

**COMMISSION  
OF THE  
EUROPEAN COMMUNITIES**

Directorate-General  
for Economic and Financial Affairs

# **Report of the Group of experts on sectoral analyses**

**SECTORAL CHANGE  
IN THE EUROPEAN ECONOMICS,  
FROM 1960 TO THE RECESSION**

**Brussels, January 1978**

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REPORT OF THE GROUP OF EXPERTS  
ON SECTORAL ANALYSES

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SECTORAL CHANGE IN THE EUROPEAN  
ECONOMICS, FROM 1960 TO THE RECESSION

This report has been prepared by a group of independent experts set up by the Commission. Nevertheless, the opinions expressed therein are the responsibility of the Group alone and not of the Commission or its staff.

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## FOREWORD

In 1976, when a group of independent economic experts was entrusted with the task of studying the main characteristics of sectoral developments in the economies of the Member States since the setting up of the Common Market, the Commission showed its concern as to the development of methods of economic analyses which should allow a better understanding of the sectoral consequences of the recession. Since, during the course of the year 1977, the situation deteriorated in many sectors, the urgency of this task has become even more apparent.

Furthermore, the Commission wanted to bridge the gap between the general macro-economic approach of the problems and the specialised studies made in individual sectors whilst the coherence between the aims of macroeconomic objectives and the choice of sectoral policies cannot be ensured.

The work carried out by the group and published in this report constitutes a first attempt to meet the requirements of the Commission.

The large statistical documentation collected and analysed, the conclusions drawn as to the sectoral impact of the Common Market, as to the close link between the rate of growth, the opening up to external trade, the order of magnitude and the efficiency of mutations are very important for the analysis of the problems which have to be solved by the Community.

Efforts must certainly be continued and numerous questions, which in this report have been posed or hardly been raised, must be examined further.

The role of the tertiary sector, which is of growing importance in the industrialised countries, yet not well known, the financial aspects and the agents of sectoral mutations, the sectoral impact of accelerated industrialisation in certain developing countries are also subjects to be dealt with.

May I, at this stage of our work, express my thanks to my colleagues, members of the group, for the quality of their contributions. I should also like to underline the essential role of the Secretariat at each stage of the study and in the preparation of the final report.

R. MALAGUE  
Chairman

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## INTRODUCTION

Appearing at the time the Community was confronted with the most serious economic crisis since its inception, the fourth medium-economic policy programme, covering the period 1976-80, fixed as its prime objective the return to full employment to be achieved via a strategy aimed at vigorous, sustained growth and lower inflation. This strategy could not succeed without a recovery in investment and a gradual restoration of the main internal and external equilibria.

The results achieved in the first two years covered by the programme raise serious doubts as to whether the Community can in fact attain these targets. The revival in economic activity in 1976 has lost vigour in 1977 and has not been accompanied by a simultaneous recovery in investment. The employment situation deteriorated further in 1976 and in the early months of 1977. Moreover, despite some headway made in a number of countries in bringing down inflation, the overall situation in the Community is still disturbing where inflation is concerned.

The persistent nature of this situation means that the crisis facing European economies can no longer be put down merely to a single cyclical factor. As the fourth programme points out, the root cause of the recession is the rapid and inexorable rise in inflation, the structural components of which owe their existence to the economic, political and social changes that have taken place during the last twenty years.



Moreover, a number of the new factors that have contributed to the worsening economic situation in the Community are having, or will have, a far-reaching impact on Member States' economic structures;

- scarce and dearer fuel is obliging firms and households, often at the insistence of the public authorities, to make more extensive use of energy-saving measures. Investment programmes made necessary to ensure the more rational use of imported oil have been accompanied by schemes for generating nuclear energy and for discovering new sources of energy;
- the constraints arising out of the need to tackle imbalances in the trading account and the effects of the world-wide redistribution of income are making for a greater transfer abroad of real resources, together with a reshaping of certain export flows to new areas;
- the continuing trend towards the relocation of raw-material-processing units in close proximity to raw-material sources or towards relocating production units in lower-wage areas threatens to undermine the already precarious position of a number of industries in the Community;
- the preoccupation with the natural imbalances brought about by poorly controlled industrial growth entails compliance with stricter pollution requirements and the development of production processes compatible with environmental protection;
- lastly, the extension of structural unemployment resulting from the discrepancy between the pattern of workers' skills and the structure of job vacancies, from workers' reluctance to move to other areas and from the consequences of the increased use of capital per employee in industry, accentuated by higher investment in rationalization schemes.

The list of the constraints with which European economies have to cope highlights the drawbacks of an exclusively macroeconomic approach, whether it be to the assessment of the factors that led to the recession or to the solutions to be adopted.

Full employment, the key to which is still the restoration of a rapid and sustained rate of overall growth in production, cannot be achieved once again without the implementation of specific policies. However, analyses of sectoral changes in job creation and destruction and of how these are related to growth and capital accumulation in the different branches of the economy are needed before such policies can be formulated.

Conversely, there is a danger that the serious difficulties besetting a number of industries will prompt particular rescue operations which may eventually prove an obstacle to the necessary adjustments in the production system and thereby impair the potential for future growth.

The growing pressure on governments to protect home industries - though so far held within reasonable bounds - does show that this is a real danger that cannot be ignored.

In view of this situation, the Commission appointed, in early 1976, a group of outside experts to be conduct a preliminary study of "sectoral" developments in Member States. It soon became clear that a study of this type posed a great many statistical and methodological problems. Although a number of member countries had undertaken quite systematic studies in this field, the subject had been all but ignored at Community level and very few harmonized sectoral statistics were available, at any rate prior to 1970.

This state of affairs determined the group's terms of reference. Before examining the relative situations that obtained during the crisis in the different sectors of the economy - on which, incidentally, only meagre amounts of information were available - the group found that it would need to analyse developments peculiar to the branches of the national economies since 1960 and hence to devise a methodology for its studies and to assemble the basic statistical series.

At this time, the experts were concerned mainly with collating the figures, essentially those available for the period 1960-73, processing them and interpreting the economic performances recorded for the different sectors. This report uses only some of the information collected.

The study takes in six countries: the Federal Republic of Germany, France, Italy, the United Kingdom, the Netherlands and Belgium; it has not been possible, in this initial phase, to extend the study to the three remaining member countries.

The European economies have been divided into 26 branches, with the following breakdown:

- 1 branch: agricultural products;
- 3 branches: energy products;
- 3 branches: intermediate products;
- 6 branches: equipment products; \*
- 1 branch: food, beverages, tobacco;
- 4 branches: products for current consumption;
- 1 branch: building and civil engineering;
- 6 branches: market services;
- 1 branch: non-market services.

\* The term "equipment goods" is used in this rapport to mean investment goods and consumer durables.

At the level of each branch, the experts compiled\* generally on a national basis, the 1960-73 time series for the following variables:

- value added at current prices, at 1970 prices;
- occupied population;
- investment by ownership branch and producer branch at current prices, at 1970 prices;
- capital stock at 1970 prices;
- goods exported and imported by the branches at current prices and at 1970 prices.

As the figures available had been rearranged according to the basic nomenclature chosen, the group was also in possession of the 1970 Community input-output tables for the six countries in question.

Attention should be drawn to the difficulties encountered in harmonizing the data collected, the shortcomings of the statistical series in a number of countries, the unresolved methodological problems in the case of certain data such as capital stock and the limited usefulness of level-by-level comparisons as in the case of productivity. Monetary and financial aspects (profitability and sectoral financing) were also not tackled, for lack of information.

The "data-bank" that has been created, can none the less, be an extremely valuable tool, provided it is handled properly.

In spite of the imperfections of the means of analysis, a quite detailed picture was obtained of the scale of structural transformations in the economies of Europe in the last fifteen years.

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\* In a certain number of cases, the secretariat of the Group made its own estimates in order to complete missing series.

The sectoral adjustments are seen to be closely linked to rapid growth and to a situation of near full employment, neither of which can be looked at in isolation from the favourable circumstances obtaining during that period: extensive foreign investment in Europe, low energy and raw material prices, a virtual monopoly, shared with the United States and Japan, in trade in manufactures, and relative price and exchange rate stability. Generally speaking, this free interplay of market forces, coupled with overall demand management policies sufficed to allow the necessary changes.

The original Member States covered by the study all took advantage of this favourable environment, pursuing economic growth and adapting their structures to the requirements imposed by the economic developments under way without coming up against any major adjustment difficulties. The United Kingdom was the odd man out, following a slower rate of growth that did not enable it to offset the slowdown in activity in traditionally strong sectors by rapid growth in a sufficient number of substitution industries.

The main features of the adjustment process are, none the less, the same in all the countries, the sole difference being the scale of adjustment.

There was a general movement towards alignment of supply structures characterized mainly by the shift in the structures of countries with a strong agricultural tradition (Italy, France, Benelux) towards the structures obtaining in the Federal Republic of Germany and in the United Kingdom, which were somewhat more advanced structurally at the beginning of the period in question.

The most salient feature of these changes is the convergence in the structure of the components of final demand: uniform patterns of expenditure share by European households on food, equipment or services; a decrease in specialisation in the export field, at least as regards the product breakdown applied in the study and the similarity in the order of priority accorded in each country, with the exception of Italy, to productive investment and to investment aimed at boosting productive capacities and improving infrastructures, this similarity being

both the cause and effect of the changes.

The result is that, in many cases, we find the same sectors spearheading growth (petroleum products, chemicals, electrical equipment, motor vehicles, telecommunications) and the same sectors experiencing slow growth or decline (agriculture, textiles, clothing, solid fuels), but the growth industries, which exist in all the countries, though on a varying scale, made a positive contribution at all levels to general economic expansion. Being largely export-oriented, they increased their rates of capital accumulation and created a substantial number of jobs while sustaining a rate of productivity growth in excess of that in the economy as a whole and holding price rises at a level well below the average rate of inflation.

After this period of broad-based growth, the EEC countries are approaching the 1980s in much less favourable conditions. The difficulties in bringing about a sharp recovery in economic activity stem from the persistence of inflation that is not yet under control and, in some countries, from heavy external deficits. The fear of a further spurt in prices and worsening external disequilibria makes it less likely that vigorous growth policies will be adopted. The pursuit of structural adjustments, which are even more necessary as a result of the changes in the economic environment referred to earlier, would thus appear to be jeopardized by the lack of any prospects of a buoyant recovery and by the obstacle of the highest unemployment rate ever recorded in the Community since its inception.

It would seem, therefore, that active policies to encourage changes now need to be drawn up, but the impact of the changes under way on the different sectors of the economy still has to be measured.

PART A

GENERAL BACKGROUND TO THE CHANGES

GENERAL BACKGROUND TO THE CHANGES

1. Rapid growth

Between 1960 and 1973, the years spanning the period between the establishment of the Common Market and the energy crisis, the countries in Europe or at least those making up the Community of the Six enjoyed a period of very rapid expansion. The gross domestic product of the Six in volume terms, increased by factor of 1.9 (5 % annual growth), while gross domestic product in the United Kingdom rose by half (3 % annual growth).

For the Six as a whole, the expansion in activity also followed a comparatively regular pattern: the downward swings in the economic cycle in some countries (the Federal Republic of Germany in 1967, Italy in 1964 and 1971, and the Netherlands in 1966) coincided with sustained upswings in others, and so the Community as a whole did not go through any marked recession during that period, the annual growth rate of GDP never falling below 2.8 % (recorded in 1967).

The years 1974 and 1975 marked an important turning point in that as a result of common external factors, a greater degree of interdependence and hence, as will be seen, a tendency towards relative structural alignment, the countries in Europe were hit by a simultaneous recession.

Throughout this period, the United Kingdom could not match these countries' performances, its annual growth rate ranging between 2 % and 3 % except for brief upswings in 1964 and 1973, when the growth rate approached 6 %.

2. Near full employment

The rapid growth in production was accompanied, until 1973, by relatively full employment. Taking the Six and the United Kingdom together, unemployment rose from 1.500.000 in 1961 to 2.200.000 in 1973. And yet, as a percentage of the labour force, the unemployment rate, which stood at 1.5 % in 1961 and 2.1 % in 1973 with a peak figure of 2.3 % being recorded during the 1967 recession in the Federal Republic of Germany, remained fairly low for the period as a whole.

Two facts should be noted: high unemployment in Italy (as an average for the period) due to a lack of new jobs to cater for the widespread migration out of agriculture, and a gentle rise in unemployment from



1970 onwards in a number of countries (France, the Netherlands) despite a sharp increase in the occupied population.

The employment situation has worsened drastically since 1974, with some 4.500.000 people out of work in 1975.

### 3. Substantial growth in international trade

Growth in the Six's foreign trade was extremely rapid, with an increasing proportion being accounted for by intra-Community trade. Between 1960 and 1973, the volume of the Six's exports climbed at an annual rate of around 9.7 %, equal to an increase of 12.2 % in current prices.\*

At the same time, trade in goods between the Six expanded at an annual rate of 15.6 % in money terms,\* compared with a rise of 9.8 % in their exports to the rest of the world.

The foreign trade of the United Kingdom, which, in 1960 had the most export-oriented economy of the major European countries, with exports accounting for around 20 % of GDP as against 13 % for France and Italy and 18 % for the Federal Republic of Germany, grew much less rapidly. Exports rose by no more than 5.2 % in real terms between 1960 and 1973.

As the countries of the EEC became more extensively involved in international trade, capital began to flow on a wide scale across Community frontiers. The Community was also an extremely attractive area for foreign investment, particularly US-investments.

Table 1: Foreign trade

	Exports of goods and services				Imports of goods and services			
	Share of GDP in 1960	Real increase 1960-73 (1960=100)	Share of GDP in 1973 (1960-prices)	Share of GDP in 1973 (current prices)	Share of GDP in 1960	Real increase 1960-73 (1960=100)	Share of GDP 1973 (1960-prices)	Share of GDP in 1973 (current prices)
D	18,1	311	31,6	21,1	15,9	331	29,6	17,6
F	13,2	372	24,1	17,2	11,6	416	23,7	16,6
I	13,0	386	26,1	18,6	14,9	364	28,4	22,0
UK	20,4	193	26,9	23,1	21,6	195	28,7	25,9
NL**	48,5	280	-	47,6	47,5	250	-	44,2
B	37,4	325	64,5	54,6	37,8	308	62,0	51,7

\*\* The figures in the first and fifth columns refer to 1963, and not 1960, and the figures in the second and sixth columns to the period 1963-73, and not 1960-73.

\* According to figures expressed in EUR, with 1 EUR equal to US \$ for the period 1960-70 and to US \$ 1.25 in 1973.

4. Significant shift in the pattern of internal uses of GDP

The structure of GDP use for the Community of Six plus the United Kingdom underwent quite marked changes between 1960 and 1973.

Table 2 below gives the changes in the major components.

Table 2                      Use of GDP (the Six + United Kingdom)

	1960	1973			
	%	Volume index 1960=100	Volume structure % 1960 prices	Price index 1960=100	Value structure %
Final consumption of households	63,2	178	62,8	178	60,0
Collective consumption	13,1	160	11,7	238	14,6
Gross fixed capital formation	20,7	201	23,3	179	23,0
Change in stocks	2,6	-	2,2	-	1,8
Balance of trade in goods and services	0,3	-	0,0	-	0,7
GDP at market prices	100,0	179	100,0	185	100,0

The most significant developments are:

- the increase in the share of investment in both money and real terms;
- the relatively slower growth of the final consumption of households;
- the increase in the share of collective (public) consumption in money terms;
- an external balance that remained in surplus throughout the period (except in 1963 and 1964).

Investment

The share of investment in GDP rose from 20,7 % in 1960 to over 23 % in 1973. A number of factors contributed to this rapid increase in investment:

- Greater demand for productive investment to satisfy:
  - . a rapid expansion in activity and the more capital-intensive nature of production processes stemming from technological developments;

- . the need for rationalization resulting from keener competition and the increase in relative labour costs;
  - . the sectoral and regional restructuring of the production apparatus in connection with the growing shift in the production process towards external markets, the substitution of energy and raw material sources, and the changing pattern of demand, particularly in favour of services;
- a sharp increase in public investment to satisfy the needs arising in connection with:
- . transport and communication infrastructures;
  - . public infrastructures in the fields of health, education, culture and leisure;
- a significant expansion in residential construction due to the inadequate and obsolescent nature of the stock of dwellings at the beginning of the period.

Fall in the share accounted for by the consumption of households

In all the nine countries of the EEC, the fall was relatively small (around 0,6 % between 1960 and 1973) at constant 1960 prices but more marked (5,1 %) at current prices owing to the divergent trends of consumer prices and GDP prices.

Nevertheless, per capita consumption rose at an average annual rate of around 4 % at constant prices. At current prices, per capita expenditure on consumption almost trebled, from 880 Eur\* in 1960 to 2.440 Eur\* in 1973.

This sharp increase in private consumption was accompanied by a marked shift in its structure, with the share of expenditure on food or certain current consumption items shrinking in favour of services and durable goods. This shift provided a boost to the sectors manufacturing household appliances or intermediate goods that were the most dependent on technological developments.

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\*1 Eur = US \$ 1 for the period 1960-70; 1 Eur = US \$ 1,25 in 1973.

### Collective consumption

The growth in money terms in collective consumption expressed as a proportion of GDP (which, for the Nine as a whole, rose from 13,1 % in 1960 to 14,6 % in 1973) reflects the increase in general government services that, in large part, is attributable to the functioning of the infrastructure (health and education in particular) set in place in the period under investigation. It is also a measure of the increase in general government employment in all Community countries.

5. The majority of member countries experienced, for the most part, the same changes in the pattern of final demand but an analysis of the country-by-country developments reveals different growth strategies which had an impact on industrial structures (see Table 3).

France, for instance, underpinned growth by stepping up investment on a much larger scale than any other European country and this enabled it to match in money terms, and to exceed in real terms, the share of GDP devoted to gross fixed capital formation in the Federal Republic of Germany.

And yet, France had to secure this increased capitalization by importing the capital goods that were not available on the domestic market, and this led to a persistent trade imbalance in these sectors.

By contrast, Italy met the consumption requirements of households mainly by allowing its investment rate to fall. This did not, however, prevent an extremely sharp increase in exports without, however, improving its trade balance in goods and services, which continued to show a structural deficit in 1965/66 and 1968/69.

Similarly, the United Kingdom ran a persistent trade deficit, except in 1966 and in the period from 1969 to 1971. In spite of fairly substantial investment, given the sluggish growth rate of the British economy, the rate of investment in the United Kingdom was easily outdistanced by that in France and Germany and indeed, in money terms, lagged behind the rate recorded in Italy.

Lastly, the Benelux countries experienced a movement towards alignment that brought Belgian structure more closely into line with those in

the Netherlands. The share of all components of Dutch GDP fell to make room for a rise in public (collective) consumption, the price deflator of which increased more rapidly in the Netherlands in ten years (from 1963 to 1973) than in the other countries in thirteen years (from 1960 to 1973). By contrast, Belgium, which at the outset had a pattern of final GDP use highly geared to final consumption, adjusted very extensively the uses of its production so as to promote investment and, in particular, to bring about a marked improvement in its external balance.

Table 3

## Use of GDP - Country-by-country analysis

	Federal Republic of Germany				France				Italy			
	1960		1973		1960		1973		1960		1973	
	%	Volume index	Struct. volume %	Price index	%	Volume index	Struct. volume %	Price index	%	Volume index	Struct. volume %	Price index
Final consumption of households	59,9	178	59,7	164	60,3	205	60,8	182	65,3	202	68,0	187
Collective consumption	10,9	172	10,5	221	13,5	158	10,4	238	12,8	162	10,8	263
Gross fixed capital formation	24,2	185	25,1	170	20,8	268	27,4	162	22,3	172	20,0	207
Change in stocks	2,8	-	2,7	-	3,8	-	1,0	-	1,6	-	-	-
Trade balance in goods and services	2,2	-	2,0	-	1,6	-	0,4	-	-1,9	-	-2,3	-
GDP at market prices	100	178	100	171	100	204	100	185	100	192	100	198
	United Kingdom				Netherlands				Belgium			
	1960		1973		1960		1973		1960		1973	
	%	Volume index	Struct. volume %	Price index	%	Volume index	Struct. volume %	Price index	%	Volume index	Struct. volume %	Price index
Final consumption of households	66,	143	64,4	186	58,3	(166)	(59,0)	(177)	68,7	172	62,9	158
Collective consumption	16,5	138	15,5	229	13,4	(128)	(11,4)	(270)	12,4	199	13,1	184
Gross fixed capital formation	16,4	178	20,0	190	24,0	(184)	(25,2)	(172)	19,3	193	19,8	181
Change in stocks	2,2	-	1,9	-	3,3	-	(-0,9)	-	-0,1	-	1,7	-
Trade balance in goods and services	-1,2	-	-1,8	-	1,0	-	(5,3)	-	-0,4	-	2,5	-
GDP at market prices	100	146	100	192	100	(173)	(100)	(188)	100	188	100	166

PART B

SECTORAL DEVELOPMENTS

1960 - 1973

## B-1 CHANGING PATTERNS OF ECONOMIC ACTIVITY IN THE DIFFERENT SECTORS

### 1. Main features

GDP growth was by no means uniform in the six countries studied; while the original member countries in question enjoyed growth rates ranging from 4,5 % to 5,5 % between 1960 and 1973, the United Kingdom's performance during the same period was only 2,4 %.

Growth rates also differed from one sector to another. Far from presenting a homogeneous pattern, economic activity was marked by industrial decline, the virtual disappearance of some sectors, and the emergence and growth of other sectors. As a result of these contrasting trends, the structure of the production facilities of the European countries concerned was quite different in 1973 from what it had been in 1960.

Examination of these changes reveals trends common to all the countries and divergences stemming from the countries' economic structures at the outset and from the macroeconomic background to their development.

One of the things the countries have in common is that if their sectors are arranged in order according to growth rates achieved - in a sort of "league table" - the results vary very little from country to country at any rate in the breakdown used for this study (20 to 30 sectors depending on the country concerned). With this breakdown, the fastest-growth sectors almost invariably included the following: petroleum products, chemicals, plastics, electrical or electronic equipment, precision instruments, the production and distribution of electricity and gas, and, in the services sectors, communications and financial institutions. Likewise, the slowest-growth sectors included as often as not the following: agriculture, solid fuels, and the textile, leather and clothing industry.

As a result of these sectoral changes production structures in the European countries concerned came to resemble one another more closely and, in particular, the substantial lead enjoyed by the Federal Republic of Germany has been cut back. Although less marked, the structural disparities were, none the less, still substantial on the eve of the crisis.



Although these developments were convergent, their scale differed very widely between countries. The growth rates in the sectors undergoing the most rapid changes were substantially higher than in the sectors experiencing a relative decline, the gap ranging from around 0 % to 9 % (average annual rate) in the large countries and from around 0 % to 14 % in the Benelux countries. The contribution made by the different sectors to overall growth also differed widely.

It would therefore appear that, in view of the almost uniform trends in demand, of technological developments and of the substitution process between energy sources and between raw materials, all of which were factors that compelled the countries concerned to adapt their production structures, the reaction on the part of the European economies was also determined to a large extent, by purely national situations.

The differing circumstances obtaining at the beginning of the period in question, notably the more advanced industrialized structures of the Federal Republic of Germany and the United Kingdom, and the other countries' determination to catch up in certain sectors (equipment goods in Italy, France and Belgium, iron and steel in Italy) hampered adjustment as did a number of special factors such as exploitation of the gas fields in the Netherlands and the scale of foreign investment in Belgium.

There was, however, a very close link between the scale of the changes and the rate of overall growth. The countries enjoying the highest growth rates were also those in which changes in the production apparatus were most far-reaching. Conversely, the United Kingdom experienced both slow growth and insignificant changes in its production structure, and these changes were a matter more of the disappearance or very rapid decline of certain industries than of the emergence of pace-setting industries.

## 2. Analysis of the changes

This analysis has been based on time series (1959-74) for added value at current prices and at constant prices (base year = 1970) in a number of sectors, ranging between 19 and 26 depending on the country in question.

With a view to limiting interpretation errors due to cyclical fluctuations, only three-year moving averages have been used.

The added value data for all the countries have been computed at market prices, except in the case of the United Kingdom, where only calculations at factor costs could be carried out.\* Lastly, it was not possible to obtain for the Netherlands and Italy a breakdown of equipment goods industries to a level comparable with that for the other countries.

This chapter will first describe the production systems in the different countries at the beginning of the period under investigation and will then examine the changes that took place from various angles: classification of the sectors by growth rate and their contribution to overall growth; country-by-country comparison of the scale of changes (analysis at current and constant prices).

### 2.1. Production structures in 1960\*\*

At the beginning of the period, production structures in the different countries concerned differed appreciably. While the energy sector, the building and construction sector, and the general government sector occupied roughly the same place in the economy, the share of agriculture in economic activity ranged from 4 % (United Kingdom) to over 14 % (Italy), the share of manufacturing from under 30 % (Italy, Belgium) to over 40 % (Federal Republic of Germany) and the market services sector from around 30 % to just under 40 %. Two countries, the Federal Republic of Germany and the United Kingdom, already possessed a powerful industrial structure, particularly in the sectors that were to be very favourably influenced by the trend in demand, namely chemicals and plant and machinery (metal processing, agricultural and industrial machinery, electrical engineering and motor vehicles, together with shipbuilding and aircraft construction in the United Kingdom.

\* The main effect being that the shares accounted for by certain branches (oil industry and food, beverage and tobacco industries) were underestimated since these branches bear a high proportion of indirect taxation.

\*\*Cf. Tables 4-7 at the end of Chapter B-1.

Italy, with its strong agricultural sector and weak industrial structure, particularly in the equipment sector lies at the other extreme. France is to be found in a mid-way position characterized, where its industrial structure is concerned, by a relatively larger consumer goods sector.

Belgium has a large market services sector and, within industry, a very weak plant and machinery sector. Lastly, the weak points in the Netherlands, which has an average level of industrialization, are the intermediate goods sectors, particularly the steel industry, which is only half as big as in the other countries, the strong points in the economy being the food industry and electrical engineering.

## 2.2. Sectoral growth

Classification of the sectors according to their average growth rate (cf. Table 1) reveals widespread similarity in the relative performances of industries in the different countries of the Community.

The growth industries include those geared to intermediate consumption: energy products (with the exception of solid fuels), chemicals, rubber and plastics, minerals, and, in the services sector, telecommunications, and banking, finance and insurance.

All the industries producing equipment goods also enjoyed very rapid growth, particularly those in electrical engineering and electronics. By contrast, in the major steel producing countries - Germany, the United Kingdom and France, the average growth rate in this branch was unimpressive although it must be remembered that the reference is to relative growth and that, whereas the United Kingdom managed an annual growth rate of 0,4 %, France and Germany achieved rates of 4,8 % and 3,8 % respectively. The other countries exceeded these low growth rates in the steel industry, the figures being 8,2 % for Italy, 7,3 % for Belgium and 7,0 % for the Netherlands. Conversely, the lowest-growth industries are the ones most directly linked to final consumption (food, beverages, tobacco, textiles, clothing, restaurants, cafés, other market services, non-market services). The sole exception is the motor vehicle industry, which, in all countries, was one of the main driving forces in the economy.

Thus, the share of the textiles, leather and clothing branches in added value in manufacturing, which, in 1960, ranged between 10 % in Germany and 16 % in Italy and Belgium, fell in all the countries, with the exception of Italy, where it remained virtually unchanged. In 1973, this sector of

TABLE 1 INDUSTRIES IN SIX COUNTRIES: "LEAGUE TABLE" OF GROWTH

(average of 1960-74 annual rates, industries arranged in descending order)

D	F	UK
43 Precs.instruments, data process.equipm.	44 Electrical equipment	22 Crude and ref.petro- leum, natural gas
63 Rubber, plastic	45 Motor vehicles	43 Precs.instruments, data process.equipm.
33 Chemical products	33 Chemical products	33 Chemical products
22 Crude and ref.petro- leum, natural gas	43 Precs.instruments, data process.equipm.	63 Rubber, plastic
44 Electrical equipment	23 Electr., gas, water	23 Electr., gas, water
82 Communications	22 Crude and ref.petro- leum, natural gas	82 Communications
84 Banking, finance, insurance	42 Agricultural machinery	44 Electrical equipment
23 Electr.,gas,water	82 Communications	84 Banking, finance, insurance
45 Motor vehicles	32 Minerals,building mat.	32 Minerals,building mat
46 Other means of transp.	64 Other industrial products	45 Motor vehicles
64 Industrial products	46 Other means of transp.	42 Agricultural and in- dustrial machinery
62 Paper, printing	41 Metal products	1 Agricultural products
7 Building and civil engineering	7 Building and civil engineering	64 Other industrial products
***	63 Rubber, plastic	86 Other market services
86 Other market services	84 Banking, finance, insurance	7 Building and civil engineering
9 Non-market services	86 Other market services	83 Trade services
5 Food products	83 Trade services	***
32 Minerals,building mat.	***	62 Paper, printing
31 Ores, iron and steel	62 Paper, printing	81 Transport services
83 Trade services	81 Transport services	31 Ores, iron and steel
81 Transport services	31 Ores, iron and steel	85 Hotels, catering
41 Metal products	85 Hotels, catering	5 Food products
42 Agricultural and in- dustrial machinery	5 Food products	61 Textiles, leather, clothing
1 Agricultural products	61 Textiles, leather, clothing	9 Non-market services
61 Textiles, leather, clothing	9 Non-market services	1 Agricultural products
85 Hotels and catering	1 Agricultural products	21 Solid fuels
21 Solid fuels	21 Solid fuels	
		22 Crude and ref.petro- leum, natural gas
		43 Precs.instruments, data process.equipm.
		33 Chemical products
		63 Rubber, plastic
		23 Electr., gas, water
		82 Communications
		44 Electrical equipment
		84 Banking, finance, insurance
		32 Minerals,building mat
		45 Motor vehicles
		42 Agricultural and in- dustrial machinery
		1 Agricultural products
		64 Other industrial products
		86 Other market services
		7 Building and civil engineering
		83 Trade services
		62 Paper, printing
		***
		5 Food products
		81 Transport services
		42 Metal products
		61 Textiles, leather, clothing
		9 Non-market services
		85 Hotels, catering
		31 Ores, iron and steel
		46 Other means of transports
		21 Solid fuels

I	NL	B
33 Chemical products	22 Crude and ref.petro-	63 Rubber, plastic
45 <u>and</u> Means of	leum, natural gas	43 Precip.instruments,
46 <u>and</u> transports	33 Chemical products	data process.equipm.
31 Ores, iron and steel	23 Electr., gas, water	33 Chemical products
2 Energy products	63 Rubber, plastic	23 Electr., gas, water
63 <u>and</u> Rubber,plastic and	44 Electrical equipment	44 Electrical equipment
64 <u>and</u> other industr.prod.	45 Motor vehicles	45 Motor vehicles
84 Banking, finance,	31 Ores, iron and steel	42 Agricultural and in-
insurance	83 Trade services	dustrial machinery
41 <u>to</u> Equipment products	62 Paper, printing	64 Other industrial
44 <u>to</u> Means of transport	7 Building and civil	products
83 Trade services	engineering	22 Crude and ref.petro-
81 <u>and</u> Transport,	9 Non-market services	leum, natural gas
82 <u>and</u> Communications	32 Minerals,building mat.	84 Banking, finance,
5 Food products	***	insurance
86 Other market services	81 <u>and</u> Transport,	41 Metal products
32 Minerals,building mat.	82 <u>and</u> Communications	31 Ores, iron and steel
***	41 <u>to</u> Equipment	32 Minerals, building
85 Hotels, catering	43 <u>to</u> products	materials
62 Paper, printing	* Electrical equipment	9 Non-market services
61 Textiles, leather,	46 Motor vehicles	81 Transport services
clothing	5 Food products	82 Communications
9 Non-market services	64 Other industrial	***
7 Building and civil	products	5 Food products
engineering	84 Banking, finance,	62 Paper, printing
1 Agricultural products	insurance	85 Hotels, catering
	86 Other market services	86 Other market services
	85 Hotels, catering	7 Building, civil
	1 Agricultural products	engineering
	61 Textiles, leather,	46 Other means of
	clothing	transport
	21 Solid fuels	83 Trade services
		61 Textiles, leather,
		clothing
		1 Agricultural products
		21 Solid fuels

activity still accounted for 10 % of industrial activity in France, the United Kingdom and Belgium.

A somewhat inconform pattern of development is to be seen in agricultural and industrial machinery in Germany, whose performance (2,7 % growth annually) was much less impressive than in the other countries. This is the industry that manufactures non-electrical plant and machinery, i.e. mainly machine tools and other industrial machinery of a mechanical nature. Admittedly, Germany enjoyed a substantial lead over its partners in this sector, which in 1960 accounted for 5,5 % of its economy's total added value as against 2,9 % in France, 3,5 % in the United Kingdom and 1,5 % in Belgium. By 1973, the shares were higher in all the countries (4,1 % in France, 3,8 % in the United Kingdom and 2,3 % in Belgium), but the share in Germany had dropped to 4,6 %.

The disappointing performance in this key investment sector, where competition became much keener, is reflected in the trade figures: the share of German exports of agricultural and industrial machinery fell (at 1970 prices) from 24,2 % in 1960 to 18,3 % in 1974 whereas the share of corresponding French exports rose during the same period from 7 % to 10 %. The situation in the United Kingdom evolved along lines similar to that in Germany (20 % in 1963 as against 17,3 % in 1974).

An important point, however, is that this development was attributable in Germany to a shift in activity towards other types of plant and machinery (electrical machinery and equipment). Overall, the percentage of German added value accounted for by equipment products rose from 16,4 % to 16,9 %, a figure much higher than that achieved by the same sectors in the partner countries.

A further example of a development peculiar to one country is afforded by the negative growth in the United Kingdom in the branch "other means of transport", i.e. railway plant and equipment, aircraft construction and shipbuilding. Here too, a long-standing dominant position was undermined by international competition. The percentage of total added value in the United Kingdom accounted for by this branch fell from 2,7 % to 1,7 % while the percentage in the other countries - much lower at the outset - rose slightly (from 0,4 % to 0,5 % in Germany and France, and from 0,5 % to 0,7 % in Belgium).

### 2.3. Contributions of the various sectors to overall growth

Listing the sectors in order of growth tells us nothing about their impact on overall growth: owing to their weak position at the outset, a number of very rapid growth sectors contributed less to overall growth than other sectors that experienced slower growth but made a greater contribution to economic activity in 1960.

Table 2 measures such contributions to growth by calculating, for each industry, the difference between its value added in constant prices at the end and at the beginning of the period and by expressing this difference as a percentage of the economy's total added value.

One point to be noted is that the growth in the services sector contributed as much as, if not more than, goods to overall growth in three countries, the United Kingdom (52,4 %\*), Italy (50,6 %) and the Netherlands (48,8 %), whereas the figures for Germany, France and Belgium ranged between 42 % and 43 %.

Growth in Germany was attributable largely to the rate of expansion in manufacturing, the key sector being equipment products. Taken together, the four manufacturing groups (intermediate products, equipment products, food products and current consumption products) accounted for 43,2 % of growth in Germany as against 36,5 % in France, 33,7 % in Italy, 34,1 % in the United Kingdom and 30,0 % in the Netherlands. Manufacturing played an equally important role in Belgium as in Germany, but this owed a great deal to the steel industry, which alone accounted for more than 5 % of growth in Belgium as against the 2 % generally recorded for the other countries.

At individual industry level, the most significant differences are discernible in agriculture, the extremely sluggish rate of relative growth of which explained why, despite a sizable contribution to overall added value, the figures in France (2,4 %) and in Italy (3,6 %) were also low. Equipment products made a minor contribution to overall growth in Italy and the Netherlands while the energy sector in the Netherlands played a very important role, with market services being a determining factor in the

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\*This figure, however, should be a little higher, since as given here it relates to added value at factor costs, which underestimates the contributions made by the energy and manufacturing industries.

United Kingdom and Italy.

The percentages obtained for non-market services are by no means uniform. They must be interpreted with caution as they are very much a function of the, at times, quite arbitrary methods used in the countries concerned to allocate this sector's growth in money terms between prices and volume.



TABLE 2 CONTRIBUTIONS OF THE BRANCHES TO GROWTH (1960-73) AT 1970 PRICES

No	BRANCHES	D	F	I	UK*	NL	B**
1	AGRICULTURAL PRODUCTS	1,2	2,4	3,6	3,0	4,2	1,0
2	ENERGY PRODUCTS	4,7	8,1	7,8	3,6	10,5	7,4
21	of which: solid fuels	-0,8	-0,5	-	-3,1	-	-1,5
22	crude and ref.petro. nat.gas	2,4	5,6	-	0,7	-	3,7
23	electricity, gas, water	3,1	2,9	-	6,0	-	5,2
3	INTERMEDIATE PRODUCTS	11,0	8,4	9,3	9,4	10,3	14,7
31	of which: ores, iron and steel	2,1	2,0	2,8	0,8	-	5,3
32	minerals, building materials	2,2	2,4	2,2	2,6	-	2,8
33	chemical products	6,7	4,0	4,3	6,0	-	6,6
4	EQUIPMENT PRODUCTS	18,5	16,6	9,5	13,5	10,1	14,7
41	of which: metal products	2,9	3,1	)	0,6	-	3,9
42	agricult.and industr.machinery	3,5	5,1	) 6,7	4,9	-	
43	precision instruments, data-processing equipment	1,4	1,1	)	1,9	-	
44	electrical equipment	5,5	3,1	)	5,0	-	
45	motor vehicles	4,5	3,7	)	1,8	-	
46	other means of transport	0,6	0,6	2,8	-0,8	-	
5	FOOD, BEVERAGES, TOBACCO	5,5	3,9	5,2	3,2	4,7	5,0
6	PRODUCTS FOR CURRENT CONSUMPT.	8,2	7,6	9,6	8,0	4,9	9,0
61	of which: text.,leather,cloth.	1,6	2,5	4,2	1,4	-	2,1
62	paper, printing	2,9	2,0	1,6	2,8	-	1,4
63	rubber, plastic	2,0	0,9	)	1,9	-	2,2
64	other industrial products	1,7	2,2	) 3,8	1,9	-	3,3
	TOTAL MANUFACTURING	43,2	36,5	33,7	34,1	30,0	43,4
7	BUILDING, CIVIL ENGINEERING	8,0	10,5	4,4	6,8	6,6	5,5
81	Transport services	2,9	3,3	) 6,6	6,6	) 7,8	6,2
82	Communications	2,4	2,1	)	4,3	)	1,4
83	Trade services	11,6	12,0	13,7	12,0	)	7,8
84	Other market services	16,6	19,3	23,8	25,4	)	15,5
	of which:banking,finance,insur.	3,9	-	4,6	8,9	)	1,1
85	hotels, catering	0,4	2,4	1,7	0,5	) 28,7	2,3
86	other market services not specified elsewhere	12,3	-	17,5	16,0	)	12,1
8	TOTAL MARKET SERVICES	33,5	36,7	44,1	48,3	37,2	30,9
9	NON-MARKET SERVICES	9,4	5,7	6,5	4,1	11,6	11,8
	TOTAL SERVICES	42,9	42,4	50,6	52,4	48,8	42,7
	T O T A L	100,0	100,0	100,0	100,0	100,0	100,0

\* Gross added value at factor costs

\*\* 1963-74

The comparison in Table 3 between structures in the year at the beginning of the period, average annual growth in real terms and the contribution made by the main categories to growth gives a composite picture of the interaction between the growth and relative importance of the branches.

The conclusions that can be drawn from the comparison shed light on the different comments made in the above paragraphs:

- the bulk of the growth achieved is, generally speaking, accounted for by same groups of industries in all countries, these being in order of importance:
  - (i) intermediate products;
  - (ii) equipment products;
  - (iii) energy products, except in Germany and the United Kingdom;
  - (iv) market services, except in Germany and Belgium;
  - (v) building and construction, except in Italy and Belgium.

The special cases relate to the contribution to overall growth of the expansion in non-market services in Belgium and goods for current consumption in Italy and Belgium.

- the spread of growth rates between branches varies significantly, being narrow for Germany and, above all, the United Kingdom and wider for the other countries. These factors will determine the scale of changes in real terms in each country's production structure.

TABLE 3 COMPARISON OF STRUCTURES IN THE FIRST YEAR, AVERAGE GROWTH AND CONTRIBUTION TO GROWTH

B R A N C H E S	D			F			I			UK*			NL			B**		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
1. Agricultural products	5,4	1,4	1,2	9,2	1,9	2,4	14,1	1,9	3,6	4,0	2,7	3,0	8,6	3,0	4,2	4,7	1,2	1,0
2. Energy products	6,0	4,2	4,7	7,0	7,5	8,1	5,3	7,8	7,8	5,5	1,9	3,6	5,7	10,2	10,5	5,7	6,3	7,4
3. Intermediate products	8,6	6,0	11,0	7,6	8,0	8,4	7,0	9,3	9,3	7,4	4,1	9,4	5,2	9,1	10,3	7,7	8,2	14,7
4. Equipment products	15,8	4,9	18,5	11,3	7,0	16,6	6,6	9,5	9,5	14,4	2,6	13,5	10,3	5,5	10,1	8,5	8,2	14,7
5. Food products	6,7	4,4	5,5	5,9	6,3	3,9	5,9	5,2	5,2	3,5	2,6	3,2	7,4	4,4	4,7	5,2	4,6	5,0
6. Products for current consumption	9,2	4,1	8,2	9,4	6,2	7,6	8,4	9,6	9,6	8,5	2,4	8,0	9,0	3,9	4,9	8,0	5,3	9,0
<u>TOTAL MANUFACTURING</u>	40,3	4,8	43,2	34,2	6,9	36,5	28,0	33,7	34,1	34,1	2,9	31,8	31,8	5,6	30,0	29,3	6,8	43,4
7. Building, civil engineering	7,5	4,4	8,0	7,8	2,7	10,5	7,6	4,4	4,4	6,3	2,6	6,8	7,0	4,9	6,6	7,8	3,2	5,5
8. Market services	33,3	4,3	33,5	32,7	6,2	36,7	34,6	44,1	39,2	39,2	3,0	48,3	36,2	4,6	37,2	41,5	3,5	30,9
9. Non-market services	7,5	4,4	9,4	9,1	2,8	5,7	10,5	6,5	6,5	11,3	0,7	4,1	10,7	4,7	11,6	10,0	5,1	11,8
<u>TOTAL SERVICES</u>	40,9	4,3	42,9	41,8	5,4	42,4	45,1	50,6	50,4	50,4	2,4	52,4	46,9	4,6	48,8	51,5	3,9	42,7
T O T A L	100	4,4	100	100	5,3	100	100	100	100	100	2,6	100	100	5,1	100	100	4,7	100

(1) Relative shares of added value in 1960, at current prices \* Gross added value at factor costs  
 (2) Average annual growth rate 1960-73, at 1970 prices \*\* Column 1: added value 1965;  
 (3) Contributions to growth 1960-73 Columns 2 and 3: period 1965-74

2.4 Scale of sectoral changes: analysis at 1970 constant prices

Measuring the scale of the changes that have taken place in European economies since the start of the European integration process raises the problem of the choice of a specific indicator of "change".

The factors that make for changes in the structure of added value are two-fold: the relative growth rate of each industry and its contribution to total added value at the outset.

There is a third factor, namely the number of branches into which the economy is broken down. Clearly, the more detailed the breakdown, the more substantial the changes since many of the factors going into the larger aggregate will already have cancelled each other out.

The indicator chosen is yielded by calculating for each sector the difference between its shares of GDP at the beginning and at the end of the period and then by calculating the arithmetic mean of the absolute values of these differences (this will need to be an average percentage over three years in order to eliminate cyclical fluctuations).

The following results were obtained:

Changes in real terms

	D	F	I	UK	NL	B
Number of branches	11	11	11	11	11	11
Average change	0,41	1,47	2,03	0,63	1,32	1,77
Number of branches	25	26	19	27	22	27
Average change	0,54	0,84	1,17	0,56	0,83	0,95
Classification	6	3	1	5	4	2

This table reveals the impact the breakdown has on the average indicator of change; although, in both cases, the order of classification from the country experiencing the most marked changes to the country experiencing the least marked changes is the same (Italy, Belgium, France, Netherlands, United Kingdom, Germany), the order of magnitude differs appreciably.

- Germany is the only country to have a higher indicator of change if the economy is broken down into 25, and not 11, branches;
- the United Kingdom has the same indicator with a 27-branch breakdown as Germany;

- the indicators for the Netherlands and France are also closely matched and are a great deal closer to the average German indicator than in the case of an 11-branch breakdown;
- Belgium and Italy likewise moved much closer to the Community average.

It will be observed from the above remarks that classification into 11 branches corresponds to a disaggregation of the economy into homogeneous groups by allocation of the products listed in them and that there is, on the one hand, the conventional subdivision into agriculture, energy, manufactures, building and public works, and services and, on the other hand, within the industrial sector proper, groups of products intended for intermediate consumption, investment or final consumption.

The low average index for Germany in the case of the 11-branch breakdown signifies that average growth in each branch was of the same order of magnitude as average growth in the economy and hence that "heavy" structures in Germany did not change in fifteen years - this was also true of the United Kingdom. By contrast, if a more detailed breakdown is applied (25 branches in Germany, 27 in the United Kingdom), the conclusions reached for these two countries differ radically; the United Kingdom finds itself with an even lower indicator of change while the indicator for Germany is over 25% higher: within the homogeneous groups, structures in Germany thus underwent a much more marked transformation, with a shift away from agricultural and industrial machinery, and textiles to high-technology sectors such as chemicals and electrical equipment.

In this way, an immense difference comes to light as regards the sectoral dynamism in each of the two countries which at the outset were the most highly industrialized. The structures in Germany, already more advanced than those in the other European countries, adapted to the trend of both domestic and international demand while those in the United Kingdom remained more resistant to change, gradually losing their traditional predominance in certain industries without making way for new structures.

The structural changes in the other countries were all very consistent, being far-reaching changes geared to modernization. The size of the agricultural sector in France, Italy and Belgium fell by 3.2, 4.6 and 4.2 percentage points respectively while the size of their manufacturing industries increased by 3.7, 5. and 6.8 points respectively. In the Netherlands, the energy sector was the growth leader, its share rising from 3.8 % of the economy at the beginning of the period to 6.2 % at the end. In all these countries, except Italy, the services sector contracted by about 3 percentage points in relative terms.

The overall impact of these developments was to bring structures more closely into line with structures in Germany, at least where the 11-branch breakdown is concerned. If the same type of indicator as that used to measure changes is applied as the "alignment" index and if each country's structures are compared with structures in Germany, the following results are obtained: Average discrepancy between each country's structures and those in Germany

	F	I	UK	NL	B
Beginning of period	2.0	3.2	2.4	2.8	2.3
End of period	1.5	2.3	2.2	2.3	1.6

In view of the similar pattern of developments identified in each of these countries (with the exception of the United Kingdom), the table above shows that, generally speaking, the structures of the countries in the EEC are tending to become increasingly harmonized.

#### 2.5 Sectoral changes in money terms

All the measurements carried out so far have been based on data for added value calculated at 1970 prices. Their validity thus depends on the quality of the price index used to deflate current values or on the possibility of calculating data in real terms directly. Both approaches raise serious difficulties in the services sector, which accounts for between 40% and 50% of added value.

By applying the same type of change indicator as described above, we are able to measure changes in the added value at current prices of each branch in the fifteen years under review.

#### Changes in money terms

	D	F	I	UK	NL	B
Number of branches	25	26	19	27	22	27
Average change	0,94	0,75	1,05	0,73	1,13	1,06
Classification in money terms	4	5	3	6	1	2
"Change" indicator in real terms	0,54	0,84	1,17	0,56	0,83	0,95
Classification in real terms	6	3	1	5	4	2

Here, the "League table" looks quite different. Although the United Kingdom is still the country with a low indicator of change, it is joined by France, which here is outdistanced by Germany. Italy falls back from 1st place to 3rd place and the Netherlands jumps from 4th place to 1st place.

This somewhat paradoxical result reflects the differences in relative growth rates when measured in real terms as compared with the measurement in money terms.

Germany and the United Kingdom: the relative growth in goods and services is identical while the growth in money terms in the services sector is almost twice as fast as that for goods. This affects the breakdown of added value in money terms.

France: The more rapid relative real growth in goods than in services is offset by a more rapid growth in money terms in services than in goods.

The Netherlands and Belgium showed the same pattern of change as France, but the changes in real terms were not offset by those in money terms.

To sum up, the analysis of the sectoral changes in added value yields a fairly consistent picture of a steady process in which supply structures adjust to demand conditions, although this picture is much more valid for the original Member States than for the United Kingdom. Measurement of the scale of changes is highly dependent on the degree of breakdown used, and with a study based on 40 branches Germany would possibly have the highest average indicator of change. It is, however, evident that the structures in the United Kingdom are extremely rigid as regards both real changes and changes in money terms, and this hampers the country's capacity to respond to new economic requirements.

TABLE 4 - RELATIVE SHARES OF VALUE ADDED 1960 - CURRENT PRICES

	D	F	I	UK *	NL	B
AGRICULTURAL PRODUCTS	5.4	9.2	14.1	4.0	8.6	6.9
ENERGY PRODUCTS	6.0	7.0	5.3	5.5	5.7	7.2
of which: Solid fuels	2.3	1.2	..	2.7	1.3	2.7
Crude petroleum/refined nat. gas	1.3	3.9	..	0.2	2.1	2.2
Electricity, gas, water	2.4	1.9	..	2.5	2.3	2.4
INTERMEDIATE PRODUCTS	8.6	7.6	7.0	7.4	5.2	7.1
of which: Ores, iron and steel	2.8	3.1	2.1	2.7	1.4	3.0
Minerals, building material	2.3	1.7	2.4	1.7	1.5	2.5
Chemicals products	3.5	2.8	2.5	2.9	2.3	1.7
EQUIPMENT PRODUCTS	15.8	11.3	6.6	14.4	10.3	6.6
of which: Metal products	4.7	2.5		2.9	..	1.7
Agric. and industr. machinery	4.8	3.4	4.8	3.6	..	2.1
Prec. instr., data process. equipm.	0.4	0.6		0.6	..	0.7
Electrical equipm.	3.2	1.9		2.6	3.6	1.3
Motor vehicles	2.3	2.1	1.8	1.7	0.5	0.6
Other means of transport	0.4	0.6		2.8	..	0.9
FOOD, DRINK, TOBACCO	6.7	5.9	5.9	3.5	7.4	7.6
CURRENT CONSUMPTION PRODUCTS	9.2	9.4	8.4	8.5	9.0	7.9
of which: Text., leather, clothing	4.3	4.7	4.5	4.0	4.1	4.6
Paper, printed material	2.4	2.1	1.4	2.6	2.7	1.6
Rubber, plastics	1.0	1.0	2.5	0.6	0.7	0.3
Other industrial products	1.5	1.6		1.3	1.5	1.4
TOTAL MANUFACTURING INDUSTRY	40.3	34.2	28.0	33.7	31.8	29.2
BUILDING AND CIVIL ENGINEERING	7.5	7.8	7.6	6.3	7.0	6.5
Transport services	4.6	3.9	6.1	7.2	8.6	5.6
Communication services	1.5	1.3		1.9		1.3
Trade services	13.7	13.0	12.1	13.0	27.4	12.2
Other market services	13.5	14.5	16.4	17.1		21.4
of which: Credit, insurance	2.3	..	3.0	3.9	2.9	..
Hotels accom. catering	1.4	2.7	1.6	1.9	1.2	..
Other market services n.e.c.	..	..	..	..	..	..
TOTAL MARKET SERVICES	33.3	32.7	34.6	39.2	36.2	40.4
Non-market services	7.5	9.1	10.5	11.3	10.7	9.8
TOTAL SERVICES	40.9	41.8	45.1	50.4	46.9	50.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

\* United Kingdom: gross value added at factor cost.



TABLE 5 - RELATIVE SHARES OF VALUE ADDED 1973 - CURRENT PRICES

	D	F	I	UK *	NL	B
AGRICULTURAL PRODUCTS	3.0	5.9	8.1	2.9	5.8	3.6
ENERGY PRODUCTS	4.6	6.2	5.3	4.5	6.1	5.6
of which: Solid fuels	0.9	0.4		1.2	0.2	0.4
Crude petroleum/refined nat. gas	1.2	3.8		0.2	3.5	2.5
Electricity gas-water	2.4	2.0		3.0	2.5	2.7
INTERMEDIATE PRODUCTS	7.8	7.3	6.8	5.6	6.5	8.3
of which: Ores, iron and steel	2.1	2.5	2.0	1.7	1.4	3.5
Minerals, building material	2.1	1.9	2.0	1.5	1.5	2.1
Chemicals products	3.5	2.9	2.8	2.5	3.7	2.7
EQUIPMENT PRODUCTS	16.0	12.4	8.5	12.9	9.2	7.9
of which: Metal products	3.5	2.5	(	2.2	..	2.1
Agric. and industr. machinery	4.3	4.0	) 6.3	3.7	..	1.9
Prec. instr., data process. equipm.	0.8	0.8	(	0.8	..	0.1
Electrical equipm.	3.9	2.2	)	2.4	3.2	2.0
Motor vehicles	3.0	2.5	(	1.7	0.5	1.2
Other means of transport	0.5	0.5	) 2.2	2.0	..	0.6
FOOD, DRINK, TOBACCO	4.9	4.7	4.1	3.1	5.2	4.5
CURRENT CONSUMPTION PRODUCTS	8.0	8.5	8.9	7.5	6.0	7.4
of which: Text., leather, clothing	2.9	3.3	4.4	2.7	1.8	3.3
Paper, printed material	2.7	2.4	1.5	2.7	2.3	1.7
Rubber, plastics	1.0	0.9	(	0.9	0.5	0.8
Other industrial products	1.3	2.0	) 3.0	1.3	1.4	1.7
TOTAL MANUFACTURING INDUSTRY	36.7	32.9	28.3	29.0	27.0	28.1
BUILDING AND CIVIL ENGINEERING	8.4	9.6	7.8	7.6	7.8	7.4
Transport services	3.6	3.4	(	6.9	} 7.4	6.7
Communication services	1.9	1.6	) 5.4	2.5		1.4
Trade services	12.6	11.6	11.2	11.3	} 31.9	17.6
Other market services	18.2	19.2	22.6	20.9		18.3
of which: Credit, insurance	1.9	..	4.7	5.7	4.1	..
Hotels accomm. catering	1.3	2.9	1.7	1.9	1.0	..
Other market services n.e.c.	..	..	..	..	..	..
TOTAL MARKET SERVICES	36.3	35.7	39.1	41.6	39.3	43.9
Non-market services	11.0	9.7	11.4	14.4	14.0	11.5
TOTAL SERVICES	47.4	45.4	50.5	56.1	53.3	55.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

\* United Kingdom: gross value added at factor cost.

TABLE 6 - RELATIVE SHARES OF VALUE ADDED 1960, AT 1970 PRICES

		D	F	I	UK *	NL	B
Nº	BRANCHES						
1	AGRICULTURAL PRODUCTS	4.1	8.9	12.3	2.8	7.5	7.8
2	ENERGY PRODUCTS	5.0	5.5	4.6	5.0	3.8	4.5
21	of which: Solid fuels	2.1	1.1	..	2.6	1.3	2.0
22	Crude petroleum/refined nat. gas	0.9	2.9	..	0.2	1.3	1.5
23	Electricity, gas, water	2.0	1.5	..	2.2	1.2	1.5
3	INTERMEDIATE PRODUCTS	7.2	6.1	5.2	5.4	4.5	6.5
31	of which: Ores, iron and steel	2.5	2.6	1.5	2.4	1.3	2.9
32	Minerals, building material	2.2	1.5	2.0	1.3	1.6	2.1
33	Chemicals products	2.4	2.0	1.7	1.8	1.7	1.5
4	EQUIPMENT PRODUCTS	16.4	9.1	6.3	12.9	9.0	5.7
41	of which: Metal products	4.4	2.2	}	2.7	..	1.5
42	Agric. and industr. machinery	5.5	2.9		5.1	3.5	..
43	Prec. instr., data process. equipm.	0.4	0.6	}	0.5	..	0.1
44	Electrical equipm.	2.9	1.5		2.0	2.4	1.4
45	Motor vehicles	2.7	1.6	}	1.4	0.4	0.7
46	Other means of transport	0.5	0.4		1.2	2.7	..
5	FOOD, DRINK, TOBACCO	5.6	5.6	4.3	3.1	5.7	5.8
6	CURRENT CONSUMPTION PRODUCTS	9.0	8.6	7.7	8.1	7.1	7.6
61	of which: Text., leather, clothing	4.3	4.1	3.8	3.5	3.1	4.4
62	Paper, printed material	2.6	2.2	1.4	2.7	2.1	1.6
63	Rubber, plastics	0.7	0.8	}	0.6	0.4	0.3
64	Other industrial products	1.4	1.5		2.4	1.3	1.5
	TOTAL MANUFACTURING INDUSTRY	38.2	29.4	23.4	29.6	26.3	25.7
7	BUILDING AND CIVIL ENGINEERING	8.2	8.4	10.4	6.6	6.9	3.4
81	Transport services	4.0	4.0	}	7.2	}	6.2
82	Communication services	1.4	1.2				
83	Trade services	13.0	11.1	10.4	11.1	12.15	14.5
	Other market services	16.6	18.9	19.0	19.8	22.3	21.3
84	of which: Credit, insurance	2.3	..	3.3	4.3	4.0	..
85	Hotels accomm. catering	1.7	3.3	1.6	2.3	1.4	..
86	Other market services n.e.c.	..	..	..	..	..	..
8	TOTAL MARKET SERVICES	35.0	35.2	35.0	39.9	42.6	43.3
9	NON-MARKET SERVICES	9.6	12.7	14.2	16.1	12.9	9.8
	TOTAL SERVICES	44.5	47.9	49.3	56.0	55.5	53.2
	TOTAL	100	100	100	100	100	100

\* United Kingdom: value added at factor cost.  
 .. data non available or not comparable.

TABLE 7 - RELATIVE SHARES OF VALUE ADDED 1973, AT 1970 PRICES

		D	F	I	UK *	NL	B
N°	BRANCHES						
1	AGRICULTURAL PRODUCTS	3.1	5.6	7.8	2.9	6.1	3.7
2	ENERGY PRODUCTS	4.9	6.6	6.1	4.6	6.2	6.2
21	of which: Solid fuels	0.9	0.3	..	1.1	0.2	0.4
22	Crude petroleum/refined nat. gas	1.5	4.1	..	0.3	3.3	2.8
23	Electricity, gas, water	2.5	2.2	..	3.2	2.6	3.0
3	INTERMEDIATE PRODUCTS	8.8	7.3	7.2	6.3	6.8	9.8
31	of which: Ores, iron and steel	2.4	2.3	2.2	1.8	1.5	4.1
32	Minerals, building material	2.2	1.9	2.1	1.6	1.5	2.3
33	Chemicals products	4.2	3.0	2.9	2.8	3.8	3.3
4	EQUIPMENT PRODUCTS	16.9	12.9	8.0	13.1	9.6	9.3
41	of which: Metal products	3.7	2.6	} 6.0	2.3	..	2.5
42	Agric. and industr. machinery	4.6	4.1		3.8	..	2.3
43	Prec.instr.,data process.equipm.	0.9	0.9	} 2.0	0.9	..	0.1
44	Electrical equipm.	3.9	2.4		2.7	3.4	2.4
45	Motor vehicles	3.3	2.6	} 2.0	1.7	0.5	1.4
46	Other means of transport	0.5	0.5		..	..	..
5	FOOD, DRINK, TOBACCO	5.5	4.7	4.6	3.2	5.1	5.3
6	CURRENT CONSUMPTION PRODUCTS	8.6	8.1	8.5	8.0	6.1	8.1
61	of which:Text.,leather, clothing	3.2	3.3	4.0	3.0	2.0	3.6
62	Paper, printed material	2.7	2.1	1.5	2.7	2.3	1.7
63	Rubber, plastics	1.2	0.9	} 3.0	1.0	0.6	0.9
64	Other industrial products	1.5	1.9		1.4	1.3	1.9
	TOTAL MANUFACTURING INDUSTRY	39.8	33.1	28.4	30.6	27.7	32.4
7	BUILDING AND CIVIL ENGINEERING	8.2	9.6	7.5	6.8	7.4	7.5
81	Transport services	3.6	3.7	} 6.2	6.9	} 8.0	6.0
82	Communication services	1.8	1.6		2.5		1.4
83	Trade services	12.4	11.6	12.0	11.2	13.7	12.4
	Other market services	16.7	19.1	21.5	21.4	18.0	19.2
84	of which: Credit, insurance	3.0	..	4.0	5.5	3.4	..
85	Hotels accomm. catering	1.2	2.9	1.7	1.9	1.2	..
86	Other market services n.e.c.						
8	TOTAL MARKET SERVICES	34.6	36.0	39.7	42.0	39.7	39.0
9	NON-MARKET SERVICES	9.6	9.1	10.5	13.1	12.9	11.1
	TOTAL SERVICES	44.1	45.1	50.2	55.1	52.6	50.1
	TOTAL	100	100	100	100	100	100

\* United Kingdom: value added at factor cost.  
 .. data non available or not comparable.

B.2 - FOREIGN TRADE

1. Changes in foreign trade

The increase in the share of foreign trade is the most fundamental change to have occurred in the European economies over the last fifteen years. Exports have been one of main engines of economic growth for the EEC countries and there is a close relationship between the faster expansion of certain sectors of the economy and their export performances.

Over the same period, imports also increased sharply: according to the circumstances, this trend went hand in hand with the growth of domestic production (frequently the case in equipment goods sectors) or, by a substitution effect, added to or even caused the decline of the sectors involved (for example substitution for the primary forms of energy, etc.).

The accelerated expansion of trade was mainly accounted for by the sharp rise in goods movements. Thus, for the EEC as a whole the overall volume growth rate of exports (73/60) was 8,8 % per annum, but the rate for goods was 9,2 % as against 6,7 % for services. The share of services in total exports generally fell in all the countries except those where the implicit price index for exported services increased much more rapidly than that for exports (France, United Kingdom).

Goods and services share \* in exports (current value)

<u>TABLE 1</u>	D		F		I		UK		NL		B	
	1961	1973	1961	1973	1961	1973	1961	1973	1961	1973	1961	1973
Exports of goods	88,4	92,8	85,7	83,5	82,3	86,2	72,4	71,9	77,3	84,5	86,6	87,3
Exports of services	11,6	7,2	14,3	16,5	17,7	13,8	27,6	28,1	22,7	15,5	13,4	12,7
T o t a l	100	100	100	100	100	100	100	100	100	100	100	100

\* The relative shares are values smoothed over 3 years e.g. 1973 is average for 1972, 1973 and 1974

However, because of the lack of sectoral data on trade in services, the comments which follow will relate only to trade in goods.

Very rapid growth in foreign trade, but a degree of involvement in the international market which varies with the country

The increasing involvement in international trade which is a feature of the period is clearly shown in the global results recorded in the table below.

Volume and value growth rates of exports and imports of goods and of GDP  
(Average annual rates, not smoothed)

TABLE 2	Value (national currency)			Volume			Elasticity (volume)	
	1973/1960	1973/1960	1973/1960	73/60	73/60	73/60	Exp/GDP	Imp/GDP
	Exports	Imports	GDP	Exports	Imports	GDP		
D	10,4	9,7	9,0	9,6	10,0	4,6	2,1	2,2
F	12,7	13,4	10,7	10,4	11,4	5,6	1,8	2,0
I	14,3	14,0	10,7	12,0	10,4	5,1	2,4	2,0
NL 1)	11,8	11,1	11,2	12,2	10,1	5,5	2,2	1,8
B	12,6	11,8	9,2	10,1	9,3	5,0	2,1	1,9
UK 2)	9,3	9,7	8,3	5,7	6,5	3,0	1,9	2,2

- 1) For the Netherlands average annual growth rate in volume over the period 1963-73
- 2) For the United Kingdom average annual growth rate in volume over the period 1963-73.

Import elasticities over a long period are very close to each other in the different countries whereas the spread of GDP growth rates is wider, ranging from 3,0 for the United Kingdom to 5,6 for France: thus, lower British growth combined with weak export buoyancy did not protect the United Kingdom's productive system from increased competition by foreign producers.

Very variable involvement by the countries in Community trade

The degree of the countries' involvement in Community trade is in inverse proportion to their size, since the small countries are obviously much more deeply involved in (or dependent on) the international markets than the larger countries.

Each country's share in the foreign trade of the EEC(6) and degree of commitment

	as % of the total				in thousands of dollars per capita			
	1963		1973		1963		1973	
	Exp.	Imp.	Exp.	Imp.	Export per capita	Import per capita	Export per capita	Import per capita
D	27,9	22,5	31,6	24,6	0,545	0,444	1,976	1,581
F	16,3	16,5	16,7	17,0	0,400	0,436	1,300	1,356
I	10,4	14,0	12,2	14,7	0,250	0,364	1,043	1,280
NL	10,1	11,1	11,3	11,3	1,115	1,327	4,035	4,126
BLEU	9,0	9,7	10,4	10,1	1,166	1,364	4,328	4,313
UK	24,4	26,2	17,8	22,3	0,478	0,554	1,182	1,522

The Federal Republic of Germany's leading position in exports reflects this economy's degree of involvement in international trade which is significantly higher than that of partners of a comparable size; this position was not threatened during the period. Conversely, the degree of competition on its domestic market is not appreciably higher than that of the three other major countries.

## 2. Exports

A marked difference in specialization tending to become less pronounced over the years - though this judgement must be qualified according to the degree of aggregation used.

A country's exports, when analysed in terms of sectors, must be approached from two points of view: the structure by products determines the sectors' different sensitivity to the international environment (either directly, or indirectly by a diffusion effect); comparison of the structure by products with that of all the partners is a good indicator of the international specialization of the country considered 1).

These two points of view were considered simultaneously. The group then made a tentative analysis of relative price trends.

### 2.1. Structure and specialization

In the early sixties, the breakdown by product of each country's sales on foreign markets differed widely:

Breakdown and trend of exports of goods  
(current value) (relative shares)

	D		F		I		UK		NL		B	
	61	73	60	73	60	73	64	73	62	73	62	73
Agricultural products	0,9	1,2	5,9	9,5	11,4	4,2	2,1	1,4	12,3	9,7	3,7	3,2
Fuel & Power products	5,7	2,9	4,1	2,8	6,3	6,8	2,6	3,5	11,4	16,6	4,3	3,0
Intermed. prod.	27,6	26,7	27,9	24,6	12,1	13,5	21,1	22,6	18,0	24,2	38,4	35,3
Equipment products	54,4	53,4	30,0	37,4	34,1	39,6	54,0	53,7	27,5	23,3	22,2	28,5
Food, beverages tobacco	1,8	3,5	9,7	9,2	6,1	4,7	6,0	6,3	17,8	15,6	4,7	7,1
Products of current consumption	9,7	12,4	22,3	16,5	30,0	31,2	14,2	12,4	13,2	10,6	26,7	22,8
Total goods	100	100	100	100	100	100	100	100	100	100	100	100

The relative shares are values smoothed over three years  
e.g. 1973 is average for 1972, 1973 and 1974

- 1) For each country and each branch the specialization index relates the share of the country considered for this product to its share for all products  
e.g.  $\frac{\text{agricultural exports of the FRG}}{\text{agricultural exports of the Six}} / \frac{\text{exports of the FRG}}{\text{exports of the Six}}$   
which can also be written  $\frac{\text{ag. exp. FRG}}{\text{FRG exp.}} / \frac{\text{ag. exp. Six}}{\text{Six exp.}}$   
the values being fob in dollars.  
This indicator to some extent eliminates the effects of the countries' size.

German and British exports consisted mainly of equipment and intermediate products (respectively 82% and 75% of the total in 1960); of these categories, the value of foreign sales of industrial and agricultural machinery, electrical engineering equipment, transport equipment and chemical products by itself accounted for over 55% of the amount of products exported. In contrast, for these same four sectors of activity, the other EEC countries' share of exports was only around 30%, the remainder consisting largely of the products of primary processing industries (steel) or current consumption industries (primarily textiles and clothing).

This was particularly the case for Belgium, where exports of steel and other non-transformed metal products amounted to 25% of the total and exports of textile- and leather-based products to 16,6%. The equivalent figures were 16% and 14,4% for France.

Italian exports were concentrated on a small number of industries: clothing, 21%, agricultural products and food, 17,5%; however, the branch producing machinery for industry and agriculture already accounted for 12%, twice the percentage for France in 1960. The amount of foreign sales of this type of product is still, however, modest, in the region of 420 million units of account, or less than 20% of the German figure.

The structure of Netherlands exports was rather different from that of its partners; few intermediate products, except for the chemical industry, few equipment or current consumption products: exports consisted mainly of agricultural and processed good products (30 % of exports) or were fuel and power products (11,4%). In the industrial area, sales of electrical goods and precision instruments were the only ones to reach a high percentage, at 13,2% of the total.

The composite specialization indices confirm these relative positions at the start of the period: the Federal Republic of Germany is shown as specializing intensively in equipment goods (index 1,28 in 1963, particularly in agricultural and industrial machinery, office machines and motor vehicles), about average as regards fuel and power and intermediate goods, and lastly very low or low in comparison with its partners as regards exports of agricultural products and food or products of current consumption.



The United Kingdom also specialized heavily in equipment goods (index 1,26 in 1963) but in types of production which probably expanded less rapidly; its position was generally closer than the FRG's to the Community average in agricultural products, food and products of current consumption products.

Differences were, however, discernible in the initial specializations of France and Italy in agricultural products and food and current consumption products: both specialized in agricultural products, but Italy had a low initial capacity for food (specialisation indices respectively 1,46 for France in 1963 and 0,83 for Italy).

Lastly, the unusual structure of the Netherlands' exports is confirmed.

TABLE 5

TREND OF EXPORTS OF GOODS

(Starting year structure and growth rate in volume)

Branches	D		F		I		UK		NL		B	
	1961	73-61 Δ	1960	73-60 Δ	1960	73-60	1964	73-64 Δ	1962	73-62 Δ	1962	71-72 Δ
1 Agricultural products	0,9	11,3	5,9	13,6	11,4	0,6	2,1	1,1	12,3	8,2	3,7	9,9
21 Solid fuels	4,6	-2,1	0,4	4,8	0,1	18,1			2,5	-2,9	1,4	-8,9
22 Crude petroleum/refined natural gas	1,1	7,7	3,6	7,1	6,3	-0,4	2,6	5,6	9,0	15,0	2,6	13,8
23 Electricity, gas, water	12,1	6,3	16,2	6,2	0,2	0,3	7,4	3,4	4,4	13,9	24,9	7,2
31 Ores, iron and steel	3,0	5,2	3,0	8,9	2,8	15,0	2,7	2,8	2,6	6,9	4,6	7,1
32 Minerals, building material	12,5	12,1	8,7	14,4	9,0	10,0	11,0	9,8	11,0	19,9	9,0	15,7
33 Chemical products	6,8	5,8	3,7	11,6	6,0	10,9	7,7	8,0	1,7	13,4	3,2	8,9
41 Metal products	21,0	6,5	6,9	13,4	12,0	13,0	19,4	4,5	6,7	11,0	6,6	9,4
42 Agricultural and industrial machinery	2,5	11,8	1,8	17,4	3,2	9,1	3,0	12,7	13,2	9,5	0,3	22,1
43 Precision instr., data processing equipment	8,8	10,4	3,8	15,7	2,5	19,7	7,2	5,2			4,5	11,0
44 Electrical equipment	12,8	9,6	10,9	10,7	5,8	9,2	11,5	3,2	5,7	11,0	4,2	23,5
45 Motor vehicles	2,6	4,8	3,0	12,4	4,7	4,8	5,2	8,0			4,7	15,8
46 Other means of transport	1,8	13,9	9,7	9,0	6,1	8,2	6,2	4,9	17,8	9,1	4,7	15,8
5 Food, drink, tobacco	4,8	11,4	14,4	6,7	20,9	9,8	9,1	4,9	8,3	10,2	16,6	7,6
61 Textiles, leather, clothing	1,4	12,1	2,2	9,2	1,0	18,0	2,1	7,4	2,6	11,5	2,2	14,0
62 Paper, printed material	1,4	17,3	1,8	14,1	1,8	15,2	1,5	7,8	0,9	16,6	1,0	23,3
63 Rubber, plastics	2,0	7,2	3,9	8,7	6,9	13,2	1,5	7,4	1,4	11,1	6,9	10,3
64 Other industrial products	100,0	8,5	100,0	9,9	100,0	9,4	100,0	6,1	100,0	11,8	100,0	11,1
TOTAL GOODS												

N.B. The relative shares and growth rates are smoothed values (cf Table 1, note).

TABLE 6

## STRUCTURE OF EQUIPMENT PRODUCTS EXPORTS AS % OF TOTAL EXPORTS

	GERMANY				FRANCE				ITALY			
	1965	1970	1974	1965	1970	1974	1965	1970	1974	1965	1970	1974
41 Metal products	4,3	3,9	3,6	2,7	2,9	3,0	3,4	3,8	3,0	3,4	3,8	3,8
42 Agric. and indust. machinery	24,0	24,3	22,9	11,1	13,5	12,8	16,9	22,1	18,3	16,9	22,1	18,3
43 Precision instruments, data processing equipm.	2,8	2,7	2,3	1,3	1,6	1,4	1,1	1,3	1,4	1,1	1,3	1,4
44 Electrical equipment	7,8	8,5	8,0	5,2	6,2	6,1	4,1	5,4	4,9	4,1	5,4	4,9
45 Motor vehicles	14,1	14,3	11,7	7,7	11,2	9,9	7,2	9,2	8,4	7,2	9,2	8,4
46 Other means of transport	2,2	1,7	1,8	3,2	3,7	2,8	2,9	1,3	1,3	2,9	1,3	1,3
TOTAL	55,3	55,4	50,2	31,5	39,1	36,1	35,6	43,1	37,8	35,6	43,1	37,8

  

	NETHERLANDS				BLEU				UNITED KINGDOM			
	1965	1970	1974	1965	1970	1974	1965	1970	1974	1965	1970	1974
41 Metal products	2,1	2,2	2,1	2,8	2,8	2,9	8,1	7,7	9,5	8,1	7,7	9,5
42 Agric. & indust. machinery	7,4	7,8	6,6	7,0	7,1	7,0	19,4	19,0	16,3	19,4	19,0	16,3
43 Precision instruments, data processing equipment	0,9	1,5	1,8	0,4	0,3	0,4	3,1	4,6	4,9	3,1	4,6	4,9
44 Electrical equipment	10,1	8,4	6,8	4,4	4,8	4,7	7,0	7,0	7,0	7,0	7,0	7,0
45 Motor vehicles	1,4	1,8	1,7	7,9	9,7	8,2	11,4	10,6	8,2	11,4	10,6	8,2
46 Other means of transport	4,2	3,1	2,7	2,3	1,5	0,7	5,5	5,3	5,3	5,5	5,3	5,3
TOTAL	26,2	24,9	21,8	24,7	26,2	23,9	54,5	54,3	51,2	54,5	54,3	51,2

The result of the complete liberalization of trade between the EEC countries and more generally of the rapid expansion of trade between the industrialized countries was a remarkable growth in the exports of most branches of the economy.

In this connection, two factors are apparently of particular importance:

- all the countries have greatly expanded their exports of products of the petroleum-chemical products - rubber and plastics group: growth rates for exports of refined petroleum products or gas are high only for the Benelux countries, but volume growth rates for chemical products are as high as or even well above 10% per annum even for the United Kingdom; as regards growth rates for plastic products, they are close to or above 15% per annum, except for the United Kingdom, where the rate of increase is only about half this figure.
- far from increasing export specialization which might have been justified by the existence of a leading position such as that of Germany in agricultural and industrial machinery, the expansion of international trade frequently enabled countries which were structurally backward to some extent to overcome this handicap by stepping up their foreign sales in respect of this type of product more rapidly than partners who seemed in a better position.

This is the case for products of the agricultural and food industries in Germany (13,9% per annum in volume) and even for textiles and clothing (up 11,4%), for electrical equipment in France (up 15,7%) and in Italy (up 19,7%), for agricultural and industrial machinery, for products of the primary processing of metals in the Netherlands (up 13,9%) and for motor vehicle production in Belgium (up 23,5%). Apart from the petrochemicals sector, it is almost true to say that there is a correlation between the industries which, in the early sixties, accounted for a low share of exports and those which enjoyed the sharpest growth in volume of their foreign markets. The result is that specialization indices have moved closer together (it will be recalled that this indicator, measured in current value, may in some cases show trends different from those mentioned above because of the relative price trend).

TABLE 7  
International specialization index in 1963 and 1974

	D		F		I		UK		NL		BLEU	
	1963	1974	1963	1974	1963	1974	1963	1974	1963	1974	1963	1974
Agricultural products	0,21	0,29	1,82	2,44	1,93	1,17	0,43	0,29	2,69	2,02	0,83	0,66
Energy products	1,12	0,63	0,75	0,49	1,09	1,39	0,60	0,81	2,04	2,86	0,92	0,63
Intermediate products	1,03	1,04	1,07	0,91	0,72	0,78	0,83	0,83	0,75	0,98	1,77	1,58
Equipment products	1,28	1,24	0,74	0,89	0,84	0,93	1,26	1,26	0,58	0,54	0,53	0,59
of which:												
Metal products	0,98	0,84	0,64	0,70	0,67	0,88	1,76	2,21	0,44	0,49	0,70	0,67
Agricultural and industrial machinery	1,44	1,43	0,64	0,80	1,02	1,14	1,16	1,02	0,41	0,41	0,45	0,44
Precision instruments, data processing equipment	1,57	1,05	0,59	0,64	0,57	0,50	1,37	2,23	0,38	0,82	0,10	0,18
Electrical equipment	1,15	1,19	0,72	0,91	0,62	0,73	1,15	1,05	1,39	1,02	0,64	0,70
Motor vehicles	1,42	1,32	0,93	1,11	0,84	0,94	1,19	0,92	0,12	0,19	0,42	0,92
Other means of transport	0,72	0,72	0,91	1,12	0,72	0,52	1,41	2,12	1,28	1,08	0,98	0,28
Food, drink, tobacco	0,29	0,55	1,46	1,34	0,83	0,55	0,98	0,93	2,86	2,21	0,70	1,08
Products of general consumption	0,64	0,79	1,26	1,11	1,65	1,67	0,93	0,90	0,87	0,74	1,31	1,20

Reminder: country i's specialization index for product j =  $\frac{\text{share of i's exports of j}}{\text{share of exports of all countries considered of j}}$

### Federal Republic of Germany

For the market which - in terms of the aggregated classification - has grown most (equipment goods), the FRG's relative position has weakened slightly, but is still a leading one; but this contraction is not particularly due to firms' equipment goods (proper 1), which is largely agricultural and industrial machinery 2)(index stable), electrical goods, and motor vehicles (of which, in the case of the FRG, the position of commercial vehicles is more important than for the other countries).

An improvement in specialization can also be noted within groups of products in relative decline such as agriculture and consumer goods, the initial situation remaining unchanged for intermediate goods.

### France

- within the "agriculture-food complex" the trend is unfavourable: greater specialization in agricultural products and moderate deterioration in more highly processed foods;
- the deterioration is fairly appreciable for the traditional consumer goods and intermediate goods;
- lastly the initially low specialization index for equipment goods improving; this trend is due to all headings, but the most buoyant are motor vehicles and shipbuilding, aeronautical engineering and arms.

### Italy

The specialization trend reflects certain weaknesses of the Italian productive system. In particular the decline in specialization in the agricultural-food complex: the mediocre position in food is deteriorating slightly and the position in agricultural products is deteriorating very significantly - the amount of sales abroad of fresh agricultural products (milk, butter, meat, fruit and vegetables) was constant between 1960 and 1973. Despite some success in the wine area, Italian farmers have failed to step up their output enough to release exportable surpluses.

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- 1) The detailed level of nomenclature does not, however, always enable a distinction to be made between firms' equipment goods and consumer durables (electric household appliances, motor vehicles etc.)
  - 2) The apparent discrepancy between this result and the preceding information on the weaker buoyancy in the volume of exports of agricultural and industrial machinery is accounted for by a very rapid movement of export prices for this product in the FRG probably linked to the revaluation of the German mark as will be seen below.

On the other hand, the high initial specialization in traditional consumer goods is maintained or strengthened; on the basis of the information available, it is not possible to ascertain whether this situation derives, as seems to be the case in the FRG, from active reorganization in specific sectors (in the textiles and clothing sector, for example), or rather from greater resistance so far to new trends in the international division of labour, transferring certain types of traditional consumer good production to countries with low labour costs.

#### United Kingdom

International specialization appears to have changed relatively little if a six-heading breakdown is used, but a more detailed analysis reveals a much more complex picture. Thus the overall stability of the specialization index for equipment products is in fact the composite result of opposing movements: deterioration in respect of agricultural and industrial machinery and motor vehicles, products whose sales are rising for the Community as a whole, and relative improvement of specialization in respect of office machines and precision instruments, metal products and other transport equipment, the importance of which in Community exports as a whole is stable or declining.

This probably illustrates the lack of flexibility in the British system of production, since these good results were achieved by sectors which traditionally were already large exporters.

Thus although British exporters apparently held their own in industrial sectors, where they had won themselves a position of strength, they failed to make any fresh gains on the world market and hence profit from the general expansion.

For the Netherlands, apart from the changes already mentioned on the basis of the volume trends (growing specialization in fuel and power products and corresponding decrease in agricultural food specialization), it should be noted that this country was unable overall to improve its weak initial position in equipment goods (the specialization index for this group of product declines slightly from 1963 to 1974). The rise under the heading office machines and precision instruments is more than offset by the effect of the relative decline of exports of electrical goods.

The creation of the Common Market led to the expected upsurge of exports and required the supply structures of the different sectors to be adjusted to keener international competition - here the case of the United Kingdom, still outside the Community, supports the principle by a negative example.

Hence the sensitivity of the various economies to the economic activity of their trading partners has increased significantly.

However, of the four largest Community countries, the United Kingdom remains the one, given its historical background, with the greatest number of industries working for exports directly and more especially indirectly as is shown by the table below:

Industries supplying over 25% of their production for export

Column 1: direct supply D: over 25% of production exported

Column 2: direct and indirect supply D+I: over 25% of production exported or included in the manufacture of other exported products

FRG		FRANCE		ITALY		UNITED KINGDOM	
D	D+I	D	D+I	D	D+I	D	D+I
	-Solid fuels -Metals (iron & steel) -Chem.prods.	Mot.vehic. Other means of transp.	-Metals (iron&steel) -Motor vehicles -Other means of transport		-Solid fuels -Metals (iron&steel) -Chem.prods. -Metal prods.		-Solid fuels -Metals (iron&steel) -Chem.prods. -Metal prods.
-Ag.&indust. machinery -Precision instrum.& electron.	-Agricult.&ind. machinery -Precision instruments electron.			-Ag.&indust. machinery -Precision instrum.& electron.	-Ag.&indust. machinery -Precision instrum.& electron.	-Ag.&indust. machinery -Precision instrum.& electron.	-Ag.&indust. machinery -Precision instrum.& electronics
-Motor vehicles	-Electrical goods -Motor vehicles -Rubber, plastics -Transport services		-Rubber, plastics -Transport services		-Electrical goods -Motor vehicles -Textile, cloting -Rubber, plastics -Transport services	-Motor vehicles -Transport services	-Electrical goods -Motor vehicles -Other means of transp. -Textile, clothing -Rubber, plastics -Misc.manuf. products -Transport services

Source: Community Input-Output Tables 1970



Unlike the United Kingdom and Italy, France, despite very high rates of increase in the volume of its sectoral exports, is still a country in which a very large number of industries still concentrate their activities very much on satisfying the needs of the domestic market.

As for the Netherlands and Belgium, almost all branches of industry export over 25% of their production directly and between 40 and 75% of this amount by incorporation into other products. The exceptions to this rule are:

- in the Netherlands: agricultural and industrial machinery  
motor vehicles  
textiles, clothing, footwear
- in Belgium: office machines, data processing machines  
precision instruments  
agricultural products and food, beverages

The strategies for expanding exports followed by industrialists in these countries are, however, quite different. The Netherlands is still a large exporter of fuel and power products or derivatives and food products, while Belgium is tending to bring its export structures closer to those of its other European partners with, nevertheless, a certain preponderance for general consumer goods.

To sum up, at global level, the direct and indirect allocation for export between intra-Community and extra-Community trade of the production of all economic branches broke down as follows in 1970.

Table 8 % of global production exported

	to	D	F	I	UK	NL	B
Direct exports	EEC	(*)	3,7	3,7	3,6	13,2	17,7
	Non-member countries	(*)	4,6	6,0	8,6	9,7	8,9
	Total	(*)	8,3	9,7	12,2	22,9	26,6
Direct and indirect exports	EEC	(*)	6,4	6,3	5,7	19,8	24,7
	Non-member countries	(*)	7,9	9,9	14,0	13,9	11,9
	Total	(*)	14,3	16,2	19,6	33,7	36,6

Source: Community Input-Output Tables 1970

(\*) not available

## 2.2. Relative prices and exports

Were pricing mechanisms affected by the extension of markets and the increase in international competition following the establishment of the common market and later of its enlargement? Did this happen within countries by the behaviour of the sectors most protected from international competition being dissociated from those which were most exposed to it. Did producers' pricing differentiate between home and export markets? Lastly, was pricing behaviour and even more, the countries' foreign trade structures affected by the gradual breakdown over the period of the system of fixed parities by increasingly frequent changes within the whole studied from 1967 and then by the general floating of currencies?

This set of questions was tackled by the group, but statistical limitations and deadlines prevented them from producing even a tentative outline of a composite answer. Some results are, however, available, and enable working hypotheses to be refined.

Here we shall pay particular attention to the last two points by concentrating on the analysis of the four largest countries, the FRG, the United Kingdom, Italy and France, and on some typical products of the processing industries

- 33 chemical products, 42 agricultural and industrial machinery, 44 electrical goods, 45 Motor vehicles, and 61 textiles and clothing, leather.

The indicators available are generally an index of average export value in national currency and an index of factor prices. (1).

Average value indices adjusted for exchange rates were also constructed taking as a reference a "composite index of currencies" by weighting the rates of the major currencies by the countries' respective share in world trade. (2).

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(1) The greater the share of exports in the markets, the more the trend of the two indices is parallel in accounting terms.

(2) From 1960 to 1968 the index is virtually that of the dollar exchange rate.

### Wide differences in price trends according to product

Until about 1972 the factor prices of chemical products are fairly stable. Export prices, adjusted for exchange rates, are also stable - apart from some adjustments which will be analysed below. It would seem that there is a fairly clear "general" guide price, with which the countries conform. (1)

Hence, expressed in national currencies, the trends range from a fall in price (FRG) to a more or less marked increase (United Kingdom).

#### Plant and machinery

The growth of factor prices is appreciably faster (wage costs ?); it is also noteworthy that in general export prices in national currency move in parallel with factor prices. Consequently there is a wider spread of trends adjusted for parity movements. The most striking example is that of agricultural and industrial machinery.

#### Traditional consumer goods : textiles.

For textiles the situation seems to be midway between the two previous cases, with greater differences in factor price "behaviour" : in Italy export prices and factor prices move in parallel. In France, the growth of export prices is slower expressed in national currency, and after adjustment for exchange rates the trend is to a considerable extent constant over the period 1960-72.

For the FRG it can be seen that over the period 1960-68 export prices are stable while factor prices rise slightly. From 1968 export prices in national currency follow factor prices. Parity movements then lead to a very rapid growth of export prices in "world currency".

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(1) This is probably due to the fairly standardized nature, overall, of these primary products. The stability is probably linked to the stability of raw materials and even to their fall in price.

However, several impressions emerge from this incomplete and piecemeal information.

- The very wide range of product prices and of export "behaviour" may be partly due to the nature of products, the degree of standardization of which itself varies widely. The producers of "undifferentiated" products are probably subject to greater constraints from the international market, the producers of "sophisticated" goods are better able to escape these constraints and to pass on the domestic Price formation conditions to foreign markets.

Table 9. EXPORT PRICE INDICES 1973/1963

		Chemical products	Agr. and Ind. Machinery	Elect. goods	Motor vehicles	Textiles
in national currency	FRG	98,1	150,5	118,3	127,9	111,9
	France	103,3	124,7	113,1	138,9	131,7
	Italy	159,3	141,6		186,2	150,2
	Un.Kindg.	139,6	163,1	157,2	157,8	136,8
in "world" currency.	FRG	119,8	183,7	144,4	156,2	136,8
	France	93,7	113,2	104,8	127,4	119,5
	Italy	138,3	123,1	86,6(?)	154,7	130,5
	Un.Kindg.	100,5	127,6	113,2	113,6	98,5

- Parity movements therefore affect both price formation and the results in different ways - as we shall try to show below -

Thus for France, at the time of the 1969 devaluation, prices in national currency accelerate reflecting :

and a slight fall ( the maintenance of prices in "world currency" for textiles  
( for electrical goods  
( for agricultural and industrial machinery  
( and chemical products

For the FRG, however, the successive revaluations of the mark in relation to world currency alter very little the parallelism often observed between export prices in national currency and factor prices.

Wide variations in the trends of the trade balance by products.

The analysis of cover rates by product shows that the trade balances by products suffered no disadvantage from the very sharp rise in export prices for German plant and machinery after successive revaluations. However, the very substantial improvement since 1971 is perhaps also due to the slowdown in capital formation since 1970.

Conversely, the devaluations of the pound sterling in 1967 (and then the gradual decline of parity) and of the franc in 1969 produced in the first case only a short-lived stabilization in the process of the deterioration of trade balances, and in the second a slight improvement.

Do these few details suggest that countries' export specialization, far from being handicapped by price and parity movements, is on the contrary strengthened? A more detailed consideration of this question is needed.



The fall in imports of agricultural products is very appreciable. Consumer goods and plant and machinery seem to take up a growing share.

In contrast, the shares of intermediate goods, fuel and power products and food stabilized. (1)

The comparison of export structures with import structures calls for some comments on intra- and extra-Community trade.

- Trade in agricultural products probably intensified between Common Market countries to the detriment of non-member countries (stability in the share of exports, drop in the share of imports).

- The production of traditional consumer products for which domestic demand is in relative decline, tends to shift to non-member countries (stability or even growth of the share of this type of import, decline in the share of exports).

- Lastly the very sharp expansion in the share of imports of equipment products (20,5 % of the total in 1963, 27,8 % in 1973) was also of great advantage to non-member countries (the share of exports of equipment products increased only from 42,8 % to 43,8 % over the same period).

### 3.1. Sectoral characteristics of imports.

The sectoral analysis of imports for each country cannot be identical with the sectoral analysis of exports - it must also refer to the expansion of the domestic market. It is, however, also interesting to compare a country's import structure with those of all the countries studied and to study their respective trends. This compared structure is a good indicator of the degree of national producers' resistance to foreign competition and therefore of the sectors' capacity to adjustment.

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(1) Until 1972-73. 1974, a year of recession, with a very sharp increase in energy prices, is, of course, not in line with previous trends.

### Import structure by country

- The reduction of the share of agricultural imports in the total recorded for all the Six is a trend which affects all the countries but in varying degrees :

From 1963 to 1973 this share fell from 25 % to 13 % in the FRG, from 22 % to 9 % in France, from 18 % to 9 % in the United Kingdom.

The relative reduction is smaller for the other three countries, from 20 % to 15 % for Italy, 14 % to 9 % for the Netherlands, 13 % to 8 % for the BLEU.

An examination of the Community Input-Output Tables shows that, in the case of France and the Netherlands, the trend is due both to the fall in demand for agricultural products in total uses and to a substitution effect, in value, of national production for imports. For the FRG, Belgium and Italy, only the first effect was operative. Finally, for the last-named country the larger share of food in private consumption explains the smaller reduction in the share of agricultural products in imports despite the high initial level.

- As far as energy is concerned, the parallel growth in the value of fuel and power imports and total imports from 1963 to 1973 (before the oil crisis) recurs for almost all the countries except France where the share fell significantly (17 % to 13 % approximately) (unexplained trend whereas the coal-oil substitution was particularly rapid over this period in France).

Whereas the share of intermediate goods in total imports is generally stable (or rising slightly) for all the countries until 1973 - the trend of imports of equipment products is more interesting.

Taking total equipment products, the growth of the share is appreciable for the FRG until 1972. A contraction seems to occur from 1970 probably in connection with the slowdown in investment from this time.

For France and particularly the United Kingdom, the rise is considerable and with no significant deviations until 1973 (France's share increased from 22 to 32 % from 1963 to 1973 and the United Kingdom's from 14 % to 31 %).



For the other countries the share is, in contrast, more stable (low growth for the BLEU, stability and even slight decrease for the Netherlands and Italy).

A more detailed analysis by product and the use of the Input-Output tables enables certain characteristics to be identified. Thus the growth of the share of equipment products for the United Kingdom is accounted for by roughly parallel growth under all headings, while the slowdown for the FRG from 1970 derives probably more from the slowdown in corporate investment (the level of agricultural and industrial machinery in 1973 is appreciably the same as the 1963 level) than from that in consumer durables ("double use" products - electrical machines and appliances and motor vehicles, mainly motor cars in the case of the FRG - continue to increase their share of exports).

In addition the penetration of the German domestic market in respect of agricultural and industrial machinery fell from 1965 to 1970 (Community Input-Output Tables), so that the increase in imports of these machines in the first period is solely due to an effect of the structure of demand. In the case of France, on the contrary, the faster growth of imports of these goods from 1959 to 1970 is due to a market penetration effect as well as to the scale of demand.

In all the countries except the Netherlands, imports of electrical goods account for a growing share in total resources. Lastly, imports of motor vehicles in all the countries originally possessing an automobile industry show an appreciable increase in the share of the market; conversely, the Netherlands and Belgium established these industries in the sixties, which explains the stabilization of the market share (and the appreciable expansion of exports in total resources).

The analysis of imports of equipment products thus leads to the qualification of certain assessments made, in the light of the trend of production or import specialization, on the more mediocre performances of German industries compared

with their competitors : the capacity of these sectors to withstand penetration on the domestic market is substantial, higher than that of France or Italy, where the counterpart of domestic and export buoyancy is greater foreign penetration, and of the United Kingdom which combines average or even mediocre performances in respect of equipment products for export with a growing share of imports of these goods. This is probably a sign of growing penetration of its domestic market by its competitors, although the lack of Input-Output Tables other than for 1970 means that this can only be a tentative conclusion.





TABLE 12 - PERCENTAGE OF EQUIPMENT PRODUCTS IMPORTS IN TOTAL GOODS IMPORTS OF THE DIFFERENT COUNTRIES

	FRG					FRANCE					ITALY				
	1963	1965	1970	1973	1983	1955	1970	1973	1983	1965	1970	1973	1983		
Metal products not industry machinery	1.1	1.3	1.7	1.9	1.5	2.0	2.4	2.4	1.7	1.1	1.5	1.4	1.4		
Agricultural and industrial machinery	7.1	7.6	9.2	7.9	11.8	12.5	14.5	14.1	12.5	7.9	10.6	9.8	9.8		
Precision instruments, data processing mach.	0.9	1.1	1.3	1.5	1.2	1.5	1.7	1.8	1.5	1.4	1.4	1.5	1.5		
Electrical goods	2.6	2.9	4.9	5.2	3.4	3.7	4.9	5.2	4.1	4.2	5.0	5.2	5.2		
Motor vehicles	2.0	2.6	4.5	4.8	3.0	3.0	4.6	5.4	3.9	2.3	4.6	2.7	2.7		
Other transport equipment	1.5	1.6	1.9	1.4	1.4	1.4	2.3	2.6	1.8	1.6	1.6	1.2	1.2		
<b>TOTAL</b>	<b>15.1</b>	<b>17.1</b>	<b>23.4</b>	<b>22.7</b>	<b>22.4</b>	<b>24.2</b>	<b>30.4</b>	<b>31.5</b>	<b>25.3</b>	<b>18.3</b>	<b>24.7</b>	<b>23.8</b>	<b>23.8</b>		
	NETHERLANDS					UNITED KINGDOM					BLEU				
Metal products	2.4	3.0	3.3	3.0	3.8	4.5	5.4	6.7	2.2	2.5	2.7	2.3	2.3		
Agricultural and industrial machinery	10.7	10.8	11.3	9.6	4.2	5.5	6.8	7.0	10.4	10.3	10.9	10.7	10.7		
Precision instruments, data processing mach.	1.1	1.4	1.9	1.7	1.8	2.3	4.3	4.1	1.3	1.1	1.1	1.0	1.0		
Electrical goods	8.4	8.0	7.9	6.9	1.9	2.1	3.7	5.7	4.4	4.4	4.8	5.4	5.4		
Motor vehicles	5.4	6.3	6.2	5.9	0.6	0.8	1.7	3.9	7.7	8.7	9.9	11.3	11.3		
Other transport equipment	3.4	1.9	2.1	2.5	1.4	1.9	2.6	3.1	2.7	1.4	1.8	1.3	1.3		
<b>TOTAL</b>	<b>31.5</b>	<b>31.3</b>	<b>32.6</b>	<b>29.7</b>	<b>13.7</b>	<b>17.1</b>	<b>24.5</b>	<b>30.5</b>	<b>26.6</b>	<b>28.4</b>	<b>31.2</b>	<b>31.9</b>	<b>31.9</b>		

### B.3. THE DEMAND OF HOUSEHOLDS

The steady improvement in the average standard of living of households was reflected in a steady change in their consumption habits. In 1960 food and beverages accounted for about 40 % of expenditure on consumption but there was a gradual shift towards the purchase of more durable goods and towards services. At present, households devote no more than one quarter of their purchases to everyday consumer products, except in the United Kingdom and especially Italy, which have always been to some extent structurally backward in the distribution of households' expenditure between food and other goods and services.

The result of this change is, of course, that the food industries - fresh and processed - have had to yield ground to all the other sectors of the economy.

The study of the "purposes" of the consumption of households, i.e. of the breakdown of their expenditure on consumption between the different goods and services which they consume, reveals a number of features which go some way to explain the relative performances of the different branches of the economy over the last thirteen or fourteen years, but also yield pointers to the foreseeable trend of the demand of households, since the components of private consumption follow tendencies which take sometime to change.

The harmonized data available lead to the artificial separation of the periods 1960-70 and 1970-74 : the various headings remain the same but their internal composition was altered making it difficult to compare the two structures obtained for the pivot year 1970. Despite this drawback, the following statements can be made :

- there is an increasingly marked homogeneity between the consumption structures of each country, apart from the greater importance of food consumption in the United Kingdom and Italy. The counterpart of this difference in Italy is the relatively small share of expenditure devoted to household equipment and furniture and in the United Kingdom the very small amount of expenditure by households on medical care and health **expenses**, this being covered almost entirely by the National Health Scheme;
- for some years, consumers seem to have developed a new behaviour pattern. In the sixties the relatively low growth of the heading "food, beverages, tobacco" was offset by a general growth of the other **forms of consumption**. Thus expenditure on durable goods, clothing, miscellaneous services, etc. increased. However, two sectors particularly expanded - transport and communications and fuel and power products; for certain countries (the Netherlands, for example) the latter was partly connected with the classification of petroleum products under this heading. Thus, one of the sharpest rates of increase of expenditure during this period was for the headings "motor cars" and "goods and services for the use of personal transport equipment".  
In contrast, over the first five years of the seventies, there were signs that demand for products other than food was approaching saturation point. This is particularly the case for clothing and footwear, the relative growth of which at present tends to be on a par with the growth of food products.

Table 1 - STRUCTURES OF CONSUMPTION OF HOUSEHOLDS 1960-70\* - Volume index : base 1960=100

	FRG.		FRANCE		ITALY		NETHERLANDS		BELGIUM	
	1960 struct. %	Vol. Ind. 60-70	1960 struct. %	Vol. Ind. 60-70	1960 Struct. %	Vol. Ind. 60-70	1960 Struct. %	Vol. Ind. 60-70	1960 Struct. %	Vol. Ind. 60-70
Food, beverages, tobacco	37,3	137	42,0	143	47,3	161	38,2	149	35,0	133
Clothing, footwear	12,5	167	11,0	167	9,5	182	12,9	145	9,1	145
Rents and charges	7,0	175	6,4	179	10,2	137	7,9	132	11,8	120
Fuel and power products	3,2	204	3,7	192	3,0	256	5,1	345	5,0	169
Equipment, furniture	13,6	162	8,9	196	5,8	208	15,0	213	11,1	179
Health	3,9	154	6,9	263	5,9	213	5,7	141	6,1	164
Transport, communications (motor cars)	8,6 (1,9)	238	8,7 (1,8)	208	7,2 (1,4)	286	4,2 (0,4)	256	9,0 (2,5)	189
Education, recreation	6,9	164	6,6	217	6,3	151	3,9	185	4,7	145
Miscellaneous goods and services	4,6	192	5,7	182	5,0	189	7,9 (0,8)	172	8,4 (-0,1)	159
(adjustment)	(1,3)									
Total	100,0	161	100,0	175	100,0	179	100,0	171	100,0	149

\* United Kingdom : not available according to the harmonized Community nomenclature.



Table 2 : PURPOSES OF CONSUMPTION OF HOUSEHOLDS 1970-74 - Volume index : base 1970=100

	FRANCE		ITALY		UNITED KINGDOM		NETHERLANDS		BELGIUM	
	1970 Struct. %	Vol. Ind. 70-74	1970 Struct. %	Vol. Ind. 70-74	1970 Struct. %	Vol. Ind. 70-74	1970 Struct. %	Vol. Ind. 70-74	1970 Struct. %	Vol. Ind. 70-74
Food, beverages, tobacco	24,1	107,5	28,2	110,5	39,9	110,9	28,3	118,3	28,1	112,1
Clothing, footw.	10,8	106,1	9,2	111,2	9,3	111,2	10,6	100,4	8,8	126,9
Cross rent, fuel and power	14,5	118,7	13,7	128,2	12,9	117,3	12,4	114,5	15,6	114,6
Equipment, furnit.	12,6	115,0	8,4	134,9	5,7	126,5	12,7	105,2	11,8	142,4
Health	9,3	114,5	10,3	144,2	6,9	139,1	8,3	118,7	6,9	133,1
Transp., communic. (motor cars)	11,7 (2,9)	108,6	10,6 (2,7)	123,5	10,7 (2,9)	115,1	9,4 (3,3)	115,0	10,4 (3,4)	119,9
Education, recreation	7,7	127,5	6,8	135,4	6,1	109,3	7,8	123,3	4,7	147,8
Miscell. goods and services	9,4	112,1	12,8	124,9	8,6	113,7	10,7	113,1	13,7	117,8
Total	100,0	112,7	100,0	123,5	100,0	115,2	100,0	113,9	100,0	122,4

The relative decline occurred not only in the volume trend but also at current prices. This is the only percentage, apart from food, which fell from 1960 to 1974.

Share of households' expenditure devoted to articles of clothing and footwear  
(current prices %)

	F.R.G.	FRANCE	ITALY	UNITED KINGDOM	NETHERLANDS	BELGIUM
1960	12,5	11,0	9,5	10,0	12,9	9,1
1974	10,3	8,2	9,1	8,8	9,7	8,9

This slow but steady decrease in expenditure on clothing, with more and more imports, only adds to the problems of the textile industry in European countries.

In addition - the first spin-off of the oil crisis on consumers' purchasing attitudes - expenditure on motor cars fell by several percentage points in 1974 together with all expenditure connected with it.

Taking into account the trend of the demand of households, the nature of the products supplied to households by the different branches of the economy changed to the advantage of durable and semi-durable products on the one hand and services on the other. The existing figures make it difficult to detect the scale of services branches' production intended for final consumption; on the other hand, the equipment branches which include metal products (small household equipment), electrical goods (electric household appliances and sound reproducing and recording equipment) and motor cars have taken an increasingly significant share in the final consumption of households; this is also true of chemical products, sales of which to households are of the same order of magnitude as their purchases of motor cars.

Table 3 - Durable and semi-durable goods supplied to households (% of global demand of households)

	FRG			FRANCE			ITALY		
	1959	1965	1970	1959	1965	1970	1959	1965	1970
Durable goods		6,9	9,5	5,2	6,2	6,7	2,9	4,9	4,7
of which									
Metal products		1,1	1,7	0,9	0,7	0,9	0,1	0,1	0,3
Electrical goods		1,8	2,6	0,7	1,9	2,4	0,9	1,5	1,3
Motor cars		3,0	3,4	1,7	2,6	2,5	0,8	2,2	2,7
Semi-durable goods		21,3	25,5	19,9	18,5	24,6	18,3	15,7	18,1
of which									
Chemical products		2,8	4,0	2,8	3,2	5,1	3,7	2,7	2,6
Textiles and clothing		12,0	13,8	10,8	8,4	10,6	10,7	8,3	10,3
Paper and printing prod.		1,7	1,7	1,7	1,6	2,1	1,7	1,5	1,7
	UNITED KINGDOM			NETHERLANDS			BELGIUM		
	1959	1965	1970	1959	1965	1970	1959	1965	1970
Durable goods			6,1	6,5	6,1	10,3	5,3	6,7	6,5
of which									
Metal products			1,2	1,6	2,0	2,3	1,3	1,6	1,5
Electrical goods			2,0	2,1	2,7	3,6	0,9	1,6	2,0
Motor cars			2,1	0,4	2,1	2,8	1,5	2,3	2,4
Semi-durable goods			21,2	21,8	18,8	26,3	14,5	15,8	16,5
of which									
Chemical products			2,3	2,1	2,6	2,9	1,9	2,3	2,5
Textiles and clothing			10,7	13,5	12,1	13,3	8,6	8,2	8,3
Paper and printing prod.			2,1	2,1	2,2	2,5	0,7	0,8	0,7

Sources : Input-Output Tables 1959 - 1965 - 1970 SOEC publication

However, despite the increase in the supplies of these industries to households, these sales do not generally constitute their main outlet, which are either the other industrial sectors or investments or exports. The list of industries which supply over 25 % of their production to households and which are therefore directly affected by the growth of their consumption is relatively short. They are generally the same in all the EEC countries.

Branches supplying over 25 % of their production to the final consumption  
of households

agricultural and fishery products (except FRG and Benelux)

food, beverages, tobacco

textiles, clothing, footwear

petroleum products (except Benelux, which is mainly an intermediate consumer)

electricity, gas, water

hotels, restaurants, cafés

market services other than transport, communications, banks and insurance

repair services

Source : Community Input-Output Tables 1970

This list also includes chemical products for France and motor cars in Italy, the Netherlands and France.

This dependence of the branches on private consumption is in fact underestimated because only the amount of their production going directly to households is taken into consideration. All these products, throughout their production process, incorporate a considerable share of intermediate products which are therefore indirectly affected by household demand.

Table 4 - % of each branch's national production consumed by households  
- directly and indirectly -

		FRG	FRANCE	ITALY	U.K.	NETHER.	BELGIUM
BRANCHES		*					
1	AGRICULTURAL PRODUCTS		76,6	92,6	86,8	49,8	68,3
2	FUEL AND POWER PRODUCTS						
21	of which : Solid fuels		48,8	47,1	62,8	20,2	48,3
22	Crude, ref. petr., nat. gas		66,1	63,9	59,0	30,8	47,3
23	Electr., gas, water		65,5	66,7	71,0	63,5	57,0
3	INTERMEDIATE PRODUCTS						
31	of which : Ores, iron and steel		14,6	15,8	20,3	7,4	2,3
32	Minerals, build., constr.M.		19,9	12,5	29,2	14,6	10,4
33	Chemical products		48,8	51,8	41,5	14,7	18,5
4	EQUIPMENT PRODUCTS						
41	of which : Metal products		19,6	17,7	30,9	23,7	18,7
42	Agr. and industr. machinery		8,2	5,1	10,6	5,8	2,4
43	Prec.instr., data, proces.mach.		19,0	7,2	12,6	-	23,5
44	Electrical goods		23,6	21,4	26,4	12,4	8,1
45	Motor vehicles		33,8	34,8	25,8	22,1	16,5
46	Other transport equipment		11,5	8,6	11,3	10,0	4,8
5	FOOD, BEVERAGES, TOBACCO		87,6	94,5	90,7	54,3	76,9
6	CURRENT CONSUMPTION PRODUCTS						
61	of which : Text., cloth., leather		68,6	64,0	71,5	52,2	33,7
62	Paper and print.prod.		60,6	62,7	63,0	45,2	36,9
63	Rubber, plastic prod.		42,5	39,3	46,1	26,3	32,2
64	Other manufact. prod.		53,1	46,8	53,9	36,3	30,7
7	TOTAL MANUFACTURING INDUSTRY						
71	BUILDING AND CONSTRUCTION		8,1	6,8	17,3	11,0	7,9
81	Transport services		54,2	57,1	59,9	42,1	45,5
82	Communication services		59,5	68,9	59,1	58,6	58,7
83	Wholesale and retail trade serv.		85,4	85,3	80,4	62,8	71,4
	Other market services						
84	of which : Credit, insurance		71,3	58,8	71,9	68,3	68,8
85	Hotels, restaurants, cafés		95,2	94,0	-	88,7	95,8
86	Other market serv. n.e.c.		-	-	-	-	-
8	TOTAL MARKET SERVICES						
9	NON-MARKET SERVICES		6,5	0,0	6,9	1,9	0,0
	TOTAL SERVICES						
	T O T A L		50,7	54,6	49,3	39,3	39,6

Sources : Community Input-Output Tables 1970

\* FRG not available

The most obvious case is that of agricultural and fishery products, a very large part of which is used to manufacture industrial food products : over 75 % of agricultural products are therefore finally consumed by households, except for the Benelux countries which are large exporters.

	FRG	FRANCE	ITALY	UNITED KINGDOM	NETHERLANDS	BELGIUM
Direct supply of agricultural and fishery products to households (%)	22,3	34,9	42,2	48,1	13,7	15,4
Direct and indirect supply via agricultural and food industries (%)	(**)	76,6	92,6	86,8	49,8*	68,3*

Source : Community Input-Output Tables 1970

(\* Benelux : the remainder is mainly exported)

(\*\*) FRG : not available)

If these indirect supplies to households were taken into account the preceding list would be appreciably modified since it would include chemical products, motor vehicles, general consumer goods and almost all services (cf Table 4). All in all, for total consumption of households, the direct and indirect share of national production going to households is as follows :

% of national production going to consumption of households	FRG	FRANCE	ITALY	UNITED KINGDOM	NETHERLANDS	BELGIUM
direct	24,6	31,0	35,0	32,0	25,8	28,2
direct and indirect	(*)	50,7	54,6	49,3	39,3	39,6

Source : Community Input-Output Tables 1970

(\*) not available

## B. 4 EMPLOYMENT AND PRODUCTIVITY

### 1. The overall picture

Between 1960 and 1973, the performance of the European countries with regard to job creation was relatively modest: an average growth rate of about 0.2 % per year contrasting with a GDP growth of 4.6 %. The number of jobs in 1973 was barely 2.2 million more than that in 1961 (97.5 million).

The overall picture looks on the face of it fairly stable, but in fact far-reaching changes were taking place which are probably the clearest symptoms of the major changes in the productive systems of the European countries.

The main aspects of the changes are familiar enough: a growing tendency for paid employment to encroach on the self-employment sector, the drift from the land, more jobs in the services sector, very heavy utilization of immigrant labour in industry and building, changes in levels of skills, and in conditions and hours of work. More information is needed, however, on the relationships between sectoral changes in production and employment and the role of investment, and a study of the consequences of changes in employment on the productivity of the economies required.

Several conclusions can be drawn from a study of these interrelationships made by breaking up the economy in its various sectors, and these conclusions can usefully be emphasized at a time when some doubt is being expressed as to the ability of the economies to restore full employment.

The first point to be made is that there is a close link between growth and employment

Leaving aside the government departments, the job-creating sectors at least in terms of medium- and long-term trends, are all those which changing demand or technological innovation have forced to the fore in the growth process, i.e., within manufacturing industry, equipment (especially electrical and electronic construction), chemicals, plastics and all market services sectors but particularly the most dynamic sectors: banks, insurance, telecommunications, and business services provided for enterprises.

Employment changes meant fewer jobs in those sectors where labour productivity has been low

The industries in which employment has declined (agriculture, coal-mining and, within manufacturing industry, the textiles, leather, clothing branch) are industries in which not only growth has been slower but in which labour productivity has been lower than the average for the economy.

Capital growth and more jobs: a parallel trend

Although the growth of capital has generally been faster than that of the number of jobs, an analysis of sectoral trends reveals that there are two types of sector:

the growth industries in which a rapid increase in capital and the growth of employment have gone hand in hand, capital intensity rising fast at the same time as labour productivity.

The slow growth, or declining industries, in which capital growth has been slower, whilst employment has marked time or actually contracted; productivity gains have been made here by redundancies and have been higher wherever the redundancies have been greater.

For the EEC taken as a whole, the general employment trend can be broken down into two fairly distinct periods:

The 1960-69 period, when employment declined rapidly and a large number of jobs disappeared in agriculture (620 000 per year, net) and coal mining (80 000), offset by growth in most of the other sectors of the economy. The main job-creating sector was services, but building and construction and virtually all industrial sectors also contributed, except textiles, leather, clothing.

The 1970-73 period was, on the other hand, marked by the first signs of a decline of employment in industry, where even the most dynamic, like chemicals, began to shed labour. Employment marked time or actually declined in building and construction as well.



However, the drift from the land slowed down (4,2 % as compared with 4.8 % during the ten preceding years) and actual numbers leaving the land were much lower (400 000 jobs per year). The result was that the growth of employment was achieved at the cost of a faster increase in numbers employed in market services and especially non-market services.

Although the overall growth of employment was of much the same order as in the preceding decade, the years 1970-73 show a crucial change in the sense that services by then were the only job-creating sector in the economy. This situation suggested that in the future industry would go on providing a declining number of jobs, but that in any case equilibrium would be restored by an equivalent growth in services.

But employment trends during the 1974-75 recession brought a sharp reminder that job-creation in services is itself a function of the economic growth of all sectors and particularly of that of industry. Services continued to recruit during the recession, but at a lower rate of increase, which failed by far to offset the losses in other sectors, with the net result that overall employment declined sharply.

This severely undermined the idea that the equilibrium of employment is ensured virtually automatically by trends in services, even when growth has slowed down.

## 2. Trends by sector (cf. full tables annexes to this chapter)

### 2.1. Employment in agriculture

The number of jobs on the land has declined rapidly and steadily in all the Community countries. The key to this trend, which is little affected by short-term fluctuations in overall activity, has been the need to increase the average productivity of labour in agriculture, which, at the beginning of the period, was not even half of that of the economy as a whole<sup>\*</sup>. The productivity gap, reflected in relative incomes, has been an incentive to many young people to seek employment elsewhere. The ageing of the farming population then added a demographic factor to the economic reasons for the decline in numbers.

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<sup>\*</sup>) As for all productivity comparisons, this is a general indication rather than an accurate measure.

Table 1 - Employment in the EEC - 6\*

		in 1.000 and in %							
		1961		1970		1973		1975	
		000	%	000	%	000	%	000	%
1	Agricultural products	15.510	15,9	9.992	10,0	8.801	8,8	8.181	8,2
2	Energy products	2.644	2,7	2.055	2,1	1.894	1,9	1.885	1,9
21	of which : solid fuels	1.563	1,6	842	0,8	712	0,7	679	0,7
3	Intermediate products	5.717	5,9	5.692	5,7	5.553	5,5	5.394	5,4
33	of which:chemicals	1.654	1,7	1.888	1,9	1.879	1,9	1.888	1,9
4	Equipment products	11.317	11,6	13.069	13,1	13.004	12,9	12.618	12,7
5	Food products	3.263	3,3	3.195	3,2	3.102	3,1	2.982	3,0
6	Current consump. prod.	10.766	11,0	10.424	10,4	10.005	9,9	9.392	9,5
61	of which: textile leather, cloth	6.122	6,3	5.367	5,4	4.879	4,9	4.452	4,5
	Total manufact. ind.	31.063	31,8	32.380	32,4	31.664	31,5	30.383	30,6
7	Build./civil engineer.g	7.959	8,1	8.709	8,7	8.576	8,5	7.950	8,0
81	Transport and								
82	communication services	5.522	5,7	5.723	5,7	5.915	5,9	5.967	6,0
83	Trade services	11.749	12,0	12.390	12,4	12.618	12,5	12.555	12,7
84	Other market								
85	services	12.294	12,6	15.509	15,5	16.848	16,8	17.450	17,6
9	Non-market services	10.948	11,2	13.071	13,1	14.259	14,2	14.829	15,0
	TOTAL	97.689	100	99.829	100	100.571	100	99.186	100

\*) As already noted, the total EEC-6 includes F.R.G., France, United Kingdom, Italy, Netherlands and Belgium.

Table 2 - Employment in the EEC - 6 (\*)  
Annual average growth rate (%)

		1961-1970	1973-1970	1975-1973
1	Agricultural products	- 4,8	- 4,2	- 3,7
2	Energy products	- 2,8	- 2,7	- 0,3
21	of which: solid fuels	- 6,7	- 5,5	- 2,4
3	Intermediate products	0,0	- 0,8	- 1,5
33	Of which: chemicals	1,5	- 0,2	0,2
4	Equipment products	1,6	- 0,2	- 1,5
5	Food products	- 0,3	- 1,0	- 2,0
6	Current consumption products	- 0,4	- 1,4	- 3,1
61	Of which: text.leather, clothing	- 1,5	- 3,2	- 4,5
	Total manufacturing industry	0,5	- 0,8	- 2,1
7	Building and civil engineering	1,0	- 0,5	- 3,7
81 + 82	Transport and communication serv.	0,4	1,1	0,4
83	Trade services	0,6	0,6	- 0,3
84 + 86	Other market services	2,6	2,8	1,8
9	Non-market services	2,0	2,9	2,0
	TOTAL	0,2	0,2	- 0,7

\*) cf footnote, Table 1

The population factor seems to have been determinant in Belgium, where, despite a productivity in agriculture comparable with that of the rest of the economy and an average expansion of investment, employment in agriculture declined rapidly throughout the period.

The productivity differences noted, on the other hand, in 1960 in the FRG, Italy and France, and which were still substantial in 1973, go far to explain the very rapid decline in numbers employed in agriculture in these three countries.

The Netherlands and the United Kingdom, countries in which farming was already very productive at the beginning of the period, are the countries in which the decline was slowest. However, productivity gains in these countries were very substantial.

The examples of Belgium and the United Kingdom, where numbers employed in farming, relatively small at the beginning of the period (8.5 % and 5.0 % of total employment in these countries, respectively) nevertheless continued to contract, suggests that there is no "floor" at which numbers engaged in farming would stabilize "naturally" or at any rate that this floor has not yet been reached in any European economy.

Table 3 - Employment in agriculture

	Agricultural employment as a % of total employm.		Annual decline in employment	Relative (*) productivity %		Annual growth investment
	1960	1973	1973/1960	1960	1973	in volume 1973/1960
F.R.G.	13.0	7.4	- 4.6 %	32	42	- 0.8
France	21.7	11.6	- 3.9 %	41	49	7.0
Italy	30.4	18.0	- 5.3 %	39	47	2.4
United Kingdom	5.0	3.1	- 3.6 %	59	99	4.1
Netherlands	10.6	7.4	- 3.1 %	73	88	9.3
Belgium	8.5	4.1	- 5.8 %	91	95	4.6

(\*) Added value per person engaged in agriculture : index base 100 for the whole economy.

2.2. Employment in the energy sector

In 1960 this sector accounted for about 3 % of the employed population. The main factor in employment trends here has been the progressive substitution of oil and other energy sources for coal, which, at the beginning of the period, employed about 1,500,000 persons.

During the period, most of the countries adopted schemes to scale down and rationalize coal production. In terms of employment, this meant a cut in the numbers employed of more than half between 1960 and 1973.

The other sectors: oil - gas - electricity, all stepped up their employment but the total number of jobs created in these sectors (about 100 000) failed to offset the losses of jobs due to the rapid decline in coal-mining.

Table 4 - Employment in energy

	Relative share (%) in total employment				Annual average change in employment 1973/1960			
	Total energy of which coal				Total energy of which coal			
	1960	1973	1960	1973	%	'000	%	'000
F.R.G.	2,9	2,0	2,0	1,0	-3,0	-19,6	-5,8	-21,8
France	2,1	1,6	1,0	0,4	-1,0	- 4,6	-6,0	- 8,2
Italy	0,7	0,9	-	-	+2,1	+ 2,4	-	-
United Kingd.	5,1	3,2	3,2	1,5	-3,4	-31,5	-5,5	-28,8
Netherlands	2,4	1,7	1,2	0,4	-3,7	- 1,5	-1,1	- 2,4
Belgium	4,3	2,0	3,4	1,1	-5,6	- 5,7	-9,7	- 5,8

2.3. Employment in industry

In manufacturing industry, numbers employed barely exceeded in 1973, although this was a year of vigorous expansion, the numbers recorded in 1960 (31.7 million compared with 31.1 million). And yet manufacturing industry is the sector in which the differentiation is most marked, between industries and between the 60-70 period and the 70-73 period.

For the period taken as a whole, capital goods and chemicals considerably increased their share in employment to the detriment of all the other industries.

A feature distinguishing 1970-1973 from the preceding ten years is the more rapid decline in numbers employed in the declining industries and the stabilization or only slight contraction of employment in the growth industries.

After "peaking out" in 1970 at 32.4 million jobs, numbers employed in industry contracted until 1973 and beyond.

Table 5 - Employment in manufacturing industry EEC-6 \*

	61 - 70	70 - 73
3. Intermediate products	0,0	- 0,8
of which 33 Chemicals	1,5	- 0,2
4. Equipment products	1,6	- 0,2
5. Food products, drink tobacco	- 0,3	- 1,0
6. Current consumption products	- 0,4	- 1,4
of which 61 Textile, leather, clothing	- 1,5	- 3,2

\*) cf. footnote Table 1.

## The growth industries

### Equipment products

The capital goods industries have been the driving force behind the growth not only of production and trade but also of employment.

Unlike other growth industries or the energy sector, they are heavy employers of labour and their share of employment is much the same as their share in value added (about one third of manufacturing industry).

The expansion of employment is accounted for by all the equipment sectors but motor vehicles and electrical goods and supplies are the leaders; they are followed by precision equipment, other transport equipment (air, sea, rail) and lastly by metal products.

Although the FRG stepped up its already large share of employment in equipment (rising from 14.9 % in 1960 to about 17% in 1973), Italy and France are easily the countries in which the expansion was fastest - Italy rising from 5.4 % to 8 % and France from 9.3 % to 11 %.

France also shares with Belgium the distinction of having maintained its rate of expansion of employment in the seventies, and this is probably because in both cases a high rate of investment was maintained throughout the period.

The poorest performances are those of the Netherlands, where the share in employment rose only a very little, and the United Kingdom, where it actually fell. In both countries, observation of investments suggests the hypothesis of a (conscious or unconscious) strategy of withdrawal from these industries: investment rates have remained low (about 10 % of added value) and the expansion in volume of these investments is very slow both in absolute terms and compared with that of industry as a whole.

### Other job-creating industries

The other industrial sectors which have stepped up their employment are mainly chemicals and the rubber and plastics industry, and, in certain countries, the processing industries: minerals and building materials in France, steel in Italy and in the Netherlands.

In Italy, France and Belgium, the paper and printing industries and the various industries producing current consumption products also increased the numbers they employed, although at a slower pace, during the period 1970-73.

Everywhere except in the United Kingdom the chemical industry stepped up numbers employed at a high rate whilst maintaining rapid growth in labour productivity through high investment rates.

### Declining industries

Apart from the industries mentioned above, the number of persons employed in the rest of the manufacturing industry sector contracted. The main industries were intermediate goods other than chemicals (steel in the FRG and in the United Kingdom), and the agricultural and food industries in all countries except Italy. But the main sufferer was textiles, leather and clothing, the decline in the employment in this area having steadily gathered momentum throughout the period.

There are many reasons for this decline in employment: slower demand, leading to a slower growth in production, low labour productivity, slow growth in investment.



In the textiles, leather and clothing industry, a number of circumstances combined to erode employment: slacker demand from households, slow growth of exports, labour productivity lower by 30 to 50 % than that of the economy as a whole, and a extremely low rate of investment (except in France), which was also steadily declining.

The decline of employment in this area was therefore sharper than in all the other industries and gradually gathered momentum, to reach a rate of 2.3 % per year between 1970 and 1973.

However, despite this sharp contraction in employment, labour productivity showed very little improvement as compared with that in the other industries. Except in the United Kingdom and in France, where the discrepancy between this sector and the economy as a whole was narrowed down a little, value added per person employed remained very much at the relative level in 1973 that it was at in 1960. The poor performance of labour productivity explains the inability of this industry to compete with the "low wages countries", and the relocating of production units in the latter countries.

The decline of textile, leather and clothing had a strong impact on overall employment:

- (i) because of the large scale and the geographical concentration of the persons involved: still almost five million persons in 1973 in the six countries : 8 % and 6.5 % of total employment in Italy and Belgium respectively, 4 to 5 % in the other countries;
- (ii) because the phase of acceleration of the process of increasing redundancies in textiles (1970-1973 and still more 1974-75, when jobs were disappearing at the rate of 4.5% per year) coincided with the period of stagnation of employment in the other industries and of slowdown of the increase in employment in the services industries.

Qualifications are in order, however, for two countries, the FRG and Italy:

- (i) the industry covers several categories of sub-industry: production of textile fibres, of leather, manufacture of ready-made garments and of footwear, trends in which sometimes differ substantially. For example, the FRG stepped up vigorously its output of man-made textile fibres and has become one of the main world producers.
- (ii) The number of persons employed in textiles, leather and clothing in Italy is still the largest in the European countries. It has remained virtually unchanged, net job losses being less than 1% of total employment in this area.

Table 6 - Employment, productivity and investment in textiles, leather, clothing

	Share in employment %		Difference 1973/1960 in '000	Added value per person employed relative index all the economy = 100		Average rate of investment 1960/1973		Average annual growth of investment (%)	
	1960	1973		1960	1973	Textiles	All industry	70/65	73/70
F.R.G.	5.9	4.2	420	73	76	8.5	13.9	3.	- 11.2
France	5.7	4.0	300	72	81	12.3	17.2	10.5	- 3.0
Italy	7.5	7.7	90	52	53				
U.K.	6.3	4.7	380	58	68	11.6	13.9	0	1.5
Nether-lands	5.8	4.1	110	54	56	11.4	20.2	1.3	- 2.3
Belgium	8.0	6.3	40	56	58	13.1	19.0	5.5	2.0
<b>EUR-6</b>	6.3	4.9	1240	-	-	-	-	-	-

GNP/added value

#### 2.4. Employment in building and construction

In 1973 this industry accounted for between 7.5 and 10 % of total employment. Numbers employed "peaked out" in the years 1967-68, and from then on employment either marked time or slowly contracted. The phase, ending in 1967-1968, is connected with the rapid growth of residential construction. There then began a period of slower growth both in the demand for housing and for public equipment, and this growth was covered by stable employment or even fewer workers, because of productivity gains induced by an appreciable increase in the capital ratio.

#### 2.5. Employment in the services industries

Throughout the period, all the services industries are net job creators. The share of services in overall employment rose for the six countries taken as a whole from about 41 % in 1960 to nearly 50 % in 1973.

##### Market services

Within this total, wholesale and retail trade and transport communications showed moderate growth (about 0.6 % as an annual rate for the two industries, (400 000 jobs created in the transport communications area between 1960 and 1973, about one million in wholesale and retail trade). The bulk of the new jobs were created however in miscellaneous services (other market services) which rose from 12.5 % to 17 %. Among the latter, the most jobs were created in financial institutions: banks, insurance. The heading "other market services" covers (although a complete breakdown is unfortunately not always possible) a large number of services some of which are connected with industries: research agencies, technical consultancy, advertising, leasing firms and temporary work agencies, and others are connected with household consumption: part of the artisan sector, health services and market education services, and leisure services.

Non-market services

Paradoxically, there is little information on public service employment, and the comparisons between countries are not accurate because the conventions concerning demarcation between market services and non-market services can be interpreted differently. Nevertheless, general government services have consistently contributed to job creation, particularly in the Federal Republic of Germany.

Table 7 - Employment in general government

	1960 - 1970		1970 - 1974	
	Annual growth rate %	Average number of jobs created per year	Annual growth rate %	Average number of jobs created per year
F.R.G.	3.4	83 000	3.7	110 750
France	0.8	18 000	1.9*	50 000*
Italy	2.3	41 400	3.1	67 000
United Kingdom**	-	-	2.6	123 000
Netherlands	1.2	6 000	2.1	10 500
Belgium	2.1	9 600	2.4	10 500

\* Estimates

\*\* General government services and other non market services

Table 7a - Share of non-market services employment in total employment 1970 -1974

	F.R.G.	France	Italy	U.K.	Netherl.	Belgium
1970	13,6	15,1	13,0	18,4	14,1	17,2
1974	15,7	15,6	14,3	20,1	15,1	17,8

For some years now there has been a distinct speed-up in the rates of public job creation in all the countries, but this has not offset losses in most other sectors.

### 3. Sectoral changes in employment, comparisons between countries

The employment changes described above occurred throughout the EEC, but sector to sector changes were on the same scale in all the countries. More generally, the main features, by country, of changes in employment by sector are as follows (cf. Tables 8 and 9).

#### Employment changes

Table 8 gives an index calculated in the same way as that for the Table on page 19, quantifying the changes first in 11 sectors, then in 20 sectors, the latter breakdown giving more detail for individual industries. The order of the countries is the same in both cases. Italy is the country in which the changes went furthest; followed in order by France, Belgium, the FRG, the Netherlands and the United Kingdom.

Table 8 - Indices of employment changes

	F.R.G.	France	Italy	UK	NL	Belgium
11-sector index	17.4	24.0	25.5	14.9	15.0	17.7
General 20-sector index	18.2	26.0	30.5	17.2	17.6	22.5
Order	4	2	1	6	5	3

Italy comes at the top of this "league table" because of the large number of persons in this country employed on the land at the beginning of the period, but in contrast with the other countries, the services sectors in Italy were the only ones to increase their share in total employment. Industry, which created about 500 000 jobs between 1960 and 1973, building and construction and even the energy sector all increased their numbers employed and their relative shares. Within manufacturing industry, although the equipment goods sectors and particularly motor vehicles contributed most to the growth of numbers employed, the current consumption sectors maintained or increased their shares. The textile, leather and clothing sector, in particular, retains its preponderant share, with nearly 8 % of overall employment. Lastly, the services sector, in particular the services linked with industry, are less highly developed in Italy than in the other countries.

At the other end of the "league table" comes the United Kingdom, the country in which the pattern of employment changed least. The share of agriculture, already low when the period began, continued to shrink. The most significant shift is from industry to services, especially health and education services and general government. Employment declined in almost all industrial sectors - only chemicals, and a few equipment sectors (electrical engineering, machinery) increased their share a little.

In France, the FRG and Belgium developments were very similar, decline of employment in agriculture, virtual stability in manufacturing industry, within which equipment products further increased their relative share, and a very substantial increase in the share of services, particularly non-market services.

In the Netherlands, the boom in the energy industries connected with gas and oil involved no substantial increase in the number employed.

The relative stability of numbers employed in the equipment industries, the decline of the share accounted for by industry and above all the very large share accounted for in overall employment by services - transport, and other market services in particular - leaves a pattern in the Netherlands resembling that for the United Kingdom.

A static comparison of the sectoral structure of employment suggests a distinction between the FRG and the United Kingdom on the one hand (heavily industrialized, with more than 15 % of their employment in equipment industries) and all the other countries.

But a dynamic comparison, i.e. of developments, shows a group of countries - France, Belgium and Italy - tending to come nearer the labour force structures of the FRG, Italy being the furthest away from this pattern, and another group of countries - United Kingdom and the Netherlands - moving away from this pattern, with employment changes hinging almost exclusively on services.

Table 9 - Proportions of total employment :  
1960 - 1973

No	BRANCH	F.R.G.		FRANCE		ITALY		UNITED KINGDOM		NETHERL.		BELGIUM	
		60	73	60	73	60	73	60	73	60	73	60	73
1	AGRICULTURAL PRODUCTS	13,0	7,4	21,7	11,6	30,4	18,0	5,0	3,1	10,6	7,4	8,5	4,1
2	ENERGY PRODUCTS	2,9	2,0	2,1	1,6	0,7	0,9	5,1	3,2	2,4	1,7	4,3	2,0
21	of which: solid fuels	2,0	1,0	1,0	0,4	-	-	3,2	1,5	1,2	0,4	3,4	1,1
22	crude pet./ref.nat. gas	0,2	0,2	0,4	0,5	-	-	0,2	0,1	0,4	0,3	0,1	0,1
23	electr. gas, water	0,8	0,9	0,7	0,7	-	-	1,7	1,6	0,9	0,9	0,8	0,9
3	INTERMEDIATE PRODUCTS	7,7	7,4	4,4	4,4	4,5	4,9	6,3	5,8	3,8	4,1	6,6	6,1
31	of which: ores, iron and steel	3,9	3,3	1,5	1,4	1,1	1,3	2,4	2,1	0,6	0,8	2,7	2,6
32	minerals, bldg. mat.	1,8	1,7	1,5	1,5	2,2	2,1	1,8	1,6	1,3	1,1	2,1	1,8
33	chem. products	2,0	2,4	1,3	1,4	1,2	1,5	2,1	2,1	1,9	2,3	1,7	1,7
4	EQUIPMENT PRODUCTS	14,9	17,3	9,3	11,0	5,4	8,0	16,0	15,6	8,9	9,2	8,4	10,1
41	of which: metal products	3,2	3,3	2,5	2,6			2,6	2,4				
42	agricultural and	3,5	4,0	3,1	3,6	4,2	6,2	3,4	3,6				
43	industrial machinery							2,0	2,1				
44	precision instr. d.p.	6,4	7,3	1,5	2,0			3,0	3,3				
45	data processing equipm.	1,4	2,2	1,4	1,9	1,7	1,8	1,8	2,2				
46	elec. equipm. motor veh.	0,4	0,4	0,9	0,9			3,2	2,0				
46	other means of transp.												
5	FOOD, DRINK, TOBACCO	3,9	3,6	3,0	2,6	2,2	2,4	3,5	3,3	4,9	4,4	5,2	4,4
6	CURRENT CONSUMPTION PRODUCTS	10,8	9,4	10,1	8,9	12,0	12,9	11,6	10,1	9,9	8,2	13,1	12,2
61	of which: text, leather, clothing	5,9	4,2	5,7	4,0	7,5	7,7	6,3	4,7	5,8	4,1	8,0	6,3
62	paper, printed material			1,5	1,8	1,0	1,3	2,6	2,6	2,3	2,5	1,7	1,9
63	rubber, plastics	0,8	1,3	0,7	1,0			0,8	1,0	0,3	0,2	0,5	0,7
64	other industrial prod.	4,1	3,9	2,1	2,1	3,4	3,9	1,9	2,8	1,5	1,4	2,9	3,1
	TOTAL MANUFACTURING INDUSTRY	37,3	37,7	26,8	26,9	24,1	28,2	37,4	34,8	27,5	25,9	33,3	32,8
7	BUILDING AND CIVIL ENGINEERING	8,0	7,9	8,3	9,5	9,5	9,9	7,1	7,4	9,2	10,5	7,3	8,1
81	Transport services												
82	Communication services	5,5	5,7	4,7	5,1	4,2	5,4	7,6	7,0	7,0	6,5	7,4	7,7
83	Trade services	12,6	12,6	10,4	12,0	9,9	11,3	14,4	13,6			12,5	12,9
	Other market services	9,2	11,5	11,6	16,1	11,6	13,9			29,1	34,2		
84	of which: credit, insurance	-	-	-	-	-	-					15,8	19,0
85	hotel accomm. catering	-	-	-	-	-	-	23,2	30,9			-	-
86	other market services not elsewhere spec.	-	-	-	-	-	-					-	-
8	TOTAL MARKET SERVICES	27,3	29,8	26,7	33,2	25,7	30,6			36,1	40,2	35,7	39,6
9	NON-MARKET SERVICES	11,2	15,1	14,2	16,6	9,1	12,6			14,0	14,0	10,9	13,3
	TOTAL SERVICES	38,5	44,9	40,9	49,8	34,8	43,2	37,6	44,5	50,1	54,2	46,6	52,9
	TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

N.B. The percentages in this table may differ slightly from those given in the preceding tables, since the sources are not always the same.

Table 10 - Performances by sector -  
Rates of growth of employment 1960-1973

No	BRANCH	F.R.G.		FRANCE		ITALY		UNITED KINGDOM		NETHERL.		BELGIUM	
		T	R	T	R	T	R	T	R	T	R	T	R
1	AGRICULTURAL PRODUCTS	-4,6	-4,7	-3,9	-4,2	-5,3	-3,8	-3,6	-3,6	-3,1		-5,8	-5,7
2	ENERGY PRODUCTS	-3,0	-1,4	-1,0	-1,5	2,1	-0,6	-3,4	-2,4	-3,7		-5,6	-4,1
21	of which: solid fuels	-5,8	-3,5	-6,0	-8,0			-5,5	-1,7	-1,1		-9,7	-1,0
22	crude pet./ref.nat.gas	-0,4	0,4	3,4	2,7			-2,2	-1,2	0		3,2	-
23	electr. gas, water	1,4	0,7	1,4	1,2			-0,7	-3,1	1,6		1,3	1,5
3	INTERMEDIATE PRODUCTS	-0,3	0,5	0,8	1,1	0,6	1,2	-0,6	-1,6	1,8		-0,1	0,3
31	of which: ores, iron and steel	-1,1	-0,7	0	1,0	1,5	3,4	-1,1	-2,6	3,6		0,1	0,5
32	minerals, bldg mat.	-0,7	-0,9	1,2	1,0	-0,6	-0,8	-0,8	-1,8	-0,4		-0,4	-0,7
33	chem. products	1,7	3,2	1,8	1,2	1,6	2,1	-0,1	-0,3	2,3		0,5	-0,6
4	EQUIPMENT PRODUCTS	1,3	0,9	2,2	2,9	3,3	2,6	-0,2	-1,0	1,0		2,2	2,5
41	of which: metal products	0,4	0,7	1,3	2,2	2,2	1,4	-0,5	-1,7				
42	agricultural and	1,3	0,4		2,6	2,7	2,2	0,4	-1,5				
43	industrial machinery			2,1		3,1	0,9	0,3	-1,5				
44	precision instr.d.p.	1,4	1,0	3,5	4,2	5,5	4,4	0,9	0,2				
45	data processing equipm.	3,9	2,8	3,0	4,8			1,6	0,2				
46	elec.equip., motor veh.	0,6	0,6	0,9	1,2	3,7	3,1	-3,5	-2,3				
5	FOOD, DRINK, TOBACCO	-0,1	-1,1	-0,2	-0,6	0,1	-0,3	-0,2	-0,4	-0,5		-0,9	-0,8
6	CURRENT CONSUMPTION PRODUCTS	-1,2	-2,1	-0,1	-0,1	0,1	0,5	-1,0	-1,7	-1,7		-0,1	-0,5
61	of which: text., leather, clothing	-2,6	-5,2	-1,7	-1,8	-0,4	-1,7	-2,4	-3,2	-3,8		-1,1	-1,1
62	paper, printed material			2,2	1,6	1,7	2,0	0,1	-1,0	-1,1		1,5	0,8
63	rubber, plastics,	+3,9	+4,4	3,7	2,2	4,1	5,3	2,8	2,1	0		3,3	4,4
64	other industrial prod.	-0,3	-0,5	1,0	1,1	0,0	-0,4	-0,4	-1,0	0		1,1	0,7
	TOTAL MANUFACTURING INDUSTRY												
7	BUILDING AND CIVIL ENGINEERING	0,3	-1,7	1,8	-0,2	-0,1	-3,6	-0,7	0,1	1,4		1,2	-0,2
81	Transport services	0,3	1,7	1,5	0,9	2,4	2,3	-0,5	-0,5	0,3		1,2	2,6
82	Communication services												
83	Trade services	0,2	-0,4	1,9	1,9	0,9	0,7	-0,2	0,1	2,0		0,8	1,0
84	Other market services	2,0	1,1	3,5	4,3	1,0	2,6	2,9	2,6	3,5		2,3	3,0
85	of which: credit, insurance												
86	hotel accomm.catering other market services not elsewhere specif.												
8	TOTAL MARKET SERVICES												
9	NON-MARKET SERVICES	2,5	3,1	2,1	1,6	2,8	3,1	1,6	1,7	1,2		2,4	2,1
	TOTAL	0,0	0,0	0,9	1,0	-0,4	0,2	0,2	0,1	0,9		0,7	1,1

T: Underlying rate of growth  
R: Annual rate of growth over the last five years.



#### 4. Labour productivity

Between 1960 and 1973, labour productivity, measured in terms of GDP per person employed, forged ahead, at least in the member countries of the old six-country Community. The main factors in this improvement in the overall performances of the economies were the roles played by technical progress incorporated into new investments, the growth of capital used, and improved training of labour. All these factors taken together led to an improvement in labour productivity in almost all industries, though the rates of improvement were not of course the same.

However, sector-to-sector shifts in the working population, which were consistently from low productivity sectors to high productivity sectors, also helped, and in some countries helped a lot, to improve the performance of the economies.

In any comparison of country performances with regard to labour productivity gains, it would have been useful to make a distinction between the share attributable to an improved sectoral allocation of human resources and the share which, in each sector, could be attributed to progress in the organization of labour, to the investment drive and the effectiveness of the use of investment, and to other factors. It was impossible to effect this analysis in the scope of this study.

The analysis of labour productivity trends given here begins by recalling the performance achieved overall by each country, and then examines productivity growth within each sector.

4.1. The improvement in labour productivity: overall comparison

Made at 1970 prices and exchange rates, a comparison between productivity levels shows:

- In 1960: one group of countries (FRG, France, Belgium, Netherlands) relatively close together; between 4.140 and 4.480 EUR per active person.
- The United Kingdom is at a lower level (estimated at the current exchange rate, the level would be that of the preceding group). Lastly, Italy is well below the Community level, mainly because of the size of its farming population with a low level of productivity.
- The same evaluation in 1973 shows that the four leading countries are even closer together. The discrepancy is down to less than 2 % between France: (7.680 EUR/active person) and the FRG (7.790), whilst Italy has moved nearer the leaders and the United Kingdom further away.
- Productivity gains have been fairly substantial (4.3 % per year on average for the six countries). Four countries are clustered between 4.3 and 4.9 (France, FRG, Netherlands and Belgium), Italy has a very high level (5.5 %) and United Kingdom a very low level (2.3 %).

Table 11 GDP per person employed; 1970 prices and exchange rates

	1960		1970		Annual average growth
	absolute value in EUR	relative value CE-9 = 100	absolute value in EUR	relative value CE = 100	
D	4,460	1,16	7,790	1,16	4,4
F	4,140	1,07	7,680	1,15	4,9
I	2,620	68	5,280	79	5,5
UK	3,180	99	5,140	81	2,3
NL	4,250	1,10	7,770	1,16	4,75
B	4,480	1,16	7,790	1,17	4,3
EEC-9	3,860	1,00	6,680	1,00	4,3

#### 4.2. Labour productivity by sector

It would have been interesting to analyse and compare sectoral productivity levels between sectors and between countries at the beginning and at the end of the period examined. Statistical problems, in the absence of systematic harmonization of sectoral data on value added and employment, have proved an insuperable obstacle to the preparation of an overall table. Estimating difficulties are particularly formidable with regard to services, where the distinction between growth in volume and prices is largely conventional and not comparable between countries.

Table 12 gives a breakdown, by branch, of average annual growth rates from 1960 to 1973, but this table is for guidance only.

The changes in these rates are fairly homogeneous as between the countries of the old six-country Community, the United Kingdom being consistently 2 or 3 points behind, except for agriculture and chemicals.

Productivity gains have, generally, been very substantial in the agricultural sector because so many workers have left the land for industry and services, average to well above average in manufacturing industry and low in services for the opposite reasons to those governing the trend in agriculture.

The case of capital goods brings out the limitations to the validity of these comparisons, since the discrepancies between countries are a good deal more than they are in the other branches without there being any discernible reason for this (productivity of the motor vehicle industry in Germany).

Methods of obtaining and collating harmonized data must therefore be improved, and this operation should be undertaken at Community level.

Table 12 : Labour productivity -  
Average annual rate of growth 1960-1973

No	BRANCH	F.R.G.	FRANCE	ITALY	UNITED KINGDOM	NETHERL.	BELGIUM
1	AGRICULTURAL PRODUCTS	6,3	6,3	6,9	6,9	6,2	5,3
2	ENERGY PRODUCTS	7,5	6,6	4,4	5,5	14,4	7,8
21	of which: solid fuels	3,6	1,6	-	0,5	-	3,3
22	crude pet./ref.nat.gas	9,6	5,6	-	10,8	-	8,0
23	electr. gas, water	4,8	7,6	-	6,3	-	8,2
3	INTERMEDIATE PRODUCTS	6,2	6,6	6,8	3,8	7,3	7,7
31	of which: ores, iron and steel	4,8	5,4	6,3	0,5	-	6,7
32	minerals, bldg. mat.	4,9	6,2	6,2	4,9	-	6,3
33	chem. products	7,2	7,5	7,0	6,5	-	10,9
4	EQUIPMENT PRODUCTS	3,3	6,8	3,2	2,5	4,6	6,7
41	of which: metal products	2,5	5,9	-	1,6	-	-
42	agricultural and	1,6	6,7	2,9	2,4	-	-
43	prec.instr.data proces.equipm.	-	-	-	5,9	-	-
44	electrical equipm.	-	6,3	-	3,7	-	-
45	motor vehicles,	2,3	6,6	4,2	2,1	-	-
46	other means of transp.	5,0	8,5	-	2,1	-	-
5	FOOD, DRINK, TOBACCO	5,0	4,8	5,8	2,7	4,9	4,5
6	CURRENT CONSUMPTION PRODUCTS	5,0	5,7	5,8	3,2	4,9	4,5
61	of which: text., leather, clothing	4,4	6,0	5,7	3,3	--	4,6
62	paper, printed material	-	3,5	3,6	2,3	-	3,8
63	rubber, plastics	5,2	3,3	6,5	2,8	-	10,5
64	other industrial prod.	-	6,8	-	3,1	-	7,3
	TOTAL MANUFACTURING INDUSTRY	4,5	6,0	5,6	3,0	6,5	6,1
7	BUILDING AND CIVIL ENGINEERING	3,9	4,9	2,9	2,2	3,3	2,8
81	Transport services	3,6	3,8	-	3,2	-	-
82	Communication services	4,9	5,2	3,3	3,0	4,7	-
83	Trade services	3,8	4,2	5,0	2,8	-	3,3
	Other market services	2,5	2,5	-	0,2	1,6	1,4
84	of which: credit, insurance	2,1	-	2,5	-	-	-
85	hotel accomm.catering	-	-	-	-	-	-
86	other market services not elsewhere specif.	3,4	-	4,3	-	-	-
8	TOTAL MARKET SERVICES	3,4	3,0	4,4	1,6	2,2	2,4
9	NON-MARKET SERVICES	1,8	0,9	-	-	3,4	3,1
	TOTAL SERVICES	2,9	2,6	-	-	2,5	2,5
	TOTAL	4,2	4,9	5,2	2,2	4,3	4,2

## B-5 CAPITAL FORMATION

### 1. The main features of investment trends

Throughout the 1960-73 period, the investment drive in the six countries was maintained. Following the period of reconstruction of capital after the war, a number of factors combined to help maintain throughout this period an investment growth rate exceeding the GDP growth rate.

A more capital-intensive method of production, the need to rationalise manufacturing processes because of the opening of markets to international competition and an increase in relative prices for labour compelled firms, even those in the most traditional industries, to pursue their investment drive. In addition, the emergence and development of new activities : petro-chemicals, plastics, electronics, the substitution of energy sources, created new investment needs. Also during a large part of the period under review, the demand by households for new housing supported the investment drive. Lastly, central government had to meet growing transport and communication infrastructure needs and public equipment needs, particularly in the fields of education and health.

For the European countries taken as a whole, the 1960-73 period is therefore one of rapid growth in investment. In real terms, the rate of growth was about 5.5% per year, which means that it was higher than GDP growth.

However, this movement was not a steady one. It was very fast between 1960 and 1965 (6.7% per year on average), but the overall investment growth rate steadily declined thereafter and was actually negative during the 1974-75 recession. Between 1965 and 1970, the annual growth rate was 5.5%, but between 1970 and 1973 it was only 3.5%. Last, investment rates (ratio of investments in a given sector to its added value) calculated on the 1970-73 period are a good deal lower than those for the 1960-70 decade. This change is very obvious in the energy and intermediate industries, but most industries are affected, as is building and construction.

1.3. France is a remarkable exception to this generalisation, since it not only had a growth rate (average 1960-73) a good deal higher than the other countries, but the development over time was also different.

In France, industry did not suffer in 1970-73 the decline in investment comparable to that of other countries. A vigorous increase in services actually induced an increase in the share of investment in GDP.

In the countries taken together (including France), the growth in investment was much more substantial in the services sectors (and in certain countries, in agriculture) than in the energy sectors and in manufacturing industry.

It is, however, probable that the investment statistics tend to exaggerate this trend. Equipment on lease is included in services even if it is used in industry, just as interim or temporary work generally carried out in other sectors is often also included in services.

The investment drive has stepped up substantially the stock of productive capital in the European countries. Although statistics on the stock of capital are by no means completely accurate (see below), they do concord to confirm a shift in the capital stock from industry to services and a major substitution of capital for labour in all sectors of the European economies.

This substitution of factors of production has no doubt been forced upon the economies by technological change, concentration of activity in large production or distribution units and, in certain countries, by a shortage of skilled labour, but it has also been strongly encouraged by diverging trends in the relative costs of capital and labour, the cost of labour having increased more rapidly than that of investment.

Lastly, with regard to the type of capital goods required, the share of residential construction has declined in real terms (in value, it has increased because of a faster increase in prices) in relation with that of capital goods : machinery and transport equipment, and with that of industrial plant and public equipment.

## 2. Sectoral long-term trends in investment

(At constant prices)

The most significant aspect of trends during the 1960-73 period is the much more rapid growth of investment in services than that made in manufacturing industry. This is true for all the countries.

Within manufacturing industry itself, however, priorities have differed. Thus whilst the equipment industries sector leads in the FRG and in France, the intermediary sectors, chemicals and particularly steel lead in the Netherlands, and the food products industries lead in Belgium and the United Kingdom.

The current consumption sectors progressed (except in the United Kingdom) at a rate below that of industry.

Among the services branches, growth rates for transport and communications exceeded those for industry, except in France and in the Netherlands.

The restructuring of the distribution sector is reflected in high growth rates for investment in the wholesale and retail trades.

But the strongest growth rate, as for employment, is recorded in the other market services - financial institutions and miscellaneous services.

### 3. Analysis by period (at constant prices)

A more detailed time analysis is needed, all the more in that the outline of the three subperiods 1960-65, 1965-70 and 1970-73 differs widely both for overall investment trends and for the sectoral distribution.

Thus the 1960-65 period, in which investment was growing sharply (6.7% per year) was a period in which investments in the energy sector grew especially vigorously (5.3% per year in the FRG, 8.8% in France, 9.6% in the United Kingdom), the main item here being the construction of electric power production stations.

The growth of investment was very sharp in agriculture, building and construction, and market services (except transport and retail and wholesale distribution).

On the other hand, during this period, investment in manufacturing industry rose at a relatively slow rate in the FRG and the United Kingdom (3.6% per year) and at a rate below that of the other branches in France (7.1% against 10.2% in market services taken as a whole).

In the FRG, industrial investment was realised mainly by the capital goods and intermediate product sectors, including chemicals and building materials. In France, all industries ranked roughly equally: manufacturers in the textiles industry

in particular, continued to spend heavily on investment (7% per year), while this type of investment declined in the FRG. Equally, in the area of intermediate goods in France, investment in the ores and steel branch market time, but this was offset by the very sharp increase in investment in building and construction materials (18 % per year).

In the United Kingdom, where the overall growth of investment in industry is comparable to that of the FRG, there is a more marked shift to current consumption goods (textiles, in particular) and chemicals, capital goods enjoying only average growth.

The 1965-70 period is, on the other hand, a period of definite recovery in investment in manufacturing industry. Investment in services continued to grow rapidly, but at a rate below that of the preceding five-year period; the same is true for agriculture, energy and building and construction. Overall, investment therefore slowed down during this period except in manufacturing industry. The equipment goods and current consumption industries expanded in the FRG and in particular there was a recovery of investment in textiles. The intermediate industries, particularly chemicals and ores-steel in the United Kingdom stepped up their investment sharply.

In France and the Netherlands, expansion is distinctly more rapid in all the industrial sectors, and progress in the Netherlands is quite remarkable in the intermediary sectors - chemicals (18%) and ores-steel (19%).

In Belgium, where overall progress was slower (5.7%), chemicals achieved a remarkable increase in investment (19%).

After this phase of rapid development in industrial development, the 1970-73 period was much less successful.

Investment in industry contracted in the FRG ( - 6.6% per year), in the United Kingdom ( - 3.7%) and in the Netherlands ( - 3.7%).

In the other countries, growth continued, but the average annual rate was about half that of the preceding period.



The relative losses in industry are not sufficiently offset by growth in other parts, except in France.

Thus, in the FRG, the rate of investment slowed down in transport and communications and commerce, and investment also declined in agriculture and building and construction. Only energy and the other market services stepped up vigorously their investment.

In the other countries, the growth of the services sectors is fairly vigorous, especially in transport and communications, but not sufficiently to offset the slowdown in industry.

France is an exception to this general pattern, industrial investment having continued to grow in that country at a rate which was admittedly lower (5.4% per year, against 10.3 between 1965 and 1970) but which remained fairly high. In addition, the equipment goods industries also forged ahead in France (9.7% per year). In the other sectors - building and construction, agriculture and services - the rate of growth of investment even gathered momentum in comparison with the preceding period. Only the energy sector suffered a decline.

Table 1 - Rate of growth of investment (volume)

No	BRANCH	F. R. G.						France			United Kingdom			Netherlands		Belgium	
		60-65		65-70		70-73		60-65	65-70	70-73	60-65	65-70	70-73	65-70	70-73	65-70	70-73
		5,3	-3,6	1,5	10,1	-2,2	7,9	6,5	+9,3	2,4	2,5	8,6	6,3	11,1	2,3	4,7	
1	AGRICULTURAL PRODUCTS	5,3	-3,6	1,5	10,1	-2,2	7,9	6,5	+9,3	2,4	2,5	8,6	6,3	11,1	2,3	4,7	
2	ENERGY PRODUCTS	5,3	1,5	10,1	8,8	2,2	8,8	2,2	-2,0	9,6	-4,3	-5,5	2,3	1,7	5,2	3,9	
21	of which : solid fuels,	-4,2	-10,8	4,0	-6,5	-3,1	-6,5	-3,1	-6,6	-2,3	-10,0	-6,1	-0,0	0	-13,0	-9,2	
22	crude pet./ref.nat.gas	2,8	3,5	6,3	10,9	12,7	10,9	12,7	-4,4	13,4	20,0	12,4	+0,5	2,2	2,7	34,0	
23	electricity, gas, water	8,4	3,0	11,2	10,5	0	10,5	0	0	11,2	-5,6	6,5	2,7	1,3	6,2	1,8	
3	INTERMEDIATE PRODUCTS	5,5	5,9	-7,2	5,7	8,5	5,7	8,5	4,1	0,8	6,6	-10,5	16,8	-12,1	8,2	-11,0	
31	of which : ores, iron & steel	2,8	7,0	-7,8	-0,3	6,6	-0,3	6,6	8,3	-10,8	11,2	-6,1	18,9	7,0	2,7	-9,8	
32	minerals, bldg. mat.	7,4	1,0	2,5	17,7	8,1	17,7	8,1	5,5	9,2	-0,8	2,6	10,6	-13,0	2,3	-5,4	
33	chem. products	6,7	7,3	-11,1	7,4	10,3	7,4	10,3	0	8,5	6,9	-20,0	17,8	-14,0	18,9	-14,0	
4	EQUIPMENT PRODUCTS	4,0	9,0	-7,4	8,1	11,1	8,1	11,1	9,7	4,1	4,0	-4,5	9,5	-4,7	1,3	8,1	
5	FOOD, DRINK, TOBACCO	1,6	3,9	-2,5	6,5	12,2	6,5	12,2	2,8	4,0	2,7	5,1	10,6	0,6	4,1	8,7	
6	CURRENT CONSUMPTION PROD.	1,8	8,4	-6,6	8,2	10,6	8,2	10,6	1,7	7,6	1,2	1,8	7,9	-5,5	5,8	1,5	
61	of which: text. leather, clothing	-0,1	3,1	-11,2	6,9	10,5	6,9	10,5	-3,0	8,3	0	1,5	1,3	-2,3	5,5	2,0	
	TOTAL MANUFACTURING IND.	3,7	7,2	-6,6	7,1	10,3	7,1	10,3	5,4	3,6	4,1	-3,7	12,4	-3,7	5,7	2,7	
7	BUILDING & CIVIL ENGINEER.	9,4	4,8	-1,5	12,8	4,3	12,8	4,3	10,5	13,5	-1,1	0	10,9	-1,7	5,8	-3,7	
81	Transport services and	5,2	7,9	3,6	3,9	6,6	3,9	6,6	9,2	-0,6	8,5	6,3	7,1	11,2	2,5	10,3	
82	Communication services	3,0	4,9	1,3	15,4	6,6	15,4	6,6	9,5	4,3	2,5	10,4	.	.	6,5	11,6	
83	Trade services	7,6	3,4	9,3	14,4	13,4	14,4	13,4	13,9	8,3	2,9	4,2	.	.	0,7	3,4	
	Other market services *	6,6	4,4	7,3	10,2	10,1	10,2	10,1	11,3	5,5	4,2	5,4	7,4	6,0	2,0	6,6	
8	TOTAL MARKET SERVICES	6,6	4,3	2,7													
	TOTAL	6,6	4,3	2,7													

\* Including housing services (except for France)

#### 4. Investment by type of goods

The above material concerned investment trends by owner or user sector. Details are now given of trends by type of investment, under four main headings, machinery, transport equipment, residential construction and industrial or commercial construction and plant and civil engineering work. An analysis is then given of the impact exerted by this investment demand on the industries producing these goods.

As a general rule, priority went to the production of equipment goods, the share <sup>(1)</sup> of investment expenditure devoted to industrial machinery and to transport equipment grew more rapidly than that assigned to building and construction (however, there was a slight slowdown in the United Kingdom and in the Netherlands) to reach a percentage varying from 45% in Belgium to 51% in Germany and the United Kingdom. The heavier emphasis on productive investment is also reflected in the distribution of investment between buildings intended as housing and those connected with increasing production capacity (industrial building) and to the improvement of infrastructures, especially roads. The growth of the latter has been more rapid than that of residential construction, except in Italy and in the Netherlands, although it would seem, in this case, for different reasons:

The Netherlands had fallen behind, in structural terms, in their stock of buildings and, by vigorously boosting the volume of residential construction, restored their share of investment in this sector to a level comparable with that of the other European countries.

The structure of Italian investment, on the other hand, gives this country a rather special place in Europe. It is the only country still devoting in the 70's more than 30% of its investment expenditure to housing, compared with 19% in the United Kingdom and 22% in Germany, while its growth rate for the heading "other building and civil engineering work" is the lowest of all, which means, given the scale of motorway work which must have accounted for a large share of new investment, that the construction of additional production units was at a much slacker rate than in the rest of the Community.

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(1) The figures given in the table on the structure and trend of investment are five-year averages designed to smooth out short-term fluctuations.

Table 2 - Investment structure and trends (five-year averages)  
(volume and price index, 1960-64 = 100)

	Federal Republic of Germany						France					
	1960-64			1969-73			1960-64			1969-73		
	Struct. value	Index volume	Struct. price value	Struct. volume	Index price	Struct. value	Struct. value	Index volume	Struct. price value	Struct. volume	Index price	Struct. value
Industrial machinery	34,0	176	39,5	122	34,5	37,7	212	39,7	131	36,7		
Means of transport	10,9	161	11,7	129	10,8	7,3	208	7,6	123	6,5		
Residential buildings	21,8	130	18,7	163	21,9	24,8	{	{	{	26,5		
Other bldg. & civil eng. works	34,7	144	33,0	148	35,0	29,4	195	52,5	152	29,8		
Adjustment	-1,3		-2,8		-2,2	0,8		0,2		0,5		
Total	100,0	151	100,0	140	100,0	100,0	201	100,0	142	100,0		
	United Kingdom											
	1960-64			1969-73			1960-64			1969-73		
Industrial machinery	31,0	145	33,2	141	30,1	40,8	143	39,6	135	38,4		
Means of transport	10,7	163	12,9	120	9,9	11,7	148	11,7	137	10,5		
Residential buildings	29,2	132	28,3	170	30,9	18,1	146	18,0	162	19,1		
Other bldg. & civil eng. works	29,1	125	26,7	170	29,2	29,4	154	30,8	159	32,0		
Adjustment			-1,1									
Total	100,0	136	100,0	156	100,0	100,0	148	100,0	152	100,0		
	Belgium											
	1960-64			1969-73			1960-64			1969-73		
Industrial machinery	32,6	181	33,5	141	30,2	40,7	161	44,9	131	30,0		
Means of transport	17,0	155	15,2	124	11,9	26,9	114	21,0	177	7,7		
Residential buildings	17,3	202	20,1	185	23,4	32,4	158	35,0	172	23,8		
Other bldg. & civil eng. works	33,0	160	30,4	179	34,2	32,4	158	35,0	172	38,5		
Adjustment			0,5		0,3			0,9				
Total	100,0	174	100,0	159	100,0	100,0	146	100,0	156	100,0		
	Netherlands											
	1960-64			1969-73			1960-64			1969-73		
Industrial machinery	32,6	181	33,5	141	30,2	40,7	161	44,9	131	30,0		
Means of transport	17,0	155	15,2	124	11,9	26,9	114	21,0	177	7,7		
Residential buildings	17,3	202	20,1	185	23,4	32,4	158	35,0	172	23,8		
Other bldg. & civil eng. works	33,0	160	30,4	179	34,2	32,4	158	35,0	172	38,5		
Adjustment			0,5		0,3			0,9				
Total	100,0	174	100,0	159	100,0	100,0	146	100,0	156	100,0		

The economic sectors which could "work" directly for investment, i.e. those more than 25% of whose production in terms of value is accounted for by items intended for the gross fixed asset formation of other industries, are by definition few in number.

For all the countries they are the following industries:

- agricultural and industrial machinery;
- precision instruments, office machines, computers;
- building and construction, civil engineering

and for Germany, Italy and the Benelux countries

- motor vehicles and engines.

To these equipment industries properly so called we should add virtually all the intermediate industries, i.e.

- ferrous and non-ferrous ores and metals;
- non-metal ores and ore-based products (building materials);
- metal products;

and the other equipment industries such as electrical equipment and supplies and wood and wood products.

A large share of their production is incorporated into the manufacture of capital goods and their development is thus indirectly a function of a demand for investment goods.

Table 3 Proportion of the national production of an industry incorporated directly or indirectly into capital goods (exceeding 25%) (%)

	FRANCE	ITALY	U.K.	NETHERLANDS	BELGIUM
Ferrous and non-ferrous ores and metals	29,9	38,2	26,9		
Building materials (ore-based)	57,1	64,8	42,0	56,2	42,2
Metal products	53,3	39,1	30,0	33,6	29,3
Agricultural and industrial machinery	51,3	39,6	45,8	33,6	
Precision instruments, computers	40,5		35,6		
Electrical equipment and supplies	40,0	32,2	34,2		34,4
Motor vehicles and engines			32,5	29,6	
Other means of transport		43,3			
Wood and wood products	40,5	38,7	31,4	31,1	31,9
Construction	86,8	89,6	75,6	79,8	85,3

Source : Input-Output Tables for 1970

For the overall economy of each country, the proportion of domestic production assigned to investment in 1970 was as follows : (% of total production)

Table 4	F.R.G.	FRANCE	ITALY	U.K.	NETHERLANDS	BELGIUM
direct	12	12.6	10.8	9.7	10.4	9.6
direct and indirect	‡	21.3	18.0	16.1	14.9	13.8
‡ not available						

The multiplier effect of investment on national production seems lower in the Benelux countries than in the other Community countries. This is a function of the weakness of their domestic market in equipment products which compels them to import more from abroad : imports account for more than a quarter of the overall value of annual investment, comparing with less than 10% in the other, larger countries.

## 5. The capital stock

It is obviously of value to know how trends in productive investment have affected the stock of capital available in the economy and its distribution by main sector. It is also of interest to know how the profitability and efficiency of productive capital have varied from sector to sector.

However, evaluation and especially international comparisons of capital stock are hamstrung by statistical and methodological difficulties. The establishment of annual series for the stock of productive capital is generally based, save where investment series going well back in time are available, on an estimate of the capital in a base year and an evaluation, year by year, of movements affecting this stock. The stock is increased each year by the investments carried out. On the other hand, part of the capital disappears each year through destruction, wear or obsolescence.

While the flow of information on investments carried out is fairly good, an estimate of depreciation is based on assumptions concerning the useful life of capital goods (equipment and buildings). These assumptions are largely conventional and vary according to evaluations; some include not only the physical depreciation of capital by ageing but also technical or economic obsolescence. Lastly, estimates of the capital in the base year may be drawn from various sources - tax statistics, industrial censuses, surveys, etc., all of which make comparisons extremely difficult.

In this connection, the group could only regret the absence of harmonised statistics at European level in a field so crucial and so controversial. It proposes that the construction of capital stock series worked out according to rules as uniform as the basic data available in each country allow should be undertaken as soon as possible.

As they could not ignore completely this important field, the group gathered together estimates of capital stock made by various institutions of the European countries.



The group lacked the facilities to proceed to a harmonisation of the series, and therefore could make no comparisons of absolute capital stock levels. Comparison of growth rates was a hazardous exercise, and all that has been done here is to present a table describing the sectoral structure of capital in each country at the beginning and at the end of the period, giving in the commentary only the facts sufficiently consistent to "resist" variations in conventions with regard to the way estimates are made.

The sectoral structure at the beginning of the period \*

A comparison of the sectoral structures of the capital stock reveals fairly close similarities between the countries.

For all the countries, the share of the capital stock accounted for by services lies between 35 and 40% of the total, building and construction accounting for 1.5 to 3.5%, energy for between 15 and 20%.

Manufacturing industry is also somewhere between 35 and 40% of the total, except in the Netherlands (about 28 %).

Disparities between countries are, however, discernible in the comparison of the shares of agriculture, and in the structure of capital within manufacturing industry itself.

For agriculture, alongside three countries which are relatively comparable - FRG, France, Belgium - where the capital share is near 10%, there are two extreme countries : the United Kingdom where this share is very low (3.6%) and corresponds to the share of agriculture itself in total production, and the Netherlands , where, conversely, agriculture has developed along very " capital-intensive" lines.

In manufacturing industry, the structure of capital reflects fairly closely the specialisations of each country. Apart from the relative overall weakness of the Netherlands, the specialisation of the United Kingdom and of the FRG in the equipment industries, of Belgium in intermediate products and textiles, of the Netherlands in the food industry; France lies in an average position in each of these sectors.

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\* The sectoral structures have been calculated excluding public equipment : infrastructure, hospital equipment, educational establishments, etc.

The sectoral development of capital between 1960 and 1973

The main features of sectoral changes in capital are fairly comparable with those noted with regard to employment.

Here again the share of industry is relatively stable, there is a decline in the energy sector entirely attributable to the decline in mining, there is an appreciable decline in the share of agriculture offset by the growth of the building sector and there is above all a very sharp increase in the share of market services. The changes in manufacturing industry took place mainly at the cost of the food industries and current consumption products and in particular of the textiles-leather-clothing sector. On the other hand, the industries which have benefited the most from capital changes are in the intermediate sectors, chemicals in particular, but steel as well in the Netherlands and in Belgium.

In the plant and machinery sector, the picture with regard to capital is comparable with that for employment for four of the countries: an increase in the relative share in the FRG and in France, stability in the United Kingdom and in the Netherlands. In Belgium, however, there was a scissors movement, though on a limited scale. The share of employment in these sectors rose from 8.4 % to 10.1 % whilst the share of capital fell from 6.6 % to 6.4 %.

Table 5 - Development of the stock of capital

B R A N C H	1 9 6 0					1 9 7 3				
	Fed. Rep. of Germ.	France	United Kingdom	Nether-lands	Belgium	Fed. Rep. of Germ.	France	United Kingdom	Nether-lands**	Belgium
Agricultural products	10,5	9,3	3,6	15,4	9,0	7,0	8,0	3,4	10,5	7,3
Energy products of which: solid fuels	15,0	17,2	19,5	16,2	15,2	11,7	15,6	19,0	14,3	15,2
Intermediate products of which: chemical products	4,4	4,3	3,3	4,2	3,7	1,6	1,5	1,9	0,9	2,0
Equipment products	11,6	10,4	10,6	8,3	14,3	11,0	11,2	11,0	13,2	16,5
Food, drink, tobacco	4,9	2,8	4,7	3,3	4,9	4,8	3,7	5,0	6,9	6,3
	10,6	9,7	12,7	6,3	6,6	11,8	10,5	12,7	6,2	6,4
	6,3	6,4	4,1	6,7	6,1	5,5	5,3	4,4	6,5	4,9
Current consumption products of which: textiles, leather clothing	7,0	9,1	8,9	7,3	11,4	6,6	8,7	8,1	6,3	9,8
	3,1	4,6	4,9	3,8	5,9	2,3	3,5	3,7	2,3	4,5
TOTAL MANUFACTURING INDUSTRY	35,5	35,6	36,3	28,6	38,4	34,9	35,7	36,2	32,2	37,6
Building and civil engineering	2,0	3,6	1,5	1,9	2,5	3,1	5,2	2,1	3,1	3,3
Transport services										
Communication services	19,0	17,1	24,9	23,6	17,3	14,4	12,5	19,4	25,7	18,6
Trade services	9,2	7,6	6,8			10,8	9,8	7,5		
Other market services	8,9	9,6	7,5	14,2*	17,6	18,0	13,0	12,3	14,3*	18,0
TOTAL MARKET SERVICES	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
TOTAL SERVICES	37,1	34,3	39,2	38,0	37,4	43,2	35,3	39,2	40,0	36,0

\* Excluding credit and insurance

\*\* 1972

## 6. The substitution of labour by capital

Defined as the growth of capital per person employed, the rate of capital/labour substitution could not, for the reasons mentioned above, be measured on a basis allowing comparison between countries.

There is therefore no way of classifying the countries according to the rate of this substitution. At the very most it can be noted that the rate was fairly high, estimates varying from 4 to 6 % per year from country to country. On the other hand it is possible (although the figures are for guidance only) to compare in each country the rates of substitution by main sector. Table 6 gives the relative rate of substitution for each of these sectors. As has been noted above, movements affecting the sectoral distribution of capital are generally in the same direction as those for employment: it is unusual to find sectors where employment has contracted sharply (as the relative share of the whole of the market economy) while capital has increased, or conversely. The differing degrees of substitution therefore derive from the difference of scale between the movement of labour and of capital, but generally the trends are in the same direction.

In all the countries, the strongest substitution movement was in the energy, building and construction and agriculture sectors. Next come services and wholesale and retail trade, then the industries producing current consumption goods (especially textiles), and the other industries - intermediate goods and food products. Last in line are transport and communication services and the plant and machinery industries, where broadly speaking substitution has been on a small scale only.

However, a mere listing of sectors in order of degree of substitution is not enough to give a clear idea of the phenomenon. In fact, several groups of sectors can be distinguished:

high substitution sectors, where employment has declined (in relative and sometimes absolute terms) and capital has declined (in relative terms) but to a lesser extent: this is the case in agriculture and in certain countries for textiles and coalmining as well.

high substitution sectors where employment has increased but capital has increased much more rapidly. This applies to building and construction, energy industries other than coal, chemicals in certain countries, wholesale and retail trade, and certain services industries.

Among the low substitution sectors, a useful distinction can also be made between a group comprising food products and transport and communication services, where employment more or less marked time and capitalization was average or lower than average, and the equipment sectors in which capital and employment both rose sharply, the rate of substitution being, however, below average.

Table 6: Capital/labour substitution (1960-1973) relative rate: market economy  
as a whole = 100

No	BRANCH	GERMANY	FRANCE	ITALY	UK	NETHERL.	BELGIUM
1	AGRICULTURAL PRODUCTS	111	154		151	98	163
2	ENERGY PRODUCTS	107	119		154	124	209
21	of which: solid fuels	66	59		121	60	158
22	crude pet./ref.nat. gas						
23	electr. gas, water						
3	INTERMEDIATE PRODUCTS	95	103		112	145	122
31	of which: ores, iron and steel						
32	minerals, bldg. mat.				101	170	122
33	chem. products	77	76				
4	EQUIPMENT PRODUCTS	92	88		99	95	82
41	of which: metal products						
42	agricultural and						
43	prec.instr.data proces.equipm.						
44	electrical equipm.						
45	motor vehicles						
46	other means of transport						
5	FOOD, DRINK, TOBACCO	92	93		113	78	90
6	CURRENT CONSUMPTION PRODUCTS	103	105		104	105	90
61	of which: text,leather, clothing	100	104		115	84	94
62	paper, printed material						
63	rubber, plastics						
64	other industrial prod.						
	TOTAL MANUFACTURING INDUSTRY	94	96		107	120	97
7	BUILDING AND CIVIL ENGINEERING	150	122		130	139	117
81	Transport services	70	66		84	116	100
82	Communication services						
83	Trade services	112	108		116	86	87
	Other market services	156	94		118		
84	of which: credit, insurance						
85	hotel accomm.catering						
86	other market services not elsewhere spec.						
8	TOTAL MARKET SERVICES	102	80		88	92	91
	TOTAL (not including non-market services)	100	100		100	100	100

7. Relative costs of capital and labour

There is no doubt that capital per person employed has increased considerably although we cannot express the phenomenon in figures that would be comparable from one country to another. The key to this development is the divergent trend of capital and labour costs.

Between 1960 and 1973, wage costs per unit of product approximately doubled, mainly because of the increased burden of social security contributions and other wage-linked costs. These costs have generally increased slightly more than GDP prices, while investment prices have increased less, particularly the prices of machinery and transport equipment.

A comparison of the prices of the two inputs, which are partly interchangeable, demonstrates that developments have been distinctly favourable to investment goods. The prices given in Table 7 are, of course, "market prices"; they do not measure exactly the real cost of capital, since financial costs (interest on loans, depreciation etc) are also involved.

Nevertheless, the gap is wide enough to be significant, especially as measures have been taken in most countries during the period to reduce the real burden of investments for firms, in the form of tax concessions, investment grants, or preferential terms for state loans. In some countries, inflation has been an extra incentive to investors, by reducing real interest rates, and making them negative at certain periods.

Table 7: Comparison of implicit GDP prices, investments and wage costs (including social security contributions) 1960 = 100

	GDP prices	Price of Gross Fixed Asset formation		Wage costs per unit of product
		Total (equipment goods + build.)	Equipment goods	
Germany	171	170	138	180
France	186	169	150	184
Italy	196	206	168	209
U.K.	192	190	170	197
Netherlands	205	187	153	238
Belgium	166	181	161	178

B-6. LONG-RUN PRICE CHANGES

Three points in particular arise from the analysis of developments between 1960 and 1973:

- (i) the price structure changed in the same directions in all countries; lower relative prices for energy and industry, higher relative prices for building and services (Table 1);
- (ii) the scale of the relative changes varied widely: very large in the Benelux countries and in Germany, less marked in Italy and in France, quite small in the UK (Table 2);
- (iii) the long-run change in prices seems fairly closely correlated with that of the productivity of labour (Table 3). In the sectors where productivity gains were the highest, the growth of prices was least rapid, and vice-versa.

Table 1: Ratio of annual average rate of price increase in the different sectors to that of the economy as a whole (1960-1973)

	Agriculture	Energy	Manufact. Industry	Building + construction	Market services	All services	Economy as a whole
Germany	46	51	72	128	131	132	100
France	102	48	73	112	110	123	100
Italy	86	59	73	152	100	114	100
UK	69	88	83	117	100	113	100
Netherlands	70	28	52	120	124	131	100
Belgium	143	23	56	146	125	123	100

Change in the structure of prices

The evolution in manufacturing industry is fairly similar from country to country. Thus, the price of intermediate products as a whole rose less rapidly than prices on average for the whole of industry. The lowest rate of increase in the industrial sector was in the chemical industry. Prices of current consumption goods, on the other hand, grew more rapidly than the average in all the countries. This divergence is mainly due to the evolution of prices in the textile/leather/clothing sector, but also to the marked rise in prices in the paper and printing sector.



This dual evolution supports the view that prices have risen faster in the sectors mainly supplying goods for final consumption; the intermediate consumer (usually an industrial establishment) is supposed to be able to resist price increases more easily than the final consumer.

However, there is no other evidence to support this affirmation, though some might be found if a more detailed breakdown were used.

Where the other industrial sectors are concerned, there is no simple interpretation of the very different evolutions from one country to another.

Table 2: Value added price: annual average growth rate (1960-73)

No	BRANCH	GERMANY	FRANCE	ITALY	U.K. <sup>1</sup>	NETHERL.	BELGIUM
1	AGRICULTURAL PRODUCTS	2.0	4.9	4.8	3.6	3.8	5.6
2	ENERGY PRODUCTS	2.2	2.3	3.3	4.6	1.5	0.9
21	of which: solid fuels	3.1	6.0	-	5.5	-	1.2
22	crude pet./ref.nat. gas	-0.3	1.6	-	3.5	-	1.6
23	electr. gas, water	2.6	2.2	-	4.3	-	-0.8
3	INTERMEDIATE PRODUCTS	1.7	2.9	2.6	3.4	3.5	2.5
31	of which: ores, iron and steel	2.3	3.8	2.0	4.4	-	3.5
32	minerals, bldg. mat.	3.9	3.6	3.6	3.7	-	1.9
33	chem. products	-0.3	1.6	2.2	2.9	-	1.5
4	EQUIPMENT PRODUCTS	4.0	2.8	5.6	4.6	2.2	1.5
41	of which: metal products	3.1	3.4	-	4.6	-	-
42	agricultural and	4.9	3.2	-	4.9	-	-
43	prec.instr.data proces.equipm.	4.0	2.8	6.3	3.8	-	-
44	electric equipm.	3.4	1.7	-	3.5	-	-
45	motor vehicles	4.8	2.6	-	4.3	-	-
46	other means of transp.	-	0.9	3.2	5.9	-	-
5	FOOD, DRINK, TOBACCO	1.6	4.4	2.1	4.5	3.2	1.5
6	CURRENT CONSUMPTION PRODUCTS	3.5	4.4	5.1	4.6	3.2	3.2
61	of which: text,leather, clothing	3.5	3.9	5.2	4.1	-	3.5
62	paper, printed material	5.0	5.8	5.9	5.4	-	3.8
63	rubber, plastics	-0.3	3.0	4.8	4.7	-	2.0
64	other industrial prod.	2.7	4.4	-	4.8	-	2.2
	TOTAL MANUFACTURING INDUSTRY	3.1	3.5	4.1	4.3	2.8	2.2
7	BUILDING AND CIVIL ENGINEERING	5.5	5.4	8.5	6.1	6.5	5.7
81	Transport services	3.0	4.3	-	5.2	4.2	5.9
82	Communication services	3.8	4.2	4.0	4.9	-	5.3
83	Trade services	4.2	3.5	3.8	4.5	7.4	5.6
	Other market services	6.8	7.0	7.2	5.9	-	4.1
84	of which: credit, insurance	5.7	-	7.6	5.9	-	-
85	hotel accomm.catering	7.0	-	-	6.3	-	-
86	other market services not elsewhere spec.	-	-	-	-	-	-
8	TOTAL MARKET SERVICES	5.2	5.3	5.6	5.2	6.7	4.9
9	NON-MARKET SERVICES	7.6	8.0	8.7	8.2	8.6	4.6
	TOTAL SERVICES	5.7	5.9	6.4	5.9	7.1	4.8
	TOTAL	4.3	4.8	5.6	5.2	5.4	3.9

<sup>1</sup> United Kingdom: value added price at factor cost.

For example, in the food industry, three countries achieve remarkable results: in Germany, Italy and Belgium the annual average rate of price increase is between 1.5 and 2 %. However, in the Netherlands the performance is only fair (3.2 %), and it is very poor in France and the UK.

For equipment products as a whole, prices increased more rapidly than over the whole of industry in Germany, Italy and the UK and less rapidly in Belgium, France and the Netherlands. Obviously the proportion of products in these sectors destined for final consumption varies from country to country, but such variations on their own do not seem adequate to explain the behaviour of prices.

In these sectors protected from international competition, prices generally increased much more rapidly. This is particularly true of the building industry (where the biggest departure from the average for the economy as a whole is found in Belgium and Italy) and of services.

Among the latter, retail and wholesale trade and transport services and communications increased fairly moderately (except in Belgium), with most of the price rise coming from various services (under the heading "other market services").

Finally, while bearing in mind the purely conventional character of price estimates in this field, we may note that the prices of non-market services rose much more than the average.

Over a long period, there seems to be a fairly close correlation between a high rate of growth of the productivity of labour and the absence of extremely large increases in price.

Table 3 shows, for each country, the ranking of 11 main sectors classified according to price increase rates (in ascending order of annual average rates) and of value added per worker (in descending order of annual rates).

Table 3: Ranking of sectors according to growth of value added price and labour productivity gains (1960-73)

	GERMANY		FRANCE		ITALY		U K		NETHERL.		BELGIUM		ALL COUNTRIES *	
	Prices	Prod.	Prices	Prod.	Prices	Prod.	Prices	Prod.	Prices	Prod.	Prices	Prod.	Prices	Prod.
AGRICULTURAL PRODUCTS	4	2	8	4	5	2	2	1	6	3	8	5	6	3
ENERGY PRODUCTS	3	1	1	1	3	6	5	2	1	1	1	1	1	1
INTERMEDIATE PRODUCTS	2	3	3	2	2	1	1	3	5	2	4	2	2	2
EQUIPMENT PRODUCTS	7	7	2	2	8	3	5	8	2	6	2	3	4	6
FOOD PRODUCTS	1	4	6	7	1	4	3	7	3	5	2	4	3	5
CURRENT CONSUMPTION PRODUCTS	6	4	6	5	7	3	5	4	3	4	5	6	5	4
BUILDING + CIVIL ENGINEERING	9	6	9	6	10	10	10	9	10	8	10	10	10	9
TRANSPORT, COMMUNICAT.	5	8	5	8	5	9	8	4	7	7	9	9	8	7
TRADE SERVICES	8	9	4	9	4	5	3	6	8	10	8	8	7	8
OTHER MARKET SERVICES	10	10	10	10	9	7	9	10	8	10	6	11	9	10
NON-MARKET SERVICES	11	11	11	11	11	11	11	11	11	9	7	7	11	11

\* Classification for all countries is obtained by averaging the ranking of the countries.

The order changes little from one criterion to another. In most countries, energy products, intermediate products and other industrial products are near the top in both classifications, while trade services, building, market services and non-market services, in that order, are at the bottom.

Over all the countries, there are two sectors whose place on the scale varies quite widely depending on the classification criterion.

Agriculture takes third place for gains in productivity, but sixth place for moderate price increases.

Equipment products which are only sixth on the scale of productivity gains, arrive in fourth place for moderate prices. The explanation may be found in pressure of international competition in this sector.

The link between the two variables is, however, stronger in some countries than in others: Belgium seems to be the country where it is strongest, and the Netherlands, Italy and the UK those where it is weakest.

## B-7. HIGH GROWTH SECTORS

The high growth sectors were the motor for changes in the productive apparatus. They reflected the evolution of demand and of international trade, and contributed to changing the face of the European economies, not only through their own performance, but also because they boosted activity in the other sectors as well.

It is thus particularly interesting to try and draw a general picture of these sectors, listing their common characteristics and their macroeconomic performances.

### 1. Which are the high growth sectors?

To answer this question, we must set a threshold, which will obviously be arbitrary, beyond which a sector will be considered a high growth sector. We have chosen thus to define the sectors whose growth rate (in volume) over the period was at least 30 % higher than the growth rate of the economy as a whole.

In 1960, these sectors represented between 15 and 20 % of the economy (not including the general government sector) depending on the countries; in 1973 they represented between 17 and 25 % at current prices.

The composition of the group of sectors defined using this threshold is much the same from country to country, so that performances can be compared fairly reliably.

The following sectors are included in all countries: energy other than coal, chemicals, motor vehicles (sometimes integrated into the sector of means of transport, or as in Belgium, that of durable goods), electrical apparatus, communications services (when they could be isolated). Other sectors are found in some countries only: steel in Italy, the Netherlands and Belgium; construction materials in the UK; agricultural and industrial machinery in France; financial institutions (banks and insurance) in the Federal Republic of Germany. Thus, the main branches are energy or industry, and particularly branches supplying intermediate demand or equipment products, and some service branches closely linked to the activity of firms.

Table 1: The Growth Sectors

GERMANY	FRANCE	ITALY	UNITED KINGDOM	NETHERLANDS	BELGIUM
<ul style="list-style-type: none"> <li>- Crude and refined oil, natural gas</li> <li>- Chemical products</li> <li>- Precision, data processing</li> <li>- Electrical equipment</li> <li>- Rubber, plastic</li> <li>- Communications</li> <li>- Banking, finance and insurance</li> <li>- Electricity, gas, water</li> <li>- Motor cars and other means of transport</li> </ul>	<ul style="list-style-type: none"> <li>- Chemical products</li> <li>- Electrical equipment</li> <li>- Motor vehicles</li> <li>- Agricultural and industrial machinery</li> <li>- Communications</li> <li>- Crude and refined oil, natural gas</li> <li>- Electricity, gas, water</li> </ul>	<ul style="list-style-type: none"> <li>- Chemical products</li> <li>- Motor vehicles and other means of transport</li> <li>- Ores, iron and steel</li> <li>- Miscellaneous manufacturing industry</li> <li>- Rubber, plastic</li> <li>- Energy products</li> </ul>	<ul style="list-style-type: none"> <li>- Minerals, building materials</li> <li>- Chemical products</li> <li>- Precision, data-processing</li> <li>- Electric equipment</li> <li>- Rubber, plastic</li> <li>- Communications</li> <li>- Crude and refined oil, natural gas</li> <li>- Electricity, gas, water</li> <li>- Motor vehicles</li> </ul>	<ul style="list-style-type: none"> <li>- Chemical products</li> <li>- Rubber, plastic</li> <li>- Crude and refined oil</li> <li>- Electricity, gas, water</li> <li>- Electrical equipment</li> <li>- Ores, iron and steel</li> <li>- Motor vehicles</li> </ul>	<ul style="list-style-type: none"> <li>- Miscellaneous industry</li> <li>- Equipment products</li> <li>- Chemical products</li> <li>- Rubber, plastic</li> <li>- Crude and refined oil, natural gas</li> <li>- Electricity, gas, water</li> <li>- Ores, iron and steel</li> </ul>

2. Growth sectors as a percentage of the economy

Table 2 shows the value added of these sectors as a percentage of total value added at current prices at the beginning and the end of the period, and their growth rates compared with those of the whole market sector of the economy.

In 1960, growth sectors represented some 20 % of GDP in Germany, France and Belgium, but only 14 % in the Netherlands. Since then, the gap has narrowed; in spite of the fact that the growth of these sectors in volume was so rapid in the Netherlands (nearly 12 % per annum) by 1973 they represented only 17 % of the economic activity of the country.

The change has been less marked in the other countries, although in all the countries they represented a greater percentage of the economy at current prices in 1973 than in 1960, despite the fact that their prices rose more slowly than those of other sectors.

The slow growth of Britain's economy is reflected in the evolution of its growth sectors, which grew more slowly than the French economy as a whole.

Table 2: Growth sectors compared with market economy as a whole

	% of total market value added (current prices)		Growth of value added in volume 1960-73 annual growth rate (%)		Contribution (%) to total growth (in volume) of market economy
	1960	1973	Growth sectors	Market economy as a whole	
Germany	19.8	24.4	7.2	4.2	33.8
France	19.8	21.9	9.0	6.0	29.7
Italy	16.3	17.2	7.6	5.3	23.3
United Kingdom	16.9	18.1	5.3	2.7	33.1
Netherlands	14.3	17,1	11.9	5.2	32.6
Belgium	19.4	24,5	9.3	4.8	37.4



### 3. The characteristics of growth sectors

They are fully exposed to international trade. \*)

Table 3 shows the share of the growth sectors in exports and imports of goods for each country. These shares are similar to the shares of each sector in the economy as a whole, except for services and building and construction.

The table shows that in all countries the relative share of these sectors in international trade is greater than their relative share in the production of goods. They are thus sectors where international competition is particularly strong, and this affects productivity and prices.

In the sectors which are of key importance for external equilibrium, Germany and the UK were in a very favourable position at the outset. Their growth sectors tended to export a great deal and to import little; they represented some 40 % of exported goods and 20 % (Germany) or 26 % (UK) of imports, for about 30 % of value added.

In three other countries - France, Belgium and the Netherlands - the situation is more balanced; the relative share of the growth sectors in trade is higher than the share in production, both on the import side and on the export side. In Italy, the situation is the opposite of that in Germany. In 1960, Italian exports are accounted for mainly by other sectors of the economy, whereas the growth sectors import a great deal.

In 1973, Germany had improved its very favourable position. Although the growth sectors had begun to import more, they had also improved their export performance in relation to the rest of the economy.

In France, Italy and the United Kingdom, the growth sectors have become importing sectors. But, whereas in France they are participating more and more in exportation, their share of exports has remained roughly stable in the UK and in Italy.

(\*) In this section exports are those made by growth sectors, imports are of goods identical to those produced by the sectors but imported by the economy as a whole (excluding services and construction).

Table 3: Production and exports of growth sectors, imports (at current prices)

	1960			1973		
	Value added*	Export	Import	Value added*	Export	Import
Germany	28.2	41.6	19.8	37.1	47.1	37.5
France	33.2	35.8	32.5	39.3	43.8	47.7
Italy	30.7	33.4	37.8	36.4	35.3	43.9
United Kingdom	30.2	39.4	25.6	35.5	40.6	35.8
Netherlands	28.2	44.1	44.7	37.9	52.9	49.1
Belgium	38.8	66.8	64.4	54.8	66.1	69,5

\* Value added, not including services or building and construction

Capital accumulation has been higher than in the rest of the economy.

In all the countries and especially in Germany, France, the United Kingdom and the Netherlands, the stock of capital (valued at 1970 prices) has increased more rapidly in the growth sectors than in the economy as a whole.

This is all the more remarkable as they are mainly industrial sectors and over the economy as a whole, the stock of capital has increased more slowly than the capital of service sectors or building and construction, except in France.

Table 4: Relative growth of stock of capital 1960-73  
(Ratio of average annual growth rates of sectors to economy as a whole)

	Growth sectors	All industry	All market services	Total market economy
Germany	130	123	97	100
France	125	102	102	100
United Kingdom	126	98	100	100
Netherlands *	143	83	106	100
Belgium	105	78	117	100

\* 1960-72

This statement cannot be verified for Italy, since comparable data are not available. However, it is highly plausible, since the annual average growth rate of investment in these sectors was 1.5 times that of the economy as a whole.

Belgium is a case apart, with a low relative rate of capital growth. The growth of investments in these sectors, which is known for the period 1965-74, does indeed seem very low, lower than that of the economy as a whole.

Rapid growth in employment, with greater productivity gains than in the rest of the economy.

Considered as a whole, the growth sectors all significantly increased the amount of labour employed.

The annual increase in jobs is everywhere higher than 1.6 % (except in the UK: 0.6 %), and reaches 3 % in the Netherlands. This performance is remarkable in countries such as Germany, Italy or the UK, where employment (outside general government) has decreased or stagnated.

Although these sectors did not play the most important part in general employment equilibrium (mainly ensured by market and non-market services), they did contribute greatly (see Table 5) without sacrificing increased labour productivity.

At 1970 prices, value added per person employed grew generally more quickly than in the rest of the economy.

The only exception to this rule is Italy, where productivity gains were slightly less than for the economy as a whole. It should, however, be noted (see Chapter B-4) that the overall productivity performance of the Italian economy, much higher than that of its partners, can be largely explained by the retirement or transfer of manpower employed in agriculture.

**Table 5:** Employment and labour productivity 1960-73 in the growth sectors (the figures in brackets relate to the economy as a whole, not including general government and non-market services)

	Percentage share in total employment (not including gen.gov.) 1960	Evolution of employment over the period		Productivity of labour			
		Average annual growth rate in %	Net job creation '000	Annual average growth rate in %			
Germany	17.0	2.0	(-0.3)	1 087	(-931)	5.1	(4.6)
France	11.4	2.5	(0.6)	648	(1267)	6.5	(5.4)
Italy	8.4	1.6	(-0.8)	322	(-1620)	5.9	(6.1)
UK	15.9	0.6	(0.1)	278	( 199)	4.7	(2.7)
Netherlands	7.9	3.0	(1.0)	96	( 368)	8.6.	(4.3)
Belgium	19.2	1.6	(0.3)	114	( 123)	7.6	(4.2)

Prices for growth industry products have increased more slowly than in the economy as a whole.

The upward movement of prices, as measured by the index of value added prices, was slower in the growth sectors, because of the greater gains in labour productivity and because of international competition in these sectors. For the larger countries, the ratio of annual rates of price increases in the growth sectors to those of the economy as a whole is about 0.6. In the Benelux countries, much more heavily involved in trade and exposed to competition, the ratio is well below unity.

**Table 6:** Evolution of value added prices 1960-73 (excluding public administration and non-market services)

	Growth sectors	manufacturing industry	economy as a whole
Germany	2.9	3.1	4.3
France	2.5	3.5	4.4
Italy	3.6	4.1	5.4
UK	2.6	4.3	4.5
Netherlands	1.3	2.8	5.0
Belgium	1.3	2.2	3.8

B-8. SLOW GROWTH OR DECLINING SECTORS

The preceding chapter throws light on the common characteristics of the growth sectors. Another interesting exercise was to draw up a similar picture of the sectors which participated least in the general growth.

However, it is a much more difficult exercise, in that unlike growth sectors, which are relatively homogeneous in composition and which are of comparable importance in the economies of the various countries, the declining sectors are very heterogeneous, and cannot be characterized so precisely.

The group of slow growth or declining sectors

The criterion adopted was to include those sectors in each country whose growth rate in volume was at least 30 % lower than that of the economy as a whole.

Table 1

GERMANY	FRANCE	ITALY
Agricultural products Solid fuels Metal products Agricultural and industrial machinery Textile, leather, clothing Hotels, catering	Agricultural products Textile, leather, clothing Solid fuels	Agricultural products Building, civil engineering
UK	NETHERLANDS	BELGIUM
Ores, iron and steel Metal products Textile, leather, clothing Solid fuels Other means of transport	Agricultural products Textile, leather, clothing Solid fuels	Agricultural products Textile, leather clothing Solid fuels

By this somewhat arbitrary choice, the following sectors are included in France, Belgium and the Netherlands:

the coal sector, where activity has declined in all the countries; agriculture, and the combined textile/leather/clothing sector.

In Germany, apart from these three sectors, we also find certain manufacturing branches: metal products and agricultural and industrial machinery, and the hotel and catering sector.

In the UK, besides the coal and textile sectors, we find iron and steel, metal products and naval equipment railway and aircraft construction as a whole. Agriculture is not a slow growth sector in the UK, since it has grown at the same rate as the economy as a whole.

In Italy, only agriculture and building and construction emerge as slow growth sectors. The composition of this group of sectors is therefore rather different from country to country, although a basic sub-group comprising agriculture, textiles and coal, is common to four of them.

These fairly important differences in composition should be borne in mind when country-to-country comparisons are made.

The very nature of the groups considered calls for prudence, since they bring together not only sectors like agriculture (a slow growth sector where internal changes have been great), and coal (where the decline was voluntary and disinvestment was organized), but also sectors exposed to international competition such as textiles, and protected sectors such as the building industry in Italy.

Table 2: Declining sectors in relation to the market economy as a whole (%)

	Relative share in market value added (current prices)		Growth of value added in volume 1960-73 annual growth rate	
	1960	1973	Declining sectors	Market economy as a whole
Germany	23.3	16.4	1.9	4.2
France	16.6	10.6	2.3	6.0
Italy	23.8	17.9	1.8	5.3
U K	17.1	11.5	-0.4	2.7
Netherlands	15.5	8.9	1.4	5.2
Belgium	15.7	9.0	-0.3	4.8

Employment in these sectors has dropped sharply.

This fact has already been mentioned in connection with agriculture, textiles and clothing, and coal in the chapter on employment.

It is also true of the other industrial sectors which have declined in the UK and of building and construction in Italy. In Germany, however, jobs have been maintained in the slow-growing equipment sectors (metal products, and agricultural and industrial machinery).

These sectors lost some 8.7 million jobs altogether between 1960 and 1973, including about 6.3 million jobs in agriculture alone in the 5 founder member countries.

At the same time, the growth sectors created about 2.5 million jobs (see Chapter B-7, Table 5).

This sharp decrease in employment led to labour productivity gains comparable to those of the economy as a whole.

The growth of value added per person employed was higher than for the economy as a whole in Germany, France, Italy and the Netherlands; it was slightly lower in Belgium and the United Kingdom.

However, in contrast with developments in the growth sectors, these productivity gains are the result of the sharp decrease in manpower rather than that of any sharp increase in capital endowment.

Table 3: Employment and productivity of labour in the declining sectors (%)

	Relative share of employment (not including general government) in 1960 (%)	Employment over the period 1960-73		Productivity of labour average annual growth rate (%)	
		Average annual growth rate in %	Net decrease in jobs in 1 000's	Declining sectors	Market economy as a whole
Germany	31.1	- 2.7	-- 2015	4.7	4.6
France	33.3	- 3.4	-- 1877	6.0	5.4
Italy	44.1	- 4.0	-- 3152	6.1	6.1
UK	18.8	- 2.6	-- 1088	2.3	2.7
Netherlands	20.6	- 3.8	-- 297	5.2	4.3
Belgium	22.3	- 4.2	-- 260	3.9	4.2

The growth of capital was much slower than in the economy as a whole.

This is particularly true in Belgium and the Netherlands. Indeed, owing to very rapid disinvestment in the coal sector, Table 4 shows a net decrease in the capital stock of these sectors in the Netherlands between 1960 and 1973.

For Italy, where data on the stock of capital are not available, investment series show the same trend of slower additions to capital stock.

Table 4: Evolution of capital from 1960 to 1973. Annual average growth rate (%) (figures are not comparable from country to country).

	Declining sectors	Market economy as a whole
Germany	4.2	6.0
France	3.6	6.4
Italy *	2.1	4.7
UK	2.7	4.2
Netherlands	-0.8	
Belgium	1.0	4.1

\* Growth rate of gross fixed asset formation (1965-73)



Although considerable reduced, their share in the external trade of the member countries is still large. (\*)

If we consider all the sectors producing goods that can be exported, we note that in 1960, the declining sectors participated relatively little in international trade.

Their relative share in exports was lower than their relative share in the production of goods, in all the countries. In four countries out of six, this was also true of imports.

By 1973, the share of these sectors in production had greatly decreased, but their share in imports had decreased even more. However, except in Italy and the United Kingdom, their share in exports had decreased less sharply.

In 1973, therefore, these sectors were still fairly important for the exports of EEC countries. This is particularly true of agriculture in most of the countries, and also of the slower-growth manufacturing sectors in Germany and the United Kingdom.

Table 5: Production and external trade in goods  
share of declining sectors (%) (at current prices)

	1960			1973		
	value added *	exports	imports	value added *	exports	imports
Germany	41.5	37.9	44.0	32.9	32.9	32.0
France	29.9	20.7	34.8	21.3	18.9	16.0
Italy	28.9	10.7	21.9	19.4	4.3	14.2
UK	35.0	29.4	19.3	27.0	29.3	22.2
Netherlands	29.3	23.1	25.3	20.8	16.3	18.8
Belgium	32.7	21.7	23.7	19.5	18.0	18.0

\* Value added of goods, not including services and building and construction

\* cf. note page 111.

Price trends differed from one country to another.

The price developments in the declining sectors compared to that of the economy as a whole do not reflect any specific type of behaviour for those sectors; in fact, they reflect mainly their heterogeneous composition.

In two countries, Germany and the United Kingdom, prices rose more slowly than in the economy as a whole, owing to the presence of the equipment industries, where international competition exerts downward pressure on prices.

In the other countries, agriculture mainly determined the final result.

Table 6: Value added prices 1960-1973 (annual average growth rate in %)

	Declining sectors	Market economy as a whole
Germany	3.4	4.3
France	4.6	4.4
Italy	6.5	5.4
UK	4.3	4.5
Netherlands	3.5	5.0
Belgium	4.5	3.8

Thus the slow growth sectors are not quite a mirror image of the growth sectors.

The contribution of the growth sectors seems to have been positive from all points of view: job creation, productivity, prices, contribution to external balance; the influence of the slow growth sectors is far from negative.

In particular, they were not (except in Italy) a determining influence on inflation or balance of payments deficits.

On the other hand, while the rapid decrease in jobs was a factor of progress through the resulting productivity gains as long as the European economies were in a full employment situation, it was an added burden when labour market trends were reversed.

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C O N C L U S I O N S

I. THE PRINCIPAL CHANGES IN EUROPEAN ECONOMIES BETWEEN 1960 AND 1973

The European countries approached the energy crisis and the recession equipped with a production structure largely different to that which prevailed in 1960 at the time of the establishment of the Common Market.

The convergence of demand structures

1. The rapidity and the relative regularity of the economic growth which these countries enjoyed were accompanied by similar changes in the structure of final demand; the increase in the share of investments, a reduction in that of private consumption, an increase in the value of public consumption. In the same way the strong growth in individual incomes has led to a relative harmonisation of the structures of household consumption: a reduction in the share devoted to foodstuffs and, more generally, to current consumption goods in favour of equipment goods and services.

The convergence of production structures

2. To this convergence in the structure of demand corresponds a similar convergence of the structure of production.

In fact, the establishment of the Common Market did not, at least at the level of the major sectors of the economy, lead to specialisation but rather to relative harmonisation, each country diversifying and developing its industrial sector, thus bringing its structures closer to those of the Federal Republic of Germany. This country, already characterised at the beginning of the period by a very complete industrial structure, largely devoted to external markets, pursued its development of relinquishing the traditional sectors to involve itself in more technologically advanced sectors, with a high value added, which assured for this country even during the crisis a large surplus in its external balance.

The United Kingdom, on the contrary, has registered little change in its production pattern. Many industrial sectors have declined and were not offset as in other countries by sufficiently strong growth sectors.

Nevertheless the analysis of the changes shows a convergent evolution of the European economies even if their structures still show differences.

### The convergence of European economies

3. The examination of fast-growing industrial sectors permits the detection of a certain number of sectors common to all countries: (chemicals and derivatives, oil products, energy sectors other than coal, electrical goods and electronics) even if the rate of their growth was different and appears to be connected more to the overall rate of growth of the economy of their country than to similar sectors in the partner countries.

To this common "list" of growth sectors is added in each case one, or many sectors, in which the country registered a relative backwardness in the base period. This is the case with steel in Italy and in the Netherlands, agricultural and industrial machinery in France, the motor industry in the Netherlands, the whole of the equipment industry in Belgium and the **construction** of transport goods (other than automobiles) in the Federal Republic of Germany.

All the same the industries in decline are, to a great extent, common to all countries: agriculture, coal, textiles-clothing (here Italy is a special case as its textile sector developed at a steady pace and remains a fundamental industrial sector).

The movement towards convergence of the economies is shown also in the fact that in the Federal Republic of Germany and in the United Kingdom the sectors in which the country possessed a privileged position (agricultural and industrial machinery in the FRG, transport goods other than automobiles in the UK) are found among those sectors of weak growth.

### The choice of a similar strategy of development

4. This convergence shows first of all that the European countries have, all together, a similar strategy of development. **This meant acceptance (even though the implementation was more or less rapid according to the case) of the substitution of coal by oil and gas, of the more capital-intensive character of the process of production from which resulted the faster development of industries producing investment goods. Fast growth of the sectors of a high intensity of capital and technology and the decline of sectors of low value added per head of the work-force.**

It shows also that no country is voluntarily and completely excluded from basic sectors - for the needs of its industry, for its internal consumption or its exportation - leaving to its apparently better placed partners the exclusive development of these sectors - Italy and the Netherlands have steel industries, France and Belgium have equipment industries, the FRG and the UK have strong agri-food industries etc.

#### The growth of external trade

5. Meanwhile the major element of this strategy of development is the opening-up to foreign trade, first of all to partner countries, to all other countries then as the Community has gradually reduced its protection so as to become now probably the least protected economic zone in the world.

This external opening has certainly had globally favourable effects as the increase in income per capita in the whole of the EEC was spectacular and because it was even stronger than the progress of trade. (The country - UK - where this progress was weakest experienced also slower growth and a lesser increase in income).

#### The slow development of net creation of employment in industry

6. The opening up of economies to trade exercised on the principal sectors engaged in trade a constraint of competitiveness which limited the growth of costs of production. The rate of inflation progressed less rapidly in industry in general and in those sectors most open to trade in particular.

This low rate of inflation was made possible by a constant rationalisation which thus implies a rapid growth in labour productivity.

Faced with this constraint, the creation of employment in industry could only be achieved in those sectors in which expansion was sufficiently rapid to ensure at the same time large gains in productivity and a growth in employment.

Meanwhile the balance of the creation of employment in industry between 1960 and 1973 was weak and almost zero for some countries, with an overall deterioration since 1970 (except in France and Italy).

### The growing economic role of services

7. The other notable characteristic of the evolution of the European economies is that of the growing part occupied by the services sector. This vigorous development common to all the industrialised countries appears inseparable from the rapidity of economic expansion. This growing demand for market and collective services on the part of households, as well as the increase in the supply by the public authorities, was in effect permitted by the regular expansion of both individual and collective income created by the growth.

In parallel, industrial development was accompanied by an increase in consumption on the part of service enterprises connected with the evolution of techniques of production (research, development engineering), of management (information, financial services), of sales (publicity, market research).

The growth of services was even more vigorous because it was favoured by an abundant supply of the factors of production. Both capital and work-force were directed towards these sectors. Investment here grew at a faster rate than that of the economy and they were largely helped by the growth of the active population, especially the female work-force.

Services, and in particular the public services, played a determining role in the equilibrium or the growth of employment, the counterpart of this positive element being the contribution of these sectors to the increase in prices which was greater there than that of the rest of the economy.

### The rapid growth of productive capital

8. Finally the dominant character of the evolution between 1960 and 1973 of the productive apparatus of the European countries is the rapid growth of productive capital. Even though a precise and homogeneous measurement between countries of the phenomenon of the substitution of capital/labour has as yet to be realised, it can be estimated that at the level of the whole economy it was of considerable importance (an increase of 4 % to 6 %, according to country, per person employed). At the sectoral level, capitalisation is generally realised to the detriment of employment in sectors in decline (agriculture, coal, textiles) but it is accompanied by the creation of employment in the developing branches, as in chemicals, and in certain market services and also in construction. On the contrary, the rest of the economy has experienced a rhythm of substitution weaker or lower than the average.

## II. MODIFICATIONS IN THE ECONOMIC ENVIRONMENT

1. All those changes which have affected the European economies during the period 1960-73 occurred in a context of strong growth and relatively full employment of the work-force. The rapidity of the growth has greatly contributed to the realisation of these changes.

Similarly the situation of almost full employment, to the degree that it eliminates the risk of prolonged unemployment for the work-force released by the declining sectors, attenuates the social consequences of replacing certain activities and thus removes a greater obstacle to change. At the same time exercising a permanent incentive to the development of capitalisation it favours the development of sectors producing investment goods.

In certain countries the importance and the orientation of foreign investment, the existence of certain national resources, the rapid increase of the active population, the passing of a relatively protected economy to one largely open to international competition have also largely contributed to the transformation of sectoral structures.

Within a context of rapid growth these adaptations are effected in a relatively spontaneous manner, thus during the last fifteen years, the need for sectoral policy was not very strongly expressed.

2. On the contrary, the sectoral changes and in particular the rapid development of certain sectors have contributed to relatively regular and balanced growth. In effect the sectors of fast growth have not only exercised a driving effect on the economy as a whole but have, for a large part, allowed the equilibrium of foreign trade, the moderation of inflation and the creation of employment.



3. Economic growth and sectoral changes are inseparable from the very favourable context which the European countries experienced during this period : much foreign investment in Europe, a low price for energy and raw materials and the sharing with the United States and Japan of a quasi-monopoly in the trade of manufactured goods, and a relative stability of prices and parities.

This relatively favourable climate began to deteriorate in about 1970 with the acceleration of the inflationary process and the triggering off of several international monetary crises. The huge increase in the price of energy amplified inflation and unbalanced the external trade of many countries. The deep depression of 1975 and the difficulties of a net recovery since then have made apparent the structural modifications of the economic environment which compromise the possibilities of a return to strong and regular growth thus making the adaptation process more difficult.

#### 4. Obstacles to a recovery of growth

The Community is at present undergoing the double effect of stabilisation of price policies jointly undertaken in the member States with a view to reducing the progress of inflation, and the deflationary consequences of the large increase in energy prices. After the recession of 1974-75 the recovery recorded in 1976 was of short duration. The difficulties of a return to rapid growth appear to be tied to the persistence of a high rate of inflation in certain countries and the ever present risk of again triggering off the rise in prices even in those countries which can show success in their anti-inflationary policy.

The overall external deficit of the Community resulting from the rise in the price of energy and above all from its unequal distribution between member countries provokes defensive reflexes; a recovery of growth giving rise to the fear, in the countries where this deficit is already large, of a further deterioration of this deficit with, as a consequence, a depreciation of the currency and a new acceleration of inflation.

To a greater extent the majority of European countries find themselves confronted with large deficits in their public finances resulting from the strong increase in transfers but also from the mechanical effects of the recession and the rise in costs. These deficits limit, in certain countries, the possibilities of interventions by the public authorities.

Another obstacle to the return to a sustained expansion lies in the weak growth of investment. In 1976 despite the short-term recovery, its progress was very moderate after a year during which its rate of progress was negative. Many elements combined to slow down the recovery : the existence of excess production capacity in important sectors (iron and steel, refineries) and more generally the presence of unutilised capacities in the sectors affected by the recession, the slowing down of foreign investment and the brake on the progress of collective investment imposed by the persistence of public deficits.

These factors combine to reduce the possibility of implementing policies aiming at growth. Moreover the differences in the situation of member countries make it more difficult to perfect coordinated policies made necessary by the tight interdependence of their economies.

The uncertainties which thus hang over the possibilities of a return to strong growth throw some doubt on the capacity of European economies to realise in a spontaneous manner the changes made necessary by the evolution of the international environment and the modifications of internal conditions of development.

Furthermore these changes are made more difficult because the situation of persistent unemployment favours defensive attitudes, tending to conserve existing employment and thus to maintain non-profitable enterprises and has thwarted plans for the rationalisation of economic sectors in difficulty.

##### 5. Changes in the international environment

The deterioration in the commercial balances of most of the industrialised countries brought about by increases in the price of oil and other raw materials and the redistribution of income at a world level which has followed have provoked reactions on the part of countries concerned which have come to accelerate the changes taking place in international trade.

The Community which had ensured a part of its growth by the development of its trade with the rest of the world is confronted by new forms of competition which not only risk aggravating the situation of sectors already in difficulty but also to affect those, which, until now, play a determinant role in its maintenance of our trade equilibria.

This concerns, firstly, increased competition between the industrialised countries, principally the USA and Japan, with a view to making good their oil deficits; it is also the appearance of new competition in the market for manufactured products, countries becoming industrialised like Brazil or South Korea, low wage areas such as Hong Kong and Singapore and the Eastern countries, which have the effect of limiting export possibilities of the Community countries, but also competing on their markets with production of many industrial sectors. Finally, there is the uncertainty of the choice of autonomous development strategies to be adopted by certain oil producing countries with large financial assets.

Meanwhile, there remains the important fact of the growing role of multinational companies whose strategy of expansion causes great changes in the flows of funds between the industrialised and other countries without the public authorities of these countries having the means of effective control. Direct investment abroad tends more and more to compete or to compete with international commerce. Already in 1971 the USA produced externally over four times the amount it exported directly; similarly the affiliates of British multinationals produce overseas twice the amount of their total exports.

The measurement of the effects, at the level of the principal branches of the European economies, of all these factors require detailed investigations which are being undertaken by some member States. Meanwhile, as an indication of the size of external constraints affecting the future development of sectors, the following reflections may be made :

#### Equipment goods

At the world level the production and marketing of these products are very concentrated. In 1970, 76% of world production of equipment goods was accounted for by the USA, Japan and the FRG. This latter country is the leading world exporter and represents, with the USA, 40% of the international

market. Meanwhile a certain specialisation exists between these countries, Germany has a net predominance in the machine tool sector (premier producer, premier exporter) the USA in that of electrical and electronic products, the growing importance of the numerically controlled machine tools permitting, in the meanwhile, American industry to compete with Germany in this sector. The comparative costs of the factors of production have little effect on this sector. The factors which count above all are innovation, engineering and a certain strategy concerning the norms which permit the protection of the market from foreign producers.

On the part of those developing countries, above all those of the OPEC, or those which have already achieved a certain degree of industrialisation (Brazil, India, South Africa, Mexico) one should expect a very strong increase in purchases of equipment goods but above all in the purchase of complete units of production ("turnkey" factories) as well as the purchase of materials needed to develop their infrastructure.

The consequences for European exports will, evidently, be favourable but they stand to benefit Germany rather than the other countries, or these other countries indirectly to the degree that the subsidiaries of multinationals concerned are based on their territory.

#### Iron and steel

Iron and steel is a sector characterised by an international division of labour not very pronounced among the industrialised countries: it is in full growth in certain third world countries where the production used to be very weak (India). The dominant position of the developed countries should however be maintained, with a tendency towards the delocalisation of the first stages of the manufacturing process of steel and certain laminated products in third world countries, and their specialisation in products needing an advanced technology (special steel).

### Petrochemicals

The increase in the price of oil has considerably modified the development prospects of this sector in the European countries with the appearance of a new international division of labour whose effects could make themselves felt from 1980. Several possible developments are conceivable :

- the acceleration in the producing countries of the establishment of units to process crude oil of the hydrocarbon/gas/petrochemicals type, especially among those having coherent programmes of industrialisation (Iran, Algeria, Iraq); This redeployment of the petrochemical industry among the producing countries which would be principally directed towards export to the industrialised countries would be based on formulae of association between multinational enterprises and state companies of these countries. It would have as a consequence the slowing down in the creation of new basic petrochemical units, particularly in Europe;
- on the other hand one might expect the multiplication of commercial agreements between other developing countries and the producing countries based on a strong increase in financial transfers towards the less favoured countries. The oil producing countries would be confirmed as direct competitors in the supply of chemical products for certain markets in the third world (fertilizer);
- this evolution supposes the development of triangular association formulae - oil countries /developing countries /industrialised countries - the latter retaining a quasi-monopoly of the necessary engineering and technology.

### The automobile industry

The determining factors in the location of automobile production are the work-force and the existence of a market rather than the resources or the raw materials, the technology or the capital.

The increase in salary costs in the industrialised countries, is bringing about a large delocalisation of the branch, at least as far as assembly is concerned, towards the developing countries.

This development will only be slowed down by, on one hand, the low per capital income of the third world countries limiting considerably the expansion of these markets and, on the other hand, by the industrialised countries being induced to protect a national industry which contributes directly and indirectly to the growth and employment in a large number of sectors.

Textile and clothing industries

This sector is endowed with particular characteristics which should be noted :

- the production of textile and clothing products necessitates a large consumption of raw materials (textile fibres) but little energy
- it requires a large though low-skilled work-force
- it is easily transportable making negligible the transport costs per unit produced.

A new international division of labour is developing which could aggravate the already difficult situation of the textile and clothing industries. In parallel with the continued delocalisation of units of textile production in the developing countries with low levels of remuneration, another type of production could develop outside the industrialised countries. This is the making of artificial and synthetic fibres which now account for 50% of the total consumption of textile fibres.

Well integrated into the chemical industry, these fibres are mainly produced by large enterprises located in the developed countries. The refining of crude oil in the oil producing countries and the development of petrochemicals would lead to the creation of new areas of production and to competition even more dangerous since there already exists overcapacity of production and these fibres would be produced from a basic product obtained at particularly favourable prices.

Here a certain control may still be retained by means of transfers of technology and by the monopoly of distribution channels controlled by the industrialised countries.

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This new international division of labour shows the difficulties of a return to an equilibrium in the trade balances of the European countries as a whole. The traditional sectors, providers of processed products, on which the development of their exports was mainly based are the most directly threatened, the competition from low salaried countries making itself more and more felt among the range of less elaborate products. Inversely, for those sectors directly connected to scientific research and innovation (nuclear power, data processing, aeronautics, space, exploiting of the oceans) the Community comes up against the technical and commercial domination of the USA and sometimes Japan, accentuating the level of dependance of these sectors in the future.

Subject to this double pressure, the Community, which is suffering from growing unemployment, tends, for some branches, to adopt a protectionist attitude whose effects would not be profitable except in the short run. The solution lies, more frequently, in the development of international agreements.

#### 6. The internal conditions of development

Besides the gradual changes in the consumption of households, new factors make more and more necessary changes in the structure of production : such as the reaction to the increase in the price of energy and the necessity of protecting the environment and fighting against pollution.

At the level of household demand, the fall in the part of foodstuffs and clothing should continue.

Meanwhile the sectors which have experienced an exceptionally high growth rate, connected to the equipment of households in durable goods, should experience a more moderate expansion on account of the demographic evolution and the high level of equipment already achieved for a great number of goods (automobiles, household electrical equipment).

The demographic evolution will also **affect** the development of education services, on the other hand it is possible to forecast for other service sectors prospects of relatively high growth: (health service, entertainment, culture, tourism, communications).

In the energy field the Community has fixed for 1985 the objective of a reduction to 50% in its dependence on outside energy resources. The attainment of this objective calls for a sustained effort in the use of energy and a policy for developing sources of substitution. The first of these policies has not yet been followed with the necessary determination; the relative moderation of consumption recorded in 1974-75 was followed by a marked increase at the first signs of the short-term recovery in 1976.

The decline in coal production continues, the programmes for the establishment of nuclear power stations have encountered growing difficulties while the development of new sources of energy have not yet achieved a significant level.

The setting up of this programme, which remains indispensable, will mobilise a great deal of investment and will benefit the sectors of electro-mechanical construction, industrial buildings and construction materials (insulation).

The same sectors, to which should be added chemicals, are favoured by the policies of the protection of the environment and the application of fixed norms as regards the fight against pollution.

To the external factors (increase in import prices, international division of labour) which necessitate important changes in the structure of production, should be added the gradual changes of internal demand as well as the new objectives fixed by the European countries.



### III. THE SEARCH FOR A NEW STRATEGY

The Community thus finds itself confronted with a challenge: that of realising the changes necessary to adapt to the new conditions of development of a less favourable environment for growth and in an extremely difficult employment situation.

To this unfavourable global context should be added the consideration of situations in particular sectors.

The crisis has accentuated the difficulties in all sectors (textiles, shipbuilding, steel, coal ...) which already in the past suffered from considerable structural weaknesses; weak productivity, a low rate of investment, backwardness in relation to international competition. The risks of aggravating this decline are moreover very preoccupying since these sectors still account for a large part of employment.

Certain sectors which in the past played a key role in growth (automobiles, petrochemicals, traditional household electrical goods, electronic components ..... ) are affected by the new difficulties of the increase in the cost of energy, the slowing down of internal demand, new trends in the international division of labour.

Finally, if it is possible to determine the sectors which will be favoured by the present development conditions (telecommunications, sectors related to data-processing, certain sub-sectors of chemicals, nuclear electricity) the slowness of the realisation of changes, the delays in implementing projects, mean that these sectors have not yet really been able to offset the declining sectors. Moreover, the employment content of these sectors is considerably less than the industrial average which could pose the problem of a lengthy disequilibrium of employment.

These difficulties, taken together, require that considerable attention be given to the sectoral problems which seriously affect the same areas in the majority of countries. Certainly, it presumes that the major macroeconomic equilibria should be reestablished and that the member states continue resolutely to implement the actions proposed in the Fourth Programme of medium-term economic policy in order to return to sustained and balanced growth. Meanwhile, faced with the magnitude of structural problems to be solved, it would appear that these problems cannot be achieved unless active policies to encourage change are put into effect at the same time.

### III-1 THE DEVELOPMENT OF NATIONAL INTERVENTIONS

1. At the level of member countries the necessity for sectoral actions is more and more deeply felt by public authorities. The interventions are multiplied, motivated more often by the acuteness of the problems which arise in certain sectors, solicited elsewhere by the social partners in the name of the defence of employment or the survival of an enterprise which is important to the national or regional plan. These actions do not appear, at least in the first analysis, to derive from a global strategy **confirmed by sectoral guidelines.**

Certain of them appear to be purely "defensive", inspired by the concern to maintain existing employment: they have as an effect to slow down or stop the decline in sectors definitely condemned, in the present state of the international **openness** of markets. Many countries are, moreover, committed to new means of permitting them to guide **sectoral evolution:** the National Enterprise Board in the United Kingdom, the plan for industrial restructuring in Italy, the draft law for the assistance of investment in the Netherlands applying the policy known as "selective groei" (selective growth), and in France, the programme of priority actions in the Seventh Plan and programmes, still marginal, of sectoral actions at the level of sub-sectors, controlled by the Industry Ministry.

These new means should be added to the other means of interventions which countries already have at their disposal in the name of other policies (social policy, regional policy ...) and which, in the past, were frequently used to guide industrial development. They should diminish or reinforce, according to the case, the effects of more global policies; macroeconomic or political policies of the market (policies for competition, price, public market) which have, in the preceding period, largely influenced sectoral development.

The public authorities in the member countries will therefore be more frequently called on to intervene in sectoral developments and will either provide themselves with **increasing specific means or utilise the existing means more actively.** The strategy of sectoral development, to the service of which these means will be utilised, presents meanwhile, difficulties both at the level of their conception and of their application.

### Choice of a strategy

Taking account of the evolution of the economic environment, **the** elaboration of a new strategy is confronted with the difficulty of reconciling the objectives which in the past were mutual, rapid and regularly achieved growth by the development of activities of a high value added potential and the achievement of full employment by population transfers towards the more productive sectors without which there appears, in an explicit fashion, problems of the security of supply or of the preservation of independence. Two attitudes are now conceivable: either to choose a strategy of detailed specialisation which would leave to the less advanced countries activities of low value added and to concentrate in the industrialised countries on efforts towards the production **with developed technology and a high value added**, or, on the contrary, the conservation of the widest range of activities with the objective of conserving a certain independence and to preserve employment in the low value added sectors. The first of these two strategies, evidently the more favourable to growth, could present risks from the point of view of independence when the large movements of trade are no longer limited to industrialised countries or to countries in their evolution. This also risks negative consequences for the growth of employment, the **"sacrificed"** sectors being more frequently those employing the greater amounts of manpower.

The countries whose stock of natural resources cause them to be more attentive to the problems of security of supply, those which experience large disequilibria in employment at the national or regional level, could, on the contrary, be led to approach the second strategy, allowing the others to follow their specialisation.

### Implementation

Whatever are the guidelines chosen at a national level, all global strategies of sectoral development will encounter serious difficulties in their implementation. This supposes, in effect, rules of selectivity between sectors and arbitrary decisions which **encounter a series of obstacles**.

The size of the problems in certain sectors often exceeds the possible action of a single country and necessitates coordinated interventions by several countries, but generally the number of sectoral problems limits the freedom of the responsible national economic services. In addition, the authorities have little control over the activity of multinational companies which often play a dominant role in the essential sectors of the economy.

Besides, in the situation of persistent under-employment it would be somewhat difficult to obtain the agreement of the social partners to a policy of sectoral development which could necessarily mean some branches being favoured at the expense of others. Such an agreement is made even more difficult because the structures of decision, execution and concertation, at the level of the authorities and of the economic agents, are often limited to the framework of an individual sector while the projects to be undertaken become increasingly inter-sectoral.

Finally, whatever sectoral strategy is adopted, the need to organise the changes and to adapt the sectoral interventions according to the enterprise concerned (for example, a healthy enterprise in a sector regarded as a low priority) would oblige the authorities to diverge from the guidelines, making more difficult the acceptance of the strategy by the economic agents and thus the direction of investment towards the priority sectors.

### III-2 THE ROLE OF THE COMMUNITY

1. It is probable that sectoral interventions in the member states will multiply and, being inspired by different strategies or priorities, they run the risk of being incompatible.

In the absence of close cooperation within the Community, these interventions could escalate in the form of assistance, thus aggravating distortions to competition, or lead to increasing commercial discrimination, thus threatening the achievements of the Community.

Until now, the Community has only come to intervene, often under pressure from the member states, in sectors where the conflict of interests between countries was not very great. But such conflicts may be accentuated as the differences develop between countries choosing to accelerate their specialisation and those choosing to diversify.

2. The Community, which has also seen an increase in its own means of intervention, must take on the task of helping to prepare an overall strategy of sectoral changes and of obtaining the best possible coordination between the policies undertaken by the member states.

This strategy must be overall because it is out of the question to envisage interventions in industry without considering the repercussions on the tertiary and, possibly, the agricultural sectors.

This approach is necessary not only because the total of services represents 50% of the value added and of the employment of the economy but because a large part of the activity of the tertiary sector is directly linked to that of industry and is thus sensitive to development of this sector.

Moreover, it is not certain that the services which in the past, without a particular preoccupation of increasing productivity, accounted for most of the net creation of employment could provide a reservoir of employment capable of taking up the active population made available by industrial re-structuration.

This strategy must also be regional because the consideration of sectoral problems at a national level can conceal the importance of local repercussions of difficulties encountered by industrial sectors which are concentrated geographically (textiles, shipbuilding, etc.)

With this objective, the group of experts believes that the Commission should:

- continue and extend the type of analyses undertaken in this report. There is a considerable disequilibrium between the means of analysis employed for macroeconomic purposes and, at least at the Community level, the modest means available for sectoral studies;

- compare the actual sectoral situation and the foreseeable development in order to
  - . ensure better reciprocal information between member states;
  - . test the compatibility of sectoral developments and macroeconomic objectives set independently;
  - . warn of problems which could arise in a given sector, either in developments of demand, or in national policies;
  
- ensure increased coordination between the different Community policies (competition, energy, agriculture, etc.) and the instruments of intervention (regional, social fund, EAGGF, etc.) to ensure a coherent policy of sectoral structure.

These analyses and comparison of prospects should permit:

- the identification, among the sectors with high growth potential for which it is of interest for member states to combine their efforts and to develop coordinated development policies;
- assistance in defining a common attitude in the strategic sectors where our industrialised partners have a technological and commercial predominance;
- the definition of a place in this strategy for both transnational companies and small and medium-sized enterprises, and to develop, for the latter, policies allowing access to credit, technology, public contracts and the international markets.

## ANNEX I

Remarks by the experts on national economic policies  
and sectoral development

- I. The influence of the central government on the sectors in Germany.
- II. France: economic policy and the sectors
- III. UK sectoral policies
- IV. Sectoral policy in Belgium

Federal Republic of Germany : The influence of the central government on the sectors

As the public sector's share of GDP grows, the central government will have more and more resources and facilities for influencing economic progress, the more so as the Stability Law adopted in 1967 stipulates that the central authority must do everything in its power to achieve growth, full-employment, prices stability and external equilibrium. The central government authority influences the development of the different sectors mainly through direct subsidies, the structure of the budget (particularly research and development policy, short-term support measures and qualitative measures, particularly price laws and policy,) whose indirect effects we shall not analyse here (recent laws on the protection of the environment, for example, should boost the durable goods sector).

AGRICULTURE

Since the fifties, agriculture has received a great deal of aid in the form of support programmes called "green plans". In 1973 and 1974, State aids to agriculture and the agrofood industries comprised:

- subsidies from the central authority and from the Länder
- loans from the central authority and from the Länder
- tax advantages.

They represented some 15 % of total State aids with DM 45.000-50.000 million.

COAL

Under competition from oil, coal mines became unprofitable at the beginning of the sixties. In 1968, the law on the adaptation and stabilization of the coal industry (Kohlenanpassungsgesetz) was passed. The restructuring of the coal industry in Germany consisted in transferring the loss-making activities of twenty-six firms to a new firm, the Ruhrkohle A.G. Its company capital is held by the twenty-six firms, and it has inherited the old, highly unprofitable plant and long-term debts representing some DM 3.000 million. The company's turnover in 1970 was DM 7.500 million, and it employs 160.000 people. It has committed itself to deliver 20 million tonnes of coke at world prices each year, which amounts



in effect to subsidizing the iron and steel industry. The cost of these State subsidies is passed on to consumers, who pay a special levy of one pfennig per KW on domestic electricity consumption.

#### TELECOMMUNICATIONS

This sector has received many subsidies, and the central government paid particular attention to it from 1967 to 1970. Investments in the sector were remarkable, particularly in an unfavourable economic situation : for example, in 1967 there was a 16.3 % increase in the volume of investments in the telecommunications sector, while investment in industry as a whole dropped by 15.6 %.

These investments will also have a spillover effect on other durable goods sectors.

#### RESEARCH AND DEVELOPMENT

Both the central government and the private sector are convinced that the economic performance of the Federal Republic of Germany depends mainly on technical progress. Expenditure on research and development is therefore growing rapidly, as the following Table shows <sup>(1)</sup>:

	<u>R &amp; D expenditure (millions of DM)</u>					
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Public sector	5.674	6.900	8.700	10.000	11.200	12.200
Private sector	6.399	7.610	8.735	9.800	10.800	11.900
TOTAL	12.073	14.510	17.435	19.800	22.000	24.100

N.B.: since 1972, public sector expenditure has been higher than that of the private sector. Moreover, the proportion of R&D expenditure in the budget has increased.

From the sectoral point of view, State aids to R&D granted to the private sector are concentrated on two branches: electrical engineering, including data processing (22.8 % of State aids to the private sector) and aircraft construction (39 % of total State aids to the private sector).

(1) Bundesbericht Forschung V p. 69

Absolute figures for 1973 are not available; the private sector spent DM 12.800 million on R&D, including DM 2.300 million provided by the government. Since the official aims of research policy are the modernization of productive apparatus and the improvement of working conditions, the advanced technology sectors are given priority, i.e. energy (nuclear research), data processing, telecommunications and electronic components, the aerospace industry and means of transport.

Since most research and development is carried out by external agencies financed by the central authority and the Länder, its influence on the different sectors will be indirect, and depend on spillover or transfers. Its positive effect on profitability will mainly benefit the firms using the results of research.

FRANCE : Economic policy and the sectors

The impact of economic policy on French productive structures should be analysed from two points of view:

- the sectoral consequences of overall economic control;
- specific sectoral policies.

I. Sectoral consequences of overall economic control

This is without doubt the most influential aspect. A few facts and trends may be noted.

France has enjoyed faster, steadier growth than its main partners ("stop-go" policy in the UK, abrupt imposition of restrictions, for example, in Germany), and the beneficial effects on investment decisions and prospective outlets have been felt in industry as a whole, but particularly in the durable goods industry.

On the other hand, this type of growth (and sectoral intervention) no doubt contributed to the maintenance of more archaic structures in the sectors which could or should have retreated or undergone wider changes (current consumer goods, particularly textiles; iron and steel, etc). From this point of view, the change of policy reflected at the beginning of the period by the acceptance of Community membership and the opening of frontiers was probably an encouragement to structural changes beneficial to certain outward-looking industries (durable goods, including cars, etc.); this change was reinforced by the 1969 devaluation, which coincided with the choice, in the Vth and VIth Plans, of a type of growth based on industry. On the other hand, structural reforms to change the protected sectors (building and public works, services, trade and agriculture) were not undertaken. The result was growth with more inflation than some partners experienced (for example, compare the evolution of productivity of all the factors of production and that of profits in these sectors with the same data for industry in general).

Under the heading of general policy, mention should also be made of the support given to the concentration process in industry, particularly in the intermediate goods and heavy equipment goods sectors. This was an explicit aim of the Vth Plan, partly achieved through tax incentives, especially after 1965.

## II. Specific sectoral policies

Apart from an agricultural policy, which gave rather patchy results, there was no very precise sectoral policy that affected productive structures. There were, however, operations carried out in connection with recent plans (the Vth, and particularly the VIth Plan) such as the industrial "Grands programmes".

- State Steel Convention 1966-70 (and 1977);
- Computer Plan, 1967-71;
- Shipbuilding contract (1968);
- Main aircraft construction programmes;
- Space programmes, etc.

The industrial success of these programmes was variable, and they were not aimed at restructuring the whole industrial fabric to help points of development, but rather at offsetting the permanent or temporary difficulties experienced by some sectors in the face of international competition, or at defending projects of national interest.

Present policy on French planning seems to be concentrating more and more on comprehensive regulation rather than coordinated sectoral actions.

U.K. POLICIES TOWARDS INDUSTRIAL SECTORSGeneral

Investment incentives have been available to all industries during the whole of the post-war period in the form of either tax allowances or cash grants. This assistance is available at a higher rate in regions of high unemployment. (These "development areas" cover most of Scotland, Wales, Northern Ireland and north and west England.) This regional assistance is particularly beneficial to industries such as coal, shipbuilding, iron and steel and textiles which are concentrated in the development areas; although, the primary aim of the assistance is to attract "new" growth industries to those areas.

The Industrial Reorganisation Corporation was established in 1967 to promote industrial efficiency by encouraging mergers and the reorganisation of any industry or individual firm. Industries which received about 80% of the total loans made by the I.R.C. were automobiles, computers, aircraft, instrument engineering and ball-bearings. The I.R.C. was ended in 1971.

The National Enterprise Board was established in 1975 with similar aims but in addition the N.E.B. will provide assistance to companies developing new technology and will increase government ownership in manufacturing industry.

Manufacturing - Services

Between 1966 and 1973 a payroll tax was used to discourage the use of labour in the services sector. The Selective Employment Tax was arranged to give a subsidy amounting to about 2 % of the average wage to firms in manufacturing industry. It was hoped in this way

- (a) to encourage the use of labour in sectors where value added per head was high,
- (b) to ensure that the firms in manufacturing industry were not prevented from expanding by shortages of labour,
- (c) to raise revenue.

There is little firm evidence of the effectiveness of S.E.T. as a method of altering the structure of the economy and in 1973 V.A.T. was introduced as an alternative source of revenue.

Particular Industries

Much of the U.K. government policies towards industry has been directed to declining industries - coal-mining, shipbuilding, textiles, railways. Other industries, such as aircraft and computers, have also received assistance.

(i) Coal-mining

This industry has been in public ownership since 1947 and its decline has brought unemployment problems since most of the decline in production was concentrated in areas with little alternative employment. The aims of the Coal Industry Acts of 1965, 1967, 1971 and 1973 have been to slow down the decline of industry and to improve the efficiency of the remaining coal mines. From 1966-71 subsidies were paid to the industry of about £12 million per year; from 1972-75 the amount of the subsidy increased to about £160 million per year. This amount was in connection with closing mines, routine operations, and payments to the electricity and gas industries as compensation for their use of coal as input.

(ii) Shipbuilding

The basic problem facing the industry has been lack of competitiveness in a world market with excess supply capacity. In 1963 loans were made to U.K. ship-owners to encourage them to buy ships built in the U.K. Since 1967 a variety of measures

have been introduced with four aims:-

- a) to encourage shipowners to buy British ships,
- b) to finance modernisation of the industry,
- c) to encourage mergers,
- d) to rescue three large firms from bankruptcy.

The desire to avoid unemployment has meant that greatest emphasis has been given to (d).

(iii) Textiles

In the 1950s (and earlier) there was much financial aid towards the scrapping of existing capacity. From 1959 the policy changed and emphasis was placed on trade protection and encouraging structural change within the industry. Voluntary export controls by exporting countries were replaced in 1966 by quotas and in 1973 these global quotas were replaced by specific product quotas for each country.

(iv) Aircraft

The U.K. government has assisted the aircraft industry in three ways:-

- a) As a customer for defence equipment, for civil aircraft (via the state-owned British Airways) and for research and development the government financed about 70% of the industry's output. In 1967 British Airways was instructed to buy the British Trident in preference to Boeing 727 or 737.
- b) By ownership - the government has held 70% of the shares in Short Bros. and Harland since 1945 and in 1971 the government acquired Rolls-Royce to avoid bankruptcy creating unemployment.
- c) By financing development projects such as the RB2-11 engine for U.S. Lockheed Tristar and Concorde.

(v) Computers

- a) Government organisations and the nationalised industries buy about 30% of the output of U.K. computer industry and all public sector purchasers of computers are instructed to buy British computers.
- b) Financial support has been given for research and development.

c) Financial assistance was given to mergers leading to the formation of ICL as an important manufacturer in the world market.

(vi) Aluminium

The government has assisted the building of three aluminium smelters in various ways - investment grants, regional grants, supplies of electricity, supplies of coal to the electricity generating plant at one smelter. The aim was to establish an aluminium smelting industry in order to reduce dependence on imports which had increased at 9% per year, 1945-67, and also in order to create employment in development areas.

(vii) Motor-vehicles

The U.K. government gave financial assistance to Chrysler in 1976 and in the previous year had acquired British Leyland. The government, through the National Enterprise Board, is now providing capital for modernisation and development in British Leyland.

Conclusion

Much of the effort and finance which the U.K. governments put into British industry has been into declining industries in order to avoid increasing unemployment. Apart from general investment incentives relatively little assistance is given to the development of new technology, new firms and new industries.



#### IV. SECTOR POLICY IN BELGIUM

Strictly speaking, there is no overall sectoral policy, but rather a series of separate policies which come under the authority of a fairly large number of ministerial departments and public bodies: industrial policy, agricultural policy, energy policy and tertiary sector policy. Each of these policies is basically concerned with factors specific to the sector involved, and they vary widely. Industrial policy is probably the most developed.

##### INDUSTRIAL POLICY

Since 1960, the various Belgian Governments have mainly implemented a policy of general guidance, theoretically covering all the industrial sectors. This policy has been supplemented from time to time by specific action in favour of certain branches.

##### 1. General policy

Generally speaking, industrial policy is aimed at controlling structural unemployment, rationalizing firms and increasing productivity, adapting production to the new conditions created by the Common market, eliminating regional imbalance, creating new, expansive industries with high value added, etc. To attain these objectives, the authorities have a number of instruments at their disposal, mainly connected with investments, technological research and exports.

- (a) Investment aid is granted on the basis of the laws on economic expansion. At the moment, there are two laws in force: the general law of 17 July 1959 and the regional law of 30 December 1970. Most investment aid takes the form of interest subsidies or temporary tax exemption. Although there are a number of directives on the implementation of the laws on expansion (some of them of a sectoral nature), all the main industrial branches have benefited widely from them.
- (b) Aid to technological research takes two main forms:
- (i) subsidies granted by the Institut pour l'Encouragement de la Recherche scientifique dans l'Industrie et l'Agriculture (IRSIA: Institute for the Encouragement of Scientific Research in Industry and Agriculture) to finance collective programmes carried out by several firms and basic research on a specific question intended to benefit all the firms of a branch;
  - (ii) interest-free loans for perfecting prototypes of new products and new manufacturing processes.
- (c) Export aid consists mainly in supporting the efforts of firms and trade groups towards the location and penetration of external markets, help with market research, assistance to Belgian Chambers of Commerce abroad, participation in trade fairs abroad, the supply of practical information and documents, etc. The aid is supplied through the Office Belge du Commerce extérieur and the Fonds du Commerce extérieur. Moreover, firms may apply to the Office National du Ducroire (National Guarantee Office) which grants guarantees to cover export risks, particularly credit risks.

The general guidance policy has not come up to expectations. First, the structural changes in Belgian industry, and especially the rapid growth of branches such as petrochemicals, electronics and vehicle assembly, has been achieved only through fairly massive foreign investment. Secondly, persistent structural unemployment and regional disparities, remain major problems in Belgium.

In this situation, the Government intends to carry out a more active industrial policy in the next few years. It will be based on contracts to be signed with certain firms (covered by a provision in the law on expansion of 30 December 1970), and on public industrial initiative.

For some time, there has been renewed interest in small and medium-sized firms, whose job creation potential was long underestimated. Since 24 May 1959, there has been a specific law on expansion applicable to small and medium-sized firms.

## 2. Specific sectoral action

This action was undertaken to overcome the difficulties of certain industries: steel, shipbuilding, textiles.

The early difficulties of the steel industry in the '60's led to the creation of a "Concertation" committee, one of whose main tasks was to coordinate investment over the country as a whole. The severe crisis which began at the end

of 1974 has made new measures necessary, but it has become even more necessary that they be drawn up in a Community framework.

Shipbuilding has received subsidies based on Community directives to help it maintain its competitive position against foreign shipyards.

The textile and ready-made clothing industries were the object of special measures for modernizing and rationalizing firms.

The 1975 crisis has created added problems in many industrial activities, particularly the traditional ones: these activities can only be maintained through efforts at restructuring and modernization. The Government has therefore created the Secretariat à la Concertation Sectorielle, to coordinate support for these efforts from the various ministerial department and public bodies.

### ENERGY POLICY

Since the end of the fifties, Belgium, like most western European countries, has been implementing a policy of gradually reducing coal production. This policy should achieve its aim by 1981, when the last mines of the southern coalfields (Wallonie) will be closed. Production in the coalfields of the north (Campine), where mining conditions are slightly more favourable, should be maintained more or less at the present level, some 7 million tonnes.

The first consequence of this is that the other forms of energy - and particularly oil products - have been supplying a rapidly increasing proportion of the country's primary energy needs.

Their share exceeded 50 % in 1964, and was about 85 % on average over the last few years. Since 1967, the amount of natural gas imported from the Netherlands has risen sharply. This development has posed the problem of the security of the country's supplies in increasingly urgent terms. The authorities have tried to solve the problem by controlling stocks of oil products, by trying to diversify supply sources and, particularly since 1974, by implementing energy-saving policies.

Diversification is achieved mainly through developing the development, since the early seventies, of electricity production in nuclear power stations. In 1976, such electricity represented 21 % of the net electricity production and 3,3 % of total domestic primary energy needs. Proposals about the future development of this energy source are to be submitted by the Government to Parliament before the end of 1977, as part of a proposed energy policy.

Generally speaking, the authorities have tried to obtain some control over activity and prices in the energy sectors. A monitoring committee for electricity and gas was set up in 1964, and a "concertation" committee for monitoring oil in 1974. In 1976, the Government set up a "concertation" and supervisory body at the highest level, the National Energy Committee, mainly responsible for discussing and maintaining the implementation of the overall energy policy.

#### AGRICULTURE POLICY

In view of the situation in agriculture, characterized in Belgium, as in all developed countries, by increased capital intensiveness, fewer jobs and larger forms, and a reduction of total cultivated area, the aims of the policy are:

- (i) increased income for farmers, so as to reach a level comparable to that of non-agricultural workers (equality of income);
- (ii) security to work the land;
- (iii) improved living conditions for farmers.

Agricultural policy is mainly implemented by the European Community, particularly through market and price policy. In fact, only structural policy and socio-economic policy are still applied at national level, and they, too, are to be incorporated into Community directives.

Structural policy concerns, among other things, safeguarding farm land in regional planning, redistributing holdings, marketing agricultural products, scientific research, technical health assistance to farms, specialized teaching and vocational training.

In all these fields, progress will probably be made in the next few years. Moreover, agricultural policy should increasingly take account of consumers' interests: security of food supply, protection of the quality of products, preservation of the environment and of woodlands.

#### TERTIARY SECTOR POLICY

The tertiary sector was for a long time a special subject of certain general economic policies such as price policy, policy on commercial practices or credit policy.

The employment potential of this sector, and the need for a suitable policy, were only realized recently.

Thus, for the past few years, the economic expansion laws may be applied to investments in the tertiary sector. So far, this application has remained fairly limited, and confined in practice to the distribution sector.

Regulations have been made to control the setting up of super-markets and hypermarkets, not only for reasons of regional planning, but also to defend the interests of traders. Moreover, successive amendments to the Law of 24 May 1959 have enabled the same advantages to be accorded to small and medium-sized trading firms as those granted under the other laws on expansion.

ANNEX II

Report of the Group of Experts on Sectoral Analyses  
Description of the branch nomenclature used and reconciliation with  
NACE-CLIO Groups

BRANCH NOMENCLATURE	NACE-CLIO GROUPS	D E S C R I P T I O N
		<u>Goods</u>
		<u>Agricultural, forestry and fishery products</u>
1		011 - Vegetable products from agriculture and forests
		012 - Wine
		013 - Olive oil, unrefined
		014 - Animal products from agriculture and hunting
		019 - Agricultural products which are exclusively imported
		020 - Forestry products
		030 - Fishery products
		<u>Coal, lignite (brown coal) and briquettes</u>
21		111 - Coal and coal briquettes
		112 - Lignite (brown coal) and lignite briquettes
		120 - <u>Products of coking</u>
		<u>Crude petroleum, natural gas and petroleum products</u>
22		130 - Crude petroleum, natural gas and bituminous shale
		140 - Refined petroleum products
		<u>Electric power, gas, steam and water</u>
23		161 - Electric power
		162 - Gas (distributed by pipes)
		163 - Steam, hot water, compressed air
		170 - Water (collection, purification, distribution)



BRANCH  
NOMENCLATURE

NACE-GLIO  
GROUPS

DESCRIPTION

BRANCH NOMENCLATURE	NACE-GLIO GROUPS	DESCRIPTION
		<u>Production and processing of radio-active materials and ores</u>
23(continued)	151	- Ores containing radio-active substances
	152	- Production and processing of radio-active materials
		<u>Ferrous and non-ferrous ores and metals, other than radio-active</u>
31	211	- Iron ore
	212	- Non-ferrous metal ores (other than radio-active ores)
	221	- Pig iron, crude steel, hot rolled and cold rolled sheets, coated metal sheets (ECSC products)
	222	- Steel tubes
	223	- Extruded and drawn metal, cold-rolled products, cold-formed steel parts and sections
	224	- Non-ferrous metals
		<u>Non-metallic mineral products</u>
32	231	- Gravel, stone, sand and clay
	232	- Salts of potassium and of natural phosphates
	233	- Rock-salt, marine salt
	239	- Other minerals, peat
	241	- Bricks and pottery products
	242	- Cement, lime, plaster
	243	- Building and construction materials made of concrete, cement or plaster
	244	- Articles made of asbestos (except for articles made of asbestos-cement)
	245	- Stones and other non-metallic mineral products
	246	- Millstones and other abrasive products
	247	- Glass (plate, hollow, technical, fibre glass)
	248	- Ceramic products

BRANCH NOMENCLATURE	NACE-CLIO GROUPS	DESCRIPTION
		<u>Chemical products</u>
33	252	- Petrochemical and carbochemical products
	253	- Other basic chemical products
	255	- Paints, varnishes and printing inks
	256	- Other chemical products, mainly for industrial and agricultural purposes
	257	- Pharmaceutical products
	258	- Soaps, synthetic detergents, perfumes, cosmetics and toilet preparations
	259	- Other chemical products mainly for household and office use
	260	- Artificial and synthetic fibres
		<u>Metal products except machinery and transport equipment</u>
41	311	- Foundry products
	312	- Metal products which are forged, stamped, embossed or cut
	313	- Products of secondary processing of metals
	314	- Structural metal products
	315	- Products of boilermaking
	316	- Tools and finished metal articles, except electrical equipment
		<u>Agricultural and industrial machinery</u>
42	321	- Agricultural machinery and tractors
	322	- Machine tools for metal working, tools and equipment for machinery
	323	- Textile machinery and accessories, sewing machines
	324	- Machinery for the food and chemical industries; bottling, packaging, wrapping and related machinery; rubber artificial plastics working machinery
	325	- Mining equipment, machinery and equipment for metallurgy for the preparation of building materials, for building and construction, for mechanical handling and lifting

BRANCH NOMENCLATURE	NACE-CLIC GROUPS	DESCRIPTION
	326	- Gears and other transmission equipment
	327	- Machinery for working wood, paper, leather and footwear, laundering and dry-cleaning equipment
	328	- Other machinery and mechanical equipment
		<u>Office and data processing machine ; precision and optical instruments</u>
43	330	- Office and data processing machines
	371	- Measuring, precision and control instruments
	372	- Medico-surgical equipment, orthopaedic appliances
	373	- Optical instruments and photographic equipment
	374	- Clocks and watches
		<u>Electrical goods</u>
	341	- Insulated wires and cables
	342	- Electric motors, generators, transformers, switches, etc
	343	- Electrical equipment for industrial use, batteries and accumulators
44	344	- Telecommunications equipment, meters and measuring equipment, electro-medical equipment
	345	- Electronic equipment, radio and television receiving sets, sound reproducing and recording equipment, gramophone records and pre-recorded tapes
	346	- Electric household appliances
	347	- Electric lamps and other forms of electric lighting
		<u>Motor vehicles</u>
	351	- Motor vehicles and engines
45	352	- Bodywork, trailers and caravans
	353	- Spare parts and accessories for motor vehicles

BRANCH NOMENCLATURE	NACE-CLIO GROUPS	DESCRIPTION
		<u>Other transport equipment</u>
46	361	- Boats, steamers, warships, tugs, floating platforms and rigs, materials from the breaking up of boats
	362	- Locomotives, other railway and tramway rolling-stock, vans and wagons
	363	- Cycles, motor-cycles, invalid carriages
	364	- Aircraft, helicopters, hovercraft, missiles, space vehicles and other aeronautical equipment
	365	- Perambulators, invalid chairs, carts, etc
	412	- <u>Meats, meat preparations and preserves, other products from slaughtered animals</u>
	413	- <u>Milk and dairy products</u>
		<u>Other food products</u>
	411	- Vegetable and animal oils and fats
	414	- Fruit and vegetable preserves and juices
	415	- Fish preserves and other sea food for human consumption
	416	- Cereals, flour and flakes
	417	- Food pastes
5	418	- Starch and starch products
	419	- Bread, rusks, biscuits, cakes and pastries
	420	- Sugar
	421	- Cocoa, chocolate, sweets, ice-creams
	422	- Animal and poultry feeding stuffs
	423	- Other food products
		<u>Beverages</u>
	424	- Ethyl alcohol from fermented vegetable products and products based on it
	425	- Champagne, sparkling wines, wine based aperitifs
	426	- Cider, perry, mead
	427	- Malt, beers, brewers' yeast
	428	- Mineral waters, soft drinks

BRANCH NOMENCLATURE	NACE-CLIO GROUPS	DESCRIPTION
5 (continued)	429 -	<u>Tobacco products</u>
		<u>Textiles and clothing</u>
	431*	Processed textile fibres, products of spinning, thread-making, balling
	432*	Woven and velvet materials
	436 -	Products of the hosiery trade
	438 -	Carpets, carpetting, oilcloth, linoleum and other coated fabrics
	439 -	Other textile products
	453*	Ready made clothes and clothing accessories
61	455 -	Household linen, bedding, curtains, wall coverings and awnings, sails, flags, bags
	456 -	Articles of fur
		<u>Leathers, leather and skin goods, footwear</u>
	441 -	Leathers, skins, hides tanned or otherwise processed
	442*	Leather and skin goods
	451 -	Footwear, slippers made wholly or partly of leather
		<u>Paper and printing products</u>
	471 -	Wood pulp, paper, board
62	472 -	Products of pulp, paper and board
	473 -	Products of printing
	474 -	Products of publishing
		<u>Rubber and plastic products</u>
	481 -	Rubber products
63	482 -	Re-treaded tyres
	483 -	Plastic products
		<u>Timber, wooden products and furniture</u>
	461 -	Sawn, planed, seasoned, steamed wood
64	462 -	Veneered and ply wood, fibre board and particle board, improved and preserved wood

BRANCH NOMENCLATURE	NACE-CLIO GROUPS	DESCRIPTION
	463 -	Carpentry, wooden buildings, joinery, parquet flooring
	464 -	Wooden containers
	465 -	Wooden articles (other than furniture), saw dust and shavings
	466 -	Articles of cork, straw, basket ware (other than furniture), brooms, brushes
	467 -	Furniture of wood and cane, mattresses
64		<u>Other manufacturing products</u>
	491 -	Precious and costume jewellery, goldsmith's and silver-smith's products; working of precious and semi-precious stones; diamond cutting and polishing; striking of coins and medals
	492 -	Musical instruments
	493 -	Products for printing and developing cinematographic and photographic films
	494 -	Games, toys, sport goods
	495 -	Fountain pens and ballpoint pens, seals, other products n.e.c.
		<u>Building and construction</u>
	505 -	Construction of dwellings
	506 -	Non-residential buildings
7	507 -	Civil engineering works
	509 -	Demolition of buildings
		<u>Market services</u>
		<u>Inland transport services</u>
81	710 -	Railway transport services and associated services
	721 -	Local transport services, including underground, railways, tranways and regular bus services
	722 -	Long distance road transport services for passengers
	723 -	Long distance road transport services for merchandise
	724 -	Services of transport by pipelines
	725 -	Land-borne transport services n.e.c. (funicular railways, cable cars, chair-lift)
	730 -	Inland waterways services

BRANCH	NACE-CLIO	DESCRIPTION
NOMENCLATURE	GROUPS	
		<u>Maritime and air transport services</u>
	741 -	Maritime transport services
	742 -	Coastal transport services
	750 -	Air transport services
		<u>Auxiliary transport services</u>
81	761 -	Services associated with land transport other than railways
	762 -	Services associated with inland waterways
	763 -	Services associated with maritime and coastal transport
	764 -	Services associated with air transport
	771 -	Services of travel agencies
	772 -	Services of transport intermediaries
	773 -	Warehouse and storage services
82	790 -	<u>Communication services</u>
		<u>Wholesale and retail trade</u>
83	610 -	Wholesale trade
	630 -	Services of commercial intermediaries
	640 -	Retail trade
		<u>Services of credit and insurance institutions</u>
84	811 -	Services of central banking authorities
	812 -	Services of other monetary institutions
	813 -	Services of other credit institutions
	820 -	Services of insurance
85	660 -	<u>Lodging and catering services</u>
		<u>Recovery and repair services</u>
86	620 -	Scrap metals, waste paper, rags, salvage, other products from recovery and demolition
	671 -	Repair of motor vehicles and bicycles
	672 -	Repair of footwear and leather articles, electrical household goods, watches and clocks, jewellery

BRANCH  
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DESCRIPTION

Business services provided to enterprises

- 830 - Services of financial and insurance auxiliaries; real estate; services of lawyers, accountants, tax advisers, management consultants; publicity services; computer and data processing services
- 840 - Services of renting of movable goods without accompanying personnel
- 850 - Services of renting of immovable goods

Market services of education and research

- 93 C - Market services of education
- 94 C - Market services of research and development
- 95 C - Market services of health

Recreational and cultural services, personal services, other market services n.e.c.

- 92 C - Market services of refuse disposal, sanitation and cleaning
- 96 C - Market services of hostels, professional, economic and employers' associations
- 97 C - Market recreational and cultural services
- 981 - Laundries, dry cleaners and similar services
- 982 - Hairdressing and beauty salons services
- 984 - Other personal services n.e.c. (funeral services, matrimonial agencies, fortune telling, etc.)

Non-market services

General public services

- 91 - General public services of national defence, of compulsory social security
- 92 A - Non-market services of refuse disposal, sanitation, cemeteries, provided by general government

86 (continued)

9



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DESCRIPTION

	96 A -	Non-market services of social welfare, hostels, tourist offices, employers' and professional associations, economic organizations provided by general government
	97 A -	Non-market services of recreational and cultural activities provided by general government (entertainments, sport grounds and clubs, libraries, public archives, museums, botanical and zoological gardens)
		<u>Non-market services of education and research provided by general government and private non-profit institutions</u>
	93 A,B -	Non-market services of education provided by general government and private non-profit institutions
	94 A,B -	Non-market services of research and development provided by general government and private non-profit institutions
9 (continued)	95 A,B -	<u>Non-market services of health provided by general government and private non-profit institutions</u>
		<u>Domestic services and other non-market services n.e.d.</u>
	96 B -	Non-market services of social welfare, hostels, tourist offices, trade unions, employers' associations, religious organizations and learned societies, political parties, consumers' and civic organizations etc., provided by private non-profit institutions
	97 B -	Non-market services of recreational and cultural activities (entertainments, sports grounds and clubs, libraries, public archives, museums) provided by private non-profit institutions
	99 -	Domestic services

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