-Roussillon	7,0	133	Bourgogne Franche-Comté	3,3	62	2,1
Ireland	-	-	-	-	-	-	-	-
Italy	1970	Puglia	8,8	410	Piemonte	1,5	74	5,9
	1975	Campania	13,3	312	Lombardia	2,0	46	6,7
	1976	Campania	13,9	288	Lombardia	2,1	44	6,6
	1977	Campania	16,8	319	Lombardie	2,6	50	6,5

Table A 45 (contd.)

Unemployment rates

Pays	Année	Région ayant le taux le plus élevé	Taux	Eur-9 = 100	Région ayant le taux le plus bas	Taux	Eur-9 = 100	Rapport des valeurs extrêmes
Netherlands	1970	Drente	2,0	98	Utrecht	0,6	28	3,3
	1975	Limburg	7,0	164	Utrecht	2,0	47	8,2
	1976	Limburg	7,3	150	Utrecht	2,3	48	3,2
	1977	Limburg	7,5	143	Utrecht	2,3	43	3,3
Belgium	1970	Liège	4,5	223	Brabant	1,1	55	4,1
	1975	Limbourg	8,2	193	Brabant	3,5	83	2,3
	1976	Limbourg	10,1	208	Brabant	4,	100	2,1
	1977	Limbourg	11,8	225	Brabant	5,4	103	2,2
Luxembourg		-	-	-	-	-	-	-
United Kingdom	1971	Northern Ireland	6,0	301	South. East	1,5	76	4,0
	1975	Northern Ireland	6,9	161	South. East	2,5	59	2,8
	1976	Northern Ireland	8,8	182	South. East	3,8	79	2,3
	1977	Northern Ireland	9,7	184	South. East	4,1	79	2,4

Source: Eurostat

YOUTH UNEMPLOYMENT

(unemployed of less than 25 years old as % of total unemployed in the region)

LABOUR FORCE SURVEY 1977

CHOMAGE DE JEUNES

(jeunes de moins de 25 ans en chomage en % du total des chomeurs de la région)

ENQUETE FORCES DE TRAVAIL 1977

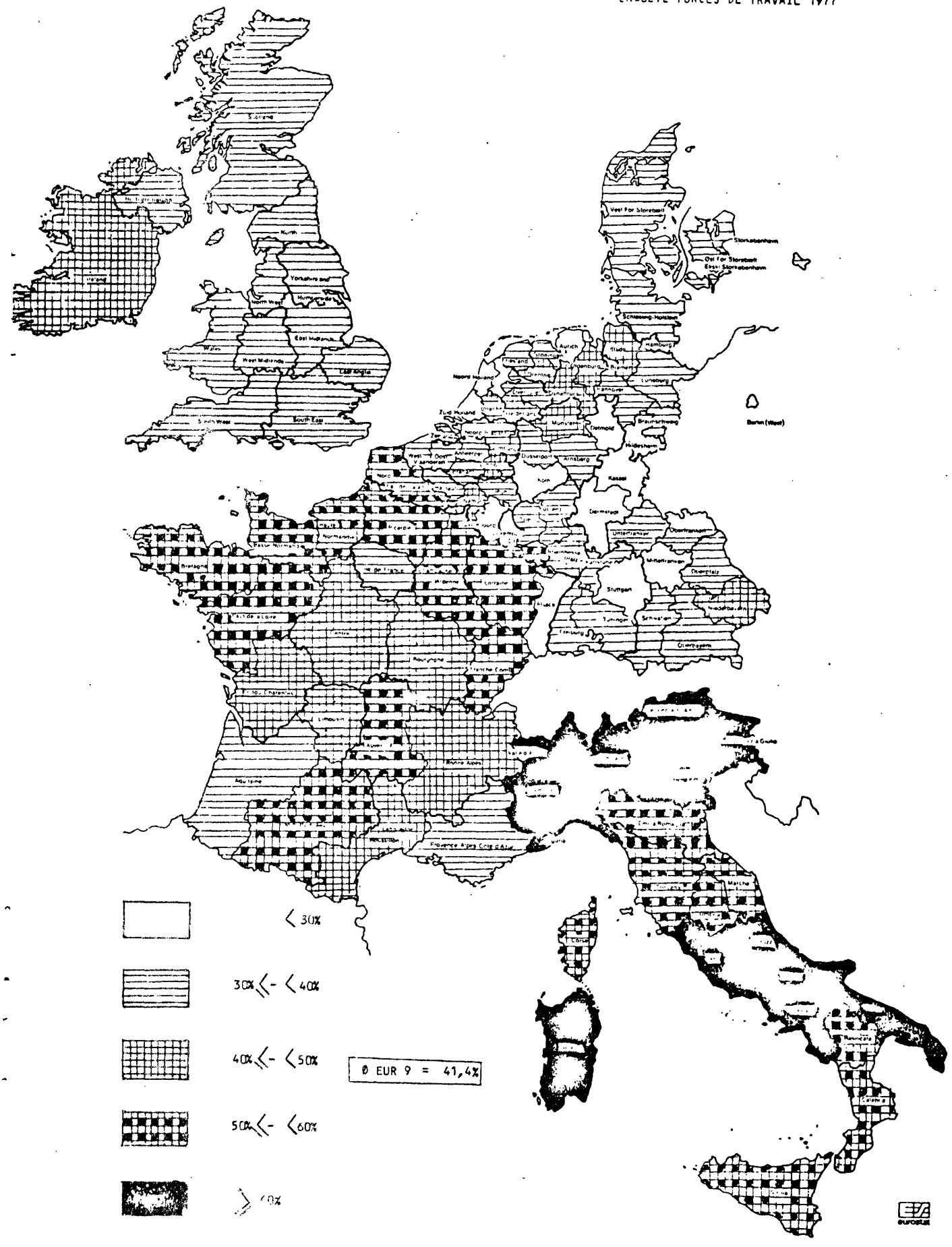


Table A47

Annual Growth Rate of the Labour Force (%)

		1995/75	1980/75	1985/80	1990/85	1995/90
Germany	Total	0.37	0.65	0.78	0.35	-0.28
	Male	0.08	0.25	0.51	0.02	-0.46
	Female	0.85	1.34	1.22	0.86	-0.01
France	Total	0.72	0.98	0.84	0.59	0.45
	Male	0.49	0.69	0.64	0.35	0.26
	Female	1.09	1.47	1.16	0.96	0.75
Italy	Total	1.06	1.03	1.11	1.11	0.99
	Male	0.39	0.2	0.57	0.44	0.35
	Female	2.6	3.24	2.38	2.55	2.23
NL	Total	1.6	1.60	1.90	1.67	1.21
	Male	0.75	0.68	0.99	0.84	0.5
	Female	3.57	4.22	4.08	3.41	2.55
Belgium	Total	0.80	1.13	0.78	0.78	0.51
	Male	0.29	0.48	0.39	0.22	0.06
	Female	1.72	2.43	1.5	1.74	1.23
Luxembourg	Total	0.3	0.79	0.63	0.08	-0.29
	Male	-0.09	0.27	0.21	-0.27	-0.56
	Female	1.19	2.07	1.59	0.83	0.26
U.K.	Total	0.5	0.65	0.74	0.42	0.17
	Male	0.23	0.11	0.48	0.24	0.1
	Female	0.9	1.5	1.14	0.67	0.27
Ireland	Total	1.79	1.24	1.9	2.0	2.0
	Male	1.14	0.53	1.14	1.36	1.53
	Female	3.23	3.08	3.64	3.31	2.89
Denmark	Total	0.42	0.43	0.52	0.39	0.32
	Male	0.1	-0.25	0.16	0.22	0.27
	Female	0.87	1.47	1.01	0.61	0.4
Community	Total	0.69	0.85	0.9	0.66	0.37
	Male	0.32	0.32	0.56	0.3	0.1
	Female	1.06	1.82	1.49	1.26	0.81

Source: "The economic implications of demographic change in the European Community : 1975 - 1995", Report EEC, June 1978, p. 48.

Table A 48

POTENTIAL LABOUR FORCE
COMMUNITY.MALES

' 000 000

Age group	1975	1980	1985	1990	1995
15-19	3,5	3,5	3,3	2,9	2,5
20-24	7,6	7,6	8,2	8,0	7,0
25-29	9,0	8,8	8,9	9,6	9,5
30-34	8,4	9,5	9,4	9,5	10,4
35-39	8,5	8,4	9,4	9,3	9,5
40-44	7,9	8,3	8,2	9,2	9,1
45-49	7,5	7,6	8,0	7,9	8,9
50-54	6,9	7,0	7,1	7,5	7,4
55-59	4,3	6,0	5,9	5,9	6,2
60-64	4,0	2,6	3,1	2,8	2,5
65-100	1,7	1,5	1,3	1,2	1,2
Total	70,0	70,7	72,7	73,8	74,1

POTENTIAL LABOUR FORCE
COMMUNITY.FEMALES

' 000 000

Age group	1975	1980	1985	1990	1995
15-19	2,8	3,1	2,9	2,5	2,2
20-24	5,7	6,0	6,7	6,8	6,1
25-29	4,7	5,3	5,8	6,5	6,5
30-34	3,7	4,8	5,2	5,5	6,0
35-39	3,8	4,2	5,1	5,3	5,5
40-44	3,7	4,0	4,2	5,1	5,5
45-49	3,8	3,9	4,3	4,6	5,7
50-54	3,8	3,8	3,8	4,4	4,8
55-59	2,1	3,2	3,1	3,2	3,7
60-64	1,5	1,1	1,5	1,4	1,3
65-100	0,8	0,7	0,6	0,5	0,5
Total	36,6	40,0	43,1	45,9	47,8

POTENTIAL LABOUR FORCE
COMMUNITY.TOTAL

' 000 000

Age group	1975	1980	1985	1990	1995
15-19	6,3	6,6	6,3	5,3	4,7
20-24	13,3	13,6	14,9	14,9	13,1
25-29	13,7	14,1	14,7	16,1	16,0
30-34	12,2	14,3	14,6	15,0	16,4
35-39	12,3	12,5	14,5	14,6	14,9
40-44	11,5	12,3	12,3	14,3	14,6
45-49	11,3	11,4	12,3	12,5	14,5
50-54	10,7	10,8	10,9	11,9	12,1
55-59	6,5	9,2	9,0	9,2	10,0
60-64	5,6	3,7	4,6	4,1	3,9
65-100	2,6	2,2	1,8	1,7	1,6
Total	106,1	110,7	115,8	119,7	121,9

Source: cf. Table 37.

Table A 49

Investments respecting Member State energy production objectives

- percentage of GNP -

	1976-1980	1981-1985	1986-1990
Germany *	1,20	1,48	n.d.
France	1,42	1,27	1,11
Italy	1,43	2,14	n.d.
Netherlands	1,61	1,48	1,07
Belgium *	1,27	1,21	1,07
Luxembourg	0,82	0,53	0,47
United Kingdom	2,77	2,36	2,45
Ireland	1,89	n.d.	n.d.
Danmark	1,03	1,41	0,91
Community *	1,57	1,63	n.d.

*: estimates

Source: document COM/78/613, mid-February 1979.

Table A 50

FBCF en volume au prix de 1970

BAI zu Preisen von 1970 - % p.a. -

GFCF in 1970 prices

	Ø 1973/1960	74/73	75/74	76/75	77/76	78/77	(est.) 79/78	Ø 1978/1973
D	4,4	- 9,9	- 4,2	4,7	4,0	6,3	7,3	0
F	7,5	0,9	- 3,2	3,8	- 1,3	0,7	1,7	0,2
I	4,2	3,5	- 13,0	2,3	-	- 0,4	4,7	- 1,7
NL	5,6	- 3,6	- 4,9	- 1,8	11,3	3,1	- 1,0	0,7
B	5,1	7,6	- 1,6	2,5	0,2	2,1	0,8	2,0
L	4,8	- 2,0	- 9,4	- 5,5	4,4	5,4	5,0	- 1,5
UK	4,5	- 2,7	- 1,9	- 1,2	- 2,1	2,5	- 0,9	- 0,9
IRL	4,5	-12,6	- 6,8	6,3	5,8	15,0	11,6	1,0
DK	6,8	-10,3	- 10,7	16,6	- 3,0	0,5	0,3	- 1,9
EUR 9	5,3	- 3,3	- 4,8	3,1	1,3	2,9	3,4	- 0,2

Source: "Bilan Economique Annuel", in Economie Européenne, n° 4 Novembre 1979

Table A 51

Part salariale corrigée
Bereinigte Lohnquote 1)
Corrected wage share

Index 1970 = 100

	1960	1970 Level Niveau		1971	1972	1973	1974	1975	1976	1977	1978
D	96,8	100	53,0	101,1	101,2	103,0	105,5	105,1	102,9	103,1	101,6
F	100,5	100	48,8	100,4	98,9	99,4	102,4	105,4	105,4	106,4	105,3
I	99,5	100	48,3	104,0	104,0	104,9	105,7	113,2	110,3	111,5	110,5
NL	93,9	100	56,8	100,8	99,7	100,2	102,6	104,7	102,1	100,6	99,7
B	101,2	100	50,0	102,7	105,1	105,9	108,0	113,1	113,9	114,9	115,3
L	104,3	100	48,4	108,1	109,5	102,2	105,7	129,9	133,0	134,0	128,2
UK	99,1	100	60,0	98,9	100,8	100,6	107,5	111,0	106,9	102,3	102,0
IRL	99,7	100	52,1	99,8	96,5	95,7	104,5	107,1	103,3	103,7	101,9
DK	95,4	100	53,9	101,7	97,8	97,3	103,8	105,9	103,2	100,7	99,4
EUR-9	99,4	100	52,8	100,9	100,9	101,7	105,0	107,8	105,7	105,1	104,2

1960-1975: Eurostat: Comptes Nationaux SEC Agregats — Annuaire
Volkswirtschaftliche Gesamtrechnungen 1960-1975 — Jahrbuch 1978
National Accounts ESA Aggregates — Yearbook

1) Rémunération totale des salaires par salarié deflaté par la productivité par personne occupée, prix et taux de change 1970
Einkommen aus unselbständiger Arbeit je beschäftigten Arbeitnehmer, preisbereinigt mit der Produktivität je Erwerbstätigen, Preise und Wechselkurse von 1970
Wage and salaries per wage and salary earner, deflated by productivity per head of occupied population, 1970 prices and exchange rates

Table A 52

EMPLOI, VALEUR AJOUTEE BRUTE, HEURES DU TRAVAIL, PRODUCTIVITE
BESCHÄFTIGUNG, BRUTTOWERTSCHÖPFUNG, ARBEITSZEIT UND PRODUKTIVITÄT 1954-1978
EMPLOYMENT, OUTPUT, WORKING HOURS, PRODUCTIVITY

Industries manufacturières
Verarbeitendes Gewerbe
Manufacturing industry

(Taux annuels moyens en % / jährliche durchschnittliche Veränderungsrate in % / average annual change in %)

	L	P	H/L	P/H
B.R. Deutschland				
1953-1958	5.3	9.0	- 1.8	5.4
1958-1963	2.0	6.9	- 1.4	6.2
1963-1968	- 0.5	5.2	- 0.4	6.2
1968-1973	1.4	5.6	- 0.8	5.0
1973-1978	- 2.6	1.1	- 1.2	5.1
France				
1953-1958	0.5	5.8	1.3	3.9
1958-1963	1.4	6.7	- 0.2	5.5
1963-1968	0.2	6.1	- 1.0	6.9
1968-1973	2.1	7.0	- 0.2	5.0
1973-1978	- 0.9	2.7	- 1.1	4.8
Italia				
1953-1958	2.6	7.1	- 0.2	4.6
1958-1963	3.2	10.3	- 0.2	7.1
1963-1968	0.4	6.9	- 0.9	7.5
1968-1973	1.9	5.9	- 3.0	7.1
1973-1978	0.3	2.5	- 0.4	2.6
Nederland				
1953-1958	1.8	6.0	- 0.1	4.2
1958-1963	2.5	6.7	- 0.7	4.7
1963-1968	- 0.1	7.1	- 0.9	8.3
1968-1973	- 0.9	6.1	- 1.5	8.7
1973-1977	- 2.5	0.9	- 1.4	4.9
Belgique/Belgie				
1960-1963	2.2	5.8	0.5	4.8
1963-1968	- 0.4	5.4	- 0.8	6.7
1968-1973	1.3	8.6	- 1.7	9.1
1973-1977	- 3.3	- 1.2	- 1.8	6.5
United Kingdom				
1953-1958	0.6	2.5	- 0.2	2.1
1958-1963	0.3	3.5	- 0.5	3.7
1963-1968	- 0.4	4.3	- 0.4	5.1
1968-1973	- 0.3	2.9	- 0.3	3.6
1973-1978	- 0.5	- 0.9	- 0.6	0.2

Table A 52 (contd.)

	L	P	H/L	P/H
Ireland				
1953-1963	1.6	4.2	- 0.1	2.7
1963-1973	1.9	6.3	- 0.4	4.8
1973-1977	- 1.0	3.4	0.4	4.1
Denmark				
1953-1958	1.2	4.3	- 0.3	3.4
1958-1963	4.1	7.5	- 1.5	4.8
1963-1968	- 0.4	6.1	- 0.9	7.5
1968-1973	1.5	6.7	- 2.5	7.8
1973-1978	- 2.6	1.6	- 0.3	4.7
CE/EG/EC				
1953-1958	2.5	6.3	- 0.9	4.1
1958-1963	1.6	6.5	- 0.7	5.5
1963-1968	- 0.2	5.5	- 0.6	6.4
1968-1973	1.2	5.7	- 1.0	5.5
1973-1977/78	- 1.2	1.2	- 0.9	4.0

Source/Quelle/Source: US-Department of Labor, Bureau of Labor Statistics
Ireland: Kennedy

L = Emploi/Beschäftigung/Employment

P = Valeur ajoutée brute en volume/Bruttowertschöpfung zu konstanten Preisen/Gross value added at constant prices

H/L = Durée du travail par employé/Arbeitszeit je Arbeitnehmer/Man-hour per employee

P/H = Productivité horaire apparente du travail/Arbeitsproduktivität je Erwerbstätigenstunde/Output per hour

Table A 53

EMPLOI, HEURES DU TRAVAIL, PRODUCTIVITE HORAIRE DU TRAVAIL ET CROISSANCE DANS L'ECONOMIE TOTALE

BESCHÄFTIGUNG, ARBEITSZEIT, STUNDENPRODUKTIVITÄT UND REALES WACHSTUM IN DER GESAMTWIRTSCHAFT

1955-1978

EMPLOYMENT, WORKING HOURS, PRODUCTIVITY PER MAN-HOUR AND REAL GROWTH IN WHOLE ECONOMY

(Taux annuels moyens en % / durchschnittliche jährliche Veränderungsraten average annual change in %)

	L [1]	H/L [2]	P [3]	P/H [4]
Bundesrepublik Deutschland				
1955-1960	3.8	- 1.6	6.5	4.3
1960-1965	1.5	- 1.0	5.0	4.5
1965-1973	0.5	- 1.0	4.3	4.8
1973-1978	- 1.1	- 1.1	2.0	4.3
France (5)				
1955-1960	1.4	0.2	5.0	3.3
1960-1965	1.6	0	5.8	4.1
1965-1973	1.8	- 0.7	5.5	4.4
1973-1978	1.0	- 1.0	2.9	2.9
Italia				
1955-1960	1.8		5.5	
1960-1965	0.8	- 2.3	5.1	6.7
1965-1973	1.1	- 0.9	5.2	5.0
1973-1977	0.7	- 0.4	2.0	1.7
Nederland (6)				
1955-1960	1.6	- 0.1	4.0	2.5
1960-1965	2.2	- 1.1	4.8	3.7
1965-1973	0.9	- 1.1	5.3	5.5
1973-1978	0.2	- 1.0	2.5	3.3
Belgique/Belgie				
1955-1960	0.6	- 0.8	2.5	2.7
1960-1965	2.0	- 0.6	5.0	3.6
1965-1973	1.2	- 1.3	5.1	5.2
1973-1978	- 0.1	- 1.3	2.3	3.8
United Kingdom				
1955-1960	0.4	- 0.5	2.5	2.6
1960-1965	0.9	- 0.6	3.2	2.9
1965-1973	- 0.3	- 0.5	3.1	3.9
1973-1978	- 0.1	- 0.4	1.8	2.3
CE/EG/EC				
1955-1960	1.5	-	5.0	-
1960-1965	1.4	- 0.7	4.7	4.0
1965-1973	0.7	- 0.9	4.5	4.7
1973-1978	- 0.2	- 0.8	2.1	3.1

Table A 58 (contd)

Sources/Quellen: OSCE / SAEG / SOEC (Tableau/Tabelle/Tabel 1)

1) L : Salariés / Arbeitnehmer / Salary worker

2) H/L : Durée du travail par employé / Arbeitszeit je Arbeitnehmer / Man-hour per salary worker

3) P : PIB réel / reales BIP / real GDP

4) P/H : Productivité horaire apparente du travail / Arbeitsproduktivität je Arbeitnehmerstunde / Labour productivity per salary working hour

5) Branches marchandes non-agricoles

6) Secteurs privés / Unternehmerbereich / Private sectors

Table A 54

DUREE ANNUELLE DU TRAVAIL EFFECTIVE DES SALARIES
TATSÄCHLICHE JAHRESARBEITSZEIT DER BESCHÄFTIGTEN ARBEITNEHMER
EFFECTIVE ANNUAL WORKING HOURS PER EMPLOYEE

1950-1978

(Taux annuels moyens en % / Jährliche Veränderungsrate in % / Average annual change in %)

Pays/Land/Country	Economie totale / Gesamtwirtschaft / Total economy			Industries manufacturières / Verarbeitendes Gewerbe / Manufacturing industry		
	1950-60	1960-73	1973-78	1950-60	1960-73	1973-78
B.R. Deutschland	(-1.0)	-1.0 (-0.8)	-1.1 (-0.7)	-1.0	-0.9	-1.2
France	+0	-0.4	-1.0	+0.7	-0.5	-1.1
Italia		-1.4	-0.4	+0.4	-1.8	-0.4
Nederland	0 e)	-1.1 e)	-1.1 e)	+0.1	-1.0	-1.4 a)
Belgique	-0.8 b)	-1.0	-1.3		-1.1	-1.8 a)
United Kingdom	(+0.1)	(-0.5)	(-0.5)	-0.0	-0.4	-0.6
Ireland				-0.1 c)	-0.4 d)	+0.4 a)
Denmark	-0.9	-0.8	-0.9	-0.7	-1.4	-0.3
CE/EG/EC	-0.3	-0.7	-0.8	-0.1	-0.8	-0.8
USA	-0.3	-0.4	-0.8	-0.2	+0.1	-0.1
Japan	+0.7	-0.8	-1.1	+0.9	-1.0	-0.6

a) 1973-77 b) 1955-60 c) 1955-63 d) 1963-73 e) Administrations publiques exclues/Ohne Staat/ without public sector

Sources/Quellen:

D : Institut für Arbeitsmarkt- und Berufsforschung (Ifo)
F : INSEE (Branches marchandes non-agricoles)
I : Estimations Services de la Commission
NL : Centraalplanbureau
B : Bureau du Plan
UK : London Business School
DK : National sources (normal working time in the collective agreements incl. annual leave)
USA: Report of the President (January 1979)
JAPAN: Maddison

Industries manufacturières/Verarbeitendes Gewerbe/ Manufacturing

U.S. Department of Labor, Bureau of Labor Statistics, Nov. 29, 1978
Ireland: K.A. Kennedy, Industrial Development in the Republic of Ireland, The Economic and Social Research Institute -unpublished paper-, Dublin 1978

Table A 55

DUREE HEBDOMADAIRE EFFECTIVE DU TRAVAIL DES OUVRIERS DE L'INDUSTRIE
TATSÄCHLICHE WÖCHENTLICHE ARBEITSZEIT DER ARBEITER IN DER INDUSTRIE a) 1960-1978
ACTUAL WEAKLY WORKING HOURS IN INDUSTRY FOR WORKERS

Pays/Land/Country	en heures / in Stunden / in hours									Taux annuels moyens en % jährl. Veränderungsrate in % average annual change in %	
	1960	1965	1970	1973	1974	1975	1976	1977	1978	1960-1973	1973-1978
B.R. Deutschland 1)	45.8	44.4	43.0	41.4	40.6	39.8	40.1	39.7	40.6	- 0.7	- 0.4
France	46.1	46.4	45.5	44.3	43.7	42.6	42.[illegible]	41.8	41.4	- 0.3	- 1.3
Italia	-	-	-	-	-	41.5	-	41.5		-	
Nederland	48.9	46.1	44.3	43.2	41.9	40.8	41.2	41.1		- 1.0	- 1.2 b)
Belgique	-	-	40.2	38.0	36.7	35.4	36.1	35.4			- 1.8 b)
Luxembourg	-	-	45.0	43.7	43.6	40.9	40.3	39.5	40.2		- 1.7
United Kingdom	46.5	45.2	44.0	43.9	43.4	42.1	42.5	42.7	42.7	- 0.5	- 0.6
Ireland	45.4	44.0	42.7	42.2	41.5	41.3	42.1	42.7	42.5	- 0.6	+ 0.1
Denmark 2)	-	39.7	36.2	33.5	34.2	33.1	32.7	(33.0)		- 2.4 c)	(- 0.4 b))

a) Y inclus les mines et la construction / Einschließlich Bergbau und Bau /Mining and Construction included

b) 1973-1977

c) 1965-1973

Source/Quelle/Source: Bulletin des Statistiques du Travail, BIT, Genève

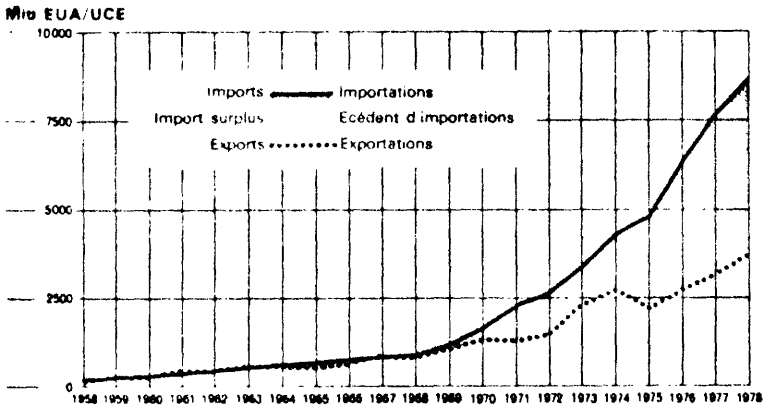
1) B.R. Deutschland: Durée payée du travail / bezahlte Arbeitsstunden / hours paid for

2) Calculé sur la base des nombres annuels d'heures travaillées (les congés annuels et jours fériés étant donc pris en compte) / Errechnet auf der Basis der gesamten Jahresstunden (d.h. unter Berücksichtigung des Jahresurlaubs und der Feiertage) / Calculated on the basis of the total number of hours per year (therefore including deductions for annual leave and holidays)

GRAPHICS A 56

Trade of the EC with Japan

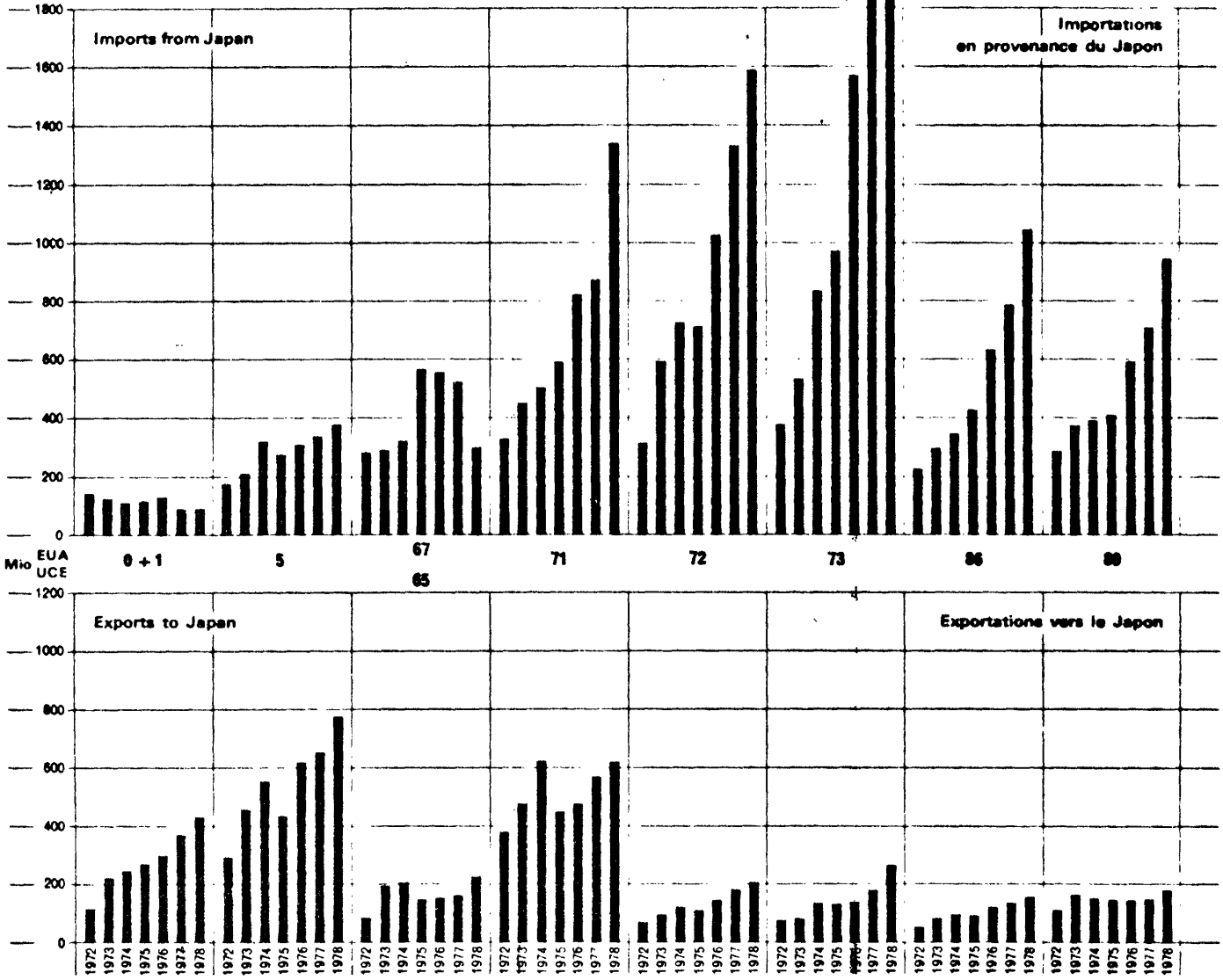
Commerce de la CE avec le Japon



Principal products

1978: import = 92,3% of total trade
1978: export = 76,6 % du commerce total

Pricipaux produits



Food, beverages and tobacco	0 + 1	Produits alimentaires, boissons et tabacs
Chemicals	5	Produits chimiques
Textile yarn, fabr. and made-up art. of textile mat., etc.	65	Fils, tissus, articles confectionnés en textiles, etc.
Iron and steel	67	Fonte, fer et acier
Machinery, other than electric	71	Machines non électriques
Electrical machinery, apparatus and appliances	72	Machines et appareils électriques
Transport equipment	73	Matériel de transport
Sc. Instr., photogr. and opt. goods, watches and clocks	86	App. scientif., photocinéma, optique, horlogerie
Manufactured articles, n.e.s.	88	Articles manufacturés, n.d.a.

Source : Monthly Bulletin of foreign trade SOEC

TABLE A57

Direct EEC investments in the United States and the United Kingdom in the EEC

	Direct investment in the USA held by EEC countries and Japan						American direct investment in EEC countries and Japan					
	Total			of which Manufacturing			Total			of which Manufacturing		
	Millions $			Millions $			Millions $			Millions $		
	1973	1978	% increase	1973	1978	% increase	1973	1978	% increase	1973	1978	% increase
Belg. - Lux.	543	1264	132,8	92	101	9,7	2512	4739	88,7	1497	2812	87,8
France	827	1939	134,5	388	978	152,0	4295	6772	57,6	2946	4629	57,1
Germany	965	3191	230,7	593	1529	157,8	7650	12746	66,6	4449	8324	87,1
Italy	146	247	69,2	31	76	145,2	2212	3571	61,4	1413	2389	69,0
Netherlands	4017	9767	143,1	997	2842	185,1	2352	4656	98,0	1204	2523	109,6
Dk and Irl.	76	110	44,7	19	39	105,2	858	2450	185,5	381	1435	276,6
U.K.	5403	7370	36,4	1551	2930	88,9	11040	20348	84,3	6611	10070	52,3
Total CEE	11977	23887	99,4	3671	8495	131,4	30920	55283	78,8	18501	32182	73,9
Japan	152	2688	1668,0	141	400	183,7	2671	4963	85,8	1399	2317	65,6

Source : Survey of Current Business

OECD, industrialized zones and Major Country Export trends to LDCs and Eastern Countries

		European Countries (1)	Africa (2)	Latin America (3)	Asia (4)	OPEC	Eastern Countries
Total OECD	1970	9.1	6.5	12.4	12.1	8.3	7.9
Billion $	1978	30.6	25.2	40.3	51.2	81.9	40.2
% increase		+236.3	+287.7	+ 225.0	+ 323,1	+ 886,7	+ 408,9
United States	1970	1.5	0.7	5.8	3.7	2.0	0.4
Billion $	1978	4.1	2.9	18.3	12.8	16.6	4.5
% increase		+173.3	+314.3	+ 215,5	+ 245.9	+ 730.0	+1025,0
Japan	1970	0.5	1.0	1.0	4.2	1.0	1.0
Billion $	1978	1.7	3.2	5.6	21.0	14.6	6.7
% increase		+240.0	+220.0	+ 460.0	+ 400.0	+1360.0	+ 570.0
EEC	1970	5.7	3.9	4.0	2.9	4.3	4.3
Billion $	1978	20.5	15.5	11.7	10.7	41.7	19.4
% increase		+259.6	+297.4	+ 192.5	+ 269.0	+ 869.8	+ 351.2

TABLE A59

Share of each country or zone in total OECD exports - percentage

	European LDCs (1)	African (2)	Latin (3) American	Asia (4)	OPEC	Eastern Countries
1970	16.5	10.8	46.8	30.5	24.1	5.0
1978	13.4	11.5	45.4	25.0	20.3	11.2
1970	5.5	15.4	8.1	34.7	12.0	12.7
1978	5.6	12.7	13.9	41.0	17.8	16.7
1970	62.6	60.0	32.3	24.0	51.8	54.4
1978	67.0	61.5	29.0	20.9	50.9	48.3

(1) European LDCs : Greece, Portugal, Yugoslavia, Turkey, Cyprus and Malta.

(2) Africa excluding Algeria, Libyia, Nigeria and South Africa.

(3) Latin America excepting Venezuela.

(4) Asia excepting Indi

Source : OECD External Trade Statistics

TABLE A60

Some figures on EEC, United States and Japanese relations with LDCs

TRADE with LDCs	EEC - 9		United States		Japan	
	. 1970	. 1978	. 1970	. 1978	. 1970	. 1978 .
BILLIONS						
IMPORTS to LDCs by :	24,9	104,6	11,0	73,5	7,6	42,5
OPEC	9,5	48,0	1,6	29,9	2,9	25,8
NICs	5,3	25,5	4,0	24,7	1,1	7,2
Other LDCs	10,1	31,1	5,4	18,9	3,6	9,5
EXPORTS to LDCs by :	22,1	105,0	14,5	56,8	8,2	46,4
OPEC	4,3	41,7	2,0	16,6	1,0	14,6
NICs	7,9	29,8	5,9	22,3	3,4	18,5
Other LDCs	9,9	33,5	6,6	17,9	3,8	13,3
FINANCIAL RESOURCES						
MILLIONS $						
TOTAL	6074	34565	6304	16162	1824	10704
% of GNP composition :	1,00	1,78	0,63	0,77	0,92	1,09
(a) Public aid as % of GNP	2539	8737	3046	5664	458	2215
(b) Net direct investment	0,40	0,45	0,31	0,27	0,20	0,23
(c) Net public and private export credit	1234	3627	1888	5619	262	1318
	n.d.	8842	210	704	694	1697

(a) Source : OECD External trade statistics, Series A.

(b) Greece, Portugal, Spain, Turkey, Yugoslavia, Brasil, Mexico, Taiwan, Hong Kong, Singapore, South Korea.

(c) Statistics from Reports of the Development Aid Committee, OECD.

TABLE A61

Structure of EEC trade by major categories with the Third World [a] and Eastern Countries

'000 million $

		Fuels		Other Raw Materials		Manufactures		Total[b]	
		Export	Import	Export	Import	Export	Import	Export	Import
Total trade with Third World	1973	0,5	17,9	4,9	19,0	31,1	7,9	36,9	44,9
	1978	2,5	48,0	10,9	31,6	87,0	23,2	101,7	103,3
of which :									
LDC petroleum exporters	1973	0,1	17,0	0,9	1,4	7,0	0,4	8,0	18,8
	1978	0,7	44,9	3,5	2,3	34,6	1,1	39,4	48,3
Other LDCs	1973	0,4	0,9	4,0	17,6	24,1	7,5	28,9	26,1
	1978	1,8	3,1	7,4	29,3	52,4	22,1	62,3	55,0
Trade with E Eastern countries	1973	0,1	1,3	1,3	3,5	7,4	2,7	8,9	7,6
	1978	0,2	5,0	1,8	4,5	17,0	6,9	19,2	16,4

(a) Including Mediterranean Basin LDCs

(b) Including non classified products

Source : GATT

TABLE A62

EEC Imports and Exports from Eastern Europe, the United States and Japan in 1973 and 1978
- percentage of total inputs and exports

Category	Description	% of total extra EEC imports in category						% of total extra EEC exports in category					
		Eastern Europe		United States		Japan		Eastern Europe		United States		Japan	
		1973	1978	1973	1978	1973	1978	1973	1978	1973	1978	1973	1978
0 + 1	Food products, drinks, tobacco	7,2	4,7	18,6	16,1	0,8	0,4	8,9	5,4	17,8	14,9	3,6	3,8
3	Fuels and dervatives	6,4	9,9	2,2	1,5	-	-	2,8	1,7	10,5	13,3	-	0,5
2 + 4	Raw materials	7,7	6,7	14,2	19,3	0,5	0,8	11,9	10,2	9,3	8,8	4,2	2,7
5	Chemicals	7,1	10,6	38,0	36,5	5,6	4,3	8,7	10,7	8,3	11,2	4,9	3,8
7	Machinery and Transport	3,4	3,5	41,5	34,7	12,9	19,0	7,6	7,4	16,7	12,8	2,0	1,5
6 + 8	Other Manufacturers	9,1	7,6	12,1	12,4	6,4	5,5	9,0	8,4	18,2	14,8	3,7	2,2
		7,0	7,2	17,3	15,9	4,0	4,9	8,1	7,7	15,9	13,3	2,9	2,1

Source : EUROSTAT