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No 29 July 1986

European Economy appears four times a year, in March, May, July and November. The November issue contains the Commission's proposal for the annual report on the economic situation in the Community. This report, which the Council adopts in the fourth quarter of each year, establishes the economic policy guidelines to be followed by the Member States in the year to come. The July issue contains the Commission's annual economic review, the background analysis to the proposed annual report. In March *European Economy* presents reports and studies on problems of current interest for economic policy. The May issue presents a report on the Community's borrowing and lending activities in the preceding year.

Two supplements accompany the main periodical:

— Series A—'Economic trends' appears monthly except in August and describes with the aid of tables and graphs the most recent trends of industrial production, consumer prices, unemployment, the balance of trade, exchange rates, and other indicators. This supplement also presents the Commission staff's macroeconomic forecasts and Commission communications to the Council on economic policy.

— Series B—'Business and consumer survey results' gives the main results of opinion surveys of industrial chief executives (orders, stocks, production outlook, etc.) and of consumers (economic and financial situation and outlook, etc.) in the Community, and other business cycle indicators. It also appears monthly, with the exception of August.

Subscription terms are shown on the back and the addresses of the sales offices are shown on page 3 of the cover.

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SUMMARY

Abbreviations and symbols used

Countries

B	Belgium
DK	Denmark
D	Federal Republic of Germany
GR	Greece
E	Spain
F	France
IRL	Ireland
I	Italy
L	Luxembourg
NL	The Netherlands
P	Portugal
UK	United Kingdom
EUR 10	Total of the Member States of the European Community in 1985
EUR 9	Community in 1985 excluding Greece
EUR 12	Community

Currencies

BFR	Belgian franc
DKR	Danish krone
DM	Deutschmark
DR	Greek drachma
ESC	Portuguese escudo
FF	French franc
HFL	Dutch guilder
IRL	Irish pound (punt)
LFR	Luxembourg franc
LIT	Italian lira
PTA	Spanish peseta
UKL	Pound sterling
ECU	European currency unit
USD	US dollar
SFR	Swiss franc
YEN	Japanese yen
CAD	Canadian dollar
ÖS	Austrian schilling

Other abbreviations

ACP	African, Caribbean and Pacific countries having signed the Lomé Convention
ECSC	European Coal and Steel Community
EDF	European Development Fund
EIB	European Investment Bank
EMCF	European Monetary Cooperation Fund
EMS	European Monetary System
ERDF	European Regional Development Fund
Euratom	European Atomic Energy Community
Eurostat	Statistical Office of the European Communities
GDP (GNP)	Gross domestic (national) product
GFCF	Gross fixed capital formation
LDCs	Less-developed countries
Mio	Million
NCI	New Community Instrument
OCTs	Overseas Countries and Territories
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of Petroleum Exporting Countries
SMEs	Small and medium-sized enterprises
SOEC	Statistical Office of the European Communities
toe	Tonne of oil equivalent
:	Not available

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Part A

Macroeconomic developments and outlook

A.1. Economic situation and prospects for Europe in 1987

Economic recovery in the Community is continuing. This is due in large part to the transfer of income following the considerable fall in import prices. The decline in price increases and interest rates are improving medium-term growth prospects. First successes have also been achieved in reducing the high level of unemployment in the Community, but these fall considerably short of what can and must be achieved. The attainment of the employment target in the Commission's 'Cooperative growth strategy for more employment' will therefore require further efforts.

A.1.1. The 1986 adjustment to fundamental changes in the economic environment

Since the middle of last year the Community's economic environment has changed considerably :

(i) The price of crude oil has fallen even more sharply than had been assumed in almost all forecasts at the end of last year and at the beginning of 1986. The extent and speed of the fall can be seen in the price on the Rotterdam spot market : from November 1985 to the end of June it fell from USD 29,1 per barrel to USD 12 per barrel, and in July crude oil was even quoted below the ten-dollar mark. Short term shifts in supply and demand have particularly noticeable effects on the spot market. But the average import price of oil is the important variable for the economic situation in the Community. The present forecasts of Commission departments assume that in 1986 imported oil will average USD 16 per barrel compared with USD 27,5 per barrel in 1985. For 1987, when the decline will probably have fully passed into long-term supply contracts, an import price of USD 15 per barrel is assumed. Because of the simultaneous appreciation of the ECU against the dollar, the average import price of crude oil in ECUs should fall by 53 % between 1985 and 1986, equivalent in real terms to a 10 % decline compared with 1978, i.e. before the second oil shock. This would directly cut the Community's oil import bill by some 40 000 million ECU — 1,5 % of Community GDP. Added to this there are further savings from the parallel decline in the costs of natural gas imports. Since far less has to be exported for every import unit, the result is a one-off transfer of income back to the Community. The use of this additional income will fundamentally influence economic developments both this year and next. Because the oil bill has been almost halved, supply-side effects will also extend beyond 1986 and 1987, since favourable production and employment prospects have improved in the medium-term. The lower oil price is making it profitable to bring older, obsolete plant back into service; this increases the economy's effective productive potential. There is a resultant increase in the rate of return on plant in operation and due to cost reductions also on expected rates of planned investment projects. Consequently the preconditions for closing the investment gap in Europe in the next few years have improved.

(ii) Between May 1985 and May 1986 the ECU appreciated by around 30 % against the dollar and lost some 5 % against the Japanese yen. In this Review it is assumed that the dollar's average exchange rate will remain at around its present level until the end of 1987. In 1986 the Community's weighted average exchange rate *vis-à-vis* its major trading partners appreciated by 9 % over the previous year.

The change in the exchange rate and falling oil prices are on the whole having adverse effects on Community's exports : the lower oil price severely restricts the scope for imports of the Community's traditionally important customers (the OPEC countries, Comecon). Because of keener price competition and the regional structure of the Community's export markets, the Commission expects the Community's 1986 merchandise exports to grow by only 2,9 % in real terms, which is roughly half the 1985 figure (5,7 %). Even though real exports are growing more slowly, the Community's current account will go on improving in 1986; measured as a percentage of gross domestic product, the Community's nominal balance on current account will climb from 0,4 % in 1985 to a probable 1,1 % in 1986 and will start declining (to 0,9 %) only in 1987. In 1986 the Community is enjoying a marked improvement in the terms of trade. In real terms, however, the foreigntrade surplus will decline considerably (by almost 1 % of GNP). As a result, the Community will make a significant contribution to the process of adjustment of world payments balances; the Community is using much of the oil-induced transfer of income to import more and is thus

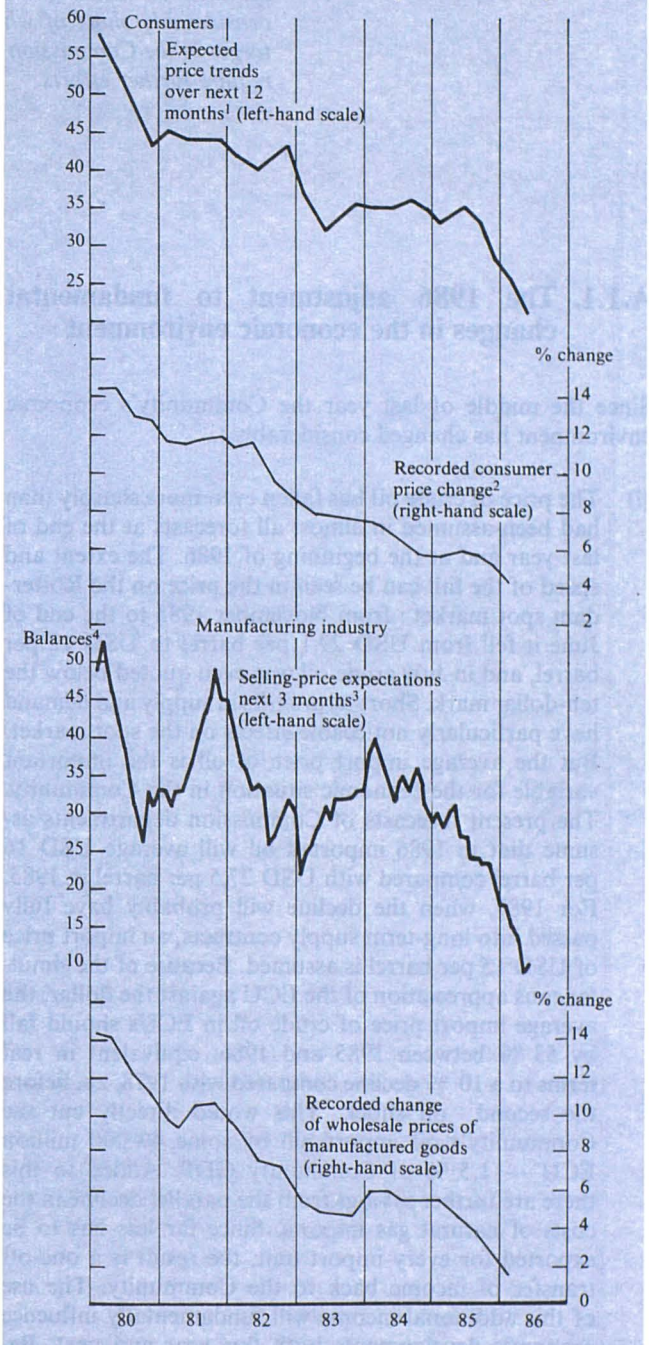
helping to eliminate the external payments imbalances of the United States, the OPEC countries and the developing countries in the medium term.

(iii) The inflationary expectations of both companies and consumers have fallen markedly (see Graph A.1.1). Because of its unexpected speed and intensity, this favourable development in itself has given rise to fears in some quarters that it might end in deflation. It is argued that because prices are expected to fall further, both companies and consumers are already displaying caution with regard to purchases, and this attitude could become self-reinforcing. But such fears seem to be unfounded. In fact, unlike a typical deflationary situation, prices are not falling on a broad front in the Community: the falls are essentially confined to imported raw materials and primary materials, especially oil and gas. The price trend of the gross domestic product is still pointing upwards throughout the Community, even in member countries such as the Federal Republic of Germany, where there has been an absolute fall in the consumer price index in the last few months. Since part of the terms of trade gain remains with enterprises, their profit situation will also tend to go on improving in the next few months, and this would also be quite untypical of a period of deflation. If — as the Commission forecasts assume — the price of oil and the value of the dollar do not fall further in the forecasting period, the additional price-curbing effect of these external factors will soon disappear.

Because of the unexpectedly sharp fall in the dollar and the price of oil, inflationary expectations have come down far more quickly than had originally been considered realistic. Inflation expectations must now be stabilized at their present low level, if not reduced even further — as is necessary in quite a few countries. The more quickly financial investors are convinced that the fall in inflation rates is not temporary, but lasting, the sooner real interest rates on the capital markets will fall.

(iv) In the United States, economic policy has changed course. Public expenditure has been tightened, while monetary policy has been relaxed. The change of course towards a tighter budgetary policy is documented in the passing of the Gramm-Rudman-Hollings Act, which envisages the complete disappearance of the United States Federal deficit by 1991. Even if this Act has been found in part unconstitutional by the Supreme Court, the mere fact that Congress and the President have thrown their weight behind it emphasizes the fundamental change in attitudes to the budget problem in the United States. However necessary, the planned reduction of the United States budget deficit will undoubtedly have the effect of putting a brake on econ-

GRAPH A.1.1: **Price expectations of consumers and industrial companies**
Balances[4] in the European Community



[1] Community consumer survey.
[2] Quarterly data — percentage change on corresponding quarter of preceding year.
[3] Community business survey.
[4] Differences of respondents expecting price increases (+) and price decreases (−).

Source: Eurostat, Community business and consumer serveys.

omic activity both in the United States and the rest of the world. For this reason it is necessary that this internal imbalance in the United States is to be eliminated in stages over a fairly long period, thus diminishing the danger of a severe recession in the United States, with corresponding adverse effects on world economic activity.

A.1.2. A pause in output growth at the beginning of 1986

The net effect of the last 12 months' changes in the economic environment will in the end be favourable for the Community, even though the effects on economic developments in the member countries were adverse at the beginning of the adjustment process. In the first quarter of 1986, the evolution of gross domestic product, employment and industrial production was disappointing in some member countries. But this is deemed to be only temporary and — apart from the exceptionally bad weather, which mainly hit the building industry — was caused by the following factors :

(i) The strikingly large build-up of stocks in the last quarter of 1985 obviously caused demand to fall in the first quarter of 1986.

(ii) The partly unexpected increase in real disposable income was at first used mainly to build up private savings.

(iii) Export customers affected by the loss of oil revenues cut down on their orders and purchases more quickly than expected.

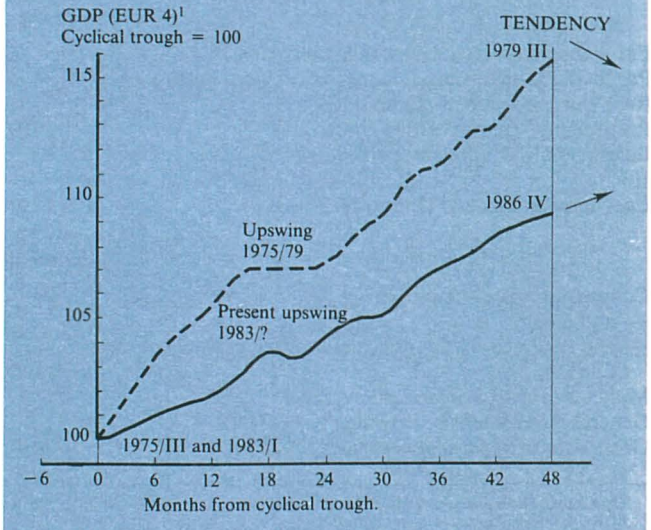
Despite the slow growth in the first few months of the year, the Commission forecasts for 1986 will probably not have to be adjusted significantly downwards : this seems justified among other facts by the evaluation of the consumer climate indicators, which the Commission records in regular surveys in nine member countries. They indicate a clear improvement; intentions of purchasing consumer durables are today on a far more definite upward trend than a year ago. The Commission's composite leading indicator, which includes, in addition to measures of the consumer climate, an assessment of the situation in industry, the building trade and financial markets, improved againrecently. The outlook for a strengthening in the upturn bolstered mainly by private consumption and — to a lesser extent — by investment demand, is therefore still plausible. By promptly implementing their investment plans, companies can help to convert their income gains rapidly into demand and into additional jobs. As the results of the April 1986 investment survey show, industrial companies in nearly all the member countries have adjusted their investment plans for 1986 upwards as compared with the autumn 1985 survey. The switch from an economic cycle which has hitherto been heavily reliant on exports to predominantly domestic demand growth therefore seems to be succeeding in the Community, even though the pace of growth still leaves a lot to be desired.

A.1.3. Forecasts for 1986 and 1987

On the whole, therefore, the picture presented by the Community economy is an encouraging one, although it is seriously clouded by the central problem of continuing high unemployment. According to the Commission's latest forecasts for 1986 and 1987 (see Table A.1.1):

(i) The growth process in the Community will continue : the increase in real Community GDP, which was 2,3 % in 1985, should reach around 2 3/4 % in both 1986 and 1987. In 1987, the upturn in the Community will thus be entering its fifth year, but its growth path is still too flat to bring about a significant and lasting reduction in unemployment between now and the end of the decade. The last Annual Economic Report considered GDP growth rates of between 3 % and 3,5 % as necessary in order to achieve this. Graph A.1.2 shows the

GRAPH A.1.2: **A comparison of cyclical upswings — The first 48 months of the cyclical upswing from end 1975 to end 1979 and in the present upswing which set in at the beginning of 1983**



[1] EUR 4: Federal Republic of Germany, France, United Kingdom and Italy.
Source: Eurostat, and Commission services.

lack of vigour so far in the present upswing in the Community : at the end of 1986, i.e. after the fourth year of upswing,gross domestic product will be around 9 % above the cyclical trough, compared with 15 % at the same point in the last upswing (end-1975 to end-1979).

(ii) Domestic demand will this year and next make the most important contribution to the growth of GDP; in real terms it is likely to grow by 3,6 % in 1986 and 3,3 % in 1987. It is thus expanding more rapidly than GDP. Domestic demand is therefore replacing export demand as the main driving force behind economic activity.

Table A.1.1

Main indicators of the economic situation in the Community (EUR 12)

	Average 1961-73	Average 1974-81	1982	1983	1984	1985[1]	1986[1]	1987[1]
(a) Macroeconomic performance								
GDP at constant prices (annual percentage growth)	4,8	1,9	0,5	1,2	2,0	2,3	2,7	2,8
Unemployment rate	2,4[2]	5,1[2]	9,3[2]	11,0	11,7	12,0	11,9	11,6
Rate of inflation (price deflator for private consumption, % p.a.)	4,6	12,1	10,4	8,4	7,0	5,8	3,5	3,1
Current account balance (% of GDP)	0,4	−0,4	−0,8	0,1	0,1	0,5	1,1	0,9
(b) Indicators of demand (percentage change on previous year)								
Domestic demand at constant prices								
Community performance	5,0	1,6	0,8	0,7	1,6	2,1	3,6	3,3
Deviation from other OECD Member States	−0,5	−0,6	1,1	−1,9	−4,2	−1,1	0,5	0,1
Private consumption	5,0	3,0	0,6	1,0	0,9	2,1	3,5	3,4
Gross fixed capital formation	5,6	0,0	−1,5	−0,3	1,3	2,3	4,9	4,9
Exports of goods and services	9,2	4,6	1,5	3,2	7,6	5,7	2,9	4,2
(c) Indicators of supply conditions								
Employment (percentage change per year)	0,3	−0,1	−0,9	−0,8	0,1	0,4	0,8	0,8
Productivity (percentage change on previous year)	4,5	2,1	1,5	2,0	1,9	1,9	1,9	2,0
Real unit labour costs (Index 1973 = 100)	98,8	103,0	102,3	101,3	100,2	99,2	97,8	97,3
Profitability[3] (Index 1973 = 100)	109,0	74,1	67,4	65,2	70,5	74,6	84,9	89,4
Investment in equipment (percentage change per year, EUR 10)	:	:	0,2	0,3	3,4	7,4	6,7	6,6
Cost competitiveness[4] (Index 1973 = 100)	101,9	110,3	100,6	94,7	88,2	87,1	95,0	96,0
(d) Economic policy indicators								
Compensation per employee								
— nominal	10,1	14,7	11,1	9,8	7,5	6,9	6,1	4,8
— real (deflated by the price deflator for private consumption)	5,2	2,3	0,6	1,3	0,5	1,0	2,6	1,6
Monetary expansion (annual average)	11,4[2]	13,7	11,3	11,2	9,5	10,2	8,7	7,1
General government borrowing (% of GDP)	:	−4,1[2]	−5,4[2]	−5,4[2]	−5,4	−5,2	−4,6	−4,4
Gross debt of general government (% of GDP)	40,3[5]	44,9[6]	49,8	53,4	56,0	58,9	60,4	62,2

[1] Estimates and Economic Forecasts of Commission services (May 1986).
[2] EUR 9 (without Greece, Spain and Portugal).
[3] Estimate for EUR 10.
[4] Real effective exchange rates on the basis of unit labour costs: total economy.
[5] 1973 (without Greece, Spain and Portugal).
[6] 1981.

Source: Eurostat and Commission services.

(iii) In 1987, both private consumption and investment are likely to remain buoyant, even if it is assumed that there will be no further improvement in the terms of trade. Consumption and investment will be stronger because of the secondary effects of the 1986 fall in the price of oil. Export growth could well accelerate somewhat in 1987, since the negative impact of the dollar's depreciation should gradually diminish and world trade is expected to expand a little more quickly.

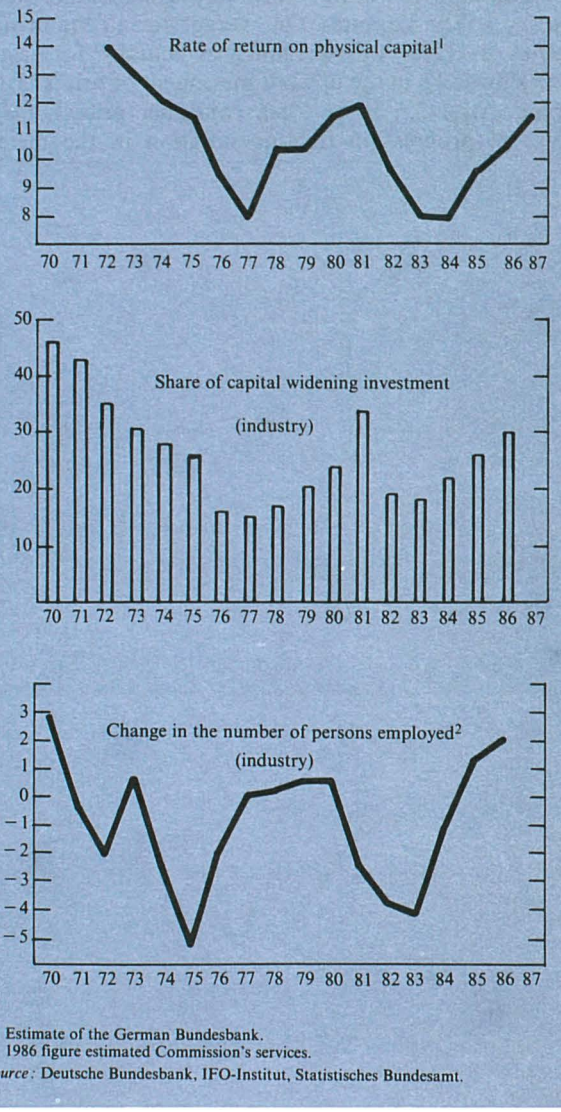
(iv) Although employment is once again increasing (by around 0,8 % a year in 1986 and 1987), unemployment remains unacceptably high. On average, 16,3 million gainfully employable persons were without work in 1985 in the 12 Member States of the enlarged Community, half a million more than the previous year, bringing the Community unemployment rate to 12 % of the labour force.

If the high level of unemployment is to be brought down permanently, it will not be sufficient simply to utilize spare capacity fully. There is a shortage of jobs in the Community, which can be made up only through new investment. Investment must therefore increase at an especially fast rate for a lengthy period and must be made more employment-creating in order to close the gap which has opened and to bring the unemployed back into work.

The volume of gross fixed investment in the Community has recovered only slowly from the contraction it suffered in 1981 and 1982. Only in 1986 and 1987 will investment, increasing by 5 %, again grow more quickly than GDP. This will be the highest growth rate since 1970. The improvement in macroeconomic profitability since 1983 has, in particular, contributed, with some delay, to the recovery in investment in equipment, the growth rate of which is now close to 7 % (see Table A.1.1). Much of the decline in profitability after 1973 thus seems to have been reversed. The improved level of capacity utilization, moderate real wage increases and, most recently, the fall in raw material prices have all contributed to this. For expectations of profitability in the medium-term, which is decisive for investment, steady growth of demand and moderate real wage increases remain essential. As an example, Graph A.1.3 shows the close connection between profits, capital-widening investment and employment in German industry : if the rate of return on physical capital increases, this generally leads, two years later, to an increase in capital-widening investment and in the number of persons in employment.

It should be emphasized, however, that the prospects outlined here depend on a number of critical assumptions. Should there be a further marked weakening of the dollar, which cannot be completely ruled out in view of the existing imbalances and, should the development of the oil price differ notably from the one assumed, the continuation of the current moderate rate of growth would be jeopardized. In addition, the assumptions for world trade depend to a considerable extent on an orderly solution of the indebtedness problems of developing countries. This, too, is an assumption which contains elements of uncertainty.

GRAPH A.I.3: **Profits, capital widening investment and employment in the Federal Republic of Germany**



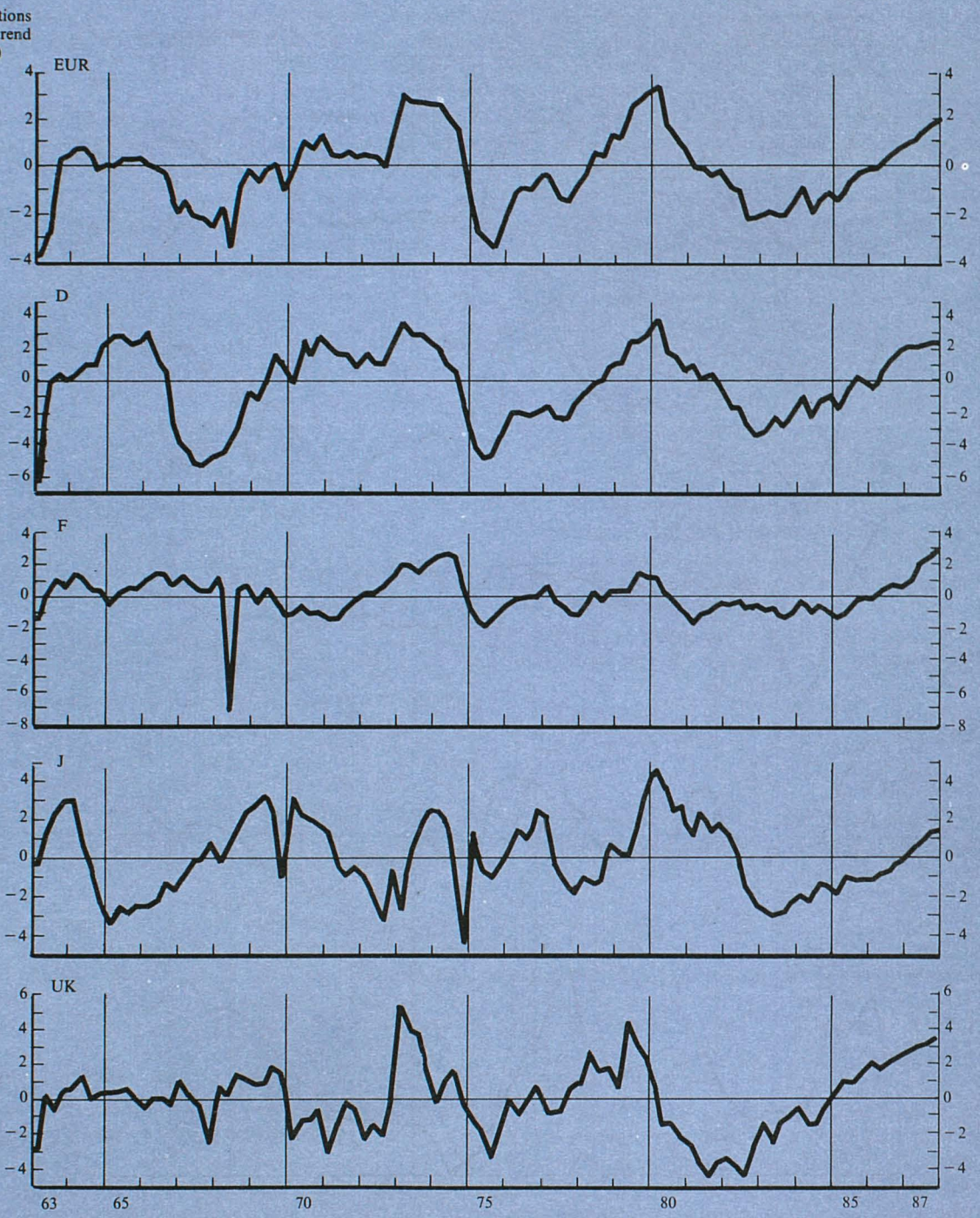
[1] Estimate of the German Bundesbank.
[2] 1986 figure estimated Commission's services.
Source: Deutsche Bundesbank, IFO-Institut, Statistisches Bundesamt.

A.1.4. The present upswing in its cyclical context

In 1987, the upturn in the Community will be entering its fifth year. According to the normal cyclical pattern of earlier upturns, this would mark the late phase in the recovery process, and the upper cyclical turning point will not be far off (see Graph A.1.4). But in the current situation, this conclusion seems unfounded, since the cyclical upswing this time differs markedly from its predecessors. Firstly the present cyclical upswing has been much more moderate (see Graph A.1.2). Secondly, unlike 1972/73 and 1979/80 rising capacity utilization has so far not been associated with upward pressure on prices, but on the contrary with clearly declining inflation rates and selling-price expectations (see Graph A.1.5). Thirdly, for 1987 there is no sign so far of the risk of overheating which would necessitate tighter monetary policy measures. On average for all the member countries in 1987, the Commission actually forecasts a further slowdown in the upward movement of prices (3,1 % compared with 3,5 % in 1986; consumer prices), mainly because of progress in fighting inflation in the member countries which have so far still had high rates of price increase (Greece, Spain, Portugal and Italy). In the other member countries, the inflation rate is probably stabilizing at the relatively low 1986 level or is increasing only slightly. Fourthly, unit labour costs have not yet started to rise rapidly, as they have usually done in other late phases of an upturn. One of the factors behind the lack of buoyancy in unit labour costs is undoubtedly the continuing high level of unemployment.

There is a possible danger of the upswing coming to an end in the second half of 1987 or the beginning of 1988 because the internal driving force behind economic activity in Europe will not have developed enough momentum of its own to be able to manage without additional stimuli — such as the increase in exports to the United States in 1983/85 and the fall in the oil price in 1986/87. While at the moment there is no evidence of an imminent end to the upturn, the evolution of the economy in the next few months must be kept under careful review, so that prompt action can be taken to ward off any unfavourable developments.

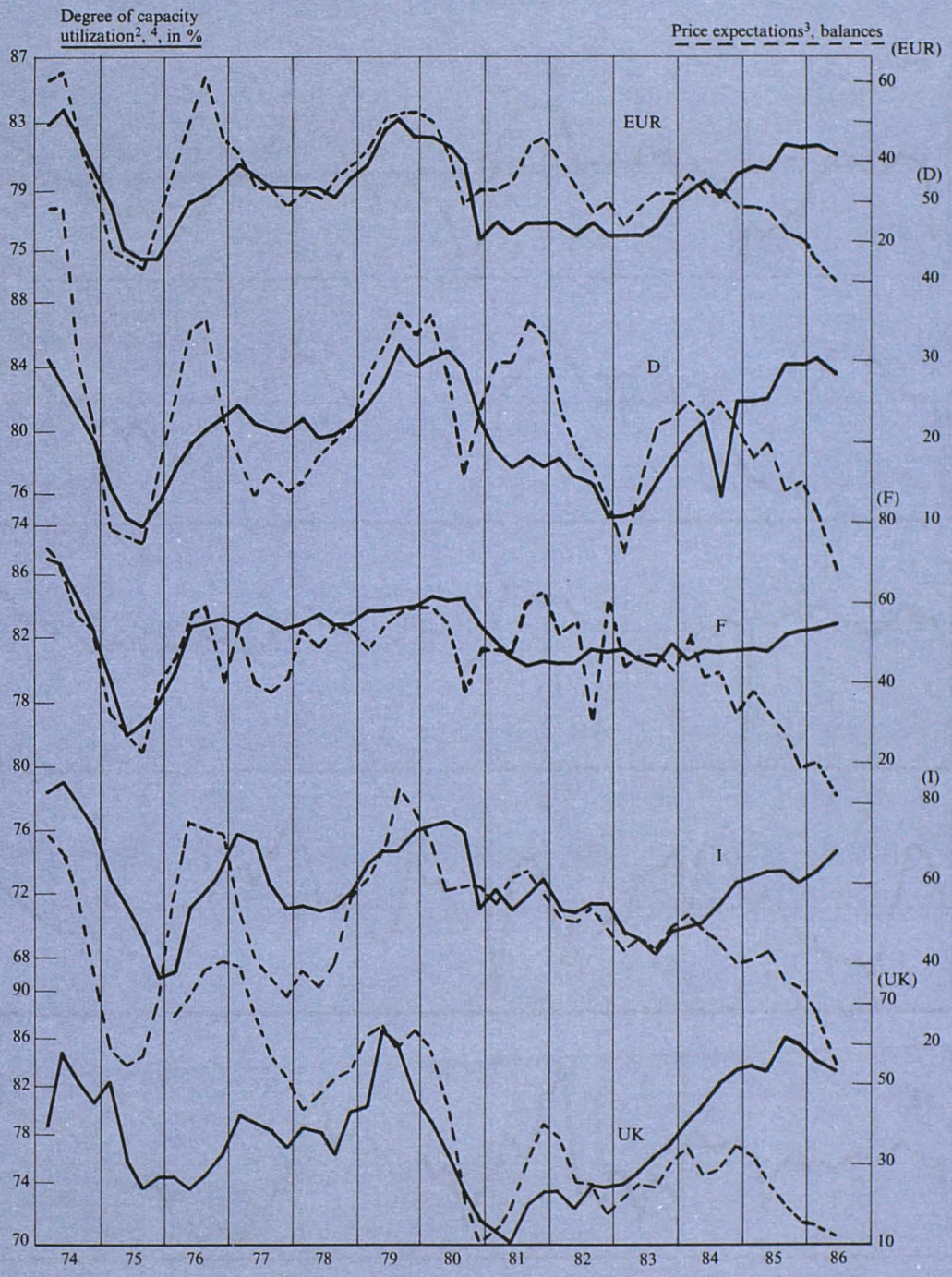
GRAPH A.I.4: **Growth-cycles in the European Community** — Deviations of real GDP from long-term trend (in %)[1]



[1] The quarterly data of real GDP (seasonally adjusted) have been interpolated on a monthly basis before the long-term trend (moving 99 months average) has been calculated. The estimates for 1986/87 are based on the Commission's forecast (May 1986).

Source: Eurostat, calculations and estimates of Commission services.

GRAPH A.I.5: **Capacity utilization and selling price expectations in industry**



[1] Mainly due to metal workers' strike in Germany.
[2] Degree of capacity utilization in manufacturing industry in %: January, April, July and October.
[3] Price expectations for the next months: balances; quarterly results of monthly data.
[4] Seasonally adjusted.

Source: European Community business surveys.

A.2. Developments in the world economy

The world economy has entered a period of far-reaching adjustment of accumulated distortions arising from the oil shocks of the 1970s, the US fiscal deficit with its associated appreciation of the dollar, and the excessive external borrowing of certain developing countries. This process is being stimulated by the weakening of the dollar, the fall in interest rates, the sharp decline in oil prices and the efforts being made to reduce US federal government expenditure. The renewed spirit of international cooperation on economic policy that emerged from the Tokyo Summit has increased the probability that the adjustment will be smoother than previously expected. However, whilst this correction of unsustainable disequilibria will be beneficial in the medium-term, the adjustment process will not be costless and transmission lags could well delay the stimulus to world trade from the eventual expansion of economic activity. As may be seen in Table A.2.1, the rate of growth of world trade is, therefore, expected to strengthen only slightly in 1986 to 3,8 % but to accelerate to just under 5 % in 1987. Not all countries will share in this improved outlook and, despite the Baker Plan, the risk of default has increased for those highly-indebted developing countries dependent on oil exports.

A.2.1. The international environment

Major changes have taken place in the international environment over the last 18 months :

(i) The depreciation of the US dollar against the ECU and the yen, from its peak in the first quarter of 1985, which was reinforced by the Group of 5 Agreement of 22 September 1985;

(ii) the change in the policy of Saudi Arabia from attempting to maintain the price of OPEC oil by limiting its own production, towards an objective of regaining market share through lower prices : as a consequence, the price of oil has fallen rapidly, and its future path is uncertain;

(iii) the introduction of the Gramm-Rudman-Hollings Act, which instituted a procedure for reducing the US federal budget deficit to zero by fiscal year 1991. The Act has been judged to be, in part, unconstitutional, but the alacrity with which the measure was adopted bespeaks a genuine desire by both Congress and the President to overcome the budget deficit problem;

(iv) the fall in interest rates which was stimulated initially by an easier stance of US monetary policy.

The devaluation of the dollar against the yen and against European currencies began in March 1985 but the decisive change was brought about by cooperative central bank intervention after the September G-5 meeting. Although the change in policy by the United States' authorities, who had previously argued strongly against interference with the free working of foreign exchange markets, was initially motivated by a desire to reduce the protectionist pressures which were building up in Congress, it is now recognized as an important element in the limitation, and eventual reduction of the United States' external deficit. Its effect on the growth of world trade is expected initially to be small but negative, but it is an adjustment which is necessary to achieve a more realistic set of exchange rates and thus make it less likely that the world will need to suffer a recession in order to correct the external imbalances of the major trading countries.

The current consensus view is that oil prices have stabilized at about USD 15 per barrel and will stay at this level over the next year or two. The initial impact of the price fall will be to cut the earnings of oil exporting countries by some USD 90 billion a year, with a corresponding gain by oil importers. Oil consumers in the OECD will be the major beneficiaries. The beneficial effects will, however, only appear with a lag as the reduction in imports by oil exporters consequent upon the fall in their export revenue will tend to occur more rapidly than the increase in imports of oil importing countries.

Thus, a temporary deceleration in activity may be expected before the more positive consequences of the oil price fall are felt. These derive essentially in the short-term from an unanticipated fall in prices which will make monetary growth easier to contain within existing target ranges and thus reduce interest rates. Profitability will rise and therefore, in the longer term, investment projects should become more attractive, leading to a supply-side boost to potential output.

A.2.2. The outlook for the Community's major trading partners

The outlook for the United States federal budget deficit has improved greatly with the discipline imposed by the Balanced Budget and Emergency Deficit Control Act of 1985, commonly known as the Gramm-Rudman-Hollings Act even though the Act has been declared, in part, unconstitutional. The expectation of a continuing decline in the Federal Government's demand for loanable funds over the next few years, together with the disinflationary effect of the oil price fall, has contributed to the substantial reduction in nominal interest rates which has taken place in the past year. As a consequence of smaller budget deficits, fiscal policy will be contractionary for several years.

Although the devaluation of the dollar has inflationary implications for the US economy, the fall in oil prices itself is counter-inflationary and should permit the Federal Reserve Board to continue its relatively accommodating monetary stance. The recent dramatic fall in interest rates to about 6 % at the short end and to below 7,5 % for longer-term bonds will thus be sustained until the end of the year, and will be an important factor contributing to economic growth in the forecast period.

The prospect for 1987 is less encouraging. Next year the effects of the fall in the dollar on the inflation rate will be at their strongest, while the effects of the oil price fall are wearing off. In these circumstances, some tightening of monetary policy might be considered appropriate by the Federal Reserve, and the consequent constraining ofmonetary growth at a time when fiscal policy is already contractionary would lead to a marked deceleration of growth.

Consumers' expenditure in the United States will grow more slowly than in recent years, despite lower interest rates, as wage increases remain moderate and consumers seek to increase their savings ratio from its current low level. Investment in housing is strong in response to the prospect of lower mortgage repayments but non-residential investment will drop sharply at first because of the rapid fall in oilfield production and exploration expenditures. The proposed tax reform legislation will further discourage investment by increasing the tax payments of the business sector but should boost consumption via income tax reductions. Lower interest rates and slightly improved growth prospects will lead to a small positive contribution to growth from stockbuilding. Government consumption will be very weak as the increase in state and local expenditures will at most only just compensate for the economies induced at the federal level by the Gramm-Rudman Act.

Although export and import growth rates are expected to be roughly similar (on a year-on-year basis and on the assumption of no further significant fall in the dollar), since imports in the base year are so much greater than exports there will be a continuing negative contribution to growth from net exports.

The outlook for Japan has been improved by the fall in oil prices, which may compensate to some extent for the effects of the rapid strengthening of the yen. The real income gains resulting from the massive improvement of the Japanese terms of trade are likely to improve the prospects for investment and, if they are passed on to the consumer, could boost private consumption in real terms. At the same time, the fall in import prices and the ability of exporters to absorb a large part of the potential price-risk implied by the yen revaluation may prevent a sharp deterioration of the competitiveness of Japanese exports.

The budgetary stance remains constrained by the commitment of the Government to reduce the central government deficit and to restrain the increase of the public debt; nevertheless the provision for capital expenditure has been increased by recourse to non-budgetary investment and loan finance. On 8 April, the Government adopted a programme aimed at sustaining domestic demand which includes an acceleration of public works, housing loans facilities and measures which should help the small and medium size enterprises hit by the appreciation of the yen. Furthermore the Government has taken measures to ensure that the fall in import prices is passed on to retail prices. The discount rate of the Bank of Japan has been lowered twice in January and March to the level of 4 %; monetary policy is likely to remain flexible while a further decrease in interest rates is expected.

The current account surplus is likely to exceed USD 80 billion in both 1986 and 1987. The growth of exports is stagnant at the moment and will not recover before the second half of this year. In spite of a rapid rise in imports in real terms in the second half of 1986 and in 1987, the improvement of the terms of trade will sharply increase the nominal trade surplus in both years.

Canada exceeded expectations in the matter of growth in 1985, having lagged behind the United States in 1984 in both investment and employment. Although the growth of import demand by the United States and hence the Canadian export market is now diminishing, a continuation of the recent upsurge in internal demand is expected to run on into 1986 and 1987.

In EFTA countries, GNP growth is likely to weaken gradually over the next two years. In Austria and Switzerland

Table A.2.1

World economy: Key indicators

	1980-84 Average	1985	1986[1]	1987[1]
GDP/GNP (% change)				
EUR	1,0	2,3	2,7	2,8
USA	1,8	2,2	2,5	2,7
Canada	1,6	4,5	3,8	2,8
Japan	3,9	4,6	3,2	3,2
Other OECD	2,2	3,1	3,0	2,9
OECD — Total	1,8	2,8	2,8	2,8
Import volume (% change)				
EUR	2,1	5,5	6,2	6,2
USA	4,9	4,1	5,9	6,0
Canada	2,1	7,5	6,0	4,5
Japan	0,1	−2,1	4,4	10,6
Other OECD	3,8	6,4	5,1	4,0
OECD — Total	2,7	4,7	5,8	6,2
OPEC	3,7	−11,3	−16,5	−10,0
Other developing countries	1,0	3,0	3,5	4,5
World	2,4	3,3	3,8	4,8
Balance on current account (USD billion)				
EUR	:	13,6	45,0	39,0
USA	:	−117,7	−108,8	−113,7
Canada	:	−2,0	−4,0	−2,1
Japan	:	49,3	81,9	78,8
Other OECD	:	−5,2	−2,9	−3,7
OECD — Total	:	−62,2	11,2	−1,8
OPEC	:	−3,6	−32,3	−20,5
Other developing countries	:	−25,6	−19,2	−19,7
Commodity prices (dollar-based)				
Oil: average EC import price (USD p.b.)	31,53	27,49	16,00	15,00
All commodities excluding fuels (% change)	:	−10,2	7,6	2,4
Exchange rates				
DM per USD	2,381	2,942	2,311	2,265
ECU per USD	1,006	1,321	1,072	1,060
Yen per USD	234,278	238,383	182,959	172,510
Interest rates (yearly average in %)				
US 3-month Treasury Bill	10,9	7,5	6,5	6,0
US 10-year Government Bond	12,4	10,8	8,1	7,2

[1] Forecasts.
n.a. = not applicable.

where the expansion was led mainly by exports, future growth will depend to a greater extent on stronger domestic demand. In Sweden and Finland on the other hand, budgetary consolidation policies will have the effect of slowing internal growth. Norway has recently devalued its currency and introduced a restrictive supplementary budget which should cut internal demand in the next 18 months, but will have great difficulty in replacing the loss of export revenue caused by the oil price fall.

The slowdown in world trade in 1985 seriously reduced the growth of the newly industrialized Pacific countries, whose export growth fell from 18,7 % in 1984 to −0,8 % in 1985. Prospects for 1986 and 1987 are a little brighter, following the fall in the price of oil, but the relatively slow growth of world trade remains a handicap for their export-led economies.

Many of the OPEC countries, who were already facing current account problems before the latest oil price fall, will be obliged to reduce imports substantially. The richer OPEC countries with substantial foreign investments will be in a position to choose between cutting imports and running down assets. For OPEC as a whole a sharp fall in imports is expected in both 1986 and 1987.

Prospects for the oil-producing debtors, notably Mexico, Venezuela, Nigeria and Indonesia, are very black and only substantial cuts in internal demand and additional financial help will extricate them from their difficulties. However, the oil price fall, which is so damaging to them, favours other indebted developing countries, which are likely to receive additional help from the fall in interest rates. Moreover, the counter-inflationary plans introduced by Argentina and Brazil have so far met with considerable success and are likely to be imitated by certain other indebted countries. However, producers of primary commodities are unlikely to experience any marked improvement in their situation : even if activity progressively picked up in line with the oil price drop, growth of world economic activity would remain confined to relatively modest rates, and supplies are generally abundant.

A.2.3. Primary commodities and world trade

In conjunction with the secular downward trend in demand due to reduced material use, substitution and technical progress, a situation of over-supply of many primary commodities has tended to depress prices which — in spite of the dollar depreciation — fell in dollar terms in the second half year of 1985. The decline in ECU terms was even more substantial.

At the turn of the year, there was an increase in the dollar price of some commodities; this was the case for some agricultural products but particularly for coffee, due to a drought in Brazil, and among metals, for aluminium, as cuts by producers began to work through. But prices of other metals e.g. tin, and of oil and fats dropped further. The forecast of a price rise in dollar terms for the average of the year 1986 is based on the hypothesis that a dollar depreciation results eventually in a progressive upward effect on dollar prices. Moreover a similar influence would be conveyed by the positive reactions of the world economy to the oil price fall. In 1987, the disappearance of the 'coffee effect' and the lack of any prospects for a faster rate of growth in industrial countries could tend to keep price rises to a modest rate.

Although data are far from complete, the latest available indicators suggest that the growth of world imports in 1985 was significantly weaker than expected at the time the Autumn forecast was prepared. World imports, last year, are currently estimated to have grown by only 3,3 % as compared with 4,8 % forecast last Autumn. A large part of this downward revision has become necessary following changes to the national accounts of the United States and Japan and, indeed, has served to correct somewhat the previous large inconsistency at world level. Nevertheless, it does seem that it was trade outside the Community which was weaker than expected, as there has been a slight increase in the estimated rate of growth of Community (EUR 10) imports compared to the previous forecast.

Prospects for world trade in 1986 have been altered fundamentally as a result of the changes in exchange rates and oil prices. On balance, the lower oil price and interest rates are expected to provide a significant stimulus to world economic activity in industrial countries later in the year with a consequential increase in the rate of growth of their imports. However, the effect at the world level is already being offset by a further sharp contraction of imports by oil-exporting countries as a result of their reduced dollar export earnings, aggravated by the faster than expected depreciation of the dollar. The overall result of these factors is that world imports, including the Community, are currently forecast to expand by 3,8 % in 1986, 1 % lower than was forecast last Autumn. However, there will be some change in the sources of supply of these imports consequent upon the movements in relative prices and in exchange rates. At present, OPEC is expected to increase the volume of its exports as higher rates of economic growth and lower prices stimulate demand for oil; on the other hand, the Community will tend to lose market share following the faster than expected exchange rate appreciation.

The present outlook suggests that the favourable effects of the lower oil price and interest rates are likely to produce a

further acceleration in the rate of growth of economic activity and trade in 1987. Whilst the growth of aggregate output in the OECD area is expected to remain stable at 2,8 %, a stronger acceleration is expected in non-oil developing countries. The expansion of world imports is forecast to increase significantly to 4,8 % as the effect of the exchange-rate changes matures and the stimulus to domestic demand from lower oil prices continues to strengthen.

A.2.4. Risks and uncertainties

Developments during early summer provided a sharp reminder that the situation of the world oil market is far from stable and is a major source of uncertaintly concerning both the short and medium-term outlook for the world economy. This uncertainty affects prospects for world economic activity and trade in two ways. Firstly, there is the question of the extent and timing of the beneficial impact of the reduction in oil prices that has already occured over the last twelve months. It is becoming increasingly evident that many forecasting institutions have seriously under-estimated both the deflationary effects of weaker oil prices on oil-exporting countries' demand and on oil sector investment, and the time-lag between the fall in oil prices and the subsequent reallocation of real expenditure. It is thus possible that the acceleration in economic activity currently foreseen for the second half of this year has similarly been over-estimated and that the time needed for the transmission of the full effects of lower oil prices is longer than originally expected. Such a development could arise if the principal beneficiaries in oil-importing countries, consumers and business managers, viewed the present weakness of oil prices as only a temporary phenomenon and used the resulting gains to restructure their balance sheets (i.e. to reduce their indebtedness) rather than to increase their real expenditure.

A second uncertainty arising from the oil market concerns the future price of oil. The most recent short-term forecasts by the Services of the Commission were based on an assumed average price of USD 15 per barrel until the end of 1987, but recent price fluctuations underline the fragility of such an assumption. Although the possibility of an agreement to restrict supply cannot be entirely ruled out, the conflicting needs and interests of producer countries make it very unlikely that an average price much in excess of the assumed USD 15 per barrel could be sustained during the next 18 months. However, there is a distinct possibility that the combination of increased output by Saudi Arabia, the reliance on netback pricing and weaker than expected economic activity will result in a lower average price of oil than assumed in the forecast. In any case, prices will be subject to greater fluctuations than was the case in recent years.

The fall in oil prices has also served to exacerbate the difficulties confronting a few highly-indebted developing countries, in particular Mexico and Nigeria, which depend to a large extent on exports of oil. Although the debt service burden of these, and of other developing, countries has been reduced by lower interest rates, the reduction in export earnings from oil has overwhelmed this benefit. The risk of some form of radical unilateral action has, therefore, increased although the damage, to the US banking system in particular and to the international financial system in general, likely to result from such action has been lessened by the improvement in the reserve position of banks over the last few years.

The second major source of uncertainty surrounding the prospects for the world economy arises from the need to correct the disequilibria associated with the United States' twin deficits — on the Federal budget and on the current account of the balance of payments. Although the depreciation of the dollar and the passing of the Gramm-Rudman-Hollings Act were both encouraging steps in the right direction, they are not sufficient to guarantee that the necessary adjustment will be achieved. In particular, three areas of risk remain. Firstly, there is the possibility that the balanced budget legislation will not be fully applied once its provisions start to bite deeply into politically-sensitive expenditure programs. However, such developments would be unlikely to reverse the movement towards deficit reduction although progress could well be slower than currently expected. Secondly, the forecast for the US economy is also threatened by the possibility of a greater than expected increase in inflationary pressure over the outlook period, which could arise from the effects of a further sharp fall in the dollar leading to higher prices both of imports and of domestically-produced goods as import competition is reduced. Given the easy availability of credit and the foreseen improvement in corporate profitability, a price-wage spiral could well begin with sufficient strength to induce a significant tightening of monetary policy. Such a move, taken together with the deflationary effect of a tight fiscal policy, would lead to much slower growth than at present foreseen. Finally, it is possible that a combination of weaker growth of the US economy, the effects on agriculture and the oil industry of continued low prices, and electoral considerations will lead to a build-up of protectionist pressure that will prove to be too strong to resist. Such a scenario would not only have a general deflationary impact on the world economy but would also be likely to lead to the Community being confronted by increased diversion of Japanese exports.

A.3. The labour market

Unemployment in the Community has passed its peak in 1985. It will, for the first time since 1973, fall on an annual basis in 1986 as well as in 1987. There will, however, still be about 16 million registered unemployed in 1987. Long-term as well as female unemployment remain the dominant structural problems of the Community labour market while the share of young unemployed in total unemployment is falling. The overall improvement is facilitated by a gradual reduction in demographic pressure: in spite of increasing participation rates, the labour supply will grow less rapidly than in the past. Employment growth will accelerate and exceed the increase in the labour supply. It does, however, fall short of the expansion desired in the Cooperative Growth Strategy for More Employment. It is the acceleration of real output growth which fuels the growth of employment. Output growth is furthermore more employment-creating than in the past. The share of non-labour income will, due to moderate wage increases, continue to grow in most member countries: the terms of trade gain allowing at the same time the first improvement in employees' purchasing power since 1980. Member States are focusing their policies on the economic framework for further output and employment growth. These general policies are supplemented by labour market policies specifically designed to improve adaptability, extend training and facilitate the creation of new enterprises.

A.3.1. Unemployment trends and outlook

In the Community of Twelve, the rate of unemployment reached 11,7 %[1] in 1984, 12,0 % in 1985 and is now expected to decline somewhat to 11,9 % in 1986 and further to 11,6 % in 1987[2] (see Table A.2.1). This corresponds to 15,8 million registered unemployed in 1984, 16,3 million in 1985, 16,1 million in 1986 and 15,9 million in 1987.

Thus, unemployment in the Community — measured in annual average terms — reached an historical peak in 1985. The expected decline for 1986 will be the first annual decline since 1973. The improvement is, however, rather small: in 1986 and 1987, two years of faster economic recovery, unemployment will only decrease by a total of 0,4 million.

The extent of the deterioration in the labour market is underlined by a comparison with the period before 1973. In this earlier period, unemployment was of the order of 2,0 to 2,5 %[3] with relatively minor fluctuations.

Medium-term projections (see Chapter A.8), which take most recent developments into account, show that, if present-day policies and behaviour patterns are maintained (base scenario), there will be no great improvement in the labour market situation in the medium term. Accordingly, the Community of Twelve would in 1990 still have 10,4 % of the labour force unemployed, which is equivalent to a fall in the unemployment rate of only 1,6 percentage points for the five years 1986 to 1990.

The overall unemployment problem in the Community has become even more acute with the accession of Spain and Portugal. According to Commission estimates, which are based on national quarterly surveys, 2,94 million were out of work in Spain in 1985, a number which is forecast to grow to 2.96 million in 1986 and further to 2,97 million in 1987. For Portugal the respective numbers are 0,47 million (1985 and 1986) and 0,46 million (1987). For comparison with previous publications the unemployment rates of the former Community of Ten are supplied in Table A.3.1.

Experience across the Community is varied with most Member States sharing in the general pattern of moderate reductions in rates of unemployment in 1986 and 1987. Stronger than average reductions, however, are expected in Luxembourg, Denmark, Germany and the Netherlands, whereas Ireland, in 1986, and Greece, even into 1987, are likely to experience rising rates of unemployment.

Certain segments of the labour force still pose particular problems. The unemployment rate for women for example exceeded the rate for men by more than one percentage

[1] All Community figures are EUR 12 unless otherwise stated. Data for 1985 to 1987 are based on the estimates and forecasts of the Commission Services' economic forecasts 1986-87 (May 1986).

[2] The interpretation of some national unemployment data and of the aggregates has to take into account several changes in national statistical procedures, which all tended and tend to reduce the number of registered unemployed. Such changes were recently introduced on 1 January 1984 in the Netherlands, 1 April 1985 in Belgium, 1 January 1986 in Germany and 1 February 1986 in the United Kingdom.

[3] EUR 9.

Table A.3.1

Unemployment rates in the Community[2]

	1973	1983	1984	1985[1]	1986[1]	1987[1]
B	(2,8)	14,3	14,4	13,7[3]	13,2	13,1
DK	(0,8)	10,2	9,8	9,0	7,7	7,3
D	1,0	8,4	8,4	8,4	7,7[3]	7,3
GR	:	7,9	8,1	8,5	9,4	9,9
E	:	17,9	20,7	22,1	22,1	21,9
F	1,8	8,8	9,9	10,3	10,6	10,5
IRL	5,6	14,9	16,5	17,1	17,2	16,8
I	4,9	10,9	11,9	13,0	12,9	12,5
L	0,0	1,6	1,7	1,6	1,4	1,2
NL	2,9	14,3	14,5	13,1[3]	12,0	11,1
P	:	10,2	10,5	10,4	10,3	10,1
UK	(2,2)	11,6	11,8	11,8	11,8[3]	11,5
EUR 12	(2,4)[4]	(11,0)	(11,7)	(12,0)	11,9	11,6
EUR 10[5]	:	10,3	10,8	11,0	(10,8)	(10,5)

[1] Estimates and forecasts of Commission services (May 1986).
[2] Unemployed population as % of civilian labour force: Eurostat definition (for Greece, Spain and Portugal estimates of Commission Services based on national definitions).
[3] Owing to changes in the definition of registered unemployed, figures before and after are not fully comparable.
[4] EUR 9 (without Greece, Spain and Portugal).
[5] Without Spain and Portugal.

Source: Eurostat and Commission services.

point in 1985 and there is no sign of a narrowing of this gap in 1986. Youth unemployment, which made up nearly 40 % of total Community unemployment in 1980, has grown less than total unemployment. In 1985 its share was 37 % and it is expected to fall below 36 % in 1986. This reflects in part the reduction in demographic pressure with the youth labour force (15 – 25 years) now being relatively static in the Community. Another significant contribution stems from special efforts of Member States to extend basic training and education as well as to facilitate the transition of school leavers into employment. Youth unemployment remains a particular problem in Spain, where it exceeded 45 % of total unemployment in 1985. Of significance is the continuing rise in the share of long-term unemployment in total unemployment in the Community.

A.3.2. Labour supply

The total labour force is still growing in the Community but at a rate which is below the average of the last decade (see Table A.3.2). There is therefore still a need to accommodate a growing number of those seeking employment. This is the result of two opposing developments: a reduction in the demographic pressure, which is in part offset by a recovery of the participation rate. The rate of growth of the population of working age (15 – 64), which as a result of the 'baby boom' had reached 1,6 % in 1982, has now fallen to 0,5 % in 1985 and will continue to fall through 1987 and after. Whilst remaining significantly positive in only a few member countries (Spain, Greece and the Netherlands), it is already negative for Belgium, Germany and Luxembourg. The participation rate on the other hand, which had declined in 1981 is slowly increasing. This in part reflects reactions to improving labour market conditions, which are familiar from previous recoveries.

Other factors contributing to the reduced growth of the labour force are the extension of early retirement schemes as well as the growing extent of training and vocational programmes. Although they vary considerably between countries, these programmes (including early retirement) have now reached a point where the number of participants equals 10 % to 50 % of total registered unemployment in the Member States.

Table A.3.2

Labour force and population of working age

(Annual percentage growth)

	Total labour force				Population of working age (15-64 years)			
	1984-76 (average)	1985[1]	1986[1]	1987[1]	1984-76 (average)	1985[1]	1986[1]	1987[1]
B	0,6	−0,7[3]	−0,3[3]	0,0	0,6	−0,1	−0,2	−0,2
DK	1,2	1,1	0,3	0,3	0,5	0,5	0,3	0,1
D	0,4	0,8	0,6	0,5	0,9	0,4	−0,1	−0,2
GR	1,7	0,8	0,7	0,6	1,3	1,0	0,5	0,5
E	0,3	0,3	0,6	0,8	1,2	1,2	1,2	1,1
F	0,7	0,0	0,4	0,5	1,0	0,4	0,5	0,3
IRL	1,5	1,0	0,8	0,8	1,5	:	:	:
I	1,0[2]	0,8[2]	0,8[2]	0,8[2]	0,9	0,8	0,6	0,4
L	0,2	0,4	0,4	0,5	0,2	0,0	0,0	−0,1
NL	1,8	−0,4[3]	−0,3	−0,1	1,3	1,1	0,9	0,8
P	1,2	−0,5	0,4	0,3	0,9	1,0	1,0	0,9
UK	0,4	1,5	1,0	0,5	0,7	0,0	0,1	0,1
EUR 12	0,7	0,6	0,6	0,6	0,9	0,5	0,4	0,3

[1] Estimates and forecasts of Commission services (May 1986).
[2] Civilian labour force.
[3] Owing to changes in the definition of registered unemployment these rates of change in the labour force are not comparable.
Source: Eurostat and Commission services.

A.3.3. Employment performance

Employment growth in the Community is accelerating to an annual rate of 0,8 % in both 1986 and 1987 as against 0,4 % in 1985 (see Table A.3.3). The duration of the process of improving employment and the speed eventually achieved in 1986 and 1987 are significant, if measured against the very poor average job creation record in the Community over the last 20 years (see Graph A.3.1). It is, however, only in the course of 1986 that employment surpasses its level in 1970. In the meantime the Community labour force has grown by more than ten percent. Furthermore, the expected growth in employment falls short of the 1,1 % average annual rate of growth required in the Cooperative Growth Strategy over the five years from 1986 to 1990, if the target rate of 7 % unemployment in 1990[4] is to be met.

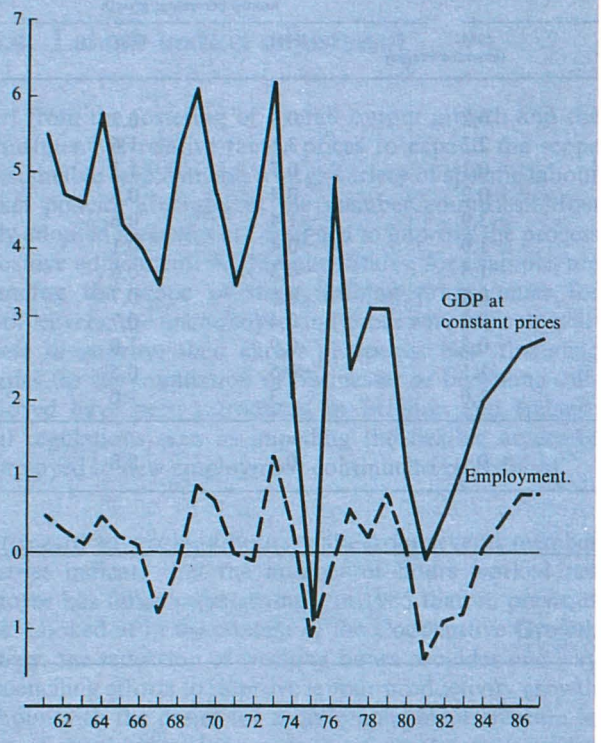
Clearly the continuing growth of real output has had beneficial effects on employment creation as one might expect (see Graph A.3.1).Indeed it was when real output-growth became more favourable during 1981/82 that the employment losses first began to diminish.Having turned positive after 1983, the rate of employment growth accelerated along with output growth.

In addition, however, the relationship between employment and output growth has shifted further in favour of employment: in the 1960s, average GDP growth of just under 5 % a year was accompanied by an annual increase in employment of only 0,2 %; at the end of the 1970s (1978/79) with growth at 3,2 %, the annual increase in employment was already 0.5 %; in order to achieve a 0.8 % increase in employment, in 1985/86 an annual growth rate of 2,75 seems to be sufficient. This would suggest that the character of economic growth in the Community is indeed becoming of a more employment intensive nature.

At the same time and of equal significance, growth of observed labour productivity has remained stable. The expected rate for 1987 (2,0 %) is equal to the average rate of

[4] In the Annual Economic Report 1985-86, it was illustrated in a simulation for the Community of Ten that a 7 % unemployment rate could be achieved by 1990. The starting point was the Community's average unemployment rate of 11,1 % in 1985. When account is taken of Spain and Portugal, the initial situation changes, however: the Member States of the present Community of Twelve had an average unemployment rate of 12,0 % in 1985.

GRAPH A.3.1: **GDP and employment growth in the Community (EUR 12) (annual percentage growth rate)**



Source: Eurostat (1985-87): estimates and forecasts of Commission services, May 1986).

productivity growth prevailing between the first and the second oil price shocks (see Table A.3.4). Stable growth of productivity per employee along with the expansion in employment seems to indicate that the pressure on firms in the Community to reduce real unit labour costs, by obtaining productivity gains via the reduction of their work force, has eased significantly. At the same time more activities with low productivity gains have retained economic viability.

A major contribution to the improved employment outlook from the supply side is the distinct moderation of real wage growth. Compensation of employees per head, deflated by the GDP-deflator, has again in 1985 grown less than labour productivity (0,8 % as compared to 1,9 %, see Table A.3.4). This trend is expected to continue through 1986 and 1987, allowing for a further improvement in the share of non-labour income.

Last year's Annual Economic Report[5] proposed a Cooperative Growth Strategy, one component of which was the perceived need for a moderation in the growth of real labour costs. It was thought that if these costs evolved at a rate of one percentage point below the rate of growth of productivity for the necessary length of time, employment creation would be sufficient for a significant and substantial reduction in the rate of unemployment. In fact, this proposed requirement is exceeded in 1986. This does, however, take the form of a temporary gain in the terms of trade and as this gain begins to disappear through 1987, wage moderation might fall behind the desired adjustment path. Furthermore it has to be noted that this general trend of improving shares of non-labour income does not obtain in the Netherlands and the United Kingdom, two countries, whose income and growth performance suffer from the reversal of oil and gas prices.

In both cases wages have not yet adjusted to this and the profit situation is deteriorating. In the United Kingdom, the problem of adjustment is even greater, since the moderation of real wage increases has not made much headway in recent years.

Due to the anti-inflationary policies in the past and the combined effects of the oil-price fall and the US dollar devaluation, inflationary pressure (measured by the deflator of private consumption) in the Community continues to fall. In 1985 the purchasing power of employees expanded by 1,0 %. In 1986 (+2,6 %) and 1987 (+1,6 %) stronger improvements are expected.

With regard to indirect labour costs there appears to be a common consent in the Member States in the past that these have risen excessively and have both reinforced the discrimination against labour as a factor of production and reduced international competitiveness (for an analysis of extent and effects of the 'tax wedge' in the Community, see Chapter B.4.3 of this review). In response to this, some governments have reduced social security contributions in general (Portugal) or employers' contributions only (Denmark, Spain and the United Kingdom). Due to the still severe budget constraints and the heavy burden of unemployment on the social security systems, the extent of the reductions however tended to be relatively small. More substantial reductions in, or exemptions from, social security contributions are used as an incentive for the hiring of targetted groups from the pool of unemployed. Examples

[5] See *European Economy*, No 26, November 1985.
[6] See *European Economy*, No 27, March 1986.

Table A.3.3

Employment in the Community

	Total employment			Annual percentage growth		
	1973/60	1983/73	1984 (annual averages)	1985[1]	1986[1]	1987[1]
B	0,6	−0,4	0,2	0,3	0,3	0,1
DK	1,1	0,2	2,2	3,1	1,6	0,8
D	0,1	−0,6	0,1	0,7	1,3	0,9
GR	−0,5	0,3	−0,2	0,4	−0,3	0,0
E	0,8	−1,7	−3,9	−1,4	0,6	1,0
F	0,7	0,1	−1,0	−0,4	0,1	0,5
IRL	0,0	0,6	−1,3	−0,3	0,6	1,3
I	−0,4	0,6	0,4	0,5	0,7	1,3
L	1,1	0,4	0,0	0,4	0,7	0,6
NL	0,9	−0,4	−0,5	0,9	1,0	0,9
P	0,1	2,0	1,1	−0,5	0,5	0,6
UK	0,3	−0,6	1,6	1,3	1,0	0,7
EUR 12	0,3	−0,2	0,1	0,4	0,8	0,8

[1] Estimates and forecasts by Commission services (May 1986).

Source: Eurostat and Commission services.

Table A.3.4.

Growth, wage costs, productivity and employment performance[2]

(Annual percentage growth)

	1983/1973 (annual averages)				1985[1]				1986[1]				1987[1]			
	G	W	P	E	G	W	P	E	G	W	P	E	G	W	P	E
B	1,7	2,9	2,1	−0,4	1,3	0,3	1,0	0,3	2,0	−1,0	1,7	0,3	2,1	0,9	2,0	0,1
DK	1,5	0,9	1,3	0,2	3,8	−1,1	0,7	3,1	2,5	−1,5	0,9	1,6	2,2	0,2	1,4	0,8
D	1,6	1,9	2,2	−0,6	2,5	0,8	1,8	0,7	3,5	1,3	2,2	1,3	3,0	1,9	2,1	0,9
GR	2,4	3,6	2,0	0,3	2,1	4,2	1,7	0,4	−0,4	−5,5	−0,1	−0,3	−0,2	−1,0	−0,2	0,0
E	2,0	3,3	3,8	−1,7	2,1	0,2	3,5	−1,4	2,7	−2,2	2,1	0,6	2,7	0,5	1,7	1,0
F	2,3	2,9	2,1	0,1	1,3	1,1	1,7	−0,4	2,3	−0,1	2,2	0,1	2,9	0,4	2,4	0,5
IRL	3,6	3,1	2,9	0,6	2,1	0,5	2,4	−0,3	3,2	0,5	2,6	0,6	3,7	2,5	2,4	1,3
I	1,9	1,9	1,2	0,6	2,3	1,1	1,8	0,5	2,7	−1,4	2,0	0,7	3,8	1,4	2,5	1,3
L	1,3	2,7	0,8	0,4	2,1	−0,9	1,7	0,4	2,2	−1,8	1,5	0,7	2,5	2,7	1,9	0,6
NL	1,6	1,5	1,9	−0,4	2,3	−0,8	1,4	0,9	1,7	2,2	0,7	1,0	1,8	2,3	0,9	0,9
P	2,7	2,8	0,7	2,0	3,7	−0,1	4,2	−0,5	3,9	−0,7	3,4	0,5	3,6	1,0	3,0	0,6
UK	1,0	1,2	1,6	−0,6	3,3	1,3	2,0	1,3	2,6	3,5	1,6	1,0	2,4	2,4	1,7	0,7
EUR 12	1,7	2,1	2,0	−0,2	2,3	0,8	1,9	0,4	2,7	0,6	1,9	0,8	2,8	1,4	2,0	0,8

[1] Estimates and forecasts of Commission Services (May 1986).

[2] Key: G = real GDP
W = real compensation of employees per head (deflator: GDP-prices)
P = labour productivity (GDP at constant market prices by total employment)
E = total employment

Source: Eurostat and Commission services.

are the young unemployed in Portugal, the long-term unemployed in Ireland, first-time employees in Belgium and support for training programmes for employees in Spain.

A.3.4. Labour market adjustment

Apart from the fostering of overall output growth and the readjustment of relative factor prices to expand the scope of sustainable employment, a large variety of specific labour market policies are used in the member countries. Most newly adopted measures are designed to improve the process of positive adjustment. All Member States, for example, are expanding the scope of their training programmes for school-leavers, the unemployed and those who indicate willingness to improve their career prospects. New financing facilities for the foundation of businesses or becoming self-employed have been introduced in Belgium and Ireland. Legal regulations seen as impeding the flexible access of unemployed to new employment continue to be reduced.

With regard to working hours, data from several member countries indicate that the number of hours worked per employee has fallen more strongly in 1985 than in previous years. Looked at in the context of the Cooperative Growth Strategy, the reduction of working hours provides one way of reconciling efforts to improve labour productivity growth per hour with the desire for more employment creation in terms of employees along a path of accelerating output growth. In order to be compatible with the intention of restoring profitability, the reduction of working hours per employee should be cost neutral for firms. In a growing number of cases, this is therefore combined with a reorganization of working time to improve the utilization of production facilities and facilitate adjustment to demand fluctuations. As indicated by the Community industrial survey 1985/86[7] about one half of firms in Community industry intend to organize working hours more flexibly over the next 1-2 years. This meets with a widespread preference of employees for more flexibly distributed monthly or annual working time, if total working time continues to be reduced. Some governments provide additional support for reorganization schemes (Belgium, Netherlands) and/or offer new subsidies for additional hiring as a consequence of working time reduction (Belgium).

In Spain government efforts to provide more stable, growth-oriented monetary and fiscal policies as well as new measures for training and restructuring have been tied in with commitments from the social partners to moderate wage increases into a cooperative 'Economic and Social Agreement (AES)' for 1985 and 1986. First assessments indicate overall success, especially with regard to the wage guidelines, providing Spain with a particularly marked improvement in the real unit labour costs (see Table A.3.4). The cooperative approach chosen has facilitated the reduction of legal restrictions concerning temporary employment; the legal framework for part-time employment and early retirement has been improved.

[7] See *European Economy*, No 26, November 1985.

A.4. Income, consumption and savings

As a result of the pronounced slowdown in inflation and the upswing in activity, real gross disposable income of households in the Community will expand strongly in 1986 and 1987. Non-wage earners will benefit most from this increase in purchasing power. Private earnings will rise faster than gross disposable income but this does not result, as often in the past, from further increases in fiscal pressure. Private consumption will move broadly in line with households' income. Its buoyancy is unprecedented in the 1980s and provides the major impetus to the present acceleration of domestic demand growth. The downward trend in the savings ratio observed since the mid-1970s is likely to be interrupted temporarily in 1986, as adjustment and real interest rate factors outweigh wealth effects. The lagged pattern of private consumption which results, will lead to a continuing stimulus to economic activity in 1987. In addition, the increase in households' saving in 1986, together with the ongoing adjustment in public finance, will contribute to easing real interest rates. By supporting demand and improving conditions on financial markets, the expected trends in income, consumption and savings make an important contribution to the cooperative growth strategy for more employment.

A.4.1. Developments in households' real disposable income

After being more or less flat between 1980 and 1983, real disposable income of households in the Community picked up in 1984 (0,9 %) and 1985 (1,6 %). Real disposable incomes are expected to be boosted further in 1986, to a growth rate of as much as 3,8 %. This acceleration stems principally from the impact of important unanticipated factors, notably, the improvement in the Community's terms of trade triggered by the depreciation of the dollar *vis-a-vis* European currencies and the sharp fall in prices of energy raw materials, in particular oil, on domestic prices. For the Community as a whole, import prices in 1986 will account for as much as 2,3 percentage points of the deceleration in the total final expenditure deflator. Only in Greece will import prices exert a positive effect on the overall level of inflation in 1986, elsewhere their dampening effect will range from 0,8 to 4,7 percentage points (see Table A.4.1).

The growth in real disposable incomes is forecast to continue in 1987, albeit at a slightly slower pace of 3 %, despite the fact that the restraining effect of import prices on inflation is projected to taper off. Thus, in 1987 for the Community as a whole, import prices are expected to boost prices by 0,4 percentage points, with contributions varying from zero in Germany and the Netherlands to 1,7 and 2,7 percentage points respectively in Greece and Portugal.

The continued strength in real disposable incomes is due to the tendency of nominal increases in incomes to adjust only slowly to unanticipated decelerations in consumer prices. Accordingly much of the terms of trade-induced real income gain will accrue to the household sector in the form of more rapid increases in real wages, transfers and income from wealth than would have otherwise been the case. The lagged adjustment of consumption to income growth changes will serve to maintain the momentum of domestic demand which, together with the renewed upswing of EC export growth, will enable Community GDP to expand by 2,8 % in 1987.

The most rapid increases in the components of nominal income in 1986 and 1987 will be in the category 'other factor incomes' (see Table A.4.2). This category includes the income of the self-employed and property and entrepreneurial income (interest, income from land, dividends, etc.), and its growth reflects the participation of equity-holders in the steady recovery in profitability noted elsewhere in this Review and the more dynamic performance of unincorporated business. Over the period 1975-85 'other factor incomes' have on average grown somewhat faster than wages and salaries, although to a less significant degree than in the forecast period. This has been reflected in a steady fall, except in 1980-81 as a result of the second oil shock, in the labour share, adjusted for independents, of Community GDP at factor cost, from a peak of 78,5 % in 1975, to a forecast level of 73,5 % in 1987. This projected level is below the average level recorded in the 1960s (74,8 %).

Real household income before taxes and transfers is expected to grow faster in 1986 (4,5 %) than real disposable income (3,8 %). A similar pattern is forecast for 1987 (3,3 % as against 3,1 %). Thus, the overall impact of taxes and transfers in real terms can be seen to have a dampening effect on the strong growth in household income. Current transfers received by households are the least buoyant elements of

Table A.4.1.

Contribution of import prices to the rise in the total final expenditure deflator

		B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1960-73	TFE	3,6	6,2	3,9	4,1	6,8	4,6	6,1	5,1	3,6	4,7	3,7	5,0	4,7
	M	0,8	0,8	0,2	0,5	0,4	0,3	1,2	0,5	1,1	0,5	0,8	0,8	0,5
1973-80	TFE	8,1	10,6	5,2	16,5	17,8	11,0	16,0	18,1	7,3	7,9	21,4	16,4	12,4
	M	3,4	3,1	1,3	4,0	2,7	2,1	6,8	4,0	3,7	3,2	6,6	3,5	2,9
1980	TFE	7,5	11,5	6,3	21,0	16,8	13,0	16,0	20,9	7,8	8,6	22,2	17,6	13,8
	M	5,2	5,3	2,4	6,9	4,7	3,0	7,2	4,6	3,9	4,8	7,0	2,1	3,7
1981	TFE	8,4	12,0	5,6	19,0	15,6	12,7	18,4	20,3	8,6	8,5	19,1	11,1	12,2
	M	5,4	4,5	2,4	3,2	4,1	3,1	7,2	6,0	4,3	5,0	7,4	1,7	3,7
1982	TFE	9,5	10,5	4,0	25,0	13,6	12,0	12,8	16,4	11,8	4,4	20,3	7,3	10,1
	M	5,4	2,7	0,6	5,4	2,1	1,9	2,9	2,5	6,5	0,5	5,5	1,3	1,9
1983	TFE	6,7	7,3	2,7	20,4	13,3	8,9	8,4	12,9	7,8	1,3	25,4	5,6	7,9
	M	3,0	1,3	0,1	4,8	3,5	1,3	1,9	1,1	3,4	0,2	9,0	1,5	1,5
1984	TFE	6,3	6,4	2,5	20,7	11,3	7,7	7,4	10,6	6,8	3,7	27,4	5,3	7,1
	M	3,1	2,2	1,0	5,3	1,8	1,8	3,4	2,2	3,2	1,9	9,7	1,8	2,0
1985	TFE	4,0	4,8	2,2	17,2	8,2	4,6	4,8	8,3	3,6	1,9	18,1	5,6	5,4
	M	1,0	0,8	0,5	3,9	0,6	0,1	1,0	1,5	0,8	0,5	3,5	0,8	0,8
1986	TFE	−1,5	0,6	−0,4	19,7	6,6	1,1	1,2	3,6	−0,3	−4,7	11,7	1,9	1,9
	M	−3,8	−2,7	−2,4	3,1	−2,6	−2,4	−2,6	−3,2	−3,4	−4,7	−0,8	−0,9	−2,3
1987	TFE	1,5	2,0	1,2	11,2	5,3	2,0	1,5	3,9	1,9	−0,1	10,9	3,7	2,9
	M	0,5	0,0	0,0	1,9	0,5	0,2	0,2	0,5	0,3	0,1	2,7	0,4	0,4

Key: TFE = % change in the Total Final Expenditure Deflator.
M = contribution of the import price deflator to change in TFE deflator in % points.

Source: Eurostat and Commission services. See also *European Economy* No 26, Technical Annex.

Table A.4.2

Income and expenditure of households and private non-profit institutions

		Average %					
		EUR 10		EUR 12			
		1980/75	1984/80	1985	1986[1, 2]	1986[2]	1987[2]
Compensation of employees	(1)	12,6	7,6	7,3	2 223,1	7,0	5,6
Other factor income	(2)	13,1	8,3	8,7	1 040,7	9,9	7,8
Current transfers received	(3)	14,3	11,1	7,8	876,0	6,2	5,3
Current transfers paid	(4)	14,1	10,0	8,2	752,7	7,6	5,7
Direct taxes	(5)	14,4	10,3	8,8	406,6	8,2	5,6
Disposable income	(6)[3]	12,7	8,2	7,5	2 980,6	7,4	6,3
Real disposable income[4]		2,8	0,4	1,6	:	3,8	3,1
Gross saving in % of disposable income		17,3	15,6	15,2	:	15,4	15,3
Wages and salary earners		0,7	−0,9	0,4	100 010,6	0,8	0,8
Employment		0,4	−0,7	0,4	123 450,9	0,8	0,8

[1] Absolute values in thousand million PPS or thousand persons.
[2] Forecasts.
[3] 6 = 1 + 2 + 3 − 4 − 5.
[4] Real disposable income equals nominal disposable income deflated by the consumer price index.

Source: Eurostat and Commission services.

household income as expenditure is contained in certain countries with high budget deficits, the growth in numbers receiving transfers flattens out, and the slowdown in inflation is integrated more rapidly into the adjustment of social transfers. (For a more detailed treatment of longer-term developments in social transfers see Chapter B.4). Direct taxes, on the other hand, will, after having a broadly neutral impact on wage and other incomes in 1986, boost disposable income in 1987 as discretionary policies come into effect and fiscal drag declines. In total, the sum of direct taxes and employees' and employers' social security contributions relative to the sum of gross wages and salaries and non-labour income is expected to equal 59,1 % in 1986 and 58,8 % in 1987 compared to 59,4 in 1985. The speeding up of economic growth (from 2,3 % in 1985 to close to 3 % in 1987), in conjunction with the cut in the unemployment rate (from 11,1 % in 1985 to 10,5 % in 1987) are the main factors that enable the European Community during the current and following year to reconcile a continued reduction of the public sector's net borrowing requirement in terms of GDP with no increases in the fiscal pressure on private earnings.[1] This is in contrast with earlier experience when since 1982 for example, the gradual narrowing of the budget deficit was invariably accompanied by an increase in fiscal pressure.

[1] It should be noted that the combined reduction of the budget deficit as a percentage of GDP and of direct fiscal pressure is not achieved by cutting real transfers to the average household. Real transfers are anticipated to grow this year and next by 2,7 % and 2,2 % respectively, whereas total population will expand by only 0,2 % each year.

The general trend noted above conceals considerable differences between Member States. This is illustrated in Table A.4.3, which presents for 1985 to 1987 the actual and forecast growth disposable income and compensation of employees by country. Germany is expected to lead with a real disposable income increase of 5,7 %. The nominal increase in German disposable income in 1986, amounting to some 30,6 billion ECU results primarily from a rise in compensation of employees (25 billion ECU), a half of which is offset by an increase in social security contributions. Other factor incomes rise by 14,2 billion ECU. Other countries expecting to experience a particularly buoyant increase in real disposable income in 1986 are Italy (5,6 %) and Portugal (5,3 %), two countries which stand to gain relatively most from the decline in energy prices. In these countries the role of other factor incomes in the increase is much more marked with other factor incomes making up 48 and 51 % respectively of the rise in all flows which affect gross disposable income positively,[2] compared to 31 % in Germany. Greece remains the only economy which is likely to face a cut in real household income.

A.4.2. Trends and outlook for consumption and savings

The sharply increased pace of growth of real gross disposable income in 1986 provides the margin for private consumption

[2] Compensation of employees, non-labour income and transfer receipts.

Table A.4.3

Real growth of disposable income and compensation of employees

(Percentage changes)

	1985		1986[1]		1987[1]	
	Disposable income	Compensation	Disposable Income	Compensation	Disposable income	Compensation
B	1,2	1,1	3,4	2,1	1,4	1,0
DK[2]	1,3	3,0	0,6	2,8	1,8	2,1
D	1,7	1,8	5,7	5,5	3,4	3,3
GR	3,3	4,6	− 5,5	− 7,5	− 0,8	− 1,8
E	1,2	0,6	2,9	2,1	2,7	2,6
F	0,9	0,1	3,3	2,0	3,0	1,2
IRL	2,0	0,8	3,7	4,4	4,5	4,6
I	1,6	1,4	4,3	2,9	3,9	2,7
L	1,6	1,3	3,8	4,2	4,0	4,8
NL	2,0	0,1	2,7	3,4	1,6	2,8
P	2,3	2,0	6,3	5,8	4,3	4,1
UK	2,1	3,0	3,9	4,4	3,2	3,1
EUR 12	1,6	1,5	3,8	3,5	3,1	2,7

[1] Forecast.
[2] The Danish disposable income figures include both the household and enterprise sectors.
Source: Commission services.

to expand by 2,1 % in 1985 and by 3,4 % in both 1986 and 1987 compared to 2,1 % in 1985. Such buoyancy has not been observed since the cyclical upturn of 1978 and 1979. Together with the recovery in construction investment, it is private consumption which will serve to underpin the acceleration of domestic demand expansion from 2,1 % to 3,6 %. Both growth in real activity and employment will of course benefit from this.

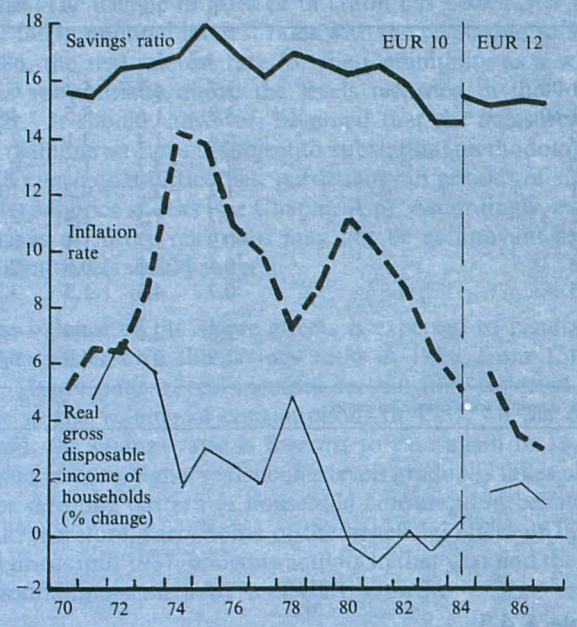
The terms of trade gain and the consequent increase in real disposable household income and private consumption thus contribute significantly to providing the aggregate demand support called for in the cooperative strategy to ensure a faster expansion of output, investment and employment. The vigorous growth of domestic demand makes it possible to continue efforts in certain countries to trim public sector deficits without hampering the achievement of the strategy's objectives.

The growth rate in the volume of private consumption will accelerate in 1986 in all Member States, except Denmark, where it will continue to grow at above 2 % as in 1984 and 1985, and Greece, where balance of payments austerity measures will result in falls of 1,3 % in 1986 and 0,9 % in 1987. Not surprisingly, Germany, Italy and Portugal are expected to expand private consumption fastest. The United Kingdom also is forecast to exceed the European average rate.

A generalized reduction in savings ratios has occurred since they reached their peak level of 18 % for the Community as a whole in 1975. This was substantially higher than the average level registered in the 1960s and has been variously ascribed to factors such as the maintenance of the real value of assets in the face of inflation, precautionary savings in the context of uncertainties on the employment market etc. Since 1975 the aggregate Community savings ratio has fallen to reach 15,2 % last year (see Graph A.4.1). Although savings ratios are quite volatile, due to the fact that they are generally treated as a residual in the estimation of the national accounts, some possible reasons behind the short term variations shown in Table A.4.5 for a number of Member States, can be suggested, and the outlook for the forecast period assessed.

A widely accepted view is that the propensity to save out of current income is determined essentially by the perceived level of so-called 'permanent income', the real level of wealth and the course of expected real interest rates. It is helpful, therefore, to consider the current and expected evolution of these factors and how they might affect savings behaviour. Because people tend on average to adjust their consumption behaviour to their medium-term consumption opportunities rather than to the current level of disposable income, the propensity to consume say, this year's real income increment

GRAPH A.4.1: **Savings' ratio, consumer price inflation and real gross disposable income of households**



Source: Eurostat and Commission services.

will be related to whether the increase is judged to be lasting or not. A substantial amount of the present increase in disposable income results from the fall of the dollar against the ECU and the decline in the oil price. The future of both of these elements is hard to foresee. Any rise in the savings ratio will tend to be moderated, the more this year's addition to real disposable income is thought to be permanent.[3]

On the other hand, an increase in the volume of household wealth will tend to drive down the savings ratio as people attempt to spread consumption more evenly over time.[4]

[3] A *permanent* income gain is interpreted here as resulting from a purely *temporary* terms of trade improvement. The prices of exports over imports move up in one period to fall back promptly to their original level thereafter. The savings ratio may even diminish when economic agents are of the opinion that the real depreciation of the dollar and the cheapening of energy will not be reversed in the years ahead since this would mean that the implicit international purchasing power flow in favour of the Community would be perpetuated beyond the present. A mirror view of this argument provides an explanation for the 1981 increase in the savings ratio although gross disposable income was being cut in the direct aftermath of the second oil price shock.

[4] See for instance the life-cycle hypothesis advanced by A. Ando and F. Modigliani, 'The life cycle hypothesis of saving: aggregate implications and tests', *American economic review*, March 1963.

Table A.4.4

Percentage changes of private consumption at constant prices

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 10	EUR 12
1961-70	3,7	4,3	5,2	6,7	7,2	5,4	3,7	6,4	4,2	6,2	5,6	2,3	4,7	4,9
1971-80	3,8	1,6	3,5	4,4	4,0	4,3	3,8	3,0	4,1	3,4	4,3	2,1	3,3	3,4
1979	4,4	1,4	3,1	2,7	1,2	3,5	4,9	4,9	3,6	3,0	0,9	4,5	3,9	3,6
1980	2,3	−3,7	1,7	−0,2	1,3	1,5	4,8	4,8	3,2	0,0	3,2	−0,4	1,5	1,5
1981	−1,2	−2,3	−0,2	1,0	−0,9	2,1	2,1	0,8	1,7	−2,5	2,3	0,0	0,4	0,3
1982	0,7	1,5	−1,4	2,1	0,7	3,2	−4,9	0,2	−1,7	−1,2	2,0	1,0	0,5	0,6
1983	−0,9	1,7	1,1	0,6	0,7	0,7	−3,5	−0,6	−1,2	0,4	−1,0	4,2	1,1	1,1
1984	0,5	2,8	0,6	2,1	−1,0	0,7	−0,5	1,8	−1,2	−0,6	−3,0	1,7	1,1	0,9
1985	0,7	4,3	1,7	3,2	1,3	2,4	1,5	1,9	1,7	2,0	0,7	2,8	2,2	2,1
1986	2,8	2,6	4,9	−1,3	2,8	2,9	3,2	3,2	3,2	3,1	4,6	3,6	3,5	3,5
1987	1,9	2,4	4,0	−0,9	2,8	3,3	4,3	4,2	3,7	2,0	3,6	3,6	3,4	3,4

Source: Eurostat and Commission services.

Table A.4.5

The savings ratio, the growth of disposable income and the consumer price inflation rate[1]

	B			D			F			I			NL			UK		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1971	19,8	4,6	5,3	12,9	5,5	5,9	16,8	7,0	5,5	24,4	5,1	5,5	16,6	4,4	8,3	7,7	1,3	8,6
1972	20,4	7,0	5,4	12,5	6,3	5,6	16,8	7,8	5,8	25,6	4,8	6,4	17,0	3,8	8,8	9,9	9,0	6,6
1973	19,4	6,9	6,1	12,0	2,5	7,1	17,3	6,8	6,8	25,3	7,1	12,5	18,3	5,6	9,3	11,1	6,4	8,3
1974	20,2	4,3	12,7	12,3	1,9	7,6	17,4	3,4	13,5	24,7	1,4	20,9	18,3	2,8	10,1	11,2	−1,7	17,1
1975	20,1	0,5	12,3	14,0	4,8	6,0	18,6	5,4	11,3	27,3	1,7	17,7	16,3	0,9	10,7	12,7	0,0	23,7
1976	21,7	7,1	12,3	2,1	4,2	16,4	3,1	9,8	26,9	3,5	18,1	16,3	6,6	8,8	12,0	−1,0	15,7	
1977	19,7	−0,2	7,1	11,3	2,4	3,7	16,6	3,7	9,0	26,5	2,8	18,2	13,5	9,5	6,0	11,3	−1,3	14,9
1978	19,8	2,7	4,1	11,2	3,6	2,9	17,5	5,8	8,7	27,7	5,1	12,9	13,5	4,7	4,5	13,1	8,2	9,0
1979	18,3	2,6	4,0	11,8	3,3	4,2	16,2	2,1	10,4	26,9	4,2	15,1	12,8	2,6	4,3	13,9	6,4	13,6
1980	18,3	2,5	6,6	11,9	1,0	5,5	14,9	0,0	13,2	25,0	2,6	20,2	12,1	−0,7	6,9	15,1	1,6	16,4
1981	19,0	−0,4	8,5	12,5	−3,0	6,0	15,8	3,6	12,8	25,1	1,6	19,2	13,5	−0,4	6,3	13,4	−1,5	11,2
1982	17,4	−1,5	7,5	11,9	−1,8	4,8	15,7	3,5	11,2	24,8	0,0	17,0	15,7	2,2	5,3	12,8	0,9	8,3
1983	15,8	0,3	7,0	10,2	−0,7	2,9	14,5	2,0	9,4	24,0	−2,1	14,9	14,1	2,8	10,7	10,7	2,3	5,1
1984	15,0	0,9	6,2	11,6	1,0	2,5	13,5	−0,5	7,3	25,5	2,0	11,1	14,0	0,0	2,6	12,1	2,3	5,1
1985	15,4	1,2	4,9	11,6	1,7	2,0	12,3	0,9	5,5	25,1	1,6	9,4	14,0	2,0	2,2	11,5	2,1	5,4
1986	15,9	3,4	1,2	12,3	5,7	0,0	12,6	3,3	2,4	25,8	4,3	5,6	13,6	2,7	0,0	11,7	3,9	3,9
1987	15,4	1,4	1,7	11,8	3,4	1,1	12,5	3,0	2,2	25,9	3,9	4,8	13,3	1,6	0,2	11,4	3,2	4,0

1 = Gross savings as a percentage of gross households' disposable income.
2 = Percentage growth of real gross disposable income.
3 = Consumer price inflation rate.

[1] Given the institutional differences between individual countries and the heterogeneous definitions of the household sector, the figures for one country cannot serve in principle as a yardstick for judging the savings behaviour of another country. However, they permit a comparison of the various Member States' savings pattern through time.

Source: Eurostat and Commission services.

Since inflation erodes the real value of wealth, such as monetary assets, cash and fixed interest rate bonds, it will result in the need for higher savings ratios to compensate for this erosion and to maintain the level of household wealth intact. The fall in the savings ratio observed throughout the Community in the 1980's reflects the declining importance of this factor as inflation rates were increasingly brought under control.[5]

In addition, the recent, largely unanticipated, deceleration in inflation also raises the real yield on existing interest-bearing assets held by households[6] permitting them to spend more and save less. Besides the favourable effect from lower inflation, net household wealth has benefitted equally from rising equity prices. Numerous European stock exchanges have seen their indices register very substantial increases. Hence the increase in wealth which households are enjoying currently, stimulates consumption and thus tends to depress the savings ratio.

The savings ratio is also influenced by the distribution of income between non-labour income, wages and salaries and transfer payments. In general, consumption out of non-labour income will tend to be lower than from wages and salaries, which in turn will be lower than from transfers. Given expected developments in income growth in 1986 and 1987, i.e. non-labour income growing faster than compensation of employees, and this in turn growing more rapidly than transfers, the distributional effect is likely to be in the opposite direction to the other factors mentioned above, tending to boost savings.

Finally, the savings ratio is influenced by high real interest rates. The decline in rates of inflation has been faster than the fall in nominal interest rates with the result that in April 1986, the real interest rate for the Community as a whole was substantially above the levels recorded in the recent past.[7] It should, however, be noted that the measurement of real interest rates is subject to substantial methodological and conceptual difficulties, particularly in periods of strong external price shocks (see Chapter A.6). Accordingly, expectations of future real rates may not be as buoyant as the current levels would suggest.

The balance of the above effects is expected to result in a slight increase in the savings ratio in 1986, from 15,2 to 15,4 % as gains in real incomes are not fully reflected in a rise in the volume of consumption. In 1987, on the other hand, the savings ratio is forecast to ease again to 15,3 as adjustment to higher real income levels gradually takes place. The resulting pattern of household consumption behaviour will, therefore, carry some of the beneficial effect of falling oil prices into 1987, boosting activity in that year and thereby smoothing out the pattern of GDP growth.

In addition, the predicted rise of household saving in the Community, rising from 340 to 365 billion ECU, together with the reduction of 8 billion ECU in public sector deficits, will have a favourable influence on financial markets and tends to exert downward pressure on interest rates. This will in turn boost consumption and, more importantly, in the framework of the cooperative growth strategy for more employment, pave the way for a more rapid increase in investment.

[5] This decline is much less pronounced when the savings ratio is adjusted for the inflation-induced depreciation of net monetary assets. See A. Cukierman and J. Mortensen, 'Monetary assets and inflation-induced distortions of the national accounts — conceptual issues and correction of sectoral income flows in five EEC countries', *Studies in banking and finance*, North-Holland, 1985, for a discussion of, and figures for, the adjusted savings ratio for a number of countries over the period 1960-81.

[6] For a discussion of anticipated and unanticipated gains/losses on monetary assets of the various sectors in the economy due to inflation, see A. Cukierman, K. Lennan and F. Papadia, 'Inflation-induced redistributions via monetary assets in five European countries: 1974-82', *Economic papers*, No 41, Brussels 1985.

[7] The real interest rate is defined here as the difference between the nominal interest rate on long-term government bonds and the consumer price inflation rate. In April 1986 the real interest rate for EUR 12 was 5,75 %. Measures using the GDP price deflator or unit labour costs result in substantially lower estimates.

A.5. Investment and productive capacity

Gross fixed capital formation in the Community grew by 2,3 % in 1985, in what was the second year of recovery after declines in investment during 1981-83. The pattern of recovery has been quite variable between countries and sectors. Indeed the construction component of capital formation declined by 2,4 % in 1985 compared to an increase of 7,5 % for equipment investment. The growth of GDP, which increased by 2,3 % in the Community in 1985 and which is expected to rise by 2,7 % in 1986, has laid the foundations for increased capital formation, but has until now led essentially to increases in capacity utilization. Profitability and investment shares have increased since 1982-83 but are still significantly below the levels experienced in the 1960s and early 1970s. Lower oil prices are expected to give an added boost to output and investment and forecasts have been revised upwards but the expected levels of output growth and capital formation are still below those which are likely to be required to fulfil the output and employment targets of the cooperative growth strategy.

A.5.1. Introduction

This assessment of investment performance in the Community deals essentially with three topics. The first is the nature and extent of investment activity during the present recovery (e.g. the breakdown of capital formation between industry and services, equipment and construction, public and private). The second is the longer term performance of investment and, in particular, the evolution of certain key aggregate variables such as output, the capital stock and employment, including the link between gross fixed capital formation and the capital stock. In this context it is useful to review the major elements of the cooperative growth strategy; namely 3,5 % output growth and 1 – 1,5 % annual employment growth over the period to 1990 with the unemployment rate for the Community falling to 7 %. The third topic concerns those factors which might influence capital formation, namely expected output, profitability, the cost of capital and factor prices more generally, technological innovation and in particular the implications for short-term investment expectations, bearing in mind also the additional recent factor of the oil price reduction.

A.5.2. The investment recovery

In general for the Community, output has recovered from late 1982 onwards, with the increase in capital formation not occurring until 1984. This recovery in investment followed a period from 1980 to 1983 when gross fixed capital formation (GFKF) in the Community declined by 1,1 % annually (see Table 1). Furthermore, the performance of GFKF in the Community during the 1970s was relatively poor; 1,3 % average annual increase during the 1971-78 period compared to rates of about 4 % for the USA and Japan. The real annual increase in gross fixed capital formation for the whole economy was 1.3 % for the Community in 1984 and 2.3 % in 1985. This contrasts with the USA where the recovery began a year earlier and has been much more rapid (7,9 %, 17,6 % and 7,5 % increases in GFKF for 1983, 1984 and 1985 respectively) and with Japan which in any case experienced a less severe recession and where gross fixed capital formation rose by 4,6 % and 5,6 % respectively in 1984 and 1985.

Clearly such aggregate figures (for the whole economy and the total Community) conceal a considerable variation in performance between countries and sectors. Table A.5.1 shows that the largest increases in total gross fixed capital formation in 1984 occurred in Denmark, Italy, the Netherlands and the UK and in Denmark, Spain and Italy in 1985. Reference to Table A.5.2 shows the extent to which the recovery has been based on equipment investment. In 1985, gross fixed capital formation in equipment rose by 7,5 % for the Community with significant increases in all countries except for Portugal. Construction investment on the other hand declined by 2,4 % and only in Denmark, Greece, Belgium and Spain did this component of capital formation rise noticeably. It is not possible to give a breakdown between residential construction and structures but it is likely that high interest rates have played a major role in holding down housing investment.

Tables A.5.3 and A.5.4 provide further insight into the nature of the investment recovery. Table A.5.3 provides rates of growth of gross fixed capital formation from the Community sectoral database for industry and market services, while Table A.5.4 gives information on manufacturing investment from the EC business surveys. Gross fixed capital formation for the market services sector is not available for 1984 – 85 but with the exception of Belgium, investment in services seems to have declined by less than that in

Table A.5.1

Investment trends by country[1]

	1978/71	1983/80	1984/83	1985/84	1986/85[2]	1987/86[2]
B	2,5	−5,1	1,0	3,3	5,3	4,1
DK	0,8	−6,4	12,8	14,6	10,8	1,2
D	0,5	−0,7	0,8	−0,3	5,8	5,7
GR	3,2	−4,3	−4,7	3,4	−2,5	−0,3
E	2,9	−0,9	−3,8	5,4	6,6	6,3
F	2,8	−0,1	−2,2	3,0	3,9	4,4
IRL	6,3	−3,5	−1,8	1,6	2,5	5,0
I	−0,4	−0,3	4,1	4,1	5,9	7,5
L	1,6	−4,0	−1,4	1,7	2,7	2,0
NL	0,5	−3,8	4,3	2,4	3,7	3,2
P	8,0	2,5	−18,0	−1,8	8,6	8,5
UK	0,8	−0,9	8,2	1,0	3,6	2,6
EUR 12[3]	1,3	−1,1	1,3	2,3	4,9	4,9
USA	4,4	−1,1	17,6	7,5	2,6	5,7
Japan	3,7	1,7	4,6	5,6	6,7	5,3

[1] Total economy annualized real rate of change of gross fixed capital formation, 1980 prices.
[2] Forecasts.
[3] EUR 10 for 1978/71, 1983/80.

Source: Commission services.

Table A.5.2

Gross fixed capital formation by main component (average annual growth rates)

	1978/71		1985/84		1986/85[1]		1987/86[1]	
	E	C	E	C	E	C	E	C
B	0,7	2,1	5,4	1,9	9,2	2,6	8,1	1,1
DK	4,0	−0,6	16,5	13,1	13,7	8,2	−0,7	2,9
D	2,8	0,2	9,3	−6,2	10,2	2,7	8,9	3,2
GR	3,6	3,0	4,4	2,6	−4,1	−1,1	0	−0,5
E	:	:	12,0	1,5	8,5	5,3	8,0	5,1
F	4,6	1,2	4,5	0,1	5,0	1,7	5,5	2,0
IRL	9,4	4,2	8,0	−5,5	5,2	−0,8	6,5	2,9
I	1,5	−1,6	9,9	−1,7	9,0	2,6	11,2	3,3
L	1,5	1,5	4,0	0,7	5,0	1,7	4,0	1,0
NL	2,0	0	10,7	−3,2	6,3	1,8	6,5	0,6
P	:	:	1,0	−4,0	9,6	7,7	8,6	8,5
UK	2,3	−0,6	6,1	−3,1	3,1	4,0	2,7	2,5
EUR 12	:	:	7,5	−2,4	6,8	3,1	6,9	2,9

E = equipment, C = construction.
[1] Forecast.

Source: Eurostat and Commission services.

manufacturing between 1980 and 1983. Both Tables A.5.3 and A.5.4 show the large increases in industry investment which took place in 1984 and particularly in 1985. Compared to the increase of 7,5 % in 1985 for equipment investment in the Community mentioned above, industrial investment rose by about 10 % (EUR 10). In Denmark and the Netherlands there were much higher increases of 33 % and 21 % respectively. Only Ireland appears to have experienced a decline (– 11 %) in industrial investment in 1985.

According to the business surveys the marked increase in manufacturing investment which has taken place in Denmark and the Netherlands is expected to moderate substantially in 1986, but all countries foresee volume improvements in 1986 and expectations appear to be most buoyant in Belgium, Greece, Ireland and Luxembourg, although for Ireland and Greece there are specific sectoral reasons for this (see footnotes 4 and 5 to Table A.5.4).

A.5.3. Productive capacity and output

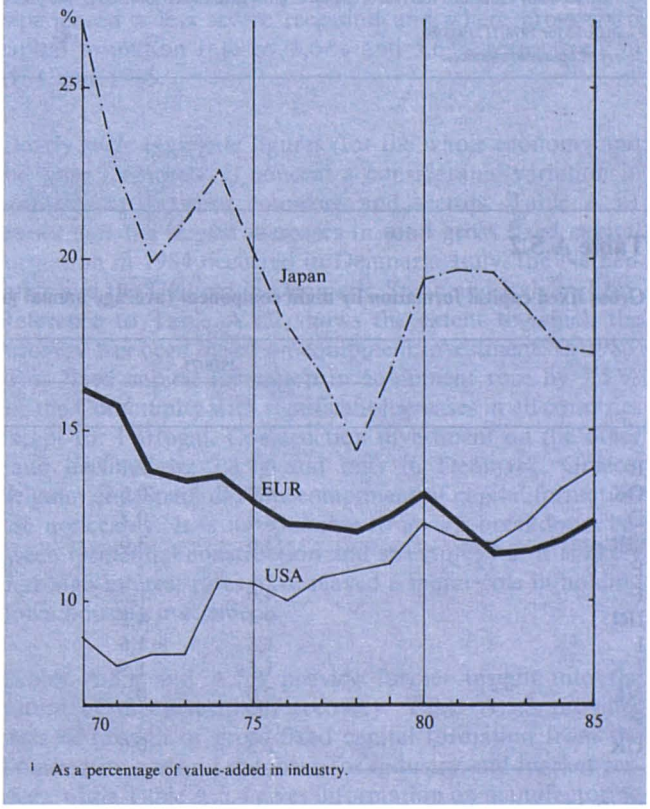
Despite the fairly optimistic outlook for investment in 1986 and 1987 (Table A.5.1 gives the forecasts for total gross fixed capital formation and Table A.5.2 a breakdown for construction and equipment investment) the question still remains as to whether it will be enough to satisfy the requirements of the cooperative growth strategy. Although GDP grew by 2,3 % in 1985, manufacturing employment in the Community declined by about 0,5 % and total employment only increased by about 0,4 %. With GDP growth forecast at 2,7 % in 1986 total employment is expected to increase by about 0,8 % and the forecast for 1987 is broadly the same. The analysis that follows shows that output growth must further increase to satisfy the employment targets of the cooperative strategy and that this implies both increases in capacity utilization and significant increases in capacity.

EC business surveys suggest that capacity utilization in manufacturing industry at the beginning of 1986 was approaching the level of the last cyclical peak (capacity utilization had risen above 85 % in Germany, Luxembourg and the UK, see Table A.5.5). It is instructive, therefore, to try to cast some light on productive capacity and the links between capital formation, the capital stock, output and employment.

Concern was expressed in the last Annual Review[1] about the long-term decline in the investment ratio (investment as a percentage of value added) for both industry and the whole economy in the Community. The extent of this decline is illustrated in Graph A.5.1 which shows that the downward trend in the investment ratio for industry (from about 16 % in 1970 to about 11 % in 1982) has only been arrested in the last two to three years. The present situation is that when averaged across the Community, the investment ratio for the whole economy is now in the region of 19 % as compared with about 23 % in the 1960s and early 1970s. For industry the ratio has dropped from about 16 % to 12 %.

One of the consequences of this decline in the investment ratio is that the capital stock has become more outdated. Some evidence for this development is provided in Table A.5.6 which shows the ratio of the net capital stock to the gross capital stock for manufacturing. This ratio[2] is an approximate indicator of the age of capital assets and can

GRAPH A.5.1: **Gross fixed investment in industry**[1]



[1] As a percentage of value-added in industry.

[1] See *European Economy* No 26, November 1985, Annual Economic Report and Review 1985-86.

[2] This is the 'Modernitaetsgrad' indicator, see Rolf Krengl *et alia*, 'Productionsvolumen und Potential', DIW, October 1982.

Table A.5.3

Gross fixed capital formation for industry and market services by Member State[1]

Country	Industry			Market services	
	1980/70	1983/80	1985/83	1980/70	1983/80
B	−1,0	−3,8	5,3	3,9	−9,5
DK	0,8	−4,5	37,5	−1,1	:
D	−0,8	−4,2	5,9	3,1	−3,4
F	1,7	−1,7	10,4	3,7	−1,9
I	0,5	:	:	1,4	−1,2
NL	−2,5	−7,2	21,2	1,1	−3,4
UK	−2,1	−10,6	11,7	1,8	2,2
EUR 7	−0,3	:	:	2,6	:
USA	4,0	:	:	3,8	:
Japan	0,2	4,0	:	4,7	6,3

[1] Average annual growth rate.

Source: Commission services.

Table A.5.4

Industrial investment in manufacturing industry by Member State — % change in relation to preceding year

Country	1984		1985		1986	
	Value terms	Volume terms[1]	Value terms	Volume terms[1]	Value terms	Volume terms[1]
B[2,6]	+10	+5	+7	+3	+16	+13
DK[2]	+44	+39	+37	+33	+7	+5
D	+1	−1	+16	+14	+10	+8
GR[2,4]	−34	−53	+51	+32	+69	+41
F	+19	+13	+16	+10	+3	+1
IRL[2,5]	+21	+14	−5	−11	+24	+19
I	+8	−1	−12	+2	+15	+8
L[3]	+17	+11	+17	+14	+20	+17
NL	+29	+27	+23	+21	+10	+9
UK[2]	+19	+15	+10	+4	+11	+6
EUR 10	+12	+7	+15	+10	+10	+7

[1] Changes in volume are calculated by dividing the changes in value by the corresponding deflators for gross capital formation. For 1985, 1986 forecast deflators are used.
[2] Excluding extractive industries.
[3] Excluding the extractive industries, including energy and water.
[4] Upward fluctuations mainly due to increase in basic material industries in 1985/86.
[5] Fluctuations in 1985 and 1986 mainly due to decrease in food industry in 1985 and expected increase in 1986.
[6] 1986 figures without chemical industry and iron and steel.

Source: European Community Business Surveys.

Table A.5.5

Capacity utilization in manufacturing industry (%)

	Range[1]		1984	1985	January 1986
	Peak 1979/80	Trough 1982/83			
B	79,1	74,4	76,0	78,8	80,9
D	86,0	75,3	80,2	83,7	85,2
F	85,3	81,1	81,9	82,8	83,4
IRL	68,1	56,8	61,5	67,3	74,8
I	77,3	69,1	72,0	74,0	74,3
L	83,0	66,5	77,8	80,9	87,8
NL	83,0	75,8	82,3	83,8	83,7
UK	87,6	73,0	82,5	85,8	85,4
EUR 8[2]	83,9	76,4	79,1	81,6	82,3

[1] These are the highest and lowest values reached in the period 1979-83.
[2] Sum of above eight.
Source: European Community Business Surveys.

Table A.5.6

Net capital stock as a % of gross capital stock in manufacturing industry

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK
1960	77,4	:	66,6	:	:	50,3	:	58,9	:	80,8	:	67,6
1970	78,8	81,4	61,7	80,5	:	56,7	77,7	55,9	70,2	80,6	:	68,4
1980	75,4	78,6	54,7	81,5	:	53,3	79,8	51,7	71,7	75,6	:	64,9
1981	74,9	:	54,3	81,3	:	52,6	:	51,7	:	75,0	:	64,1
1982	74,7	:	53,7	:	:	51,9	:	51,0	:	74,3	:	63,4
1983	74,4	:	53,1	:	:	51,3	:	49,4	:	73,8	:	62,7
1984	:	:	52,6	:	:	50,6	:	48,4	:	:	:	62,2
1985	:	:	52,4	:	:	50,0	:	47,7	:	:	:	61,7

Source: Eurostat.

conceivably take any value between zero and a hundred. For example a decline in the ratio would indicate an increased ageing of a nation's capital stock. An increase on the other hand, could be taken to indicate that the weight of depreciation in the total is decreasing. The actual levels shown in the table will vary across countries because of different asset lifetimes assumed but the trends in individual countries are in general consistent over time. Looked at in terms of the ratio of net to gross in the 1960s, the capital stock of the Community was becoming progressively more modern. This was particularly true in France, the United Kingdom and Belgium, whereas in Germany and, to a lesser extent in Italy, some ageing was already apparent due largely to the effects of the investment boom in the early 1950s. In the Netherlands the ratio remained broadly unchanged over the 1960s. However, in the second period covered, 1970 to 1980, the average age of the capital stock increased in all Community countries for which data are available, except Ireland and Greece, where foreign inward direct investment undoubtedly played an important part, and in Luxembourg.

Table A.5.7 gives further evidence of the slowdown in the growth of output and the capital stock which has occurred from the mid-1970s onwards.The table gives rates of growth of output, gross fixed capital formation and an estimate of the growth rate of the capital stock (all for manufacturing industry) from 1960 until the forecast period 1986 and 1987. Although the rate of growth of gross value-added for manufacturing industry lies in the range of 2,5 to 3,5 % for the 1984-87 period and investment growth is in the 6 to 8 % range it can be seen the growth rate of the gross capital stock is of the order of 1,5 %. In other words a significant proportion of output growth during these four years is attributable to an increase in capacity utilization, as indicated by the fourth column of Table A.5.7 which gives an adjusted capital stock figure.

It is possible to make a purely mechanical calculation to give the order of magnitude of gross fixed capital formation and increase in the investment ratio which would be needed to bring output growth in line with that required for the cooperative strategy, although rather stringent assumptions are required. First of all the growth of capacity and output in the manufacturing sector of EUR 4[3] is assumed to move proportionally in line with total capacity and output growth for the Community.[4] Secondly it is assumed that capital-output ratios in manufacturing industry are unchanged and that the extra output required to fulfil the strategy from 1987 is produced from net additions to the capital stock, and not from further increases in capacity utilization. If one assumes, for example, that to achieve the strategy in 1987 Community output growth must rise from 2,8 % to 3,5 % and EUR 4 manufacturing growth from 3,4 % to 4,0 %, then this would require that gross fixed capital formation in manufacturing industry increase by about 18 % in 1987 rather than the envisaged 6,2 % (such a growth rate is by no means unprecedented as is indicated by Table A.5.7, see figures for 1961, 1969 and 1970). Equivalently the investment share (in manufacturing industry) would have to rise by just over one percentage point from about 11,8 % to about 13,1 %.

One question that arises at this point is whether there are any specific supply constraints that would jeopardize the increases in capacity and output alluded to above. Clearly the problem of bottlenecks is one that concerns particular sectors or types of goods and is not easy to answer. But at an aggregate level it may be possible for effective capacity to increase, without requiring that all extra output growth comes from new capacity. This may be true for a number of reasons. Firstly, the lower oil price renders some existing capacity profitable again, secondly, some capacity can be used more intensively and thirdly, some sectors such as services have less of a capacity constraint. A second consideration is the source of savings to finance higher investment ratios. As far as the savings ratio itself is concerned, increased growth of output and incomes (real income is expected to rise due to lower oil prices) can be expected to lead to increases in the saving rate (see chapter on consumption and savings).

A.5.4. Prospects

Essentially a summary of the above would be that output and investment are recovering, although in an uneven fashion between countries and sectors. There is, however, a need for the recovery to accelerate in order that capacity and output growth are sufficient to create the employment that is necessary to fulfil the requirements of the cooperative strategy. It is instructive, therefore, to examine the economic background to this investment recovery in order to assess the prospects for the forthcoming period.

First of all output has recovered from about the end of 1982 onwards. For the Community of Twelve, GDP increased by 2,0 % and 2,3 % for 1984 and 1985 respectively and nearly 3 % growth is forecast for 1986 and 1987. This growth is expected to sustain the investment recovery. Secondly, real

[3] EUR 4 = Germany, France, Italy and the UK. The assumption is necessary because of the need to use data on capital stock and capital formation for EUR 4 manufacturing.

[4] For problems linked with this hypothesis, see Chapter B.3 dealing with sectoral aspects.

Table A.5.7

Output growth, capital stock and gross fixed capital formation in manufacturing industry [1]

	Gross value-added	Gross fixed capital formation	Gross capital stock	Capital stock adjusted for utilization
1961	5,5	15,1	6,9	6,3
1962	4,6	3,4	6,7	3,6
1963	4,2	−3,7	5,8	6,1
1964	7,8	−0,5	5,1	7,5
1965	5,2	0,4	4,6	3,9
1966	4,1	3,6	4,7	3,9
1967	2,1	−4,2	4,1	−1,1
1968	8,7	7,5	4,2	8,8
1969	8,7	18,5	5,1	9,4
1970	4,7	15,6	5,7	5,6
1971	1,2	−1,3	5,2	0,6
1972	3,8	−5,4	4,4	3,5
1973	7,8	3,2	4,2	8,5
1974	2,1	−0,6	3,8	0,4
1975	−5,6	−14,0	2,7	−5,3
1976	6,9	2,1	2,7	5,3
1977	2,6	3,1	2,6	4,6
1978	1,5	−0,5	2,4	2,2
1979	3,3	7,5	2,4	6,6
1980	−0,5	5,6	2,4	−0,7
1981	−2,2	−9,4	1,6	−2,7
1982	−1,0	−7,6	1,2	0,8
1983	0,3	−1,7	1,2	1,6
1984	3,3	7,9	1,3	5,3
1985	2,7	9,5	1,3	4,5
1986	3,2	7,6	1,5	4,1
1987	3,4	6,2	1,7	4,4

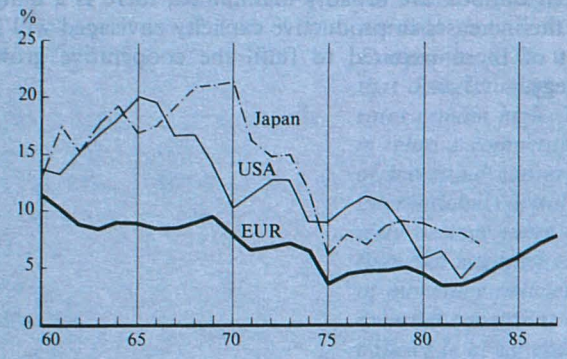
[1] Annual growth rates (in constant prices) for EUR 4, i.e. Germany, France, Italy and the United Kingdom, for manufacturing industry only.
Source: Commission services.

long term interest rates, following dramatic increases during 1980 and 1981 have stabilized and long-term nominal interest rates have begun to fall. Although inflation rates have also been falling, the real long-term interest rate for the Community is estimated as 4,6 % for 1985 compared to 5,3 % for 1984.[5]

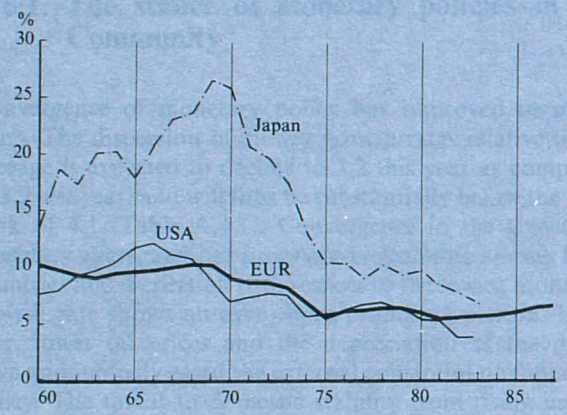
Thirdly, profitability has recovered during the recent period. Graphs A.5.2 and A.5.3 show rates of return for manufaturing industry and for the non-agricultural business sector for EUR 4, USA and Japan from 1960 onwards. Rates of return in Europe declined during the 1970s and early 1980s and have only recovered from about 1983 onwards, (in fact from 1982 for Germany and the UK, from 1983 for France and from 1984 for Italy) although the general trend has not been substantially different in the USA and Japan. Two factors have been instrumental in the recovery of profitability. The first is the growth in output and consequent increase in capacity utilization which have taken place. The second reason is that wage increases have moderated substantially. The real rate of increase of employees' compensation was of the order of 2,3 % annually for the Community during the 1970s (implying an average increase of real unit labour costs of 0,4 %) but real unit labour costs have declined by about 1 % annually during 1982-85. Further evidence of this moderation is given by the share of wages in value-added (corrected for employment structure) which, following the sharp increases between 1971 and 1981, has in the last few years in the Community returned to the level experienced in

[5] On the basis of GDP price deflators.

GRAPH A.5.2: **Net rate of return on gross capital stock: manufacturing industry**



GRAPH A.5.3: **Net rate of return on gross capital stock: non-agricultural business excluding housing**



Source: Eurostat and Commission services.

the 1960s. These three factors, output growth and increased capacity utilization, higher profitability and the possibility of falling real interest rates (in the wake of falling nominal rates and lower, more stable levels of inflation) have combined to bring about and sustain a recovery in investment.

Clearly these factors have not worked in a uniform fashion across the Community. Neither has the mix of internal and external effects on output and investment necessarily been the same. Countries have not for instance benefited equally from the stimulus to export sectors brought about by output growth in the USA. Similarly some countries have discovered that wage moderation policies have not only increased profitability and investment generally but have been instrumental in improving competitivity and stimulating output growth in export-related sectors. Denmark and the Netherlands are examples of this second feature.

In assessing investment prospects for the short term, a fourth factor has to be added to the picture, namely the effect of lower oil prices. With the exception of certain sectors in certain countries (related to oil production and exploration) lower oil prices can be expected to have a favourable effect on both output and productive capacity.

First of all to the extent that lower oil prices imply increased incomes for all or some of enterprises, households and governments in the Community, consumption, output and investment will be stimulated. This effect, which is essentially demand induced, will lead to new investment. The effect will be offset by lower exports to oil producing countries, and in any case will be subject to indeterminate lags.

A second effect arises from the lowering of production costs of existing capacity so that increased profitability is partly passed on to consumers in the form of lower prices, and equilibrium output increases. This leads to an extension of productive capacity. This effect which depends on lower production costs can be expected to vary significantly across sectors depending on the importance of oil inputs. The effect of increased profitability can also be expected to stimulate investment to the extent that financing costs for implementing new projects is reduced.

A further effect on productive capacity arises because of the postponement of scrapping or retirement of investment. Essentially lower oil prices reduce unit production costs and enable existing capacity to compete for longer with potential new plant, which in general will have lower variable costs but higher fixed costs. Although the effect on productive capacity is positive, new investment may decrease in the sense that the addition of new or replacement capacity is postponed.

Finally, if energy and capital are complements, as they are generally believed to be, a fall in the price of oil will lead to higher investment.

The overall effect of lower oil prices, therefore, leads to both higher productive capacity and higher output though it is difficult to make estimates of the magnitudes involved.

In summary, the investment recovery in the Community is expected to continue and indeed intensify. Gross fixed capital formation will grow on average by 4,9 % in the Community in 1986 and 1987 and the recovery will spread to the construction component of investment. The forecast output growth of 2,7 and 2,8 % for the Community in 1986 and 1987 will be produced both from higher capacity utilization and from an extension to productive capacity due to net investment and slower retirements (due to the effect of lower oil prices). Significantly, however, if existing policies in the current outlook are broadly maintained, there is a danger that the increases in productive capacity envisaged will fall short of those required to fulfil the cooperative growth strategy.

A.6. Monetary policy and the European Monetary System

In 1986 monetary policies are being conducted on the basis of guidelines and targets defined at the end of 1985, i.e. before the fall in oil prices. Policies are therefore generally more accommodating than initially envisaged but this does however not endanger the stability and the increasing degree of convergence which has been achieved. Since the beginning of 1985, nominal short-term and long-term interest rates have been progressively reduced in the Community. This was more marked for long-term than for short-term rates, an indication that disinflationary policies are tending to become more credible. Nevertheless real interest rates remain high. The EMS realignment of April 1986 corrected accumulated divergences in relative competitive positions rather than accommodating diverging trends. In the context of increased convergence, stable exchange rate expectations led to increasing mobility of international capital flows after the realignment and national financial markets have progressively become more closely interrelated. The spread of financial innovation and accelerated financial integration are having a growing impact on the conduct, objectives and instruments of monetary policies. At the national level monetary policies are increasingly subject to an external constraint and the room for manœuvre for the independent conduct of interest rate policies is being reduced. This gives rise to a need for a closer coherence between monetary and other policies.

A.6.1. The stance of monetary policies in the Community

Convergence of monetary policy has improved in recent years. The dispersion of money growth rates relative to the average is expected to decline to 3,2 this year as compared to 3,9 last year, and will thus be substantially below the 1981 peak of 4,1 (Table A.6.1). Convergence in the growth of monetary aggregates has progressed even more among EMS countries and dispersion with respect to the lowest monetary growth rate shows an even more promising picture. However, lower oil prices and the depreciation of the dollar have undoubtedly eased the external constraint on monetary policy. The threat to domestic stability from rising import prices has been virtually removed.

However, the deceleration of monetary growth which had been under way since the early 1980s did not continue last year. Developments however differed between member countries: among the countries where monetary policy can play a more independent role, the target range was generally respected. In the Federal Republic of Germany a target range of 3 – 5 % (MZ) compares with an outturn of 4,4 %, while the target range was slightly exceeded in France (target range 4 – 6 % (M2R); outturn 6,9 %) and in Italy (target 16,8 % (TDCE); outturn 17,9 %) although monetary expansion in Italy remains very high. In the United Kingdom the target range for sterling M3 (UKLM3) was substantially overshot,while the target range for narrow money was respected (M0 target range 3 – 7 %; outturn 6 %)(Table A.6.2).

A further deceleration in the growth of the money stock has occurred in Belgium, where it had already decelerated from 8,7 % in 1984 to 6,7 % in 1985 and will probably slow down to 3,8 % in 1987. In some countries money creation is still undoubtedly too high to permit the achievement of greater price stability. The remarkable slow-down which has occurred in Ireland since the early 1980s has become less rapid. In Greece, a continuing reduction in the growth of monetary aggregates is essential to the process of achieving a prolonged fall of inflation. Monetary expansion in Spain and Portugal is high compared with that of most other Community countries, and a progressive reduction is necessary, particularly in Portugal, where excessive liquidity is preventing a more rapid deceleration in inflation.

Countries which have already achieved a high degree of price stability, in particular the Federal Republic of Germany and the Netherlands, have tolerated some acceleration in the growth of their money stocks since the middle of 1985. In the particular case of the Federal Republic of Germany, this is reflected in a slightly higher target range for monetary growth in 1986 than in 1985. A further deceleration should be envisaged in countries where the underlying rate of inflation is still high. This strategy is a prerequisite for lasting reductions in nominal and real interest rates. Indeed, if inflationary expectations decline because monetary policy seeks to reduce the nominal growth of the money stock and thus carries conviction, nominal long-term interest rates could even fall further than they otherwise would. The flattening of yield curves in some countries (e.g. France) shows the close relationship between inflation expectations

Table A.6.1

Money and credit targets

		1980		1981		1982		1983		1984		1985		1986
		Obj.	Real.	Obj.	Real.	Obj.	Real.	Obj.	Real.	Obj.	Real.	Obj.	Real.	Obj.
D	MZ[1]	5-8	4,8	4-7	6,0	4-7	6,0	4-7	7,0	4-6	4,6	3-5	4,4	3,5-5,5
F	M2[2]	11,0	9,8	10,0	11,4	12,5-13,5	11,5	9,0	10,2	5,5-6,5	7,6[4]	4-6	6,9	3-5
E	M3	16-20	16,5	14,5-18,5	16,0									
	ALP[8]					15-19	16,6	14-18	15,9	11-14	13,2	11,5-14,5	12,8	9,5-12,5
I	TDCE[3]	7,5	18,4	16,0	18,2	15,5	20,8	18,2	20,6	19,3	16,8	17,9		
	PSCE[8]													7
	M2 UKL													7-11
UK[5]	M3	7-11	18,6	6-10	13,8	8-12	10,8	7-11	9,4	6-10	11,9[5]	5-9	15,1	11-15
	M0									4-8	5,7[5]	3-7	6,0	2-6
USA[6]	M1	4,5-6	7,3	3,5-5,5	2,3	2,5-5,5	8,5	4-8	9,6	4-8	6,0	4-7	11,9	3-8
	M2	6-9	8,4	6-9	9,2	6-9	9,9	7-10[7]	7,8[7]	6-9	8,0	6-9	8,0	6-9
—	TDCE[3]							8,5-11,5	10,6	9-12	13,6	9-122	12,7	8-11

[1] Central bank money.
[2] For 1984 and 1985 M2R (M2 residents), 1986 M3.
[3] TDCE = Total domestic credit expansion.
[4] Change over the three-month-average centered on December of the preceding year.
[5] Targets have also been defined for M1 and PSL2 (liquidity broadly defined) in 1982 and 1983. Annual rates for the charge from February to April of the next year.
[6] The United States also have a target for M3.
[7] For the period February-March 1983 to fourth quarter of 1983, at annual rate.
[8] Credit of the public sector.

Table A.6.2

Nominal monetary aggregates

	1969/61	1977/70	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
B	8,3	13,3	10,9	9,1	7,4	7,8	9,7	5,4	8,7	6,7	5,7	3,8
DK	10,8	11,7	9,3	9,8	9,4	5,2	11,0	19,6	19,1	14,3	10,0	6,0
D	10,4	10,0	10,6	9,5	5,3	6,3	6,5	6,6	4,0	5,0	5,8	4,8
GR	17,6	21,6	24,4	19,2	19,8	30,4	32,9	21,7	25,1	29,9	22,0	16,5
E	:	22,4	19,5	19,2	17,9	16,2	18,1	16,1	14,0	13,9	13,6	9,4
F	13,2	15,0	13,5	13,2	11,0	10,7	11,2	9,3	9,6	7,6	5,6	4,8
IRL	9,7	16,7	19,7	29,0	14,5	20,6	13,7	9,3	8,0	7,8	6,9	10,4
I	14,0	18,9	22,6	20,7	15,2	11,1	12,0	16,5	12,2	13,6	10,2	9,5
NL	8,9	13,5	4,6	4,8	8,0	4,3	7,4	9,5	7,2	8,4	4,7	4,2
P	:	18,5	23,3	27,0	28,5	31,3	24,0	20,5	19,9	26,7	24,0	20,0
UK	5,3	13,2	14,7	13,2	15,2	16,9	11,5	10,9	8,9	12,4	11,3	8,7
EUR	:	14,8	14,8	13,9	11,9	11,5	11,3	11,2	9,5	10,2	8,7	7,1
EMS	11,7	14,0	13,8	12,9	9,7	8,7	9,5	10,2	8,4	8,3	6,8	5,9

Source: Commission services; 1986, 1987: Economic Forecasts May 1986.

and long-term interest rates. In order to be successful and to carry conviction, a policy which seeks additional reductions of monetary growth must be accompanied by consistent behaviour on the part of public finance and wages, and current wage settlements must take account of the improved prospects for inflation.

Some countries with budgetary problems (like Italy or Greece) will use part of their terms of trade gain to reduce their deficits. Such a strategy will, to the extent that it succeeds in narrowing the deficit, support the process of reducing monetary expansion by lowering the public sector's demand for credit.

In low inflation countries, targets for monetary growth which remain unchanged while external prices fall will lead to lower interest rates. This will support both the cyclical upswing and the rise in investment needed to increase the rate at which output capacity expands. Unchanged policy rules will thus prove to be relatively expansionary as they will increase liquidity in the economy.

Table A.6.3

Convergence of money growth

	1969/61	1977/70	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
						Weighted average						
EUR	:	14,8	14,8	13,9	11,9	11,5	11,3	11,2	9,5	10,2	8,7	7,1
EMS	11,7	14,0	13,8	12,9	9,7	8,7	9,5	10,2	8,4	8,3	6,8	5,9
						Measures of dispersion related to average						
EUR	9,5	4,2	4,0	3,9	4,1	4,1	2,7	3,6	3,0	3,9	3,2	2,5
EMS	2,1	3,4	4,2	4,0	3,4	2,5	2,3	3,5	3,1	2,8	1,8	1,8
						Measures of dispersion related to lowest						
EUR	9,5	6,5	10,2	9,0	6,6	7,3	4,8	5,8	5,5	5,2	4,1	3,3
EMS	4,8	5,2	9,2	8,1	4,4	4,4	3,0	4,8	4,4	3,3	2,1	2,1

Source: Commission services; 1986 and 1987: Economic Forecasts of May 1986.

A.6.2. The development of liquidity in the Community

Money grew faster than nominal GDP in the majority of countries in 1985. The liquidity ratio in the EMS countries (+1,1 %) increased more slowly than in the Community as a whole (+1,6 %) (Table A.6.4). It will probably fall in six Community countries in 1986 while the Community average is expected to remain virtually unchanged. A fall in the liquidity ratio by −0,7 % is expected for EMS countries. However, the significance of the figures for 1986 should not be exaggerated: since import prices are falling and external current positions are improving, nominal GDP is rising faster than nominal domestic demand; but it may be more appropriate to measure liquidity as the ratio of money to domestic demand rather than to GDP, and on this basis the stance of monetary policy is more accomodating than is indicated by other calculations. On the other hand, the development of liquidity has to be interpreted in light of declining nominal interest rates bacause of decelarating inflation rates. The implied fall in velocity of money lead to a rising money demand, which does not necessarily indicate a more expansionary stance of monetary policy.

In the Federal Republic of Germany the liquidity ratio will probably decline slightly in 1986 but this should be interpreted in the light of the German practice of defining monetary policy in a medium-term framework designed to produce price stability. The pronounced decline in the liquidity ratio in France reflected the tightness of monetary policy in that country. The ratio is expected to rise in Denmark and in the Netherlands, without however creating immediate

Table A.6.4

Monetary developments

	1969/61	1977/70	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
					(a) Liquidity ratio: M/Nominal GDP (annual % changes)							
B	0,1	1,3	3,3	2,2	−0,2	3,7	1,3	−0,9	1,8	−0,0	−0,4	0,0
DK	−0,4	−0,9	−2,0	−1,5	1,6	−3,5	−3,1	8,5	8,9	4,4	2,6	1,0
D	2,4	0,9	2,9	1,1	−1,0	2,0	2,8	2,3	−0,4	0,3	−0,5	0,3
GR	6,1	3,6	3,2	−3,1	0,0	9,7	6,8	1,3	1,7	8,6	0,5	4,2
E	:	3,1	−2,4	1,9	1,9	1,8	3,0	1,7	−0,2	2,3	−0,4	0,9
F	2,9	1,6	−0,1	−0,8	−2,1	−1,5	−3,0	−1,4	0,7	0,4	−1,1	−0,4
IRL	0,1	−1,6	1,1	10,8	−2,9	0,1	−3,2	−1,8	−2,9	−0,4	−2,4	4,2
I	3,4	2,0	4,8	−0,7	−8,1	−6,2	−4,6	2,5	−1,2	2,1	−1,7	0,8
NL	−1,3	0,9	−3,2	−1,5	1,4	−0,5	2,8	6,7	2,8	3,8	2,8	2,7
P	:	−0,1	−2,0	0,6	3,3	10,1	−1,6	−2,3	−3,6	0,7	1,1	4,0
UK	−1,5	−1,8	−0,4	−3,2	−1,6	5,9	2,3	2,1	2,8	2,6	4,7	1,9
EUR	:	0,9	1,0	−0,5	−2,1	0,6	0,1	1,5	0,6	1,6	0,4	0,9
EMS	2,3	1,3	1,9	0,0	−2,8	−1,3	−1,0	1,5	0,3	1,1	−0,7	0,4
					(b) Real monetary aggregate: M/GDP prices (annual % changes)							
B	4,8	5,0	6,4	4,3	3,3	2,4	2,4	−0,5	3,1	1,3	1,6	2,1
DK	4,4	1,7	−0,2	2,0	1,1	−4,4	−0,3	10,6	12,7	8,5	5,3	3,3
D	7,0	4,0	6,1	5,2	0,9	2,1	1,8	3,2	2,1	2,9	3,0	3,3
GR	14,2	9,1	10,1	0,5	1,8	9,3	6,7	1,6	4,4	10,9	0,2	4,0
E	:	8,0	−0,6	2,1	3,5	2,3	3,9	3,9	2,0	4,4	2,3	3,6
F	8,6	6,0	3,7	2,5	−1,0	−1,3	−1,1	−0,4	2,3	1,8	1,1	2,5
IRL	4,5	2,7	8,3	14,0	0,3	3,0	−1,3	−1,2	1,4	1,6	0,8	8,0
I	9,3	5,2	7,6	4,1	−4,5	−6,1	−5,0	1,3	1,3	4,4	1,0	4,7
NL	3,6	4,7	−0,8	0,9	2,2	−1,2	1,3	7,7	4,5	6,2	4,6	4,5
P	:	5,3	1,3	6,9	7,6	10,9	1,5	−2,4	−5,6	4,5	5,0	7,7
UK	1,4	0,4	3,2	−1,2	−3,8	4,7	4,2	5,5	4,6	6,0	7,4	4,3
EUR	:	4,3	4,2	2,7	−0,8	0,5	0,6	2,6	2,7	4,0	3,0	3,7
EMS	7,5	4,8	5,2	3,8	−0,8	−1,3	−0,8	1,9	2,5	3,2	2,0	3,5
					(c) Ratio money stock to real GDP (annual % changes)							
B	3,4	9,3	7,7	6,9	3,8	9,2	8,5	5,0	7,4	5,3	3,6	1,7
DK	5,7	8,8	7,4	6,0	9,9	6,2	7,8	17,3	15,0	10,2	7,3	3,7
D	5,6	6,8	7,2	5,2	3,3	6,1	7,5	5,6	1,4	2,5	2,2	1,7
GR	9,4	15,4	16,6	15,0	17,7	30,8	33,1	21,3	21,9	27,2	22,5	16,7
E	:	16,9	17,4	18,9	16,1	15,7	17,1	13,7	11,6	11,6	10,6	6,5
F	7,3	10,4	9,3	9,5	9,9	10,4	9,1	8,3	7,9	6,2	3,2	1,8
IRL	5,1	11,8	11,7	25,5	10,9	17,3	11,5	8,6	3,5	5,6	3,6	6,5
I	7,8	15,3	19,4	15,0	10,9	11,0	12,5	17,9	9,4	11,1	7,3	5,5
NL	3,7	9,4	2,1	2,4	7,1	5,0	9,0	8,5	5,4	5,9	2,9	2,4
P	:	12,4	19,2	19,6	23,4	30,2	20,2	20,6	22,4	22,2	19,3	15,8
UK	2,3	10,7	10,6	10,8	17,8	18,3	9,5	7,4	7,0	8,8	8,5	6,2
EUR	:	11,0	11,2	20,3	20,4	11,7	10,6	10,0	7,2	7,7	5,9	2,2
EMS	6,3	10,2	20,3	8,8	7,5	8,7	9,3	9,7	6,1	6,1	4,0	2,8

Source: Commission services, 1986 and 1987: Economic Forecasts of May 1986.

problems for the conduct of monetary policy: the exchange rate objective has not been called into question by rapidly rising liquidity in the past. A continuous and rapid rise may, however, endanger domestic stability in the medium-term.

In conclusion present stance of monetary policy in the Community is characterized by a deceleration of growth of the nominal money stock but, in the presence of the disinflation process which has been encouraged by similar policies in the past, the outcome is a more rapid growth of the real money stock which in its turn is supporting growth in real GDP.

A.6.3. Counterparts of money creation

Structural and institutional factors do not permit a standard assessment of the counterparts of money creation between countries (Table A.6.5) but an analysis of this type nevertheless reveals the various pressures on monetary policy. In 1985 the contribution of the public sector to money creation remained negligible in the Federal Republic of Germany and in the Netherlands and was negative in the United Kingdom. It was less expansionary in Denmark, mainly because of lower public sector borrowing requirements. Public sector transactions were more expansionary in Italy. The contribution of the public sector was reduced in Belgium and Ireland although remaining a major source of money creation as it was in Greece. In 1986 a further reduction of the public sector counterpart is envisaged in France and Belgium. Credit to the public sector will, however, remain a major counterpart in countries where public deficits remain high. It is highly desirable that the public sector impact on money creation in member countries should converge towards zero, but the persistence of fundamental differences among budgetary situations means that progress towards this goal will at best be very slow.

The external counterpart of money creation has moved closer to zero. In countries where lasting current account deficits have in the past caused a considerable destruction of money, such as France, where the cumulated effect of external money destruction was 7,5 % of money growth over the period 1981-83, the improvement in the current account balance is the main factor behind this welcome development. The Federal Republic of Germany and, even more so, the Netherlands will still face a positive and significant external counterpart mainly because of current account external surpluses in their non-bank private sectors, although the net effect is reduced by capital exports. The contribution of the external sector will probably will be negligible in Belgium, Denmark and Ireland, countries in which the destruction of liquidity by the external sector was high in the past. Greece still shows a high rate of destruction of liquidity by the external sector. In general terms, the reduction of large external counterparts corresponds to a reduction of external disequilibria and pressure on exchange rates; to that extent the process by which external counterparts return towards zero represents an increase in the room for manœuvre enjoyed by monetary policy, making further convergence in this area possible within the Community.

Lending to the private sector has decelerated less than monetarygrowth over the period 1983-85. It would thus appear that the policies which sought to curb nominal money growth did not have an excessively restrictive effect on the availability of bank credit to the private sector. This impression is reinforced by the fact that corporate profitability, and the scope for enterprises to finance their expansion from internal resources, have risen over the same period.

Table A.6.5

Counterparts of money creation

	1980	1981	1982	1983	1984	1985	1986
(1) Money creation: Rate of growth of M2/3 (1 = 2 + 3)							
B	6,2	10,0	7,6	7,1	6,5	6,7	5,5
DK	8,1	9,6	11,8	25,5	17,0	15,8	8,5
D	6,1	4,9	7,1	5,5	4,7	5,0	5,7
GR	24,7	34,6	29,0	20,2	29,4	26,8	19,4
E	:	:	:	:	:	:	:
F	8,4	10,4	10,8	11,2	8,3	5,6	5,5
IRL	17,9	17,7	12,9	5,5	10,0	5,3	10,7
I	15,0	9,5	18,9	11,4	12,1	12,8	8,1
NL	3,8	5,3	8,2	10,4	7,6	10,2	5,8
P	28,8	23,8	24,1	16,3	24,5	28,5	25,0
UK	18,5	13,7	8,9	10,3	9,6	13,4	9,4

Table A.6.5 *(continued)*

Counterparts of money creation

	1980	1981	1982	1983	1984	1985	1986
			(2) Internal counterpart				
B	15,7	21,1	15,5	12,9	12,7	11,5	7,7
DK	15,5	18,4	25,4	29,6	16,2	13,4	8,5
D	7,6	3,2	6,5	5,3	4,6	1,7	1,3
GR	27,1	39,3	34,7	23,8	34,1	29,9	24,5
E	:	:	:	:	:	:	:
F	7,2	12,7	14,3	13,0	8,3	1,9	5,0
IRL	16,9	17,9	13,6	10,7	15,2	5,2	8,6
I	7,1	5,4	13,9	6,9	5,3	7,5	4,5
NL	7,7	1,6	4,3	8,1	2,4	7,6	2,6
P	23,2	1,9	22,0	16,0	18,7	23,2	22,6
UK	16,9	15,0	12,9	10,9	13,1	11,5	9,9
			(3) External counterpart				
B	−9,5	−11,1	−7,9	−5,8	−6,2	−4,8	−2,2
DK	−7,4	−8,6	−13,7	−4,1	0,8	2,4	0,0
D	−1,5	1,6	0,6	0,1	0,1	3,3	4,4
GR	−2,4	−4,7	−5,7	−3,6	−4,7	−3,1	−4,5
E	:	:	:	:	:	:	:
F	1,2	−2,3	−3,5	−1,8	0,0	3,7	0,5
IRL	1,0	−0,2	−0,7	−5,2	−5,2	0,1	2,1
I	8,2	5,6	5,0	5,7	8,6	7,1	5,1
NL	−3,9	3,6	3,9	2,2	5,2	2,6	3,2
P	5,6	21,9	2,1	0,3	5,8	5,3	2,4
UK	1,6	−1,3	−4,0	−0,6	−3,5	1,9	−0,5
			Components of internal money creation				
			(4) Internal money creation (4 = 5+6+7−8)				
B	15,7	21,1	15,5	12,9	12,7	11,5	7,7
DK	15,5	18,4	25,4	29,6	16,2	13,4	8,5
D	7,6	3,2	6,5	5,3	4,6	1,7	1,3
GR	27,1	39,3	34,7	23,8	34,1	29,9	24,5
E	:	:	:	:	:	:	:
F	7,2	12,7	14,3	13,0	8,3	1,9	5,0
IRL	16,9	17,9	13,6	10,7	15,2	5,2	8,6
I	15,0	9,5	18,9	11,4	12,1	12,3	8,1
NL	7,7	1,6	4,3	8,1	2,4	7,6	2,6
P	23,2	1,9	22,0	16,0	18,7	23,2	22,6
UK	16,9	15,0	12,9	10,9	13,1	11,5	9,9
			(5) Lending to the public sector				
B	13,5	19,3	20,0	17,4	13,4	15,1	12,8
DK	11,1	13,5	15,9	15,8	1,5	5,4	−0,5
D	3,9	6,7	4,9	2,4	2,1	1,7	1,9
GR	12,9	24,4	18,7	12,4	18,7	18,3	14,1
E	:	:	:	:	:	:	:
F	−0,5	2,5	2,2	3,5	1,0	0,9	0,9
IRL	4,5	9,6	6,1	5,0	10,0	2,4	5,9
I	7,1	5,4	13,9	6,9	5,3	7,5	4,5
NL	4,2	3,7	4,4	4,8	5,2	2,8	2,2
P[1]	10,6	−3,3	11,8	7,3	9,8	10,1	11,7
UK	1,9	−0,9	−6,9	−0,1	−1,4	−4,0	0,0

(6) Lending to the private sector

B	6,9	4,5	2,1	2,8	1,6	2,8	2,2
DK	7,1	5,5	10,7	17,2	14,3	14,4	13,2
D	14,5	11,1	8,5	11,1	10,4	8,9	5,6
GR	16,4	20,1	17,0	11,9	12,8	12,8	9,1
E	:	:	:	:	:	:	:
F	14,7	11,7	15,2	12,1	10,5	9,4	7,4
IRL	14,7	12,1	6,4	8,8	5,7	2,0	3,8
I	8,2	5,6	5,0	5,7	8,6	7,1	5,1
NL	17,9	10,1	5,6	6,9	7,3	9,5	4,6
P[1]	26,8	25,1	25,3	23,4	22,4	17,0	14,1
UK	17,5	16,8	20,8	14,0	16,2	18,6	14,9

(7) Other components

B	3,1	3,8	1,8	−0,9	1,3	0,8	−1,8
DK	0,8	2,8	2,2	3,6	2,9	−2,8	−0,5
D	−1,9	−3,0	−9,9	−0,1	0,1	−0,7	0,8
GR	0,0	0,0	0,0	0,0	0,0	0,0	0,0
E	:	:	:	:	:	:	:
F	−2,5	1,4	0,7	1,6	0,8	−3,0	0,0
IRL	0,0	0,0	0,0	0,0	0,0	0,0	0,0
I	1,8	2,4	1,4	1,2	0,6	0,2	0,3
NL	−1,3	−1,3	−2,1	−1,7	−2,5	1,0	1,8
P	−1,6	−6,7	−0,2	−0,1	0,5	6,1	3,8
UK	−1,6	0,6	0,5	−1,0	−0,5	−0,3	−2,9

(8) Non-monetary liabilities

B	7,8	6,5	8,4	6,4	3,6	7,2	5,5
DK	3,5	3,4	3,4	7,0	2,5	3,6	3,7
D	8,9	11,6	6,0	8,1	8,0	8,2	7,0
GR	2,2	5,2	1,0	0,5	−2,6	−1,2	−1,3
E	:	:	:	:	:	:	:
F	4,5	2,9	3,8	4,2	4,0	5,4	3,3
IRL	2,3	3,8	−1,1	3,1	0,5	−0,8	1,1
I	2,1	3,9	1,4	2,4	2,4	2,0	1,8
NL	13,1	10,9	3,6	1,9	7,6	5,7	6,0
P[2]	12,6	13,2	14,9	14,6	14,6	10,0	7,0
UK	0,9	1,5	1,5	2,0	2,2	2,8	2,1

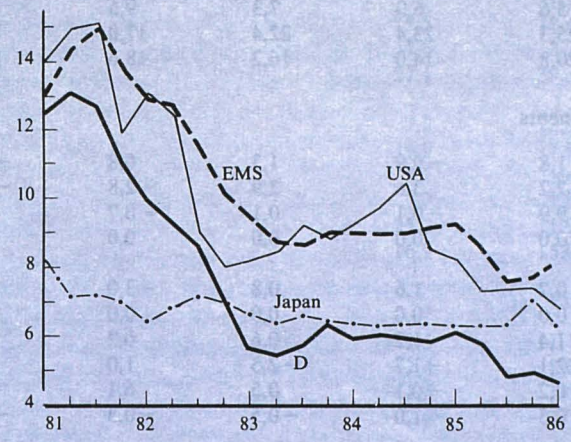
[1] Public enterprises included.
[2] Assets of non-residents included.
Source: Commission services.

A.6.4. Interest rate and exchange rate developments

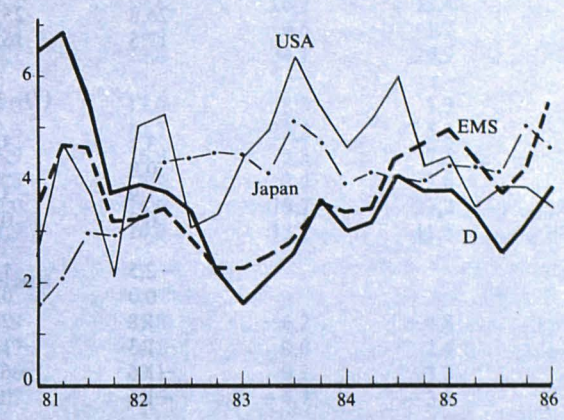
Both short-term and long-term interest rates in Europe have shown a clear downward trend since the beginning of 1985 (Graph A.6.1). In the Community as a whole, long-term nominal rates fell more sharply (by 3,5 percentage points) than short-term rates (2,5 percentage points) between the end of 1984 and early May 1986, and this flattening of the yield curve reflects to a certain degree the success of monetary authorities in reducing and stabilizing inflationary expectations. Several factors contributed to declining interest rates: lower US interest rates, a falling dollar and more importantly in this respect, a reversal of market views on exchange rates as well as lower inflationary expectations. Graph A.6.1 shows that the interest rate decline was even more marked in the United States than in the Community, as a consequence of a more expansionary stance in US monetary policy. There has been a positive interest rate differential between the majority of European rates and US rates; it tended to narrow last autumn and then widened

GRAPH A.6.1: **Interest rate developments: USA, Japan and Europe**

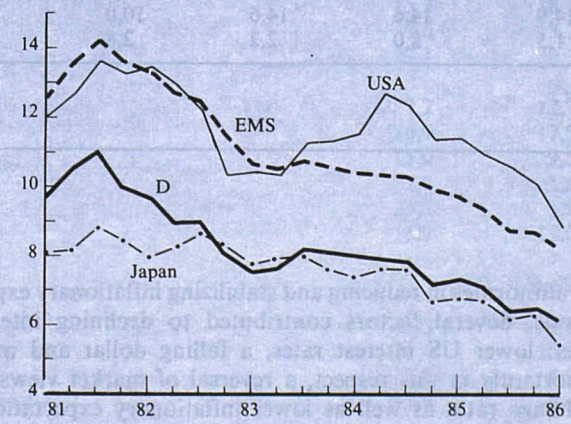
(a) Short-term nominal interest rates



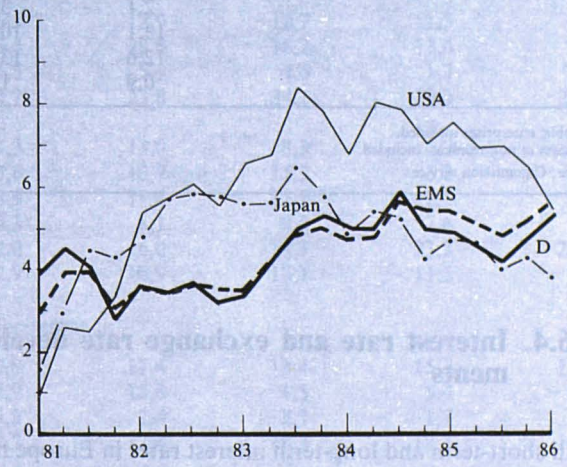
(c) Short-term real interest rates[1]



(b) Long-term nominal interest rates



(d) Long-term real interest rates[1]



Source: Commission services.

[1] Adjusted for consumer prices.

temporarily around the end of the year and into the early months of 1986. The spread between the Federal Republic of Germany and the Netherlands on the one hand and the United States on the other has been negative; it widened slightly during the summer and has not changed significantly since then. However, in the early summer, US market rates tended to strengthen, despite a reduction in the US discount rate; it is not clear how long this phenomenon will persist.

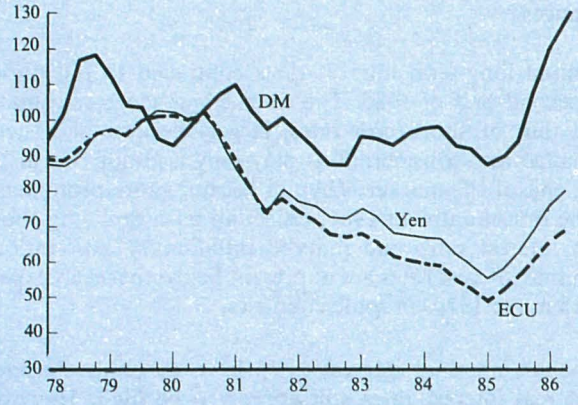
Current account disequilibria at world level have accentuated the need for exchange rate adjustments; this need had implications for monetary policy and, in particular, for interest rate policy. Thus it was that, while US interest rates have declined since the second quarter of 1984, the fall in European rates only began in early 1985. This coordinated approach to exchange rates was further developed in the G5 agreement of September 1985 which sought to bring down the US dollar and push up the Yen. After that agreement Japan temporarily increased its short-term interest rates while interest rates in Europe basically continued their downward movement.

The adjustment in exchange rates (Graph A.6.2) which has occurred so far — between February 1985 and July 1986 the ECU rose by more then 30 % against the dollar while the yen rose by about 10 % against the ECU — reflects to some extent the policy of the coordinated use of interest rates. In this process a substantial reduction in the general level of interest rates has been achieved without adverse effects on exchange rates.

However, the substantial adjustment in exchange rates cannot be explained primarily by interest rate developments. The fact that the exchange rate adjustment has occurred without very markedchanges in interest rate differentials shows that a reversal in exchange rate expectations has been of particular importance. Exchange rate expectations were influenced by several factors: first, the G5 agreement marked a change from the US authorities'previous attitude of declared 'benign neglect' to a more pragmatic approach to exchange rates; secondly the dynamic factors linking persistently high current account deficits, rising external indebtedness and external interest payments in the US case have been given increasing attention and have revealed the unsustainable character of the US external position; finally Europe and in particular Japan are expected to gain relatively more than the US from the fall in oil prices.

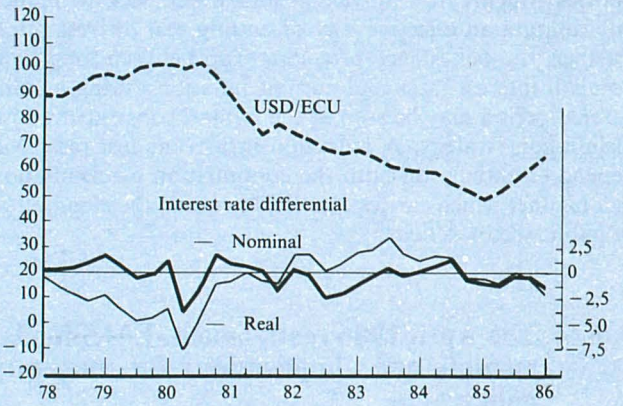
The downward movement in European short-term interest rates was interrupted at some points as a result, mainly, of exchange rate developments. These rates firmed towards the end of 1985 and at the beginning of 1986 in France, Belgium and Ireland as a result of exchange rate tensions within the EMS. Short-term interest rates also strenghthened in

GRAPH A.6.2: **Dollar exchange rate indices**
(period average/base 1980)



Source: Commission services.

GRAPH A.6.3: **Determinants of exchange rate trends**
ECU/Dollar exchange rate
Exchange rate indices (period average/base 1980)
Interest rate differential (right scale)



Source: Commission services.

December and January in the United Kingdom in response to the depreciation of sterling following the oil price decline. Exchange rate tensions subsided following the EMS realignment in April 1986 and — in the case of the United Kingdom — after the adoption of the budget. Short-term interest rates in these countries then strongly resumed their downward trend supported by cuts in official interest rates in some instances.

Nominal long-term interest rates continued to fall during the second half of 1985. The decline was more continuous than that of short-term rates, largely because short-term exchange rate considerations play only a minor role at the long end of the market. The fall became more pronounced in the first months of 1986, reflecting both declining short-term interest rates and reduced inflationary expectations. Nominal interest rates are at present below the levels experienced in the 1970s in some countries.

Although nominal interest rates have generally declined, most real interest rates still appear to be high. However, the measurement of real rates of interest is fraught with methodological and conceptual difficulties which become more acute in periods of strong external price shocks. In countries where the actual inflation rate is lower than what is thought to be the underlying rate, real interest rates measured on the basis of current consumer prices will probably be overstated. Based on unit labour costs, used as a proxy for the general view of underlying inflation, real interest rates appear to be relatively low in countries where core inflation has already been low for some years (e.g. the Federal Republic of Germany) and high in countries where inflationary expectations are high either because of large wage increases (United Kingdom) or because of large budget deficits (Italy, Belgium). These examples show that economic policies which carry conviction and which seek to reduce inflation are an effective way of cutting real interest rates. Further, the persistence of a large gap between long-term nominal interest rates and current inflation during a transitional period may be seen as the natural consequence of a disinflation strategy. A reduction in real interest rates will depend essentially on both the continuation of disinflation in a manner which carries conviction and on the elimination of public sector deficits.

A.6.5. The April 1986 realignment, EMS fundamentals and implications for monetary policy

The EMS realignment which took effect on 7 April 1986 was the first general adjustment in central rates for three years, although the lira devalued by 7,8 % in July 1985. The D-mark and the guilder revalued by 3 % while the French franc devalued by the same amount. The Belgian franc and the Danish krone revalued by 1 %.

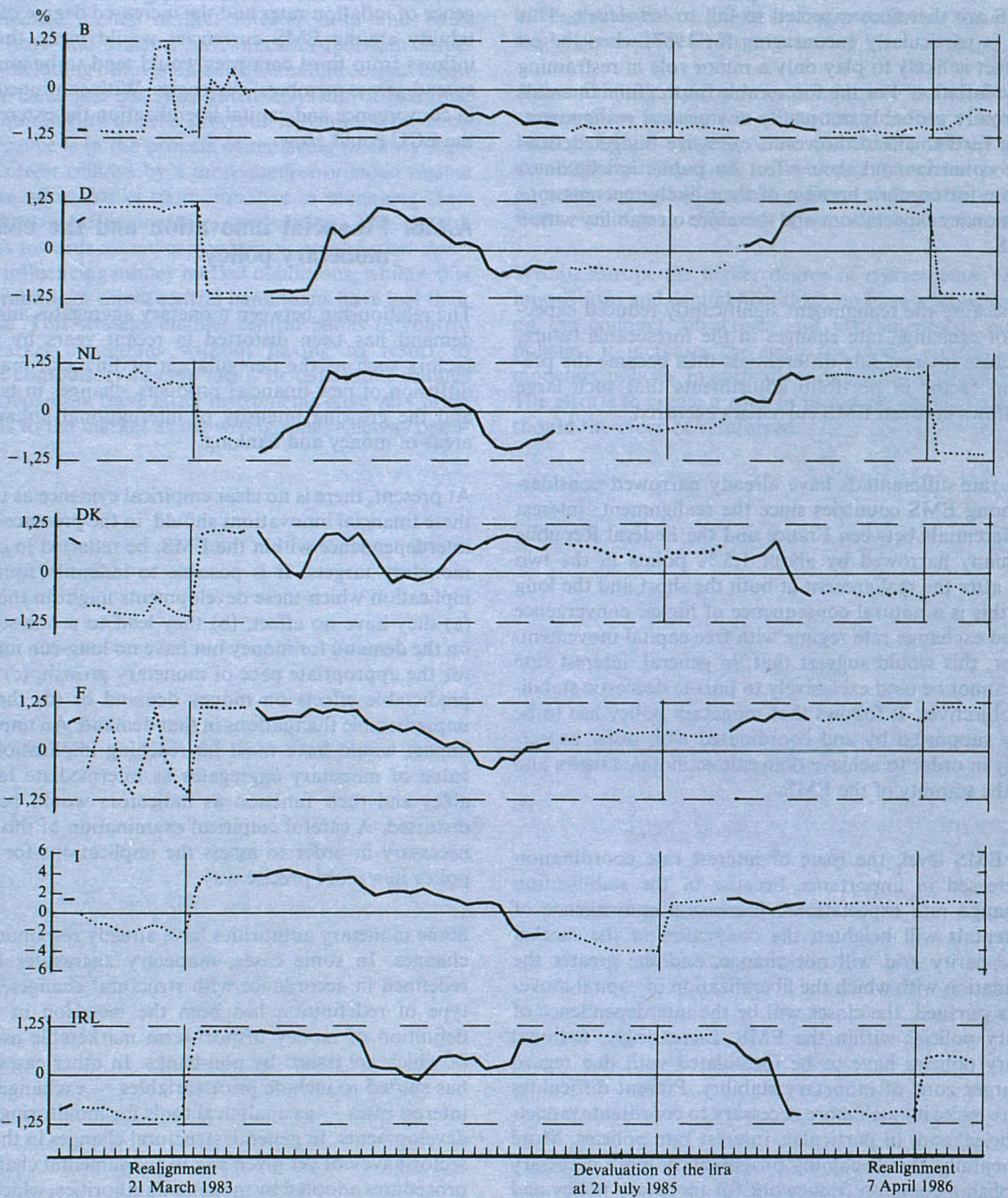
An immediate effect of the realignment was to provoke capital outflows from the Federal Republic of Germany into other EMS countries, in particular France, on a scale which was not experienced after past realignments. In the process of resisting these forces and defending the new parity grid EMS Central Banks bought more than 25 billion marks in the weeks following the realignment. Subsequently, the D-mark and the French franc have remained the weakest and strongest currencies respectively in the EMS (graph A.6.4). Although there are some precedents for these developments, for example in the sequel to the realignment of 1983, their size and duration are greater than in previous cases.

The realignment took place after a period in which markets had clearly expected a change in EMS parities at some stage because of past divergencies of prices and costs; such expectations were particularly evident in the development of Euro-currency interest rates. At the beginning of the year Irish interest rates increased significantly following pressure on the Irish pound. In February and March Euro-franc interest rates rose in turn because of speculation on a franc devaluation within the EMS. In addition to interest rate movements, substantial central bank intervention in the foreign exchange market became necessary on several occasions to prevent exchange rates from crossing the upper or lower limit of their fluctuation bands.

The development of fundamental factors cannot of itself adequately explain the timing and the extent of the parity changes which occurred at the last realignment. None of the depreciating countries was faced by an external current account deficit, although the distribution of current account balances between countries was uneven and their relative cyclical positions varied sharply. Countries which had previously experienced large current account deficits had made significant progress, and the fall in oil prices improved the current account outlook in almost all EMS countries. As regards intra-EMS prices and cost, although relative levels continued to differ, no further divergent developments had recently taken place. The primary effect of the realignment was therefore to remove accumulated differences in relative competitive positions rather than to accommodate current divergences in fundamental factors.

The convergence of fundamental factors remains the most important prerequisite for EMS stability. Present forecasts suggest that no substantial shift is likely to occur in the current account positions of EMS countries, although the competitive positions *vis-à-vis* the USA will certainly work against a further improvement in the real trade balances of

GRAPH A.6.4: **The EMS exchange rates in the fluctuation band**



Source: Commission services.
The dotted line shows daily values during the months in which a realignment took place. From the date of the last realignment daily values are shown only. The continuous line shows monthly averages between realignments.

EMS member countries as a group. Moderate wage settlements in many EMS countries are contributing to higher convergence of domestic cost changes. Inflation rates within the EMS are therefore expected to fall to low levels. This outlook is particularly encouraging for 1987, when the oil price effect is likely to play only a minor role in restraining domestic inflation. For the foreseeable future, fundamentals will therefore probably not justify any general realignment. Looking further ahead, however, excessive budget deficits in some countries and their effect on public indebtedness give cause for concern because of their likely repercussions on inflationary expectations and therefore on stability within the EMS.

It was because the realignment significantly reduced expectations of exchange rate changes in the foreseeable future, and because interest rate differentials thus became the predominant factor in portfolio adjustments that such large capital flows between EMS currencies occurred.

Interest rate differentials have already narrowed considerably among EMS countries since the realignment: interest rate differentials between France and the Federal Republic of Germany narrowed by about 1,5 % points in the two months after the realignment at both the short and the long end — this is a natural consequence of higher convergence in a fixed exchange rate regime with free capital movement. However, this would suggest that, in general, interest rate policy cannot be used exclusively to pursue domestic stabilization objectives. It follows that monetary policy has to be strongly supported by and coordinated with other aspects of policy in order to achieve domestic economic targets and ensure the stability of the EMS.

At the EMS level, the issue of interest rate coordination has increased in importance because of the stabilization of exchange rate expectations. Increasing convergence of fundamentals will heighten the conviction in the market that the parity grid will not change; and the greater the determination with which the liberalization of capital movements is pursued, the closer will be the interdependence of monetary policies within the EMS. Increasingly, national monetary policies have to be formulated with due regard for a larger zone of monetary stability. Present difficulties therefore make it much more necessary to coordinate monetary policies, and, in particular, interest rate policies. More fundamentally, it is becoming progressively more necessary to establish a common framework for monetary policy and to set intermediate monetary targets by a cooperative process. One possible common concept would be that of a monetary policy forming part of a medium-term growth framework, with priority given to price stability.

As the EMS increasingly becomes a coherent monetary area and isevident as such to the external world, the development of a common dollar policy will be facilitated. Greater convergence of inflation rates and the increased degree of substitutability among EMS currencies would mean that capital inflows from third countries would tend to be more evenly spread across members' currencies. With continued progress in convergence and capital liberalization the external role of the ECU could grow.

A.6.6. Financial innovation and the conduct of monetary policy

The relationship between monetary aggregates and nominal demand has been distorted in recent years by structural factors such as the deregulation of financial markets, the diffusion of new financial products, changes in tax systems and the growing intensity of international linkages in the areas of money and banking.

At present, there is no clear empirical evidence as to whether these financial innovations should, in the presence of greater interdependence within the EMS, be reflected in changes to monetary targets. It is possible to indentify four types of inplication which these developments might in theory have: (a) they have no effect, (b) they lead to a one-step impact on the demand for money but have no long-run implications for the appropriate pace of monetary growth, (c) they have predictable effects on money demand or (d) they lead to unpredictable fluctuations in that demand. An unpredictable impact would have most far-reaching implications for the value of monetary aggregates as intermediate target variables and their function as indicators would be seriously distorted. A careful empirical examination of this subject is necessary in order to assess the implications for monetary policy in a more precise way.

Some monetary authorities have already responded to these changes. In some cases, monetary aggregates have been redefined in accordance with structural changes. The main type of redefinition has been the inclusion in the broad definition of money ofshort-term marketable assets, some of which are issued by non-banks. In other cases the focus has shifted to include price variables — exchange rates and interest rates — as analytical tools for monitoring monetary developments. In general, structural changes in the financial sector have not yet given rise to fundamental changes in the procedures adopted by monetary authorities, which continue to make extensive use of quantitative targets. Money or credit targets continue to be used in the Federal Republic of Germany, Greece, Spain, France, Italy and the United Kingdom.

There have been a number of changes recently in the choices made among monetary policy instruments. Monetary authorities have shown growing preference for control techniques which influence money market interest rates and bank liquidity. Italy and Ireland have abolished certain direct measures, including ceilings on bank loans and formal credit guidelines; Denmark has substituted a system of marginal reserve requirements for the previous regulations on bank lending; France is in the process of replacing its fairly rigid system of credit ceilings by a more market-oriented regime designed to allow banks more initiative in managing their balance sheets and to increase competition. The general tendency is towards an increasing use of open-market operations for influencing money market conditions, while rediscount operations or direct central bank loans have lost their importance. This strategy enables central banks to control money market conditions without having to resort to changes in compulsory reserve ratios or rediscount ceilings or rates. Changes in these latter instruments have very often sent signals to the market at the wrong time, whereas open-market operations enable money market conditions to be influenced in a less conspicuous way. This strategy helps monetary authorities to test market reactions to changes in interest rates before giving strong interest rate signals which might prove difficult to reverse.

A few Community countries continue to use credit control as a regular instrument of monetary policy (Greece, the Netherlands, Portugal). Some countries however consider domestic credit controls as a necessary tool for protecting domestic monetary expansion from undesirable capital inflows even if their efficiency is not entirely satisfactory.

Within Europe the higher degree of convergence, financial innovations and capital liberalization have a growing impact on the conduct, objectives and instruments of monetary policies. It increases the need for closer coordination of monetary policies, in particular among EMS Member States. The efforts to create a zone of monetary stability in Europe should therefore be reinforced.

A.7. Budgetary trends and policies

Budgetary consolidation efforts, allied to the improvement in the economic climate, should result in 1986 in some reduction of the importance of general government in Community GDP, both on the receipts and expenditure sides, as well as in a fall in net borrowing. The strengthening of internal demand, to which the the fall in the oil bill has contributed, is improving tax receipts, helped in some Member States by higher taxes on oil products, while Spain and Portugal have broadened their tax bases by introducing VAT. At a structural level, the strategy of the majority of Member States consists in keeping the growth of budgetary receipts and expenditure below that of GDP in order to produce a lasting reduction in the taxation and redistribution functions of the public sector. Although the necessity of improving public accounts in 1986 means that the weight of public receipts in several Member States will increase, the share of public expenditure should, on the other hand, fall in almost all countries. In some Member States, the weight of past budgetary policy management, which has resulted in a rapid increase in the magnitude of public debt and in a heavy burden of interest rate charges, increasingly necessitates a marked turnaround in public accounts.

A.7.1. The Community as a whole

The trend in public finance in the Community up to mid-1986 conforms in aggregate to budget decisions taken for 1986. The improvement in the outlook for growth on that foreseen last autumn, due to a large extent to the fall in the dollar and in the price of oil, increases tax receipts and thus facilitates the achievement of budget balanceobjectives. Since the slowing of inflation and the fall in the oil bill are having a positive effect on domestic demand, public authorities can limit the growth of transfers more easily. In addition the fall in interest rates is reducing the debt-interest rate burden. Member States have generally integrated these elements which are favourable to the correction of public accounts into budgetary management without seeking to reinforce consolidation trendsfurther. Denmark is, however, the main exception to this trend.

The primary objective of budgetary policies in 1986 is a gradual reduction in the level of deficits as a percentage of GDP at the same time as reducing the weight of the public sector. This result should be obtained by a faster slowdown in the growth of public expenditure than that achieved on the receipts' side. The estimates shown in Table A.7.1 indicate that current receipts for EUR 12, which increased by 8,6 % in 1985, are likely to grow this year by 7,3 %; current expenditure for its part, which was 8 % higher in 1985 than a year earlier, should advance by 6,6 % in 1986. It can also be seen that the rate of increase of both receipts and expenditure is expected this year to be below the increase in nominal GDP, which will reduce the share of the public sector in the economy. Current receipts should also fall back from 45,1 % of GDP in 1985 to 44,6 % in 1986 and current expenditure from 46,4 % in 1985 to 45,6 % this year. General government net borrowing which was 5,4 % of GDP in 1984 (EUR 12) eased to 5,2 % in 1985; this year it should be 4,6 % of GDP.

This section also presents budgetary forecasts for 1987. This is a preliminary exercise drawn up before those Member States with a finance law system based on civil years have really begun their budgetary procedures for next year and before the Community has agreed on quantitative budgetary guidelines for 1987. These forecasts are consistent with those for economic activity and include, as far as possible, the medium-term intentions of governments. These generally envisage the continuation of efforts to moderate the growth in receipts and public expenditure at the same time as reducing budget deficits as a percentage of GDP. The forecasts for the Community as a whole (see Table A.7.1) show a continuation in the slowdown in budgetary receipts and expenditure in 1987, which should permit a modest fall in the rate of tax and social security contributions (44,3 % of GDP as against 44,6 % in 1986) and the share of current expenditure of general government (45,1 % as against 45,6 % in 1986). Net borrowing should fall by two tenths of a percentage point to 4,4 % of GDP.

The enlargement of the Community to include Spain and Portugal from 1 January 1986 has somewhat modified the statistical picture as far as public sector accounts are concerned. The rate of tax and social security contributions of the two new Member States, which amount to around 33 % of GDP in 1986 (see Table A.7.3), are more than 10 points below the Community average, which is accordingly reduced by one point in comparison to the Community of ten. The effect is much the same on the expenditure side. Following accession, Spain and Portugal have introduced VAT which

Table A.7.1

General government revenue and expenditure[1] EUR 12

	'000 million ECU		% of GDP				% change		
	1985	1986	1984	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]
Indirect taxes	434,5	463,1	13,5	13,3	13,5	13,6	7,3	9,6	7,0
Direct taxes	417,4	433,6	12,6	12,8	12,5	12,4	9,9	5,8	5,1
Social security contributions received	494,6	525,6	15,2	15,1	15,0	15,0	8,0	7,6	5,7
Total taxes and social security contributions	1 346,5	1 422,3	41,3	41,3	41,0	40,9	8,4	7,7	5,9
Other current revenue	126,1	126,9	3,7	3,8	3,6	3,4	11,8	3,0	− 1,2
Total current revenue	1 472,6	1 549,2	45,0	45,1	44,6	44,3	8,6	7,3	5,4
Current transfers paid	736,4	765,6	22,8	22,6	22,0	21,8	7,4	5,6	5,2
Actual interest payments	162,1	174,3	5,0	5,1	5,2	5,1	12,2	10,2	3,2
Government consumption	604,9	631,6	18,7	18,6	18,3	18,2	7,6	6,7	5,3
Total current expenditure	1 503,4	1 571,4	46,5	46,4	45,6	45,1	8,0	6,6	5,0
Gross saving	− 30,8	− 22,2	− 1,5	− 1,3	− 1,0	− 0,8	—	—	—
Net capital transfers	36,7	33,4	1,1	1,2	1,0	0,9	17,1	− 10,0	3,5
Gross capital formation	88,6	91,8	2,8	2,8	2,7	2,7	8,3	5,4	5,3
Net lending(+) or borrowing(−)	− 156,1	− 147,4	− 5,4	− 5,2	− 4,6	− 4,4	—	—	—
Memorandum: nominal GDP							8,5	8,4	6,2

[1] National accounts definition, excluding loans, advances and participations.
[2] Forecasts.

Source: Commission services.

Table A.7.2

Member States' general government revenue and expenditure,[1] % change, 1985-87

	Total current revenue			Indirect taxes			Direct taxes			Social security contributions received			Other current revenue		
	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]
B	7,3	4,1	4,2	5,0	5,0	3,6	6,7	5,3	3,2	10,3	3,5	6,5	5,4	−7,6	0,5
DK	11,2	9,4	3,5	11,4	13,2	7,4	13,5	9,6	1,3	8,2	−7,5	3,7	3,9	5,6	2,3
D	4,9	5,2	5,1	1,6	4,8	5,1	7,8	5,1	6,8	5,1	6,3	4,7	5,7	1,7	0,6
GR	20,3	32,7	16,8	22,3	33,4	17,8	11,5	53,0	19,0	21,0	22,7	13,9	28,3	24,6	15,5
E	14,2	13,8	9,8	16,0	26,4	13,5	13,8	8,5	8,5	10,2	10,4	8,0	28,8	5,0	8,0
F	7,1	5,3	4,0	7,4	5,7	5,0	6,0	4,8	4,6	7,3	5,1	2,8	7,4	6,5	4,9
IRL	6,7	7,2	4,9	3,7	7,5	5,6	6,1	11,0	5,9	6,7	6,0	5,4	19,6	−3,5	−1,5
I	11,2	11,1	6,2	8,4	12,9	9,3	12,5	9,4	5,5	10,6	12,1	7,7	20,3	6,8	−13,8
L	10,2	3,9	2,2	4,8	5,7	4,8	15,8	0,8	−3,0	5,2	5,6	6,4	16,8	5,6	2,8
NL	4,2	1,2	−0,8	5,3	2,9	5,0	3,5	4,9	1,4	1,6	−0,1	3,2	10,7	−2,9	−19,5
P	17,0	35,1	17,8	14,6	39,3	16,0	28,4	5,0	15,5	21,5	34,9	14,5	−30,6	220,9	43,0
UK	9,7	3,4	4,7	8,3	8,1	6,8	11,5	−0,9	2,6	7,9	7,9	7,1	12,7	−7,4	−0,8
EUR 12	8,6	7,3	5,4	7,3	9,6	7,0	9,9	5,8	5,1	8,0	7,6	5,7	11,8	3,0	−1,2

	Total expenditure			Current transfers paid			Actual interest payments			Government consumption			Net capital transfers and gross capital formation		
	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]
B	6,2	3,7	2,7	3,8	3,4	3,1	15,0	6,8	4,8	5,2	3,1	1,4	3,3	−1,9	−0,3
DK	7,0	1,6	2,1	4,7	3,0	2,9	11,6	−4,6	−5,7	5,8	2,8	3,8	21,2	2,2	4,3
D	3,1	4,3	4,2	1,9	4,0	3,9	5,9	4,5	2,5	4,3	4,3	4,4	0,7	5,3	5,7
GR	30,3	18,5	8,4	33,6	17,7	3,2	41,5	42,7	17,3	24,3	16,6	10,1	32,4	3,0	8,5
E	17,2	10,7	8,4	9,8	8,2	10,1	78,5	27,3	0,5	13,5	12,1	8,6	32,2	3,7	8,5
F	6,4	5,1	4,3	6,9	5,1	4,5	8,8	7,8	7,2	6,2	5,1	3,2	1,0	2,4	5,3
IRL	10,4	4,1	4,0	8,2	5,2	4,4	21,1	0,5	1,8	7,6	7,4	4,6	8,8	−7,2	4,1
I	13,2	8,8	6,9	12,3	8,5	7,4	8,0	14,9	2,7	11,9	9,5	7,8	30,5	−0,5	9,2
L	5,0	4,4	4,2	5,5	4,3	4,0	17,3	10,7	3,3	5,1	5,3	6,3	1,3	1,9	1,3
NL	2,4	1,4	0,4	2,3	2,3	−0,4	8,8	5,8	6,3	1,4	0,3	0,2	−1,0	−5,3	−3,0
P	29,6	32,0	17,1	33,8	32,5	19,2	37,0	59,2	16,6	24,5	18,3	13,7	18,6	26,4	22,2
UK	7,0	3,8	4,2	8,6	1,6	3,9	10,5	4,6	1,8	6,3	6,7	5,7	−3,5	−8,4	−5,3
EUR 12	8,2	6,1	5,0	7,4	5,6	5,2	12,2	10,2	3,2	7,6	6,7	5,3	10,7	0,8	4,9

[1] National accounts definition, excluding loans, advances and participations.
[2] Forecasts.

Source: Commission services.

should improve tax receipts by enlarging the tax base and reducing possibilities for fraud and evasion. In time, the installation of this modern system of indirect taxes should, therefore, tend to bring Spanish and Portuguese rates of tax and social security contributions more into line with the Community average. Greece will also introduce VAT in 1987. The principal objective of these three countries is therefore to modernize their tax system and increase returns on the receipts side, rather than to limit tax pressure as in the other member countries.

A.7.2. Budgetary trends in the Member States

The fall in oil prices has led Member States to study the question as to how appropriate it is to take advantage of the fall in the oil bill by taxing part of the gains. The attitude of Member States here has not been uniform. Some have decided not to modify existing or planned taxes on oil (Belgium, Germany, France, Luxembourg) while others have taxed some of the gains (Spain, Ireland, the United Kingdom) and anumber have sought to neutralize practically all of the gains through taxation (Denmark, Greece, Italy, Portugal). The Netherlands has also announced supplementary taxes to compensate for budgetary losses due to the fall in natural gas prices. If decisions on oil taxation are linked to the overall situation on the budgetary accounts, it is apparent that the relationship between, on the one hand, low budget deficits and the absence of increases in taxation and, on the other, between higher deficits and an increase in oil taxation, which could have been hoped for, is not totally respected. Thus Belgium, where the public deficit is large, did not increase oil taxation. At the opposite end of the scale, Denmark, where the improvement in the budgetary position has already been substantial, decided to compensate in total for the fall in oil prices by increased taxation. It can equally well be seen that the two main Community producers of oil and/or gas, that is to say the United Kingdom and the Netherlands, where receipts from this activity are declining rapidly (in the United Kingdom, they have been halved), have reacted differently, the Netherlands deciding to introduce additional taxation on energy while in the United Kingdom policy action has been limited to raising excise duty on petrol, an adjustment which is traditionally carried out annually in the budget.

Eight Member States should, this year, record a fall in the share of taxes and social security contributions in GDP, i.e. Belgium, Germany, France, Ireland, Italy, Luxembourg, the Netherlands and the United Kingdom (see Table A.7.3). As a matter of fact tax pressure as a whole has not been tightened in these countries in 1986. In France, the direct tax burden was reduced slightly in the 1986 budget; a supplementary budget, adopted in April 1986, includes a plan for youth employment and an increase in grants to industries, expenditure being totally covered by economies on the budget and the sale of assets of public enterprises. Ireland, where the budget was introduced at the beginning of the year, has lowered somewhat direct taxes on employees and reduced the number of VAT rates at the same time as increasing the general rate from 23 to 25 %. In Italy, tax rates on individuals were eased. Luxembourg reduced its solidarity levy. In the budget for 1986/87, presented in March, the United Kingdom authorities reduced the basic income tax rate by one point.

In the four other Member States, the weight of taxes and social security contributions will remain unchanged this year (Spain), or will increase as a proportion of GDP (Denmark, Greece, Portugal). Denmark increased indirect taxation in December 1985 and March 1986 to absorb the increase in purchasing power brought about by the improvement in the terms of trade and to avoid too great a surge in domestic demand. The increase in taxation on energy will account for the major part of supplementary receipts. Greece, following thedevaluation of the drachma in October and the granting of a Community loan in November, decided on a stabilization plan with the principal objective of reducing substantially the financing needs of the public sector by taking action on the budgetary aggregates, increasing public service charges, intensifying the fight against tax fraud and by introducing a special levy on companies and the self-employed. In Portugal, the introduction of VAT will also boost budgetary receipts but the increase expected for indirect taxes is a lot higher than in Spain as a result of the more or less complete taxation of the gains due to the fall in the price of oil (see Table A.7.2). These four countries have reinforced the priority given to indirect taxes; the improvement in direct tax receipts is essentially due in Greece to the intensification in the fight against tax fraud.

Looking at the expenditure side of general government, it is seen that the Community is tending, in a convergent manner, to put into practice its objectives of limiting the share of public spending in GDP: 11 Member States should indeed see a fall in the proportion of public spending in GDP this year. The one exception is Portugal where the total expenditure of general government could reach 43,9 % of GDP this year as against 40,7 % in 1985. The budget adopted by the Portuguese parliament at the beginning of April provides for a large rise in public debt interest payments as well as a marked rise in public investment. Portuguese net borrowing could rise to 11,2 % of GDP in 1986 as against 11,1 % in 1985. Controls on expenditure within the Community should continue in 1987 and the forecasts of the Commission services anticipate a fall as a proportion of GDP in the Member States.

Table A.7.3

Member State's general government revenue and expenditure,[1] as a % of GDP, 1985-87

	Total current revenue			Indirect taxes			Direct taxes			Social security contributions received			Other current revenue		
	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]
B	47,6	46,7	46,9	11,5	11,3	11,3	19,3	19,2	19,1	14,6	14,3	14,6	2,2	1,9	1,8
DK	57,6	58,8	58,1	18,6	19,7	20,1	28,7	29,3	28,3	2,9	2,5	2,5	7,5	7,4	7,2
D	46,4	45,9	46,2	12,6	12,4	12,5	12,6	12,4	12,7	17,5	17,5	17,5	3,8	3,6	3,5
GR	34,4	37,6	39,3	15,9	17,5	18,5	5,6	7,0	7,5	11,0	11,1	11,3	2,0	2,0	2,1
E	33,6	33,5	33,9	9,2	10,2	10,6	8,2	7,8	7,8	12,9	12,5	12,5	3,3	3,0	3,0
F	50,0	49,2	48,7	15,1	15,0	14,9	9,3	9,1	9,1	21,8	21,5	21,0	3,7	3,7	3,7
IRL	42,2	41,3	40,9	16,9	16,6	16,6	14,5	14,7	14,7	5,7	5,5	5,5	5,1	4,5	4,2
I	44,4	44,0	43,0	10,8	10,9	11,0	15,3	14,9	14,5	15,8	15,8	15,6	2,5	2,4	1,9
L	56,8	54,5	52,8	15,1	14,7	14,6	19,9	18,6	17,1	13,5	13,2	13,3	8,2	8,0	7,8
NL	55,3	54,9	53,7	12,1	12,2	12,6	12,8	13,2	13,2	20,4	20,0	20,4	10,0	9,5	7,5
P	29,6	32,6	33,3	13,7	15,5	15,6	8,4	7,2	7,2	6,5	7,2	7,1	1,1	2,7	3,4
UK	42,0	40,9	40,1	16,2	16,5	16,5	14,9	13,9	13,3	6,9	7,0	7,0	4,1	3,5	3,3
EUR 12	45,1	44,6	44,3	13,3	13,5	13,6	12,8	12,5	12,4	15,1	15,0	15,0	3,8	3,6	3,4

	Total expenditure			Current transfers paid			Actual interest payments			Government consumption			Net capital transfers and gross capital formation		
	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]	1985	1986[2]	1987[2]
B	56,9	55,6	55,0	25,3	24,6	24,5	10,9	10,9	11,0	17,6	17,1	16,7	3,1	2,9	2,8
DK	59,5	56,4	54,9	21,5	20,6	20,2	9,8	8,8	7,9	25,2	24,2	24,0	3,0	2,8	2,8
D	47,5	46,6	46,5	20,6	20,1	20,0	3,0	3,0	2,9	20,0	19,6	19,6	3,9	3,9	3,9
GR	48,3	47,1	45,7	17,6	17,1	15,8	5,5	6,4	6,7	20,0	19,2	18,9	5,2	4,4	4,3
E	39,8	38,6	38,6	18,4	17,4	17,7	3,5	3,9	3,6	13,6	13,4	13,4	4,2	3,9	3,9
F	52,5	51,7	51,2	30,4	29,9	29,7	2,8	2,8	2,9	16,3	16,0	15,7	3,0	2,9	2,9
IRL	53,5	50,9	50,0	19,7	19,0	18,7	10,7	9,8	9,4	19,0	18,6	18,4	4,1	3,5	3,4
I	58,4	56,7	55,9	23,1	22,3	22,1	9,3	9,5	9,0	19,5	19,0	18,9	6,6	5,8	5,8
L	52,7	50,7	50,1	28,8	27,7	27,3	1,3	1,3	1,3	15,2	14,8	14,9	7,4	6,9	6,6
NL	60,4	60,2	59,5	32,8	32,9	32,3	6,3	6,5	6,9	16,3	16,0	15,8	5,0	4,7	4,5
P	40,7	43,9	44,5	15,1	16,3	16,9	7,7	10,0	10,1	14,5	14,0	13,8	3,4	3,5	3,7
UK	45,1	44,0	43,0	16,5	15,7	15,3	5,0	4,9	4,7	21,2	21,3	21,1	2,4	2,0	1,8
EUR 12	50,3	49,3	48,7	22,6	22,0	21,8	5,1	5,2	5,1	18,6	18,3	18,2	4,0	3,7	3,6

[1] National accounts definition, excluding loans, advances and participations.
[2] Forecasts.

Source: Commission services.

An improvement in budgetary balances is likely to come about in a greater number of Member States this year (see Table A.7.4). While in 1985 five countries experienced an increase in their net borrowing as a proportion of GDP (Spain, Ireland, Italy, Greece and Portugal, the increase having been particularly substantial in the latter two countries), in 1986, only three Member States, the Netherlands, Portugal, and the United Kingdom, could experience some slight increase in their public deficit as a percentage of GDP and the surplus in Luxembourg could fall somewhat. In the eight other countries an improvement in budgetary positions as a percentage of GDP is to be seen. The degree of budgetary disequilibrium is however very different as between countries: deficits remain considerable in Italy and Portugal, where they still substantially exceed 10 % of GDP, and are large in Belgium, Greece and Ireland, where they are around 9 % of GDP. The most marked improvement in budgetary positions was recorded in Denmark where a net borrowing position of 1,9 % of GDP in 1985 became a net lending figure of 2,4 % of GDP in 1986. A continuation of the fall in budget deficits in the majority of Member States is expected next year.

A.7.3. Interest charges and public debt

Interest payments on public debt, which increased as a percentage of GDP in eight Member States in 1985, are expected to grow further with respect to GDP in 1986 in five Member States (see Table A.7.3). Generally the fall in interest rates has enabled Member States to consolidate their debt at reduced interest rates and the fall in the dollar has alleviated the weight of debt in those countries where the dollar component is important (Belgium, Denmark, Ireland, Portugal). The presence of these two favourable factors has not, however,prevented debt interest payments from continuing to rise in 1986 as a proportion of GDP in Greece, Spain, Italy, the Netherlands and Portugal. The question therefore arises as to whether the effort already made at the level of budget balances, net of interest payments, has been sufficient in these Member States or, in other words, if the overall reduction in net borrowing has been sufficiently rapid.

Judgments on the speed of the reduction can be based on data presented in Table A.7.5 which brings together figures

Table A.7.4

General government budget balances, as % of GDP, 1984-87

	(a) Net lending (+) or borrowing (−)				(b) Interest payments				(c) Net lending (+) or borrowing (−) less net interest payments (c = a + b)			
	1984	1985	1986	1987	1984	1985	1986	1987	1984	1985	1986	1987
B	−9,8	−9,3	−8,9	−8,1	10,1	10,9	10,9	11,0	0,3	1,5	2,0	2,9
DK	−4,2	−1,9	2,4	3,2	9,6	9,8	8,8	7,9	5,4	7,9	11,2	11,1
D	−1,9	−1,1	−0,7	−0,6	3,0	3,0	3,0	2,9	1,1	1,9	2,3	2,6
GR	−10,1	−13,9	−9,5	−6,4	4,6	5,5	6,4	6,7	−5,5	−8,4	−3,1	0,3
E	−5,0	−6,2	−5,1	−4,7	2,2	3,5	3,9	3,6	−2,8	−2,7	−1,2	−1,1
F	−2,9	−2,6	−2,4	−2,6	2,8	2,8	2,8	2,9	−0,1	0,2	0,4	0,3
IRL	−9,7	−11,4	−9,6	−9,1	9,5	10,7	9,8	9,4	−0,2	−0,7	0,2	0,3
I	−13,0	−14,0	−12,7	−12,8	9,6	9,3	9,5	9,0	−3,4	−4,7	−3,2	−3,8
L	1,5	4,2	3,7	2,6	1,2	1,3	1,3	1,3	2,7	5,5	5,0	3,9
NL	−6,3	−5,1	−5,2	−5,8	5,1	6,3	6,5	6,9	−0,2	1,2	1,2	1,1
P	−7,7	−11,1	−11,2	−11,2	7,1	7,7	10,0	10,1	−0,6	−3,4	−1,2	−1,1
UK	−4,2	−3,1	−3,2	−2,9	5,0	5,0	4,9	4,7	0,8	1,9	1,7	1,8
EUR 12	−5,4	−5,2	−4,6	−4,4	5,0	5,1	5,2	5,1	−0,4	−0,1	0,6	0,7

Source: Commission services.

Table A.7.5

Developments in the gross debt of general government, as a % of GDP, 1980-87

	1980	1981	1982	1983	1984	1985	1986[1]	1987[1]
B[2]	76,4	88,1	96,1	105,6	111,6	(118,3)	(122,8)	(129,4)
DK	33,5	43,6	52,7	62,7	67,6	(66,3)	(61,7)	(57,6)
D	32,6	36,4	39,5	41,1	42,0	(42,7)	(41,7)	(41,1)
GR[3]	27,7	33,0	36,7	41,7	49,9	56,8	(57,0)	(59,6)
E	17,4	21,0	26,2	32,1	39,3	(46,3)	(49,0)	(52,7)
F	25,0	26,0	29,1	30,7	29,3	(31,8)	(33,5)	(35,1)
IRL[3]	84,4	89,8	96,6	107,7	113,6	(115,7)	(118,1)	(123,9)
I	70,2	73,2	80,0	87,6	94,5	(103,0)	(106,3)	(110,5)
L	13,8	14,0	14,4	14,8	(14,8)	(14,5)	(13,8)	(13,3)
NL[2]	45,9	50,3	55,6	62,3	67,0	(70,6)	(76,1)	(82,0)
P	47,4	59,0	62,2	70,9	75,7	(81,2)	(84,5)	(89,6)
UK[4]	52,3	51,1	57,7	57,4	(58,7)	(56,9)	(58,1)	(58,7)
EUR 12	42,4	45,0	49,8	53,5	56,8	(59,7)	(61,2)	(63,5)

[1] Forecasts.
[2] General government less social security.
[3] State.
[4] Debt valued at market prices.
Source: Commission services.

for gross public debt of general government for the Member States,expressed as a percentage of GDP, in addition to forecasts for levels in 1986 and 1987, consistent with forecasts for budget deficits and nominal growth. It can be noted that Belgian, Irish, Italian and Dutch gross debt should continue to rise steadily and rapidly to 1987 and, at the same time, the level of debt will far exceed the annual level of GDP in Belgium, Ireland and Italy. In these three countries, despite the improvement in their economic situation, corrective measures to trends in the growth and size of public debt which threaten financial balance, appear to be insufficient. At the other end of the scale, figures for Denmark confirm the remarkable turnaround in the growth of public indebtedness, the weight of which will diminish in 1986 and 1987. In Germany and Luxembourg, the trend is also towards a reduction in the debt burden. In France, where the level of indebtedness remains moderate, some increase is foreseen. In Greece a marked moderation in the growth of debt as a proportion of GDP should come about this year as a result of the stabilization measures taken. In the United Kingdom, the weight of public debt (measured here at market prices) is likely to increase slightly, but could remain in total stable as a percentage of GDP if adjusted for the revaluation of debt expected as a result of the continuation of the fall in interest rates.

In total therefore, an examination of the major budgetary aggregates leads to the expectation of a fall in budgetary expenditure in relation to activity in almost all Member States, together with a decrease in the tax and social security burden in eight Member States and its stability, or increase, in the remaining four. In the great majority of cases an improvement in budgetary balances will take place. If this analysis of flows is compared with the outlook for the development of the stock of public debt, an analysis of the debt situation shows that consolidation of budgetary policies has not proceeded at sufficiently fast a pace in Belgium and Italy, where interest charges on the debt continue to outpace GDP. The Belgian government for its part decided in May 1986 on an austerity plan to cutback the borrowing requirement of the State to 8 % in 1987. This involves a total cutback in gross terms of BFR 195 000 million, or about 4 % of GDP; it is essentially geared to a reduction in expenditure and will principally affect operations in 1987[1]. Ireland, which is in an analogous position to the latter two countries, has benefited more from the fall in interest rates and its debt

[1] The budgetary forecasts were drawn up before the publication of the austerity plan of May 1986.

is growing somewhat more slowly. However, on the basis of present budgetary policy, no signs are apparent of a stabilization of public debt in relation to GDP. In the Netherlands, public debt could rise from around 70 % of GDP in 1985 to 80 % in 1987, which leaves little room for a more important contribution of budgetary policy to domestic demand. On the other hand, budgetary consolidation appears very substantial in Denmark and the reversal in trend very rapid. Trends in public accounts in Germany and Luxembourg are under control and developments in France and the United Kingdom do not, on the basis of current forecasts, suggest any particular potential risks.

A.8. Medium-term outlook

Since September 1985 the international environment of the Community has been subject to substantial modification with regard to exchange rates, the oil price and the budgetary outlook in the USA. This chapter presents a baseline projection assuming a stabilization in real terms of the ECU/USD exchange rate from 1988, an upward trend in the oil price from now until the end of the decade, and the maintenance in the medium term of the budgetary and monetary policies foreseen for 1986-87. This scenario is backed up by a set of variants analysing the implications of different profiles for the oil price and the dollar exchange rate. The projections are compared with those of the cooperative growth scenario presented in the 1985/86 Annual Economic Report.

A.8.1. Baseline projection

The baseline projection of the Community economies for the period 1986-90 is set in an international environment which has undergone major modifications since September 1985:

(i) the oil price fall has important repercussions on incomes and prices at the world level;

(ii) the revaluation of the ECU against the dollar modifies competitive positions with respect to world trade and the international distribution of balance of payments surpluses and deficits;

(iii) the stance of US fiscal policy is liable to undergo a major shift in order to achieve a sharp reduction in the federal deficit.

The integration of these various elements in a medium-term projection raises considerable problems, however, to the extent that the movements of the oil price, the dollar and the US federal budget deficit after 1986-87 remains very uncertain.

The projection presented here should therefore be regarded, so far as the period 1988-90 is concerned, as one of many possible scenarios and not as a formal forecast. For this reason two variants will be presented, in order to test the implications of different profiles for the oil price and the dollar exchange rate.

Finally, the results will be compared with the projections obtained for the cooperative growth scenario in the 1985/86 Annual Economic Report.[1]

As a rule, the results presented in this chapter relate to the new composition of the Community, consisting therefore of 12 countries. For all the comparisons with the cooperative growth scenario from the 1985/86 Annual Economic Report, however, the aggregate EUR 10 is taken.

A.8.2. Baseline projection — main assumptions

The baseline projection incorporates the following assumptions:

(i) the average oil import price falls to USD 16 per barrel in 1986 and to USD 15 in 1987. Subsequently, the pressure of world demand relative to supply induces a hypothetical recovery of the (nominal) price to USD 16 in 1988, USD 19 in 1989 and USD 22 in 1990;

(ii) the ECU/USD rate, after falling by 19 % in 1986, only decreases slowly, leading to a constant real exchange rate from 1988 onwards;

(iii) US fiscal policy achieves a reduction of the federal deficit by 0,5 % of GDP per annum on average between 1988 and 1990. The general government deficit would thus fall from 3,4 % of GDP in 1986 to 1,0 % in 1990. The monetary policy of the USA would be steered by the objective of containing inflation without restricting too severely the growth of domestic demand;

(iv) after falling to 2,3 % in 1996 and to 3,9 % in 1987, growth of world imports (excluding the Community) would stabilize at around 5 % in 1988 – 90, as a result of the recovery of OPEC imports and of the positive effects of the lower oil price on growth in non-oil-producing countries. Within the latter group, however, growth in developing countries would continue to be affected by a certain terms of trade loss due to the trend of non-oil commodity prices;

(v) in the Community countries, fiscal policy would continue to be dominated by the desire to reduce the budget

[1] Annual Economic Review 1985/86, Chapter 6, *European Economy* No 26.

deficits in terms of GDP. Growth in real terms of public consumption and of public investment would thus only reach 1,0 % per annum and 1,7 % per annum respectively on average during the 1986-90 period. As far as public revenue is concerned, one would see a slight easing of the total tax burden in 1990 as compared to 1985 as a result of reductions in direct taxation implemented or announced in certain member countries. Monetary policy would be set so as to ensure a reduction of real long-term interest rates, given the general slowing of inflation rates relative to the 1991-85 period and the narrowing of the budget deficits.

A.8.3. Baseline projection — main results

(a) *Demand components and contributions of GDP growth*

Table A.8.1 shows growth of GDP and of its components for the 1986-90 period. As compared to the previous projections,[1] there is a slight acceleration of GDP growth, from 2,5 % to 2,7 % on an annual average, so that GDP is 0,8 % higher in real terms in 1990.

The higher figure is essentially a result of the effects of the lower energy costs on domestic demand, the average growth rate of which rises to 3,0 % per annum (from 2,4 % before).

As regards its profile over time, GDP growth remains relatively invariable within the 2,6 to 2,8 % range, but this is in spite of more irregular movements of the components.

The U-shaped profile for the oil price and its repercussions on inflation (see section (c) below) lead to a progressive decline in the growth of private consumption and of domestic demand in general.

In contrast, the progressive weakening of the effects of the sharp fall of the dollar in 1986 and the slowdown of the demand for imports bring about a progressive improvement in the real external balance, its negative effect on GDP growth (−0,9 % in 1986) falling to zero in 1990.

From a more structural point of view, there is a slow recovery of the share of investment in GDP, at the expense of the share of public consumption. In addition, the degree of openness of the Community economies continues to increase.

[1] Annual Economic Review 1985/86, Chapter 6, *European Economy* No 26.

The relative shares of real GDP (in percent) for the years 1986 and 1990 are as follows:

	1986	1990
Private consumption	62,4	62,9
Public consumption	16,8	15,8
Gross fixed capital formation	19,8	21,5
Domestic demand	99,8	101,0
Exports	31,9	34,2
Imports	31,7	35,2

(b) *Wage and employment*

In the baseline scenario (i.e. with unchanged behaviour), real wage costs continue to grow less quickly than labour productivity, thus extending the trend observed since 1982. This factor, combined with a more favourable development of domestic demand, leads to growth of total employment by 0,7 % per annum between 1986 and 1990, as compared to the average growth of just 0,2 % between 1960 and 1985 and even a clearly negative rate between 1981 and 1985. As a result the unemployment rate falls by more than one percentage point between 1986 and 1990 for the Community as a whole. Even with this stronger employment growth, however, the unemployment rate remains above 10 % for the whole period.

Wage trends have to be analysed with caution to the extent that in 1986 and in 1989-90 they are influenced by the effects of oil price movements on the GDP deflator as compared to the private consumption deflator. Thus, in 1986, real wage incomes grow by 2,4 % (as against 0,5 % for wage costs), and by 1,5 % and 1,7 % in 1989 and 1990 (against 2,0 % and 2,2 % for wage cost).

(c) *Inflation*

The inflation projections for 1987-90 confirm the trend observed since 1985/86. The general inflation rate should thus fall to 3,4 % over the 1986-90 period, a rate comparable to the 1961-70 average.

In addition, the rise in the inflation rates in 1989 and 1990 is a purely mechanical phenomenon linked to the oil price development which should not continue later if this price stabilizes.

The present projections indicate a significant convergence in the inflation rates of member countries; the extremes of

0 % and 22,5 % (Germany and Greece respectively) in 1986 compare with extremes of 2 % and 10 % (Germany and Portugal respectively) in 1990.

This phenomenon can only contribute towards the stability of bilateral exchange rates within the European Monetary System.

Finally, the considerable terms of trade gains registered in 1986 are to some extent gradually eroded, particularly in 1989 and 1990, but remain positive throughout the period.

(d) *External trade*

The goods and services balance is also affected in nominal terms by the U-shaped profile of the oil price between 1985 and 1990. Thus despite a difference of 3,2 percentage points between the rates of growth in 1986 of real exports and real imports to the advantage of the latter, the nominal surplus exceeds 2 % of GDP.

Conversely, the continuous improvement of the real balance between 1986 and 1990 is accompanied by a similarly con-

Table A.8.1

Central projection 1986-90 — June 1986 — EUR 12

	1986	1987	1988	1989	1990	Average
Private consumption	3,5	3,4	3,0	2,6	2,5	3,0
Government consumption	1,3	1,2	0,8	0,8	0,8	1,0
Fixed capital formation	4,9	4,9	5,0	4,8	4,5	4,8
Stockbuilding (% GDP)	0,8	0,8	0,8	0,8	0,8	0,8
Domestic demand	3,6	3,3	3,0	2,7	2,6	3,0
Exports (goods + services)	2,9	4,2	4,5	4,6	4,6	4,2
Imports (goods + services)	6,2	6,0	5,7	5,1	4,7	5,5
GDP	2,7	2,8	2,6	2,6	2,6	2,65
Private consumption price	3,5	3,1	3,3	3,5	3,7	3,4
GDP deflator	5,6	3,3	3,3	3,1	3,3	3,7
Export price	−3,6	2,3	2,8	3,8	3,9	1,8
Import price	−9,6	1,7	2,6	5,0	5,1	0,8
Terms of trade	6,6	0,5	0,2	−1,2	−1,2	1,0
Long-term interest rate	9,3	8,1	7,8	7,8	8,0	:
Exchange rate (ECU/USD)	18,1	−1,1	−1,0	−1,0	−1,0	−4,3
Total employment	0,8	0,8	0,7	0,7	0,6	0,7
Unemployment rate	11,5	11,3	11,0	10,7	10,4	:
Productivity	1,9	2,0	1,9	1,9	2,0	1,9
Real wages per capita[1]	0,5	1,4	1,6	2,0	2,2	1,5
Wage cost/unit of output[1]	−1,4	−0,6	−0,3	0,1	0,2	−0,4
Government net lending (% of GDP)	−4,6	−4,4	−3,8	−3,3	−2,8	:
Balance on goods + services (% of GDP)	2,3	1,9	1,7	1,1	0,8	:

[1] Deflated by the GDP deflator.

tinuous deterioration of the nominal balance, which nevertheless remains positive throughout the period.

(e) *Public sector*

The assumptions made with respect to receipts and expenditure lead to a significant improvement in the budget deficit, which falls from −4,6 % of GDP to −2,8 % between 1986 and 1990.

The shares of receipts and expenditure for the Community as a whole are as follows:

(% GDP)	1986	1987	1988	1989	1990
Current receipts	44,6	44,3	44,1	44,2	44,2
Total expenditure	49,2	48,7	48,0	47,5	47,0
Net lending of general government	−4,6	−4,4	−3,9	−3,3	−2,8
of which					
Actual interest payments	−5,2	−5,1	−5,0	−4,9	−4,8

One may also note that after 1985 actual interest payments increasingly exceed overall net lending. However, the public debt consolidation measures envisaged in some Member States might increase the sensitivity of the effective cost of the debt with respect to the expected decrease in interest rates and might generate a larger fall of actual interest payments.

A.8.4. Implications of changes in the international environment

Like any other projection, the baseline scenario is built upon a set of working hypotheses which, by their very nature, are all likely to be called into question by future developments.

Two specific variants will be analysed in this area, dealing with two major uncertainties in the external framework of the projections. They are the development of the oil price and the development of the dollar exchange rate. In both cases, the variants should be considered as mere sensitivity analysis of the results with respect to changes in *one* of the working hypotheses. They should not therefore be interpreted as alternative forecasts, since the latter would require a revision of *all* assumptions.

Development of the oil price

The baseline projection is based on the assumption of a recovery in the oil price in 1988-90, leading to an average import price in nominal terms of USD 22 per barrel in 1990 compared with USD 15 in 1987.

The proposed variants can be considered as optimistic in so far as it is supposed that the oil price will remain very low until 1990. In more precise terms the variant sticks to the assumptions of the Economic Forecasts 1986-87 (average price per barrel of USD 16 in 1986 and USD 15 in 1987), and thereafter it is assumed that the oil price stays constant in real terms, which corresponds to a nominal increase of about 3,5 % (or USD 0,5) per annum. The nominal average price of oil imports thus reaches USD 16,6 in 1990.

To simplify the analysis the assumptions relating to exchange rates and to public expenditure remain unchanged from the base simulation. On the side of government revenues, on the other hand, the specific oil taxation measures taken in 1986-87 stay in effect throughout the period.

Given the paths adopted for the oil price, differences in the results only become noticeable in 1989-90. The five-year averages are consequently relatively little affected.

For 1989-90, however, the maintenance of the oil price in real terms at the level expected for 1986-87 would lead to an addition to domestic growth of about 0,25 % per annum, together with a reduction in the domestic inflation rate of 0,3 % per annum. A weaker rise in nominal wages would keep the rise in real wage costs below the rate of growth of productivity throughout the period. Finally, the gain in overall growth would cause the unemployment rate for EUR 10 to fall to 8,9 % in 1990 instead of 9,2 % for EUR 10 (to 10.2 % instead of 10.4 % for EUR 12).

On the external side the rise in import prices in 1989−90 would slow down from 5 % to 2,9 % per year, and the surplus on the balance of goods and services would be increased by about 0,6 % of GDP on average.

The implications for the Community's budgetary position are, by contrast, relatively marginal because of the assumptions made about oil taxation.

The detailed results for EUR 12 are shown in Table A.8.3.

The present scenario is very stylized in character and must be analysed with all the usual reservations. In particular it does not consider the longer-term implications of a higher energy dependence for oil imports and the risk of an oil shock after 1990 that this could bring.

Table A.8.2

Average annual rate of growth 1986-90 (EUR 10)

	Baseline projection June 1986	Cooperative scenario October 1985	Baseline projection October 1985
Private consumption	3,1	3,3	2,2
Private investment	5,1	6,6	5,0
Domestic demand	3,0	3,6	2,4
External balance (goods + services)	−0,3	−0,1	0,1
GDP	2,6	3,5	2,5
Inflation[1]	3,0	3,7	4,3
Employment	0,7	1,1	0,4
Unemployment rate[2]	9,2	7,0	10,4
Productivity	1,9	2,4	2,1
Real wage-cost	1,7	1,0	1,7
Real wage-cost per unit of output	−0,2	−1,4	−0,4
Gross operating surplus per unit of output	0,8	3,8	1,1
Current balance (% GDP)[2]	−0,1	−0,9	0,5
Net lending, general government (% GDP)[2]	−2,7	−4,0	−3,8

[1] Private consumption price.
[2] Level in 1990, in percent.

This scenario leads, however, to the same conclusions as the base scenario: even in the most favourable case the development of the oil price is not of itself enough to ensure a strengthening of growth, and employment consistent with the aims of the cooperative growth scenario for the period 1986-90.

Development of the dollar

The base scenario assumes that the real ECU/USD exchange rate will remain stable from 1987/88.

Since exchange rate developments are among the major uncertainties attaching to the base projection, it has been recalculated on the assumption that the dollar will fall to DM 2/USD at the end of 1986 and to DM 1,5/USD at the end of 1987, all other things being equal (as against 2,29 and 2,25 DM/USD in the baseline projection).

This fall in the dollar should be understood as the use of a variant to give some idea of the risks associated with an 'autonomous' loss of confidence in the dollar, whatever the macro-economic environment may be.

It will in addition be assumed that the yen and the currencies of European OECD countries follow the ECU while other currencies follow the dollar.

As shown in Table A.8.4., a pronounced fall in the dollar over two years in succession would lead, other things being equal, to a loss of real GDP of the order of 0,25 % per year on average over five years. No appreciable reduction in the unemployment rate would be evident before 1989. The only positive effects would be felt through a reduction in the inflation rate and in interest rates, which, via their impact on real wage and non-wage incomes would allow the downward pressure on domestic demand to be limited. The real external balance would reduce the growth of GDP by 0,5 % per year on average. The balance in nominal terms, on the other hand, would benefit from J-curve effects in 1986 and 1987 and only deteriorate (as a % of GDP) from 1988 onwards.

Finally, at the international level and confirming the results of previous simulations, such a fall in the dollar would hold the current account deficit of the USA to 1,5 % of GDP in 1990 compared with 2,0 % in the base scenario.

Table A.8.3

Alternative oil price scenario — 20.6.1986 — EUR 12 (Oil price constant in real terms over the 1987-90 period)

	1986	1987	1988	1989	1990	Average
Private consumption	3,5	3,4	3,0	2,8	2,8	3,1
Government consumption	1,3	1,2	0,8	0,8	0,8	1,0
Fixed capital formation	4,9	4,9	5,0	4,9	4,8	4,9
Stockbuilding (% GDP)	0,8	0,8	0,8	0,8	0,8	0,8
Domestic demand	3,6	3,3	3,0	2,9	2,9	3,2
Exports (goods + services)	2,9	4,2	4,5	4,6	4,6	4,2
Imports (goods + services)	6,2	6,0	5,7	5,2	5,0	5,6
GDP	2,7	2,8	2,6	2,7	2,8	2,8
Private consumption price	3,5	3,1	3,2	3,3	3,3	3,3
GDP deflator	5,6	3,3	3,2	3,2	3,3	3,7
Export price	−3,6	2,3	2,7	2,9	2,9	1,4
Import price	−9,6	1,7	2,5	2,8	2,9	0,0
Terms of trade	6,6	0,6	0,2	0,1	0,0	1,4
Long-term interest rate	9,3	8,1	7,8	7,5	7,0	:
Exchange rate (ECU/USD)	−18,8	−1,1	−1,0	−1,0	−1,0	−4,3
Total employment	0,8	0,8	0,7	0,7	0,7	0,8
Unemployment rate	11,5	11,3	11,0	10,6	10,2	:
Productivity	1,9	2,0	1,9	2,0	2,1	2,0
Real wages per capita[1]	0,5	1,4	1,6	1,8	2,0	1,5
Wage cost/unit of output[1]	−1,4	−0,6	−0,3	−0,2	−0,1	−0,5
Government net lending (% of GDP)	−4,6	−4,4	−3,9	−3,4	−2,9	:
Balance on goods + services (% of GDP)	2,3	1,9	1,7	1,6	1,5	:

[1] Deflated by the GDP deflator.

Table A.8.4

Alternative dollar fall scenario — 20.6.1986 — EUR 12 (Revaluation of the ECU by 50 % over two years with respect to the US dollar)

	1986	1987	1988	1989	1990	Average
Private consumption	3,7	3,8	2,9	2,3	2,2	3,0
Government consumption	1,3	1,2	0,8	0,8	0,8	1,0
Fixed capital formation	4,9	4,7	4,8	4,5	4,5	4,6
Stockbuilding (% GDP)	0,8	0,8	0,8	0,8	0,8	0,8
Domestic demand	3,7	3,4	2,9	2,4	2,4	2,9
Exports (goods + services)	2,3	2,6	4,3	4,6	4,8	3,7
Imports (goods + services)	6,8	8,0	6,7	4,7	4,4	6,1
GDP	2,5	2,0	2,4	2,5	2,6	2,4
Private consumption price	3,0	1,7	2,4	3,2	3,6	2,8
GDP deflator	5,3	2,3	2,7	2,7	3,1	3,2
Export price	−4,5	−0,7	0,6	2,8	3,8	0,4
Import price	−11,6	−4,8	0,0	4,0	4,8	−1,4
Terms of trade	8,0	4,3	0,6	−1,2	−1,0	1,8
Long-term interest rate	9,1	7,4	7,1	7,1	7,3	:
Exchange rate (ECU/USD)	−25,0	−22,5	−1,0	−1,0	−1,0	−9,5
Total employment	0,7	0,4	0,5	0,5	0,6	0,5
Unemployment rate	11,6	11,7	11,6	11,5	11,2	:
Productivity	1,8	1,6	1,9	2,0	2,0	1,9
Real wages per capita[1]	0,6	1,5	1,6	1,9	2,1	1,5
Wage cost/unit of output[1]	−1,2	−0,1	−0,3	−0,1	0,1	−0,4
Government net lending (% of GDP)	−4,6	−4,5	−4,1	−3,5	−3,0	:
Balance on goods + services (% of GDP)	2,3	2,0	1,3	0,8	0,6	:

[1] Deflated by the GDP deflator.

A pronounced fall in the dollar on the scale presented here would thus make the domestic objectives of the cooperative growth scenario appreciably more difficult to achieve. It should be remembered that in the cooperative growth scenario the revaluation of the ECU was some 30 % over three years, compared with more than 50 % over two years in the present variant.

A.8.5. Comparison with the cooperative growth scenario

Table A.8.3. compares the main indicators of the cooperative scenario with those of the baseline projection for EUR 10, in order to ensure comparability between the projections undertaken in 1985 and in 1986.

It can be seen that the moderate improvement in economic conditions between the two baseline projections is essentially due to the effects of the oil price fall and the ECU revaluation on domestic demand and, more particularly, on private consumption.

As far as investment is concerned, there is a positive impact from the growth of domestic demand and the improvement in gross profit margins. It is, however, also subject to the negative influence of the deteriorating external balance, so that the net positive effect on its growth rate is very limited. But it should be noted that the new baseline projection may underestimate the growth of productive capacity. While the investment projection does take account of the effects of the oil price fall on demand and the relative costs of factors of production, it does not allow for possible complementary effects between energy and the stock of fixed capital (see Chapter B.1.).

With regard to employment, the greater dynamism of economic activity, combined with the long-term improvement in relative labour costs (beginning in 1982 and lasting until 1989/90) results, for the first time since the early 1970s, in growth of labour demand faster than that of the working population, bringing the unemployment rate for EUR 10 down from 10,3 % in 1986 to 9,2 % in 1990, a level significantly higher than that emanating from the cooperative growth scenario.

Unemployment rate EUR 10[1]	1986	1987	1988	1989	1990
Baseline projection (June 1986)	10,3	10,1	9,8	9,5	9,2
Cooperative scenario[2]	10,8	10,4	9,5	8,3	7,0

[1] Aggregate based on national definitions.
[2] *Source*: Annual economic review, Chapter 6, Table 6.2.

As regards wage costs, the evolution of the growth of wage cost is influenced by the considerable terms of trade gains registered in 1986. Thus, wage incomes (deflated by the private consumption price index) are growing by 2.4 % in 1986, whereas unit labour costs are decreasing by 1.1 %.

This phenomenon is however limited to the first year and is reversed towards the end of the period as a consequence of the upward movement hypothesized for the oil price. Thus, in 1989 and 1990, wage incomes are only growing by 1,6 and 1,7 % whereas unit labour costs slightly increase (0,1 and 0,2 %). In this way, the average annual rate of growth of wage costs in 1986-90 becomes identical to the one contained in the October 1985 baseline.

Real wage costs[1]	1986	1987	1988	1989	1990
Baseline projection (June 1986)	0,5	1,4	1,6	2,0	2,2
Cooperative scenario	0,5	0,6	0,6	1,4	1,9

[1] Deflated by the GDP deflator.
Source: Annual economic review, Chapter 6, Section 6.5.

Finally, on the external side, world demand for imports (excluding the Community) remains significantly below the path foreseen in the cooperative scenario even after eliminating the sharp reduction in OPEC imports in 1986-87. For the period 1988-90, the baseline growth is 5 % per annum, against 5,6 % in the cooperative scenario. The difference is mainly explained by the effects of weaker growth in the Community and in Japan in the baseline projection as compared to the cooperative scenario.

The main conclusions to be drawn from this comparison are as follows:

(i) the changes in the international environment that have occurred since 1985 have a net positive effect on underlying growth in the Community. While this positive effect brings the trend of private consumption closer to that projected in the cooperative scenario, it does not appear to ensure, by means of investment, the expansion of productive capacity required for this scenario;

(ii) the low growth in wage costs forecast for 1986 is strictly linked to the substantial fall in the average oil price this year and for this reason will not necessarily be repeated in the coming years;

(iii) the moderate underlying growth in the Community, the USA and Japan limits the scope for expansion in the rest of the world as compared to what the cooperative growth scenario would permit. This limitation itself makes the contribution of the external balance to GDP growth in the Community more strongly negative;

(iv) finally, even if the present forecasts, which do take account of the oil price fall, indicate for EUR 10 a slightly lower unemployment rate in 1986 and 1987 than

in the cooperative strategy, the projected developments for the later years lead to an unemployment rate in 1990 well above 7 %. In the medium term, therefore, a more normative growth and employment strategy remains a necessity.

A.8.6. Conclusions

The changes in the external environment of the Community which have occurred since September 1985 should on average have a positive overall effect on growth, inflation and employment in the period 1986-90 compared with the baseline forecasts made in the middle of 1985.

As with all projections from econometric models, these prospects must be analysed with care in so far as too much weight may be given to behaviour in the past in assuming future developments. In particular, the medium-term impact of capital/labour substitution (linked to the improvement in the relative cost of labour) on the unemployment rate and the possible effects of capital/energy complementarity on the rate of growth of investment are especially difficult to measure precisely.

It nevertheless appears that the fall in the oil price will only have a small impact on unemployment. With unchanged behaviour and policies, unemployment would still be over 10 % of the labour force in 1990 in the Community of Twelve.

The variants show in addition that, even if the oil price remains for five years at a level in real terms 50 % below its 1985 level, this conclusion would not be appreciably affected. Furthermore, the employment and unemployment gains expected in 1986-87 could be wiped out by an uncontrolled fall in the dollar during these two years.

It follows that the implementation of a more normative and employment-creating growth strategy in the spirit of the Annual Economic Report 1985-86 remains a prime necessity.

At this level, the evolution of the oil price has unambiguous favourable effects since it is likely to increase, in the medium term, available room for manœuvre in the budgetary and monetary fields, thanks to its impact on incomes and inflation and to the easing of the external constraint.

Part B

Specific issues

B.1. Economic consequences of the oil price change

The fall in the oil price which occurred in the early part of 1986 affects the outlook for the European economies in many different ways. At the microeconomic level, the immediate effect on oil consumption will be small, but, if the price fall is sustained in the medium term, consumption is generally expected to rise significantly and there will be a rise in dependence on oil imports from OPEC and a fall in non-OPEC oil production. There will be macroeconomic effects on both the demand and supply side. Extra resources for the oil-consuming sectors of the economy, after allowing for increased savings, may be used to increase demand either through higher consumption or higher investment. In so far as investment is increased, there will probably be a rise in potential output which may be enhanced by delayed scrapping of older equipment. In addition the lower oil price is associated with a large fall in interest rates which emphasizes the positive effects on both supply and demand. Negative factors associated with the oil price fall are that exports to OPEC will fall, price volatility itself imposes costs and there is a threat to the financial system from the debilitating effects on oil producers. However, the balance of the likely effects is expected to be positive. This will increase the room for manœuvre within the Community and thus facilitate implementation of the cooperative growth strategy.

B.1.1. The oil price

By 1979, following the impact of the two oil shocks, OPEC still had a 61 % share of the world oil market excluding the centrally planned economies. However, six years later this share had diminished to 37 % as the longer term effects of high prices on industrial countries' oil consumption began to appear and the output of non-OPEC producers continued to rise. Between 1979 and 1985 OECD oil consumption fell from 41,6 mbd (million barrels per day) to about 34,0 mbd while GNP in the OECD area rose by 13 %. Over the six years 1979 to 1985, OPEC output fell from 31,5 mbd to 17,1 mbd with cuts in production in all the member countries, particularly Iran and Iraq. The largest fall was in Saudi Arabia where output shrank from 9,6 mbd to 3,4 mbd. These low output levels were not acceptable and in December 1985 OPEC changed from a price to a market-share oriented strategy. Since then, the oil price in dollars has fallen by some 55 % giving an expected average fall of about 40 % between 1985 and 1986. Taking account of exchange rate movements, the 1986 oil import bill for most Community countries is likely to be less than half that of 1985.

The current lower price level is expected to discourage new supplies and to encourage greater oil consumption in the OECD countries, creating extra demand for Middle East oil. The possibility of a renewed agreement on quotas, perhaps involving non-OPEC producers, cannot however be ruled out.

The outlook for the price of oil may be summarized as follows:

(1) Oil is an exhaustible resource and producers must decide the timing of its extraction. This leads to upward pressure on prices over time.

(2) In a more fully competitive market the oil price would be kept rather above the marginal extraction cost, currently estimated at some USD 6-8 per barrel;

(3) Until recently the policies of OPEC have kept the price well above a trend or equilibrium level, however defined;

(4) The current, rather low price will encourage consumption and, to a somewhat lesser extent, discourage non-OPEC supply;

(5) Many commentators believe that a price level of around USD 15 per barrel could be sustained for a few years, but that thereafter, in the absence of offsetting policy action, prices would begin to rise again under the combined pressures of increased world oil demand and reduced non-OPEC supplies.

B.1.2. Prospects for the Community energy balance to 1990

Taking as a working assumption a price of USD 15 per barrel at constant real (1986) prices through to 1990, the Commission's Directorate-General for Energy has analysed some of the possible effects of lower oil prices on the Community energy balance. The analysis is based on a growth rate of GDP of only 2,5 % in 1988-90 which is lower than the 3,5 % envisaged in the cooperative growth strategy for

more employment. Clearly stronger growth in these years would lead to a higher demand for energy.

The results of the analysis are presented in terms of ranges for the main aggregates which reflect the particular uncertainties attaching to: the structure and energy intensity of industrial output; the response of household and automobile demand to lower energy prices and higher incomes; the speed with which the prices of other fuels adjust to those of competing oil products; the prospects for natural gas (and oil) use in electricity generation; and the impact on the Community coal industry of falling coal prices.

The simulation results are given in Table B.1.1 where it can be seen that the demand for oil rises by some 7 % to 14 % over the period. Of both interest and importance is the projected increase in dependence on imports of oil. Oil prices at this level should have little direct effect on the outlook for nuclear power in the medium-term. In the scenario examined here, it was also assumed that the recent accident at Chernobyl would have no impact on the energy balance by 1990.

Table B.1.1

Energy demand EUR 12 with oil at USD 15 per barrel through to 1990

	1985 (provisional)[1]	1990 (USD 15 per barrel)[1]	1990/85 increase (%)
Gross energy demand[2]	21,0	22,6-23,4[3]	8-12
Oil[2]	9,7	10,4-11,1	7-14
Natural gas	3,7	3,9- 4,1	5-12
Solid fuels	4,8	4,7- 4,9	−2-3
Nuclear, hydro, etc.	2,8	3,4	18-19
Net oil imports	6,7	8,0-8,7	19-30

[1] Million barrels per day of oil equivalent.
[2] Including bunkers.
[3] The range given for total primary energy demand is smaller than the sum of the ranges given for each of the fuels. This is because of interfuel competition. Thus the high end of the range for oil assumes natural gas and coal demand below the maximum and vice-versa.

Source: Commission services.

B.1.3. World market — longer-term outlook

This section takes the oil price outlook indicated in B.1.1 and examines some of its longer-term implications for oil consumption, non-OPEC production and thus, as a residual, OPEC output. So as to isolate the effects of the oil price fall from changes in fiscal policy a working assumption is made that taxation of oil products is not changed.

The effects on the demand and supply of oil of the recent price fall depend crucially on whether oil consumers and producers expect the fall to be sustained or regard it as a temporary phenomenon. Since oil is an exhaustible resource there is an underlying presumption that over time its real price will tend to increase. From 1973 until the beginning of 1986, OPEC supply constraints sustained prices above some notion of a longer run trend or equilibrium. A working assumption might be adopted that, henceforth, the price of oil will follow a trend some 40 % lower than had been expected prior to the recent price fall (this implies prices in excess of USD 20 per barrel in the early 1990s). This is, of course, a highly debatable assumption, but it is needed to proceed with the analysis.

Oil consumption and energy intensity

Oil product taxes have already been raised substantially in Denmark, Portugal and Italy and to a lesser extent in Spain, Greece, Ireland and the UK, as fiscal policy has been adjusted to arrogate some of the benefits of the oil price fall (see box on the taxation of oil products). However this

analysis abstracts from these fiscal changes so as to identify fully the magnitude of the effects of the oil price change. In the absence of any changes in taxation, oil product prices in Europe might be expected to fall by between 19 % and 48 % depending on the ratio of specific taxation to the pre-tax price. On this assumption real Community product prices would be on average about 28 % lower than before.

The consequences for oil consumption depend on the price elasticity of demand, a parameter which is very difficult to quantify. Some studies have suggested figures of around −0,1 to −0,2 for the short-term and −0,3 or more (in absolute value) for the longer term. But the estimations were carried out on the basis of evidence before the oil price declined sharply, and these figures should be used cautiously in the new situation. Moreover, any analysis which uses such estimates must recognize factors such as the extent to which expectations are taken into account, the response of government policy to the price fall, the extent to which the price fall is passed through to the final consumer, the subsequent response in the prices of other forms of energy, the continuing response to the oil price rises of the 1970s and the effects of technical advance in reducing energy needs.

The response of the price of other forms of energy is uncertain. It seems likely that natural gas will remain competitive with oil products. The prospects for coal prices are less easy to judge. Current excess capacity world-wide will continue to reinforce downward pressure on the world coal price short-term, but in a longer term perspective world coal prices will be constrained by production costs. The price of electricity depends only partly on the cost of energy inputs. Thus variation in price response may well lead to some substitution between fuels, but it seems likely that this will be much more significant in the US than in Europe.

For the OECD as a whole the ratio of energy use to GDP fell by 21 % between 1973 and 1984. This reduction in energy intensity was expected to continue, perhaps at a rate as high as 2 % per year, prior to the recent price fall. The effect of the oil price countershock will be to moderate this trend, although the longer term consequences of the two oil price shocks and the energy saving bias as the capital stock is renewed make it unlikely that the trend will be sharply reversed.

The non-OPEC supply of oil

Many oil production provinces have already reached or are approaching maximum output. In particular, output from the North Sea, the United States and the USSR was expected to fall for geological reasons even in the absence of the oil price countershock. The main effect of the oil price fall on non-OPEC supply in the years to come will be a more marked reduction in output in these areas, especially the US, where it has been estimated that oilfield investment may well halve in 1986. This will lower output in later years, but in the very short term the effects on output of an oil price around USD 15 may be expected to be small since marginal extraction costs are well below this in most oilfields. However, the prospects of future price rises from current low levels may induce some producers to lower current output and thus to defer exploitation of oil reserves with a view to profiting from the subsequent price increases.

The implications for OPEC supply

If the price of crude oil remains around USD 15-16 per barrel for 2 to 3 years rising thereafter at a level some 40 % below previous expectations; if, by assumption, governments impose no extra taxes on oil products; and taking account of a higher ECU/dollar exchange rate, oil product prices in the Community fall by some 30 % in real terms — then excluding the centrally planned economies, world oil demand in the mid-1990s is likely to be at least 10 % higher. World GDP is also expected to be several percentage points higher because of the oil price fall and this additional growth would also generate extra demand for oil. It therefore seems likely that in the 1990s the demand for OPEC oil will be some 50 % higher as a result of the oil price countershock.

Some support for this outcome is provided in the work of the United States Energy Information Administration (EIA), where, in the absence of the oil price countershock, total non-OPEC oil supply (including net imports from the centrally planned economies countries) is estimated to fall by about 3 million barrels per day (mbd) by 1995 due to production declines in the United States, the North Sea and the USSR, not fully offset by production increases in other areas. If the oil price falls and is maintained in the USD 15-20 range (measured in 1985 prices), which is similar to the price hypothesis used above, non-OPEC oil supplies could decline by at least an additional 2 mbd. The EIA further assesses an increase in the annual rate of growth of world oil consumption over the next 10 years from the 0,8-1,5 % range to the 1,8-2,5 % range as a result of its price hypothesis. That is, the 40 % fall in the crude oil price is expected to lead to 10 % higher consumption over 10 years.

All this implies a faster return to dependence on OPEC oil supplies in the 1990s than most observers thought likely hitherto. However, government policy reactions in industrial

countries, either by raising taxes to keep oil prices high or by discouraging oil consumption in other ways, may be sufficient to keep demand from rising unduly.

B.1.4 Effects on resource transfers, prices and economic policy in the European Community

The main effects on demand and output will be transmitted through three channels:

(i) the effects on the implicit transfer of revenue between countries and its division between households, business and government;

(ii) the fall in the general price level, the effects on inflationary expectations and interest rates;

(iii) less directly through an easing of constraints on economic policy formation.

The transfer of resources among economic areas

The impact of lower oil prices will vary according to a country's level of dependence on oil imports or, for exporting countries, the share of oil in its total exports. Table B.1.2. shows changes in imports and exports between 1985 and 1986 for seven large economic regions, using three assumptions for oil prices in 1986: USD 20, USD 15 and USD 10 a barrel. Oil export levels in 1985 and 1986 are those given by the IMF in *World economic outlook*, April 1986.

There are major transfers between these economic regions. In 1986 OPEC's export receipts will be lower than in 1985, by between 32,6 and 84 billion dollars, depending on the price of oil. Compared with total exports of 135,5 billion dollars in 1985, this represents between 24 and 62 % of their total exports. The major part of this will go to the industrialized importers. These countries will benefit by between 42,6 and 106,5 billion dollars as their oil bill drops by between 25 and 62,5 %, assuming prices of USD 20 and USD 10 a barrel respectively.

The impact on the Community is quite considerable (Table B.1.3). Taking a price of USD 15 a barrel, the Community's oil bill will fall by 1,5 percentage points of GDP between 1985 and 1986, compared with falls of 0,5 points for the USA and 1,9 for Japan. The effect varies significantly from one Member State to another.

At USD 15 a barrel the United Kingdom's export receipts would be down by 1 percentage point of GDP. At the same price the other Member States would see their oil bill fall by between 1,3 points of GDP in the Netherlands, to 5,2 points in Portugal. The main beneficiaries will be Portugal, Ireland, Greece and Italy, all of which gain on their oil bill by more than 2,4 points of GDP. Many Member States will find that their oil bill, in terms of GDP, will be the same as it was in 1973, before the two major oil shocks.

In comparing 1985 with 1973 however, account must be taken of the growth in imports of non-oil sources of energy. In 1979 the value of net energy imports was almost identical with the oil bill. In 1985 net energy imports exceeded the oil bill by 0,6 percentage points of GDP. The differences between the two were particularly significant in Italy (1,3 % of GDP) and Belgium (2,8 %) reflecting imports of natural gas and coal. The Dutch situation is also special: their exports of natural gas are balanced by oil imports.

A further point to note is that falls in the dollar/ECU exchange rate reinforce the effect of lower dollar oil prices. Thus taking USD 15 a barrel, one third of the Community's lower oil bill is due to the appreciation of the ECU against the dollar, and two-thirds from lower dollar prices.

Breakdown of income transfers between the economic agents

For the individual economic agent, the total benefit of lower crude oil prices depends both on the actual prices for oil products paid in 1986, and on any increase in consumption, estimated to be 2 % between 1985 and 1986.[1] Little substitution between energy sources is expected for the short-term.

The calculation of the relative gains accruing to each sector has been made separately for each type of oil product. In point of fact the nature of the consumption and taxation of oil products differs considerably from sector to sector. Households use mainly ordinary or super grade petrol for their transport (which bears a heavy taxation) and domestic fuel oil for their heating, whereas general government uses mainly domestic fuel oil for the heating of offices. As regards enterprises, these use a much wider range of oil products: heavy oil in industry, domestic fuel oil for services, and diesel oil for transport. However, prices and taxation, at the point of consumption, differ according to the type of product. It has been possible to recalculate the distribution of

[1] All calculations assume an oil price of USD 15 in 1986. The 2 % increase in total consumption of oil products in 1986 results from greater economic growth, and a greater growth in the use of oil than of other sources of energy. The price elasticity of demand is assumed to be low in the short term.

Table B.1.2

Evaluation of the first round effects of lower oil prices on the world economy 1986/85

	Exports/imports millions of barrels per day		Changes 1986/85 in exports of crude oil in money values based on the CIF price (USD billion)		
	1985	1986	USD 20	USD 15	USD 10
Exporting countries					
— OPEC[1]	13,6	14,1	− 32,6	− 58,3	− 84,0
— non-OPEC LDCs[2]	3,9	4,0	− 9,7	− 17,0	− 24,3
— Industrialized countries[3]	1,7	1,8	− 3,8	− 7,0	− 10,3
— State-trading and other exporting countries	3,6	3,6	− 9,6	− 16,2	− 22,8
Total			− 55,7	− 98,5	− 141,4
Importing countries					
— Industrialized countries[4]	17,1	17,5	+ 42,6	+ 74,6	+ 106,5
— non-OPEC LDCs[5]	4,7	4,7	+ 12,5	+ 21,1	+ 29,6
— Others	1,6	1,6	+ 4,2	+ 7,1	+ 10,1
Total			+ 59,3	+ 102,8	+ 146,2
Errors and omissions			+ 3,6	+ 4,3	+ 4,8

[1] OPEC, except Gabon and Equador.
[2] Bahrein, Bolivia, Cameroon, China, Congo, Egypt, Malaysia, Mexico, Peru, Syria, Trinidad, Tunisia, + two OPEC members (Gabon, Equador).
[3] Norway and the United Kingdom.
[4] Industrialized countries cover the countries of the OECD area except the United Kingdom and Norway who are net exporters of oil.
[5] All less developed countries except OPEC and those mentioned in footnote 2 above.

Source: Commission services, IMF (*World economic outlook*, April 1986).

consumption of oil products for 1985,for the three categories of economic agent, using national surveys and the input/output tables for 1980 for four large countries (D, F, I, UK). On this basis (Table B.1.4.) it can be seen that the pattern of consumption of oil products shows certain national characteristics: the weight of industry in Germany, the importance of general government in Italy, and the low consumption of oil products for heating in the case of British households.

The fall in prices between 1985 and 1986 means that each sector will benefit by having a lower energy bill to pay. The purchasing power so distributed would represent from 1,7 % to 2,1 % of GDP in the four large countries (Table B.1.5.).

In Germany and in France the relative gain in the purchasing power of households and enterprises carries the same weight in relation to GDP (around 1 %) whereas in the UK, enterprises in the non-oil sector are the primary beneficiaries, while in Italy general government benefits more than elsewhere from the fall in the energy bill.

It may be helpful to express these savings on the oil bill of each sector, in relation to a specific economic aggregate: gross disposable income of households, gross operating surplus of enterprises and total current expenditure in the case of general government.

For households, the reduction in expenditure on oil products shows up either as an increase in their consumption, which should affect mainly goods and services other than energy products, or as an increase in the savings ratio. Nevertheless, in each country this saving will differ considerably according to the level of consumption of oil products (domestic fuel

Table B.1.3

The importance of the net oil import bill (as a % of GDP)

	1973	1979	1981	1985	1986		
					USD 20	USD 15	USD 10
USA	0,5	2,4	2,6	1,1	0,8	0,6	0,4
Japan	1,6	3,8	5,1	3,2	1,7	1,3	0,9
EUR 12	1,5[1]	2,8	3,7	2,6	1,5	1,1	0,8
BLEU	1,4	2,6	5,3	3,9	2,3	1,7	1,1
DK	2,3	4,1	4,9	3,0	1,7	1,3	0,9
D	1,5	3,2	4,2	3,4	1,9	1,5	1,0
GR	1,3	3,9	4,1	5,6	3,9	2,9	2,0
E	—	3,4	5,9	3,7	2,2	1,7	1,1
F	1,3	2,8	4,3	3,0	1,8	1,3	0,9
IRL	2,4	6,6	7,5	4,9	2,8	2,1	1,4
I	1,6	3,7	6,2	4,2	2,4	1,8	1,2
NL	0,8	2,9	3,9	2,3	1,4	1,0	0,7
P	—	5,7	8,2	9,3	5,5	4,1	2,7
UK	1,8	0,5	−1,1	−1,8	−1,1	−0,8	−0,5

[1] EUR 10, not EUR 12.

N.B. Exchange rate and GDP assumptions for 1986 are those predicted in the economic forecasts of March 1986.

Source: Commission services.

oil for domestic heating, petrol for transport uses of households). In Germany there would be a saving of 1,7 % in 1986, which would further consolidate the recovery of internal demand, whereas in the UK this saving would only reach 0,7 %. In fact households in the UK use little oil for heating purposes, and their use of petrol is 45 % lower than that of German households. In France and in Italy this saving would amount to 1 % of gross disposable income.

In the case of enterprises, there are also significant differences between countries, but these are mainly explained by the level of the gross operating surplus of the sector. Indeed, apart from Germany, where it is lower, the relative gain of enterprises on their bill for oil products amounts to some 5 % of the gross operating surplus. The relatively small gain in Germany (2,6 %) is explained by the high level of the gross operating surplus of the enterprise sector. Nevertheless, in a highly competitive context, the distribution of the supplementary resources falling to enterprises is not automatic: the other possibilities are lower prices to increase market shares, the distribution of purchasing power to wage earners, etc. However, the calculation of the direct impact on the oil products bill paid by each sector does not take into account the dynamic short-term effects of the fall in prices. The implicit assumption here is thus that of an unchanged incomes policy for 1986.

The fall in the general price level and its implications

In the Community, total oil consumption in 1985 was about 9,7 mbd, being worth some 127 billion ECU or 3,9 % of GDP. The halving of the oil price in ECU terms in 1986 implies a direct reduction of a little less than 2 % in the price level. Government action to increase revenue from oil products and improvements, albeit temporary, in oil companies' profit margins will tend to offset some of the fall in crude oil prices. In spite of that, consequential effects on output prices of the fall in a major input price will be important and may be expected to occur already in 1986. The fall in the general price level will vary between countries not only by the energy-intensity of their economies and by the increase of taxation on oil products, but also by responses in exchange rates to the adjustment in their balance-

Table B.1.4

Expenditure on oil products, by sector — 1985 (% of gross inland consumption of oil products)

	Households	General government	Enterprises	Total excluding exports and stock changes
D	48,7 %	6,1 %	45,2 %	100 %
F	53,7 %	3,9 %	42,5 %	100 %
I	45,9 %	21,2 %	32,8 %	100 %
UK	36,7 %	4,7 %	58,6 %	100 %

Source: Commission estimates.

Table B.1.5

Relative gains accruing to sectors between 1985 and 1986 on their consumption of oil products (% of GDP at market prices in 1985)

	Households	General government	Enterprises	Total[1]
D	1,1	0,1	0,9	2,1
F	0,9	0,1	0,9	1,9
I	0,8	0,5	0,6	1,7
UK	0,5	0,1	1,0	1,6

Oil price: USD 15 per barrel (1986 average).
Assumption: 2 % growth in demand for oil products between 1985 and 1986.
[1] The total relative savings on expenditure on oil products does not necessarily correspond to the fall in the cost of oil. These calculations have been made on the basis of the price of oil products actually charged to the consumer i.e. it does not take account of the cost of the refining of crude oil and changes in tax rates (taxes on the consumption of oil products).
Source: Commission estimates.

Table B.1.6

Relative gains accruing to sectors between 1985 and 1986 on their consumption of oil products (% of disposable income for households and enterprises)

	Households (% of gross disposable income)	General government (% of current expenditure)	Enterprises (% of gross operating surplus)
D	1,7	0,3	2,6
F	1,2	0,2	4,6
I	0,9	0,9	4,7
UK	0,7	0,2	5,6

Source: Commission estimates based on 1986 economic budgets.

of-payments position. To the extent that the rate of inflation picks up a little in 1987 due to the rise in activity, a part of this fall may be reversed.

Given a non-accommodating monetary policy, an unanticipated fall in the price level would be expected to lead to lower nominal interest rates, particularly short-term interest rates. Table B.1.7 shows recent interest rate developments in the Community, the United States and Japan — these are, of course, influenced by factors other than the price of oil.

Short-term interest rates have fallen in both the USA and Japan and rather less markedly in the Community. More surprisingly, long-term rates have fallen more steeply everywhere and this is difficult to explain simply by the fall in the general price level resulting from lower oil prices. It may be that the oil price countershock has caused a substantial revision of inflation expectations. The process of disinflation has been in train for several years, and the persistence of high interest rates may, in part, be blamed on the failure of inflationary expectations to respond fully to this process. The lower oil price may have acted as a catalyst in increasing awareness of the widely successful fight against inflation. In so far as the fall in nominal interest rates represents revised inflationary expectations, real interest rates need not have changed.

The fall in interest rates is one of the principal ways in which the oil price fall affects the world economy. Firstly, the position of indebted countries, particularly the LDCs, governments, companies and more generally all economic agents with high debt loads will be alleviated at least in so far as the debt is at variable interest rates. Secondly, lower borrowing costs will gradually allow higher investment, residential construction and consumption. The latter will be aided by higher wealth as bond prices rise, but offset by a fall in the incomes of rentiers.

Economic policy

Beyond the economic effects described above, the oil price countershock will also have significant consequences for economic policy. It will tend to reduce certain constraints on budgetary and monetary policy after a delay which will vary between countries.

The disinflation induced by the fall in the oil price should eventually facilitate the task of the monetary authorities unless, of course, the inflation objective is reduced and thus becomes more of a constraint than it would have been in the absence of the oil price countershock. The fall in interest rates that should follow is a powerful means of boosting economic activity (see above). It will allow indebted economic agents — administrations and companies — to improve their balance sheets and reduce the cost of debt carried forward from the past as a large part of the debt is at variable interest rates.

At the same time, the transfer of income from oil producing to oil importing countries is such as eventually to loosen economic policy for two reasons. Firstly, the improvement in the current balance of most countries of the Community[2] will remove a constraint on economic policy in countries experiencing problems on the external account. Secondly, the direct real gains from the oil price cut will almost certainly reduce the real public sector deficits in most Community countries, thus easing the constraints still weighing on budgetary policy. There are several reasons for this: the fall in the oil price should directly reduce expenditure on

[2] The Netherlands and the United Kingdom, significant producers of oil and gas, need to be considered separately: not only will the oil price countershock worsen their trade balance, but it will also cut sharply government revenues from oil and gas production (this cut is estimated to be worth some 1,8 % of GDP in the United Kingdom and 2,6 % in the Netherlands).

Table B.1.7

Interest rate developments between October 1985 and May 1986

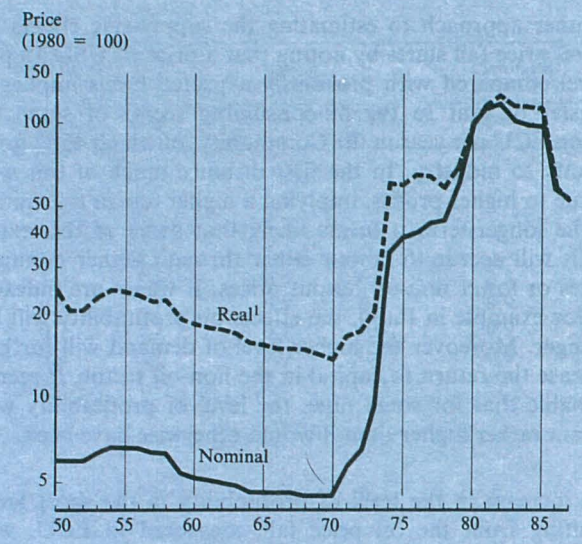
	Short-term			Long-term		
	October 1985	May 1986	Difference %	October 1985	May 1986	Difference %
EUR 12	9,8	9,2	−0,6	10,5	9,0	−1,5
USA	7,4	6,2	−1,2	10,6	8,0	−2,6
Japan	6,5	4,9	−1,6	6,6	4,8	−1,8

Source: Commission services.

energy in the public sector by between 0,1 and 0,5 % of GDP; a part of the real income gain from the oil price cut can be retained directly by public administrations by increasing the taxation of oil products (see Box 1); finally, the strengthening of economic activity in Europe (additional GDP growth of between 0,5 % and 2,0 % after two years depending on the country) should increase the base for both direct and indirect taxation and for social security contributions (by increasing employment) while reducing certain outlays, for example, unemployment pay. Even if the sharp fall in oil prices cuts VAT receipts from oil products the net effect on taxes and social security contributions should be positive in most Community countries, increasingly so as the positive effects of the countershock on economic activity are felt. The consequent fall in public sector deficits will speed the return of budgetary balance and encourage budgetary policies which, although currently rather restrictive, can become less and less so.

The indirect consequences of the oil price countershock arising from the reappearance of room for manœuvre in economic policy could thus eventually become significant: and this cannot but be helpful in the implementation of the cooperative growth strategy for more employment set out in the 1985-86 Annual Economic Report.

GRAPH B.1.1: Saudi light oil price



[1] Deflated by industrial countries' export price index.
Source: IMF for historical data, Commission services forecast.

B.1.5. Supply side effects

In the longer term, on top of the effects described above, there will be supply side effects. These are the subject of the following section, which is limited to the effects on Community countries.[3]

The fall in oil prices has the effect of reducing the running costs of energy-using equipment and plant. Irrespective of whether the price fall is thought to be sustainable, company liquidity will improve because of these lower input costs. Such resources can be spent in a variety of ways, on new investment, inventories, materials, employment or increased dividends.

If the price fall is perceived as being of a longer run nature, there will be other effects arising from the use of both existing investment goods and prospective investment. On the first of these, lower running costs may have some beneficial effect on production capacity due to delayed scrapping of older plant. At the same time, where new investment is concerned, the expected flow of services which this new equipment provides becomes more attractive. Thus, some new projects may become worthwhile and others be brought forward so as to take advantage of these higher returns.

It would require a sustained lowering of prices to encourage a return to the use of more energy-intensive investment. In the case of an exhaustible resource such as oil, where the longer run price is expected to rise, a major reversal would seem unlikely. The response in practice will depend heavily on how businessmen perceive oil price movements and behaviour in the oil market.

On the basis of some important simplifying assumptions it is possible in principle to make some calculations of effects on supply flowing from the change in the oil price. The box on the impact of the oil price countershock on productive capacity and scrapping provides technical details.

The results suggest that the pure supply side effect of the oil price fall could be to increase productive capacity in the short-term by between 0,2 and 0,6 % and in the long-term

[3] There is a different, important micro-economic supply side effect affecting the OPEC countries. They currently have some 10 mbd of spare oil production capacity equal to more than 20 % of current western world oil output. This extra output could be brought on stream, implying an increase in the volume of world output of nearly 1 %, at very little cost.

by between 2,4 and 5,4 % for the market sectors of Europe as a whole.

Another approach to estimating the supply-side effects of the oil price fall starts by noting that a price of USD 15 per barrel compared with previously expected levels implies a transfer of rent to the oil-consuming sector of some 66 billion ECU per year in the Community, of which 45 % goes directly to industry. In the first instance much of this will accrue to higher profits, implying a higher return to capital. In the longer-term it seems likely that some of this extra profit will accrue to labour either through higher nominal wages or lower non-oil output prices. If wages are indexed (as for example in Italy), the effects on profitability will be stronger. Moreover the higher level of demand will further increase the return to capital in the non-oil sector. It seems probable that for some time, the level of profitability will remain rather higher than it would otherwise have been.

The increase in the level of profitability in the short term resulting from the oil price fall, measured in ECU, will probably be about 1 % of GDP, falling somewhat in later years. If these extra resources were directed to investment, the annual rate of growth of potential GDP could then be increased by some 0,3 percentage points.[4] However, over time some part of the potential increase in profits might be diverted to extra consumption through higher wages. This would reduce the strength of the supply-side effect, although the delayed scrapping of older equipment would still have a positive effect on potential output.

B.1.6. Demand and output

The fall in the price of oil will affect the level of demand in the Community through different channels. By contrast with the disinflationary effect, the impact on demand and output will be spread out over time. This impact can only be assessed consistently through the use of econometric models of whole economies or groups of economies that seek to capture the interactions between different variables over time.

Firstly via the implicit transfer of income from oil producing to oil importing countries. For the Community, this transfer is worth some 1,5 % of GDP. Despite the adjustment undertaken by the oil producing countries which implies a substantial contraction of their markets for Community exports, the consequences of the oil price countershock for the industrialized countries is reckoned to be positive. The relative adjustment speeds — downwards for producing countries, upwards for importing countries — will be crucial in the short term and will determine the overall impact on world demand. However, the transfer of income from countries with a relatively low marginal propensity to consume to industrialized countries with a higher propensity should eventually increase world demand and, even more so, demand in the European countries by a pure Keynesian effect. This supposes, despite everything, the absence of a major breakdown which could bring about the bankruptcy of the most indebted oil exporting countries.

Secondly via the fall in interest rates. Even if the impact of the oil price countershock on real interest rates is hard to assess in the medium term, the fall in nominal interest rates is such as to boost demand simply by improving the cashflow of economic agents.

Thirdly via a substitution effect between oil products and other products brought about by the change in relative prices. This will cause greater demand in the oil market and, as a counterpart, less demand in the markets for other goods and services — everything else being equal. This effect is essentially sectoral and should only have secondary macroeconomic consequences.

Various analyses of these effects are available using a wide variety of oil price scenarios. Although it is difficult to compare such analyses which are based on widely different assumptions and calculated using different models, Table B.1.8 sets out some results drawn from a variety of sources. Despite differences in the results, certain conclusions may be drawn:

(i) there is a significant downward impact on inflation in all countries except in the UK where there are offsetting effects from the fall in the value of sterling;

(ii) output increases markedly in 1986 and further in 1987 bringing in its train increases in employment — these effects although positive are rather weaker in the UK because of the fall in the value of oil exports;

(iii) the current account improves markedly in 1986 in the oil-importing countries and in the Community as a whole, but this effect is attenuated in 1987 as stronger growth sucks in more imports. Once more, the UK is differentiated from the Community as a whole.

[4] The implied marginal efficiency of investment is about one-third. This is rather higher than some estimates of the gross efficiency of investment (see for example the Annual Economic Review 1984-85) because (i) the extra investment is entirely net, i.e. not for replacement purposes; (ii) the incentive to improve energy efficiency at the cost of capital efficiency has been much reduced and (iii) the investment will not be directed towards the residential sector. An estimation has been made using the Hermes model of the French economy: if 30 % of the increase in company profitability due to the oil price countershock were used for investment, then GDP would be 2 % higher after 5 years.

Table B.1.8

Estimates of the effects of an oil price fall

Drop in price per barrel	Level of GNP (%)		Consumer price level (%)		Level of employment (%)		Current acc. (% of GNP)	
	1986	1987	1986	1987	1986	1987	1986	1987
From USD 27 to USD 20[1]								
D	0,8	1,0	−1,0	−1,4	0,5	0,7	0,8	0,2
F	0,5	1,1	−0,8	−1,3	0,5	0,7	0,9	0,5
I	0,2	1,2	−0,7	−1,7	0,1	0,4	0,9	0,5
UK	0,2	0,5	−0,2	0,1	0,0	0,0	−0,8	−0,4
EUR 10	0,5	0,8	−0,8	−1,3	0,3	0,5	0,6	0,3
From USD 25 to USD 18[2]								
F	0,7	1,2	−2,2	−2,8	0,2	0,3	—	—
From USD 27 to USD 16[3]								
UK	0,4	0,6	−0,2	−0,4	—	—	−0,8	−1,0
From USD 25 to USD 15[4]								
EUR 12	1,0	1,8	−2,0	−3,4	0,4	1,0	2,4	1,5

Sources:
[1] These estimates were made by Commission services and are not directly based on econometric models. The estimate for the Community (EUR 10) is based on individual country assessments.
[2] Hermes (Harmonized European Research for Macrosectoral and Energy Systems) assumes that 30% of the increase in profits is invested to modernize industry.
[3] From the National Institute of Economic and Social Research (NIESR) Review of May 1986, assumes an accommodating monetary policy and full anticipation of the price fall one year ahead.
[4] Compact model estimates made by Commission services assuming a full pass-through of the oil price fall to consumers.

The analyses in the table have generally assumed no change in the taxation of oil products. If higher oil taxes intervene in consequence of the price fall, the effects on the main economic indicators would very much depend on whether the extra tax revenue is used to reduce government deficits (increasing the level of saving in the economy and thus reducing aggregate demand in the short term) or to replace other taxes or finance higher government expenditure (with a roughly neutral effect on aggregate demand). The effects of such possible changes in fiscal policy should be borne in mind in assessing the effects of the oil price fall.

B.1.7. Conclusions

There would seem little doubt that the oil price reduction has favourable economic effects when judged at the level of the European Community as a whole. There are, however, substantial differences as between member countries, largely depending on the importance of net oil imports in each country's energy balance.

The higher GDP growth expected for 1986 and 1987, provides a firmer base from which the cooperative growth strategy for more employment can be expected to evolve. In particular, from a medium-term perspective, a continuing lower price of energy input costs is likely to encourage more intensive use of existing capital and could increase the growth of investment in total. At a time when there are some signs of capacity constraints in certain sectors, this will help to underpin the useful improvements in investment performance which currently are underway.

The taxation of oil products

In all Member States, the sales price of oil products is a function of the price excluding tax — which differs little from one country to another — and taxes, which do lead to significant differences in the price paid by the consumer. Oil products are subject to two types of taxation, excise duties and value-added tax.

1. Taxes on oil products before the fall in prices

In April 1985, before the fall in oil prices, which began after the OPEC meeting of December 1985, taxes on oil products were very different, depending on the particular product and the country.

Table 1

Duties and taxes on oil products in April 1985

	B	DK	D	F	IRL	I	NL	UK
Amount of exise duty (in ECU per 1 000 litres)								
Super grade petrol	249,4	291,4	237,6	385,0	358,0	451,0	287,3	307,2
Normal grade petrol	249,4	291,4	237,6	366,1	358,0	451,0	287,3	307,2
Auto gas oil (diesel)	116,9	50,0	198,1	193,4	266,0	79,9	78,4	259,4
Heating gas oil	0,0	50,0	7,4	51,9	24,5	79,9	13,7	13,2
Heavy fuel oil	0,0	54,2	6,7	24,2	14,2	0,7	4,4	13,6
VAT rate (in %)								
Super grade petrol	25,0	22,0	14,0	18,6	23,0	18,0	19,0	15,0
Normal grade petrol	25,0	22,0	14,0	18,6	23,0	18,0	19,0	15,0
Auto gas oil (diesel)	25,0	22,0	14,0	18,6	23,0	18,0	19,0	15,0
Heating gas oil	17,0	22,0	14,0	18,6	5,0	18,0	19,0	0,0
Heavy fuel oil	17,0	22,0	14,0	18,6	5,0	9,0	19,0	0,0

Source: Community oil bulletin.

(i) Excise duties are, in general, levied more heavily on super and normal grades of petrol than on heating gas-oil and heavy fuel oil. Countries with particularly high rates for such taxes on petrol are Italy, France and Ireland.

(ii) For VAT, the tax rates applied in the Community, in 1985, ranged from 14 % in Germany, to 25 % in Belgium, for super and normal grades of petrol (data for April 1985 — see Table 1). Five years earlier, in 1980, Ireland had the lowest rate (10 %) and Denmark the highest (22 %). Thus there was no progressive harmonization of rates of VAT over the five years to 1985. Moreover, certain countries, namely Denmark, Germany, France and the Netherlands, followed a policy of applying the same rate of VAT to all oil products. In contrast, other countries applied a more favourable tax regime to certain products such as heavy fuel oil, or heating gas oil, which benefited certain types of consumer and certain kinds of fuel use (industrial uses, heating of homes). This is the case for Belgium, Ireland, Italy (with regard to heavy fuel oil) and the United Kingdom.

(iii) If the ratio of total taxes per unit to the price excluding tax is considered, it will be noted that heavy fuel oil — of which industry is the main user — and heating gas oil — mainly used for domestic heating — are not as heavily taxed as petrol and automotive gas oil such as diesel. In particular for petrol (both super and normal grades) total taxes amount to more than the price excluding tax, in almost all Member States.

The average rate of taxation for the total consumption of oil products can be calculated by weighting together the individual tax rates according to levels of consumption (see the line 'For all petroleum products taken together' — Table 2). It will be noted that on the one hand, for France, Italy, Ireland and the Netherlands the tax on the consumption of oil products is high (more than 60 % of the price excluding tax). On the other hand, in Belgium, Denmark and Germany, oil products are taxed to a significantly lesser extent (less than 52 %).

2. The contribution of oil duties and taxes to the total revenues of General Government before the fall in prices at the end of 1975

It is possible to calculate the total receipts, received by General Government, from oil duties and taxes, by considering the

Table 2

Ratio of total taxes per unit to price excluding tax in April 1985 (%)

	B	DK	D	F	IRL	I	NL	UK
Super grade petrol	107,4	112,9	98,4	159,3	130,8	182,9	116,1	113,4
Normal grade petrol	112,8	116,5	105,2	154,1	135,5	199,2	122,0	116,9
Auto gas oil (diesel)	67,1	36,1	79,5	82,1	95,8	44,2	45,6	92,8
Heating gas oil	17,0	37,3	16,8	36,0	16,7	46,2	24,0	3,4
Heavy fuel oil	0	19,2	2,7	10,1	4,6	0,3	1,7	4,7
For all petroleum products taken together	46,1	48,2	51,9	78,9	60,7	61,2	68,4	57,0

Source: Community oil bulletin.

structure of tax rates and the consumption of oil products by each type of economic agent (Enterprises, General Government, Households). However, in each Member State enterprises benefit from tax exemptions on the consumption of certain oil products of which, clearly, account must be taken in such a calculation. A complete calculation can only be made for the four large Member States (D, F, I, UK); the figures for the other Member States are only estimates (see Table 3).

Table 3

The share of oil duties and taxes in the total resources of General Government in 1985 (%)

	B	DK	D	F	IRL	I	NL	UK[1]
Relative to receipts of indirect taxes	18,7	11,0	14,3	19,2	21,3	26,6	13,6	12,0
Relative to total tax receipts	4,4	3,5	3,9	5,8	8,6	6,5	3,0	4,6

[1] In the case of the United Kingdom the figures given in this table do not include revenues raised from taxing the actual operations of oil companies. If these taxes were taken into account then total oil taxation would be about 10% of the total resources of General Government.

Source: Community oil bulletin.

The proportion of taxation on oil products in indirect taxes received by General Government is particularly high and ranges from 11% in Denmark to 26,6% in Italy. Indeed as a proportion of the total resources of General Government taxes on products make a significant contribution (about 5% as a Community average).

In view of the fall in the price of oil products which began in December 1985, General Government has found itself faced with a choice: either to pass the price fall on to consumers or to increase the level of taxation on oil products in order to generate additional revenue.

3. The new oil tax situation following the fall in the price of oil

Table 4 shows the evolution of the sales price for oil products between 15 December 1985 and 15 May 1986, i.e. during the five months when the fall in the price of crude oil occurred. This fall in the price of crude oil has had a different direct effect on the pre-tax price of oil products in each of the Member States.

The differences observed between Member States in the fall in pre-tax prices is explained by many different factors. Firstly, by the structure of the markets for oil products which may be more or less competitive depending on the country concerned. Secondly, by the pricing policy applied in these countries (free markets or price-fixing). Thirdly, by changes in the rate of exchange, since crude oil is billed in dollars and the pre-tax price is expressed in domestic currency values. Finally, by the respective weight of each oil product in consumption and imports for each country. Thus certain products are the result of the refining of the original crude oil, in the importing country, or are imported directly as refined products.

Table 4

Evolution of the sales price of oil products between December 1985 and May 1986 (%)

	B	DK	D	GR	E	F	IRL	I	L	NL	P[1]	UK
Super[2]	−32,9	−43,1	−45,6	−61,8	−31,9	−33,2	−26,2	−41,1	−35,3	−30,8	−22,3	−37,6
Price fall net of tax Price fall after tax	−18,1	+5,3	−25,7	−3,8	−5,7	−10,7	−8,4	−8,6	−21,8	−14,7	−2,6	−15,2
Heating gas oil	−32,4	−30,4	−33,4	−35,9	−41,6	−24,4	−38,4	−44,1	−34,2	−36,0	—	−30,2
Price fall net of tax Price fall after tax	−32,9	+10,6	−32,5	−8,5	−12,5	−20,1	−35,8	−20,6	−34,2	−34,3	—	−27,4
Heavy fuel oils[3]	−54	−34,5	−50,8	−58,1	−53,9	−50,9	−43,3	−60,6	−55,8	−50,9	−38,1	−46,7
Price fall net of tax Price fall after tax	−54,0	−34,5	−49,1	−8,9	−12,1	−35,3	−42,2	−58,5	−55,2	−49,7	−17,5	−43,9
All oil products[4]	−34,7	−33,0	−39,4	−50,2	—	−30,1	−33,1	−44,6	−35,5	−33	—	−36,8
Price fall net of tax Price fall after tax	−26,1	+4,2	−28,4	−7,0	—	−15,7	−19,2	−19,9	−26,8	−21,7	—	−20,5

[1] 15 January 1986 instead of 15 May 1986.
[2] The fall in price for normal petrol corresponds more or less to that observed for super. On the contrary, for diesel the differences are much greater.
[3] For heavy fuel oil the effective sales price is given here (with VAT deducted by firms).
[4] The calculation for total oil products is only possible for those countries which provide data on the structure of consumption of oil products.

Source: Commission services.

The repercussion of the fall of the pre-tax price on the tax inclusive price depends, for each country, on one hand on the relative share of two types of taxation (excises and value-added tax) and, on the other, on changes in tax levels which occur after the fall in price. Table 5 presents succinctly the principal measures which have been adopted by the Member States in this regard.

Overall one finds that certain countries have passed on fully to the consumer the fall in price (Belgium, Germany, Luxembourg). The fall in the price of all oil products together was over 25 % for five months. The fall was particularly sharp for heavy fuel oil destined mainly for industry, on account of the special tax advantages from which these products benefit.

Table 5

Changes in oil taxation
Measures implemented at a national level (between December 1985 and May 1986)

	Measures adopted	Objective sought
Belgium	No measures envisaged	—
Denmark	Significant increase in excise duties (+65% on petrol, +22% on heavy fuel and diesel)	To neutralize the effects on consumption and the current account
Germany	No measures envisaged	—
Greece	Price fixed by the public authorities (70% of the fall in price compensated by excise duty)	Public finances
Spain	60% of the fall in price compensated by increased taxes	Public finances
France	Increase in excise duty (+6% on petrol in April) already planned in the finance bill 1986, subsequently increased in June 1986	1986 budget
Ireland	Increase in excise duty on petrol by 7% in January and increase in VAT by two points in March	Public finances
Italy	Freezing of the consumer price for petrol until June 1987 by regular changes in the level of excise duty. Tax on heavy fuel oil unchanged	Public finances
Luxembourg	No measures envisaged	—
Netherlands	No measures envisaged. The decision to increase VAT by 1% on all products will be postponed	—
Portugal	Increase on excise duty to compensate for the fall in price of oil	Public finances
United Kingdom	Increase in March 1986 in excise duties on petrol and diesel. No increase for heavy fuel oil	To compensate for falling tax receipts on oil production

Source: Commission Services.

Table 6

Tax revenues from oil products 1985-86

	D	F	I	UK
Tax revenues from oil products 1985 (in billions of national currency)	32,8	134,0	19 779	6,8
Tax revenues from oil products 1986 (in billions of national currency)	30,0	128,5	21 102	7,1
Difference 1986/1985				
— in billions of national currency	−2,8	−5,5	+1 323	+0,3
— as a % of total tax receipts	−8,5%	−4,1%	+6,7%	+4,4%

Source: Commission Services.

In contrast, there are those countries which have compensated entirely, or to a large extent, for the price fall by an increase in oil-based taxes (Denmark, Greece, Spain, Ireland, Italy, Portugal). This type of policy is particularly evident if one considers the developments on the price of the super grade of petrol. However, some of these same countries have tried to pass on the fall in the price of heavy fuel oil in order to help enterprises. The increase in taxation on oil products has been made almost entirely via an increase in excise duties, whereas the level of VAT has remained generally unchanged.

4. General Government revenues from oil taxation in the light of the fall in the price of oil

For four Member States, on the basis of data presently available, it is possible to calculate the development of public finance receipts from oil, taking into account, on the one hand, an increase of 2 % in 1986 compared to 1985 in the consumption of total oil products, and on the other hand, the changes in taxation introduced by the Member States. For Italy, the change should be quite high and positive since the price of oil products remains almost unchanged, while the growth in demand for such products should be just below 2 %.

Nevertheless this calculation of the change of tax receipts from oil sources does not prejudge the growth of the total tax receipts of General Government. The recovery of economic activity will, in effect, lead automatically to an increase in public sector revenues. Such indirect effects can prove even greater than the direct effects which only take account of the taxation of oil products.

World trade growth and the price of oil

In its 1984/85 annual report on international trade, GATT noted that 'Between 1950 and 1973 a 1 % increase in world income was, on average, accompanied by a 1,6 % increase in the volume of world trade, but only by a 1,1 % increase in trade in the period from 1973 to 1984'. Using data provided by GATT it is possible to break down world trade into three categories: agricultural goods, minerals (mainly oil) and manufactures. Calculating growth rates for trade in each category and relating them to the growth in world income reveals the fact that the apparent slowdown in the ratio of world trade to growth to world income was due entirely to a fall in the volume of trade in minerals (see table).

Table 1

World trade growth before and after 1973

Growth rates (% per year)	Volume of world trade				World output
	Total	Agriculture	Minerals (inc. fuels)	Manufactures	
1950-73	8,25	4,27	7,41	9,79	5,09
1973-84	3,00	3,29	−1,39	5,19	2,55

Ratio[1] of growth of exports to growth of world output

	Total	Agriculture	Minerals	Manufactures
1950-73	1,62	0,84	1,46	1,92
1973-84	1,18	1,29	−0,55	2,02

[1] These ratios do not represent elasticities since they include the effect of influences on world trade other than GDP (e.g. relative prices, time trends, interest rates, etc.)
Source: GATT report 'International trade 1984/85'.

The obvious explanation of the post-1973 fall in world oil trade is that the two oil price increases caused a fall in demand and an increase in non-traded (i.e. domestically produced) oil. The question then arises as to what is the sensitivity of the level of trade in oil to a change in the real price of oil.

In practice, there are severe problems in estimating such an elasticity. These include:

(i) the 'identification' problem involving the impossibility of distinguishing between movements of the supply and demand curve;

(ii) availability of data on the volume of oil traded;

(iii) the oil price rises which themselves influenced GDP, implying an econometric simultaneity that is ignored in this analysis;

(iv) the stability of parameters over time given technical developments, the spread of the internal combustion engine, etc.;

and, most importantly,

(v) the two oil price shocks so outweigh all other price changes that it is very likely that their effects would not be proportionate: this more or less invalidates econometric analysis, since the assumption of fixed parameters would be incorrect.

Notwithstanding these pitfalls, an attempt has been made to estimate an equation explaining the level of world trade in minerals (of which fuels in 1984[1] constituted 84 % and oil 73 %), based on annual data from 1950 to 1984. The main results of this exercise, which are of course subject to very large margins of error, can be summarized as follows:

(i) a negative time trend of 2,1 % per year;

(ii) the short-run price elasticity of world trade in minerals is −0,19;

[1] In 1973 fuels only constituted some 66 % of minerals. The increase to 84 % as a result of the oil price rises should be considered in interpreting the results of the equation.

(iii) the long-run price elasticity (after five years) is −0,57;

(iv) the GDP elasticity is 1,84. These figures are higher than might have been expected: however the dependent variable is trade in, rather than consumption of minerals and if the rest of the world is treated as a residual supplier by each country, this would induce an upwards bias (because of the accelerator effect). If oil consumption were the dependent variable, significantly lower elasticities might be expected.

Using these coefficients as a guideline as to what may be expected to happen to world trade in minerals over the next few years unsurprisingly yields the conclusion that it starts to increase again (albeit at a much lower price level so the actual value of oil trade will fall). The effect on the growth in the volume of world trade will be quite marked, even though the weight of the minerals category will fall as a result of lower oil prices. A price fall in oil of 40 % yields a fall of perhaps 30 % for the whole minerals sector which implies directly, in the long-term, a volume of minerals trade some 17 % higher than it would otherwise have been. Moreover the fall in oil prices is expected to lead to a higher level of world output which would give a further boost to world trade in minerals.

Even at the new lower prices, minerals might be expected to provide some 18 % of world trade in 1986. The 17 % increase in mineral trade mentioned above implies an extra 1/2 to 3/4 % of world trade growth each year for the next five years. The indirect effects via stronger GNP would be additional to this 'pure price effect'. If world GNP growth is around 3 % over the next five years, the implication is that world trade growth would be at least 5 % per year.

However in so far as the extra growth in world trade derives from higher oil trade it will be of only limited benefit to the poorer oil-importing countries. They will benefit from a lower oil import bill, but demand for non-oil commodities will not grow very strongly and they are faced with many problems in increasing their exports of the simpler manufactured goods, for example processed foods, textiles and clothing. Developed countries, on the other hand, will benefit from both a lower import bill and any increase in world trade in manufactures consequent upon stronger world output growth.

Effect of the fall in oil prices on productive capacity and scrapping

The recent fall in oil prices can be expected to have a number of economic consequences. While certain effects have already been well documented, this is not the case for the so-called 'supply' effects. The lack of theoretical support and econometric estimations renders such an analysis difficult. The attempt presented here limits itself to the two following aspects: the effect of lower oil prices on profitable productive capacity and its effect on scrapping. Based initially on theoretical considerations, this study furnishes quantitative evaluations of these two effects using parameters estimated in Community econometric models (Compact, Eurolink and Hermes).

(a) Profitable production and lower oil prices

For enterprises or sectors in a situation of classical unemployment, lower oil prices will increase the level of profitable production capacity. In such a situation, enterprises in effect are confronted by excess demand and will only be willing to satisfy a part of it by a loss of profitability, be this due to insufficient productivity, too low a price (caused by competition) or too high a price of factor inputs. If the price of a factor falls, as is the case with the fall in oil price, and this fall is expected to be permanent, then companies will be able to implement their investment plans. This applies to those companies that would have had low profits if the oil price had stayed at its former level but who, following the change, now have greater profit margins.

Formally such behaviour is characterized using the theory of the firm, i.e. profit maximization taking account of technological possibilities. This depends on a three factor (capital, energy and labour) putty-clay production function. *Ex-ante*, substitution possibilities exist which can be represented by the following nested Cobb-Douglas, CES production function:

$$Q = Q_o e^{gt} \left[\delta I^{-\rho} + (1 - \delta) E^{-\rho}\right]^{\frac{-\alpha}{\rho}} . L^{\beta}$$

where Q, I, E and L represent respectively output of the vintage of the capital stock considered, the volume of investment incorporated in this vintage, and the volumes of energy and labour used. The role of technical progress is represented by g, scale economies are equal to $\alpha + \beta < 1$, the elasticity of substitution between capital and energy is equal to $\sigma = \frac{1}{1+\rho}$ and the elasticity of substitution between labour and the other factors is equal to one.

If this formalization and the underlying hypotheses (in particular the constancy of wages and the user cost of capital in real terms) are accepted, an oil price fall has the following direct effects on profitable productive capacity:

$$\frac{dQ}{Q} = - \frac{\alpha + \beta}{1 - (\alpha + \beta)} s_e \frac{dP_e}{P_e}$$

where $\frac{dP_e}{P_e}$ designates the relative change of the real oil price and s_e is the proportion of oil costs in total factor costs (investment cost + labour costs + oil costs).

In the short-run the effect is only on the new generation of equipment. In the long-run, when all vintages have been replaced, it is the whole of productive capacity which will be increased by the improvement in profitability. This increase is a pure supply effect because it results only from the behaviour of producers. If it remains a potential rather than actual effect for enterprises constrained by demand on the goods markets (Keynesian situation), it is certainly real for companies in a situation of classical unemployment. At a macroeconomic level, this supply effect of the reverse oil-shock (increase of profitable productive capacity) will be more important, as the proportion of markets in a situation of classical unemployment is higher. According to Compact, this share could be in the region of 70 % of Community enterprises.

The elasticities of productive capacity relative to the oil price depend on the importance of economies of scale. Any econometric estimation of such scale economies is generally imprecise and depends significantly on the method chosen. Using Eurolink for example, economies due to scale for all market sectors are the following: 0,94 for Germany, 0,84 for France, 1,40 for Italy and 0,89 for the United Kingdom. Taking account of the imprecise nature of these evaluations, a plausible range for the value of scale economies can be taken as 0,8 to 0,9. The strong non-linearity of the elasticity of productive capacity with respect to the oil price renders the results very sensitive to the assumptions regarding economies of scale, especially when these approach unity (see Table 1).

Taking account of the proportion of companies in a situation of classical unemployment (from Compact) it is possible to estimate that the pure supply effect from the reverse oil-shock would increase productive capacity in the whole of the Community (all market sectors) by between 0,2 and 0,6 % in the short-term and by between 2,4 and 5,4 % in the long-term.[1]

(b) Scrapping and the reverse oil-shock

Under the assumption of putty-clay production technology, production factors are taken as complementary once the new generation of equipment is incorporated into the capital stock. For existing capital, no possibility exists for substitution between the different factors of production, following an oil price change. The sole effect of the lower oil price would, therefore, be a reduction in production costs or, equivalently, an increase in profit margins. This increase in the rate of return on older vintage of equipment should enable certain enterprises to retain capital which would otherwise have been scrapped.

[1] Ranges correspond to the two values retained for economies due to scale, i.e. 0,8 and 0,9.

Table 1

Variation of productive capacity following the reverse oil shock[1] (maximum effect where 100% of enterprises are in a situation of classical unemployment)

(%)

	Economies of scale	D	DK	F	I	NL	UK	EUR
Short-term effect[2]								
Manufacturing	0,9	1,0	0,9	1,3	1,8	2,5	1,8	1,4
industry	0,8	0,5	0,4	0,6	0,8	1,1	0,8	0,6
Intermediate	0,9	1,0	1,7	3,2	4,1	7,7	4,0	3,5
goods	0,8	0,5	0,7	1,4	1,8	3,4	1,8	1,5
Equipment	0,9	2,4	0,3	0,3	0,6	0,3	0,9	0,5
goods	0,8	1,1	0,1	0,1	0,3	0,1	0,4	0,2
Consumption	0,9	0,4	0,9	1,1	1,1	0,6	1,5	1,1
goods	0,8	0,2	0,4	0,5	0,5	0,3	0,7	0,5
Manufacturing	0,9	0,5	0,8	0,7	1,1	0,9	1,0	0,8
and services[3]	0,8	0,2	0,4	0,3	0,5	0,4	0,4	0,3
Long-term effect								
Manufacturing	0,9	10,4	8,6	12,6	18,0	24,8	18,4	14,4
industry	0,8	4,6	3,8	5,6	8,0	11,0	8,2	6,4
Intermediate	0,9	23,8	16,7	31,5	41,0	76,5	39,6	34,7
goods	0,8	10,6	7,4	14,0	18,2	34,0	17,6	15,4
Equipment	0,9	4,1	3,2	3,2	5,9	3,2	9,4	5,0
goods	0,8	1,8	1,4	1,4	2,6	1,4	4,2	2,2
Consumption	0,9	9,9	9,0	10,8	11,2	6,3	14,9	10,8
goods	0,8	4,4	4,0	4,8	5,0	2,8	6,6	4,8
Manufacturing	0,9	5,4	8,1	7,2	10,8	9,0	9,9	7,7
and services[3]	0,8	2,4	3,6	3,2	4,8	4,0	4,4	3,4

[1] On the basis of a 50% fall in the oil price between 1985 and 1986.
[2] Impact after one year, assuming that the productive capacity of the marginal vintage represents 10% of total productive capacity.
[3] Market sectors excluding agriculture and housing.

The reduction of the unit costs of production due to the reverse oil-shock will moderate the increase in costs from a newer to an older production vintage (with the latter incorporating less up-to-date techniques and for which wear and tear is greater). The lower oil price therefore delays the rate of scrapping by improving profitability. This delay, expressed in numbers of years, is equal to the ratio of two changes: that due to the reverse oil-shock and that due to the ageing of capital stock vintages. Formally it can be shown that:

$$\text{Delay of scrapping in years} = \frac{P_e E \dfrac{dP_e}{P_e}}{WL \dfrac{d\Pi_L}{\Pi_L} + P_e^E \dfrac{d\Pi_e}{\Pi_e}}$$

Where WL and p_eE represent labour costs and energy costs for the oldest vintage of equipment; Π_L and Π_e are the apparent productivities of labour and energy.

This relationship allows an estimation of the delay in scrapping to be made, following the reverse oil-shock of the winter of 1985-86. The trend in apparent productivity has been estimated from the parameters of the model Hermes (using an approximation for the rate of technical progress affecting combined factors of production). The figures obtained are set out in Table 2.

The delay in scrapping induced by the reverse oil-shock seems to be significant. For intermediate goods where energy costs are particularly high the delay is greatest. In the case of the UK,

even taking account of low technical progress, it reaches a level which seems hardly credible. In contrast the effect on equipment goods is weaker, between 0,2 and 1,2 years (except for UK where the estimate is 6,5 years). For consumption goods the estimates for scrapping delays lie between the estimates for the two other sectors.

In general, if the case of the UK is excluded, the reverse oil shock could delay scrapping by between one and six years for intermediate goods, by between 0,2 and one year for equipment goods and by between 0,6 and four years for consumption goods; Germany and Denmark represent respectively the low and high values of the last two ranges cited above.

(in years)

Table 2

Delay in scrapping for the oldest vintages of capital equipment following a lowering in the oil price[1]

	D	DK	F	I	NL	UK
Intermediate goods	1,1	—	5,4	2,6	6,6	15,5
Equipment goods	0,2	1,2	0,4	0,2	0,2	6,5
Consumption goods	0,6	4,3	0,8	1,0	1,1	3,4

[1] The calculation is based on a 50 % decrease in the oil price between 1985 and 1986.
The shares $P_eE/(P_eE+WL)$ are based on the year 1980 except in the case of Italy (1981).

B.2. Productive supply in the Community

The growth of productive supply in the Community slowed down considerably through the 1970s. When adjustments are made to capital and labour inputs so as to account for hours worked and capacity utilization, a picture of a marked slowdown in the growth rates of both labour productivity and of capital per employee emerges. In addition, the growth of capital productivity has been negative or very weak for some time. The oil price fall can be expected to produce beneficial effects operating through both demand and supply channels. As far as productive potential in the future is concerned, the concept is conventionally measured in terms of the weighted growth of capital and labour together with an estimate of total factor productivity. However, where unused resources exist, as is the case in the Community with its high level of unemployment, these can be integrated into supply at appropriate levels of factor rewards. A rough calculation shows that on the basis of recent levels of growth in the labour force, the capital stock and total factor productivity, productive potential in the Community will grow by 2,8 %. In order to reduce unemployment significantly, at existing rates of technical advance and the same growth in the capital/labour ratio, it is shown that a growth in output of about 3 1/2 % would be required, a rate consistent with that foreseen in the cooperative growth strategy for more employment.

B.2.1. Potential output and unused resources

An assessment of the major factors which might determine longer term potential supply constitutes a basic building block of any strategy for growth and employment. For an economy, potential output measures that production capability, over the longer term, which is compatible with full utilization of the available factors of production and reasonably stable prices. A country's potential output expands primarily because of increased labour and capital inputs, technical advance and improvements in efficiency and the organization of these inputs. In a situation where spare resources exist, either labour, capital, or both, actual growth must exceed potential growth if such under-utilized and unused resources are to be integrated into the growth process. It follows therefore, that where output grows below or at only the same rate as productive potential, the gap will not narrow and some resources will continue to remain unused. This is a part of the unemployment problem in Europe.

B.2.2. The main components of productive supply

The growth of a nation's capacity to produce real output depends firstly on increases in the availability and quality of factors of production, secondly on the efficiency and organization of these factors and thirdly on the pace of technological advance. Thus, to have more output, an economy must (a) have additional factors of production or, (b) be able to use existing factor supplies more efficiently either by a more effective allocation of resources or by taking advantage of technical improvements. Initially we can confine attention to the two primary resource inputs: labour and capital. At a later stage the currently important question of energy is introduced.

Inputs to a production process are subject to a number of uncertainties particularly with respect to their measurement. In the case of the labour input, over a conventional medium-term period, the growth in the numbers of persons of working age can be predicted with a fair degree of accuracy. Labour force participation rates and hours worked however, can vary appreciably with economic activity. Moreover, the input of each additional worker to the process is not uniform given differences in training and experience.

As far as the capital input is concerned, it is to be noted that what capital provides to the production process, is a flow of services from an existing stock. In statistical terms, given that what we observe in practice is a stock rather than a flow, various factors must be taken into account such as the amount of the stock which is being utilized and the possibility of increased capital services, for example, through more intensive use over longer periods. In addition, measurement of the capital stock poses particular problems which cannot always be allowed for, such as accelerated obsolescence due to changing tastes or changes in relative prices.

Quite apart from those problems concerned with the measurement of inputs, the way in which technical progress is characterized will also influence the results obtained. Technical progress implies a widening of knowledge which improves national welfare in terms of increased real income per head and through a widening of consumers' choice over

goods and between work and leisure activities. All of the various aspects of technical progress are impossible to measure precisely, but its effect in general is to expand potential supply for any given volume of inputs. In most aggregated explanations of growth in output it is usual to treat technical change as being disembodied, or something which is exogenous to the economic system. The existence of embodied technical progress is more difficult to handle empirically implying, as it does, that technical progress does not drop like manna from heaven on all machines, equipment and buildings but only on certain types of capital. This leads to a requirement for data on the age structure of capital equipment since various degrees of technical progress and knowledge are embodied in machines installed of different vintage. This implies in turn that in a measure of the supply of capital in aggregate, the most recent additions to the capital stock must be weighted differently to those increments occurring in earlier periods and which has the effect of increasing the output growth response to changes in the capital stock.

B.2.3. The productivity slowdown

In the past decade there has been a marked shift in productivity performance as indicated by the growth of output per employee, when compared with those increases recorded before the first oil shock. This slowdown in productivity growth appears quite clearly in Table B.2.1 which gives data at the level of the whole Community economy. In the period 1960-68 annual average GDP growth rates in Community countries have been in the range 3,1 % (Luxembourg and the United Kingdom) to over 7 % (Greece and Spain), the average growth rate for EUR 12 being the same as that in the United States (4,5 %), but considerably lower than that achieved in Japan (10,5 %). Although growth rates outside the Community eased in the immediate pre-oil price shock period, this trend was not apparent in Community countries where output accelerated further in all countries apart from Denmark, Spain and Italy. The impact of the first oil shock in 1973 was associated with a significant reduction in growth rates achieved over the period 1973-79 which in the great

Table B.2.1

Output and employment

(Annual average % changes)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	Japan
GDP															
1960-68	4,5	4,6	4,2	7,3	7,5	5,4	4,2	5,7	3,1	4,8	6,6	3,1	4,5	4,5	10,5
1968-73	5,6	4,1	4,9	8,2	6,8	5,9	4,8	4,6	6,5	5,3	7,4	3,2	4,8	3,3	8,8
1973-79	2,2	2,0	2,4	3,7	2,5	3,1	4,6	2,6	1,4	2,5	3,1	1,4	2,4	2,6	3,6
1979-83	0,9	0,9	0,5	0,4	1,2	1,1	2,2	0,6	−0,9	−0,1	2,0	0,4	0,6	0,7	3,8
1983-86	1,6	3,1	2,9	1,4	2,3	1,8	3,2	2,6	2,9	1,8	0,3	2,4	2,4	3,9	4,8
Employment															
1960-68	0,6	1,1	−0,1	−0,6	0,7	0,5	0,1	−0,6	0,3	1,1	−0,4	0,3	0,1	2,1	1,5
1968-73	0,7	1,1	0,8	−0,3	1,1	1,0	−0,1	0	2,1	0,5	−0,6	0,2	0,5	1,5	0,9
1973-79	0,1	0,5	−0,5	0,7	−1,3	0,3	1,3	0,8	0,8	0,2	−0,3	0,2	0,2	2,2	0,7
1979-83	−1,1	−0,2	−0,8	−0,1	−2,3	−0,3	−0,4	0,3	0,1	−1,3	−0,1	−1,6	−0,7	0,0	1,1
1983-86	0,3	2,3	0,8	0,2	−1,0	−0,5	−0,2	0,3	0,4	0,3	−0,7	1,1	0,5	2,6	1,1
GDP per person in employment															
1960-68	3,9	3,4	4,3	8,0	6,8	4,9	4,1	6,4	2,8	3,7	7,0	2,8	4,4	2,4	8,9
1968-73	4,9	3,0	4,1	8,6	5,6	4,9	4,9	4,6	4,2	4,8	8,0	3,1	4,3	1,8	7,9
1973-79	2,1	1,5	3,0	3,0	3,9	2,9	3,2	1,8	0,6	2,2	3,4	1,2	2,2	0,4	2,9
1979-83	2,0	1,1	1,4	0,5	3,6	1,4	2,6	0,3	−1,0	1,3	2,1	2,1	1,3	0,7	2,6
1983-86	1,3	0,8	2,2	1,2	3,4	2,2	3,4	2,3	2,4	1,5	1,0	1,3	1,9	1,3	3,7

Source: Commission services.

majority of countries were half the annual average growth rates reached in the 1960s. A further substantial slowdown took place between 1979 and 1983 and it is only in the most recent period (1983-86) that any significant pick up appears to have taken place, albeit to a far less significant degree than in the United States.

During the initial period 1960-68, in most Community countries there was a modest increase in aggregate employment which was sufficient to keep unemployment for the Community (EUR 9) at 1,9 % as compared to the present level of 10,8 %. Rates of employment growth however, slowed down appreciably over subsequent periods, although not as substantially as output growth, leading to a marked reduction in the growth rate of output per person in employment. Thus for the Community as a whole the growth of labour productivity was more than halved after 1973 and has not recovered significantly since then. The decline in employment together with demographic factors have therefore served to emphasize the unemployment problem in recent years.

It is now recognized widely that the factors making for apparent weakening in productivity performance in the industrialized world are both numerous and complex in their effect overall. Lower rates of investment, higher energy input costs, poor rates of utilization of existing capacity, weak effective demand and worsening terms of trade of manufacturing as against raw materials and the effects of inflation have all played a part. It is possible that between 1973 and 1980/81, the rate of growth of productive supply in OECD industrialized countries fell from around 3,5 % to somewhere between 1,0 and 2,0 %.[1]

To gain further insight into the comparative pattern of development in the European economy, the analysis in what follows concentrates largely on the non-agricultural business sector (excluding the renting of dwellings). In the tables however, figures are given for manufacturing also.[2]

B.2.4. Evolution of output, employment, hours, capital and capacity utilization in the non-agricultural business sector

The pattern of development of various productivity aggregates of the non-agricultural business sector is shown in brackets in Table B.2.2. The first panel gives output per person employed in the business sector of the economy. The comparison with the data for the whole economy in panel 3 of Table B.2.1 is quite close although some minor divergencies have appeared in the most recent past associated with different patterns of activity in agricultural and the government sectors. Thus in the UK and Japan, growth in the period 1979-83 was higher in the business sector than in the whole economy, while in the USA and Italy the opposite was the case. The main figures in the table take into account an adjustment for working time.[3] Between 1960 and 1983 average weekly hours worked fell by as much as 27,7 % in Italy, 18,6 % in Germany, 16,6 % in France, 14,4 % in the United Kingdom. In Japan the decline was 14,2 % while in the United States there was an actual increase of 0,3 %. This factor alters substantially the labour input component of a conventional productivity calculation. The result can be seen in panel 1 of Table B.2.2 where output per person employed per hour is shown. Given the movements in working hours, the calculations yield labour productivity figures which are considerably higher for the European economies and Japan. The US picture is one of a lower increase in the labour productivity and at the same time a reduced decline in the rate of growth in the post oil-shock period.

The rate of increase of the measured capital stock slowed down appreciably in the Community after 1973 (see panel 2 of Table B.2.2). Inevitably, certain reservations must be entered at this stage concerning the whole issue of capital stock measurement. These are taken up in Box 1 where an alternative formulation is presented in an attempt to illustrate the sensitivity of the results of this analysis and what follows from the assumption that a significant margin of capacity was destroyed or taken out of use in the post 1973 period, a factor which may not have been fully taken into account in the various official statistical series generally used for the measurement of the capital stock. The data in brackets in Table B.2.2 show a very substantial slowdown in the rate of growth of the capital stock except for the United States. However, since, as noted above, some meas-

[1] See Assar Lindbeck, 'The recent slowdown of productivity growth', *Economic Journal*, March 1983.

[2] Some concentration on manufacturing is desirable given the leading role assigned to growth of manufacturing industry in economic growth in total. Thus for instance Boyer and Petit in *Employment and productivity in the EEC* show that year on year changes in manufacturing value-added correlate more closely than those in any other sector with changes in the economy as a whole, the only other sector showing anything like the same degree of correlation being market services.

[3] Data are unavailable for this sector as a whole, so average working hours for manufacturing has had to be taken as a proxy for their development. The adjustment does not allow for increased holidays etc. which was undoubtedly an additional factor at work, particularly in Europe, over the period covered.

Table B.2.2

Labour and capital productivity (non-agricultural business sector — excluding the renting of dwellings)[1]

(Annual average % change)

	D		F		I		UK		EUR 4		USA		Japan	
Output per person employed per hour														
1960-68	5,4	(4,2)	5,6	(4,9)	7,1	(6,0)	3,5	(2,9)	5,2	(4,3)	2,6	(2,9)	9,5	(8,5)
1968-73	5,1	(4,1)	5,2	(4,8)	7,9	(4,7)	4,1	(3,4)	5,4	(4,2)	1,9	(1,9)	9,7	(8,5)
1973-79	4,3	(3,5)	3,7	(2,8)	2,4	(1,9)	1,9	(1,0)	3,2	(2,4)	0,6	(0,3)	3,0	(2,7)
1979-83	2,0	(1,5)	2,9	(1,4)	1,4	(−0,1)	3,0	(2,5)	2,4	(1,4)	0,5	(0,3)	3,2	(3,1)
1979-87[2]	2,2	(1,6)	3,0	(1,8)	2,1	(1,0)	2,5	(2,0)	2,4	(1,6)	:	:	:	:
Difference 1960-68 & 1979-83	−3,4	(−2,7)	−2,7	(−3,5)	−5,7	(−6,1)	−0,5	(−0,4)	−2,8	(−2,9)	−2,1	(−2,6)	−6,3	(−5,4)
Adjusted capital stock														
1960-68	6,5	(7,1)	5,1	(5,0)	7,2	(6,9)	3,6	(4,5)	5,3	(5,7)	5,1	(4,0)	11,3	(9,3)
1968-73	7,4	(6,8)	8,1	(6,4)	4,4	(5,9)	5,5	(4,3)	6,3	(5,7)	4,5	(4,5)	12,6	(13,4)
1973-79	3,9	(4,5)	4,6	(5,2)	3,8	(4,1)	3,2	(4,0)	3,8	(4,4)	3,3	(3,8)	5,1	(6,6)
1979-83	1,5	(3,8)	3,1	(4,0)	1,3	(3,2)	0,7	(3,0)	1,6	(3,5)	0,8	(4,2)	3,4	(5,0)
1979-87[2]	3,8	(3,2)	3,8	(3,5)	3,6	(3,0)	3,7	(2,9)	3,7	(3,1)	:	:	:	:
Difference 1960-68 & 1979-83	−5,0	(−3,3)	−2,0	(−1,0)	−5,9	(−3,7)	−2,9	(−1,5)	−3,7	(−2,2)	−4,3	(0,2)	7,9	(−4,3)
Adjusted capital stock per person per hour														
1960-68	7,6	(6,9)	4,3	(3,7)	7,4	(6,0)	3,9	(4,2)	5,5	(5,1)	2,7	(2,0)	8,7	(5,8)
1968-73	7,3	(5,7)	6,5	(4,4)	6,8	(5,1)	6,2	(4,3)	6,6	(4,8)	2,5	(2,4)	11,1	(10,6)
1973-79	5,6	(5,3)	5,0	(4,7)	3,2	(2,9)	4,1	(4,0)	4,6	(4,3)	1,0	(1,2)	4,3	(5,4)
1979-83	3,4	(5,2)	5,0	(4,4)	2,2	(2,5)	3,4	(5,3)	3,5	(4,4)	0,9	(4,2)	1,9	(3,3)
1979-87[2]	4,6	(3,5)	5,2	(3,8)	4,0	(2,2)	4,8	(3,5)	4,7	(3,3)	:	:	:	:
Difference 1960-68 & 1979-83	−4,2	(−1,7)	0,7	(0,7)	−5,2	(−3,5)	−0,5	(1,1)	−2,0	(−0,7)	−1,8	(2,2)	−6,8	(−2,5)
Output per unit of the adjusted capital stock														
1960-68	−2,1	(−2,6)	1,2	(1,2)	−0,3	(−0,0)	−0,3	(−1,3)	−0,4	(−0,8)	−0,1	(0,9)	0,7	(2,6)
1968-73	−2,1	(−1,5)	−1,3	(0,3)	1,1	(−0,4)	−2,0	(−0,8)	−1,1	(−0,5)	−0,6	(−0,6)	−1,2	(−1,9)
1973-79	−1,2	(−1,8)	−1,2	(−1,8)	−0,8	(−1,0)	−2,1	(−2,8)	−1,3	(−1,9)	−0,4	(−0,9)	−1,2	(−2,5)
1979-83	−1,4	(−3,5)	−2,0	(−2,9)	−0,7	(−2,5)	−0,4	(−2,7)	−1,1	(−2,9)	−0,4	(−3,7)	1,3	(−0,2)
1979-87[2]	−2,4	(−1,9)	−2,2	(−1,9)	−1,8	(−1,2)	−2,3	(−1,5)	−2,2	(−1,6)	:	:	:	:
Difference 1960-68 & 1979-83	0,7	(−0,9)	−3,2	(−4,1)	−0,4	(−2,5)	−0,1	(−1,4)	−0,7	(−2,1)	−0,3	(−4,6)	0,6	−2,8)

[1] Figures in brackets are not adjusted for hours worked or capacity utilization.
[2] Forecasts.

Source: Eurostat and Commission services.

ure of capital services is the appropriate definition, account must be taken of the utilization of the existing capital stock in the production process.

This is attempted in the main figures in the table which provide an estimate after taking account of capacity utilization rates. The rate of capacity utilization used is that indicated in the Community business surveys with earlier data coming from national sources or being based on deviations from trend rates of growth in the early 1960s. The data are standardized to equate the historical peak in each country to 100. The resulting adjustment to the capital stock thus serves to emphasize the decline in the growth rate of the capital stock in the post-1973 period. One reservation which must be made concerns the quality of this adjustment. This is that, in the recent period of structural change, observed capacity utilization rates may increasingly be biased by the fact that a large number of firms operating at low capacity rates have actually gone out of business and are thus not included in the survey sample.

The growth in the capital/labour ratio, adjusted for hours worked and capacity utilization, shows a marked decline in the period 1979-83 on the average annual rates of growth recorded in the 1960s, in the Community countries studied, with the exception of France (Table B.2.2, panel 3). A similar

deceleration is evident in the USA, on the basis of the adjusted figures, but this was from a much slower average rate of growth in the ratio just prior to the oil shock (2,5 %) than the Community (6,6 %). The Japanese experience was even more dramatic with a slowing of the growth in the capital/labour ratio from 11,1 % to just under 2 %. When forecasts up to 1987 for the Community are taken into account the decline in the growth of the capital/labour ratio is somewhat less pronounced, suggesting a recent upturn, particularly in Italy.

Although there has been a decrease in the trend rate of growth of capital productivity since the early 1960s, this structural shift is less evident in the adjusted data (see Table B.2.2, panel 2). It is interesting to note also that with the exception of Italy, in all of the countries studied, the deceleration in capital productivity is more pronounced in the 1968-73 period rather than in 1973-79. In the most recent period 1979-83 there were quite significant divergencies in movements between countries. Thus in Germany and France the rate of capital productivity declined further, in Italy and the USA it remained broadly unchanged from the previous period, while in the United Kingdom and Japan capital productivity appears to have recovered significantly.

This initial investigation of the data on the productivity of labour and capital shows the importance of adjusting for hours worked and capacity utilization. When the data are adjusted a clear picture emerges of a very marked slowdown in the growth rates of output per man hour and a similar decline in the growth of the capital/labour ratio except in France. The United States and the United Kingdom, for which raw data would suggest an increase in the growth of the capital/labour ratio, revert to the trend experience in other countries when the adjustments suggested here are applied. In general, the trend in capital productivity began to turn downwards before the first oil shock which reinforced this movement. In the most recent period studied, there is some evidence of a slower decline than in the 1970s but this is not generalized across countries.

B.2.5. Total factor inputs, total factor productivity and capital labour substitution

A natural extension of the above is to combine the productivity performance of both labour and capital to obtain a measure of what is usually termed 'total factor productivity'.[4] Thus the growth of real output can be broken down into that part which is accounted for by the growth of inputs of labour and capital and a part which is due to the combined productivity growth of these two factors. In addition and under certain assumptions, the growth of real output per employee can be separated into the contribution from increases in capital per employee and secondly, the growth of total factor productivity. Table B.2.4 provides a breakdown of the above kind for the period 1960-85, and also for the sub-periods referred to already. The employment and capital stock series are adjusted for the effects of hours worked and capacity utilization respectively.

The first point to note is that amongst Community countries over the whole period, in both private non-agricultural business and manufacturing sectors, the contribution of the combined total of factor inputs to the growth of real output is a good deal less than that of total factor productivity. Such experience is rather different to that observed in the United States and Japan. In addition, the table indicates that the relative contribution of the volume of factor inputs declined as the period progressed. This is a reflection of the picture as described above in Tables B.2.2 and B.2.3 where, the growth of both capital and labour inputs but particularly the latter began to fall away in all countries after 1973.

A second observation which can be drawn from Table B.2.4 is that increases in capital per employee, or 'capital deepening' have tended to explain between one quarter and one half of the growth of labour productivity, with the major part again being accounted for on average by total factor productivity growth. Significantly, however, amongst Community countries, in Germany and Italy, the rate of capital deepening fell through the period, whereas in France and the United Kingdom, it changed very little. Japan experienced by far the biggest decline, with the USA exhibiting a tendency not dissimilar to that in France and the United Kingdom.

Turning to the last decade, Table B.2.5 provides for the manufacturing sector a comparison of factor productivity growth performance through the cyclical peak years 1973 and 1979 with that of the most recent period 1979 to 1987. Across the four Community countries considered here, manufacturing output growth fell by an average of 1,4 percentage points between the two periods. Of this, the major contributing factor was the decline in total factor inputs with total factor productivity, on average, playing only a minor role. Experience however, varied markedly, particularly in the comparison between Germany and the United Kingdom. In the latter country, we see that between the two periods, both output per employee hour and total factor productivity in the manufacturing sector rose strongly. This is a reflection also of the reversal of the trend decline in capital productivity in the United Kingdom noted earlier.

[4] See *European Economy* No 20, July 1984 and No 22, November 1984. Also see Douglas Todd, 'Factor productivity growth in four EEC countries, 1960-81', *Cahiers économique de Bruxelles* N° 107 3ème trimestre 1985.

Table B.2.3

Labour and capital productivity (Manufacturing industry)[1]

(Annual average % change)

	D		F		I		UK		EUR 4		USA		Japan	
Output per person employed per hour														
1960-68	6,2	(5,0)	7,4	(6,7)	8,3	(7,2)	4,3	(3,6)	6,1	(5,2)	3,1	(3,4)	10,5	(9,5)
1968-73	5,3	(4,3)	6,4	(6,0)	8,3	(5,0)	4,5	(3,8)	5,9	(4,7)	3,7	(3,7)	12,2	(10,9)
1973-79	4,7	(3,8)	5,1	(4,1)	3,3	(2,7)	1,7	(0,8)	3,8	(3,0)	1,4	(1,2)	6,6	(6,3)
1979-83	2,4	(1,9)	4,0	(2,5)	2,9	(1,4)	3,4	(2,9)	3,3	(2,3)	2,6	(2,4)	6,9	(6,8)
1979-87[2]	3,3	(2,7)	4,5	(3,3)	4,0	(2,8)	3,9	(3,4)	3,9	(3,1)	:	:	:	:
Difference 1960-68 & 1979-83	−3,8	(−3,1)	−3,4	(−4,2)	−5,4	(−5,8)	−0,9	(−0,7)	−2,8	(−2,9)	−0,5	(−1,0)	−3,6	(−2,7)
Adjusted capital stock														
1960-68	6,4	(6,9)	5,2	(5,1)	5,9	(5,6)	2,9	(3,9)	4,8	(5,3)	4,3	(3,2)	11,7	(9,7)
1968-73	6,5	(5,9)	7,9	(6,2)	3,2	(4,7)	4,7	(3,5)	5,5	(4,9)	3,3	(3,3)	12,8	(13,6)
1973-79	1,7	(2,3)	3,0	(3,6)	2,5	(2,7)	2,0	(2,7)	2,2	(2,8)	3,2	(3,7)	4,0	(5,4)
1979-83	−0,5	(1,7)	1,5	(2,5)	−0,5	(1,3)	−1,2	(1,1)	−0,3	(1,6)	0,1	(3,5)	4,4	(6,0)
1979-87[2]	2,2	(1,6)	2,6	(2,4)	1,9	(1,3)	1,9	(1,1)	2,1	(1,5)	:	:	:	:
Difference 1960-68 & 1979-83	−6,9	(−5,2)	−3,3	(−2,6)	−6,4	(−4,3)	−4,1	(−2,8)	5,1	(3,7)	−4,2	(0,3)	−7,3	(−3,7)
Adjusted capital stock per person per hour														
1960-68	7,8	(7,1)	5,5	(4,8)	6,2	(4,9)	4,0	(4,2)	5,7	(5,2)	1,7	(1,0)	8,3	(5,4)
1968-73	6,7	(5,1)	6,6	(4,5)	5,3	(3,7)	6,4	(4,4)	6,1	(4,4)	3,1	(3,0)	11,9	(11,4)
1973-79	4,6	(4,3)	5,2	(4,8)	2,7	(2,4)	4,4	(4,3)	4,3	(4,0)	2,5	(2,8)	5,5	(6,6)
1979-83	2,5	(4,3)	5,4	(4,8)	2,4	(2,8)	5,5	(7,5)	3,9	(4,9)	3,6	(6,9)	3,4	(4,8)
1979-87[2]	3,7	(2,6)	6,1	(4,6)	4,5	(2,7)	6,1	(4,7)	5,0	(3,5)	:	:	:	:
Difference 1960-68 & 1979-83	−5,3	(−2,8)	−0,1	(0,0)	−3,8	(−2,1)	1,5	(3,3)	1,8	(0,3)	1,9	(5,9)	−4,9	(−0,6)
Output per unit of the adjusted capital stock														
1960-68	−1,4	(−2,0)	1,7	(1,8)	2,0	(2,2)	0,3	(−0,6)	0,4	(0,0)	1,4	(2,4)	2,0	(3,9)
1968-73	−1,3	(−0,7)	−0,1	(1,5)	2,8	(1,3)	−1,8	(−0,6)	−0,3	(0,3)	0,6	(0,6)	0,3	(−0,4)
1973-79	0,1	(−0,4)	−0,1	(−0,7)	0,6	(0,4)	−2,6	(−3,3)	−0,5	(−1,0)	−1,1	(−1,6)	1,1	(−0,3)
1979-83	−0,1	(−2,4)	−1,3	(−2,2)	0,5	(−1,3)	−2,0	(−4,3)	−0,6	(−2,4)	−1,0	(−4,2)	3,5	(1,9)
1979-87[2]	−0,4	(0,2)	−1,5	(−1,3)	−0,4	(0,2)	−2,0	(−1,2)	−1,0	(−0,4)	:	:	:	:
Difference 1960-68 & 1979-83	1,3	(0,4)	−3,0	(−4,0)	−1,5	(−3,5)	−2,3	(−3,7)	−1,0	(−2,4)	−2,4	(−6,6)	1,5	(−2,0)

[1] Figures in brackets are not adjusted for hours worked or capacity utilization.
[2] Forecasts.

Source: Eurostat and Commission services.

The arithmetic on which Table B.2.5 is based suggests that when compared with the European economy, both the USA and Japan have experienced a decline in the growth of output per employee hour of which one half is accounted for by the fall in the growth of capital per employee hour. In Europe on the other hand, the picture is different. For France and Germany the main factor behind the fall in output per employee hour is the decline in total factor productivity growth. This is consistent with the figures for Italy and the United Kingdom where labour productivity growth improved together with an increase in total factor productivity.

Table B.2.4

Total factor productivity, inputs and substitution (manufacturing and non-agricultural business excluding dwellings)

		1960-68		1968-73		1973-79		1979-83		1979-87	
		M	NAB	M	NAB	M	NAB	M	NAB	M	NAB
D	Q	4,8	4,3	5,1	5,1	1,9	2,6	−0,7	0,2	1,8	1,3
	TFI	1,4	1,6	2,0	2,6	−1,6	0,0	−2,4	−0,7	−0,6	0,3
	TFP	3,4	2,7	3,0	2,5	3,5	2,6	1,8	0,9	2,4	0,7
	Q/L	6,2	5,4	5,3	5,1	4,7	4,3	2,4	2,0	3,3	2,1
	$S_\pi K/L$	2,8	2,6	2,2	2,5	1,2	1,7	0,6	1,1	0,8	1,5
F	Q	7,0	6,3	7,8	6,7	3,0	3,3	0,3	1,0	1,1	1,5
	TFI	0,9	2,2	2,9	3,7	−0,8	1,2	−2,5	−0,4	−2,0	0,1
	TFP	6,0	4,0	4,8	2,9	3,8	2,0	2,8	1,4	3,1	1,3
	Q/L	7,4	5,6	6,4	5,2	5,1	3,7	4,0	2,9	4,5	3,0
	$S_\pi K/L$	1,2	1,5	1,6	2,2	1,3	1,7	1,2	1,5	1,3	1,5
I	Q	8,0	6,9	6,1	5,5	3,1	3,0	−0,1	0,6	1,4	1,8
	TFI	1,4	2,0	−0,7	−0,4	0,4	1,3	−2,3	−0,3	−1,4	0,5
	TFP	6,5	4,8	6,9	5,9	2,7	1,7	2,3	0,9	2,7	1,3
	Q/L	8,3	7,1	8,3	7,9	3,3	2,4	2,9	1,4	4,0	2,1
	$S_\pi K/L$	1,7	2,1	1,3	1,9	0,6	0,7	0,6	0,5	1,1	0,9
UK	Q	3,2	3,2	2,8	3,5	−0,7	1,0	−3,2	0,2	−0,2	1,4
	TFI	0,2	0,8	0,1	1,2	−1,3	0,3	−5,4	−1,7	−2,8	0,3
	TFP	3,0	2,4	2,7	2,3	0,6	0,7	2,3	2,0	2,6	1,1
	Q/L	4,3	3,5	4,5	4,1	1,8	1,9	3,4	3,0	3,9	2,5
	$S_\pi K/L$	1,2	1,1	1,8	1,8	0,7	1,1	1,1	1,0	1,1	1,3
EUR 4	Q	5,2	4,9	5,2	5,1	1,7	2,5	−0,9	0,5	1,1	1,5
	TFI	0,9	1,5	1,1	1,9	−1,0	0,6	−3,1	−0,9	−1,6	0,4
	TFP	4,3	3,4	4,1	3,2	2,7	1,9	2,4	1,4	2,8	1,1
	Q/L	6,1	5,2	5,9	5,4	3,8	3,2	3,3	2,4	3,9	2,4
	$S_\pi K/L$	1,7	1,8	1,7	2,1	1,1	1,3	0,9	1,0	1,1	1,3
USA	Q	5,7	5,0	3,9	3,8	2,1	2,9	−0,9	0,4	—	—
	TFI	2,9	3,0	0,9	2,6	1,2	2,6	−2,6	0,1	—	—
	TFP	2,7	2,0	2,9	1,2	0,8	0,3	1,8	0,3	—	—
	Q/L	3,1	2,6	3,7	1,8	1,4	0,6	2,6	0,5	—	—
	$S_\pi K/L$	0,4	0,7	0,8	0,6	0,6	0,2	0,8	0,2	—	—
Japan	Q	13,9	12,1	13,1	11,2	5,1	3,9	8,0	4,8	—	—
	TFI	7,0	5,5	6,2	5,7	0,8	2,3	2,1	2,0	—	—
	TFP	6,5	6,2	6,5	5,2	4,4	1,6	5,8	2,7	—	—
	Q/L	10,5	9,5	12,2	9,7	6,6	3,0	6,9	3,2	—	—
	$S_\pi K/L$	3,7	3,1	5,3	4,3	2,2	1,4	1,1	0,5	—	—

Note: See *European Economy* No 22 for methodology to derive the additive approximation (1) Q = TFI + TFP and (2) TFP = Q/L − $s_\pi K/L$ where
Q = potential supply
TFP = total factor productivity
TFI = total factor inputs
L = labour force
K = capital stock
S_w = wage share
S_π = profit share
and are growth rates of the variables in question.
Figures for labour are employment hours and for capital are the capital stock adjusted for capacity utilization.
M = Manufacturing industry.
NAB = Non-agricultural business (excluding dwellings).

Table B.2.5

Change in factor productivity growth, manufacturing industry 1979-85(83) less 1973-79

(%)

	D	F	I	UK	EUR 4	USA	Japan
Q	−1,9	−0,1	−1,6	0,5	−0,6	−3,0	2,8
TFI	−1,2	1,0	−1,8	−1,6	−0,7	−3,9	1,3
TFP	−0,7	−1,1	0,2	2,2	0,1	1,0	1,4
Q/L	−0,6	−1,4	0,7	2,3	0,1	1,2	0,3
$S_\pi K/L$	0,0	−0,3	0,5	0,1	0,1	0,2	−1,1

Note: See *European Economy* No 22 for methodology to derive the additive approximation (1) Q = TFI + TFP and (2) TFP = Q-L − $S_\pi K/L_g$
Figures for labour are employment hours and for capital are the capital stock adjusted for capacity utilization.

B.2.6. The effect of energy

Following the two oil shocks, much interest has centred on the possible effects which sharply changing energy input costs might have on potential supply. Whilst the links are undoubtedly complex, most attention has focused on the effects of energy costs on the adjustment process leading to changes in the utilization of existing capital equipment and in the willingness to undertake new investment.

Higher energy costs reduce the profitability of existing equipment. To the extent that improved energy conservation methods take time to develop and introduce, the profitability of some new investment projects will be reduced also. In other words, the present worth of the flow of services provided by new and existing capital might be expected to fall. This will tend to reduce rates of utilization and lower the productivity of capital and total factor productivity also.

Estimates of the effects of higher energy input costs on productivity growth are thought to have been rather small; primarily because such costs form a minor part of total costs to industry — around 0,5 %.

The current situation is now the reverse of that which appeared in 1973 and 1978. Oil prices have fallen by some 40 % and the real dollar price per barrel is broadly the same as that which obtained in 1979.

Considering the pure oil price effect alone, a question which arises therefrom is whether the decline in energy input costs will improve potential supply conditions. In so far as the price fall is thought in some sense to be of a more permanent nature, which is an important proviso, lower input costs will raise both current and expected future profitability. This will make some future projects more worthwhile and hence some investment will be advanced in time. From the pure supply side taken in isolation, it is this latter effect which could affect the growth of productive supply but how significant the influence may be is not easy to say. New investment accounts for around 3 % or so of the existing capital stock. Only a part of this investment will consist of the latest 'best-practice' equipment which embodies new developments and technical knowledge. At the macroeconomic level and overall, therefore, the effect on supply potential via this particular route is not likely to be very significant. On the other hand, looked at in microeconomic terms, it is quite possible, indeed likely, that particular firms in given situations will experience substantial increases in their capacity to produce new output.

In addition, one would expect the beneficial effects of lower energy prices to be widely diffused and operate through both demand and supply channels. The improvement in both real wealth and real income will serve to stimulate demand for new investment and increase the degree of utilization of existing capacity. The first will tend to increase potential supply, the second enables the economy to use existing supply potential more effectively.[5]

[5] Chapter B.1 of this review includes some more detailed analysis of this particular point and draws attention to the possible importance of longer run demand constraints.

Table B.2.6

Projections of the growth in the population of working age (Average annual growth 1985-90)[1]

B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
0,0	0,2	−0,2	0,5	0,8	0,4	0,8	0,2	0,1	0,7	0,7	0,0	0,2

[1] 1986-91 for I, IRL, P, E.

Source: Eurostat, Demographic Statistics 1985. IRL: Interdepartmental group report higher migration hypothesis.

B.2.7. Implications for the growth of potential supply: Summary and conclusions

Bringing together the various points discussed it is possible to venture some rough estimates of how potential supply has evolved in the European Community and in particular, what the implications might be for the cooperative growth strategy for more employment.

The strategy starts from a base which includes an unemployment level in the Community (EUR 10) of 11 %; This suggests two approaches to an interpretation of productive supply potential in Europe. The first is to consider jointly what the underlying growth of the effective labour force, growth of the capital stock plus total factor productivity growth imply for capacity growth. For any given estimate, actual GDP growth would then have to evolve at a faster rate than this in order to make a significant inroad into the pool of unemployed.

Projections of the population of working age for Community countries 1985-90(91) suggest an average increase of 0,2 % per annum (Table B.2.6). From Table B.2.2, the capital stock for the non-agricultural sector of the four largest Community countries has grown at a rate of 3,5 % in 1979-83. It is likely that investment in the housing and public sectors has evolved at a slightly lower rate than this which would bring the whole economy figure down a little. Model simulation exercises at the whole Community level in fact suggest a figure of 3,0 %.

Total factor productivity growth has grown at a little less than 2,0 % which provides a broad estimate for productive potential of:

$$(Q) = (TFP) + (L \times S_w) + (K \times S_\pi)$$

$$2{,}8 = 1{,}8 + 0{,}2\,(0{,}7) + 3{,}0\,(0{,}3)$$

where
Q = potential supply
TFP = total factor productivity
L = labour force
K = capital stock
S_w = wage share
S_π = profit share
and are growth rates of the variables in question.

The strategy indicates that an annual average growth rate of GDP of 3,5 % would offer the prospect of bringing unemployment down to around 7,0 % by (1990). Since the stock of unemployed is a reserve of supply potential, if unemployment was reduced at a rate which added say 1 % to labour force growth, then in order to maintain the same growth of the capital/labour ratio this would require a growth of the capital stock of 3,8 %. If the rate of technical advance remains unchanged this would imply:

$$Q = TFP + (L \times S_w) + (K \times S_\pi)$$

$$3{,}6 = 1{,}8 + (1{,}0 \times 0{,}7) + (3{,}8 \times 0{,}3)$$

This figure is just a little in excess of that in the growth strategy. Higher maintained rates of capacity utilization will increase this figure somewhat. The above numerical examples, however, omit numerous factors. For the purposes here, the most important is the possible effects of the oil

price reductions. Model simulations suggest that the pure oil price effect could add perhaps 0,5 % to the growth of the capital stock at the level of the whole Community economy and, which in terms of the two examples above would raise the growth of potential supply over the medium term to 3,3 % and 4,0 % per annum respectively. This takes no account of any benefits transmitted in the form of increases in total factor productivity. Table B.2.4 illustrates that annual average rates of growth of total factor productivity of below 2,0 have been unusual. In so far as new investment embodies the latest technology which becomes diffused more widely and increases productivity more generally, such figures as those set out here could easily be regarded as underestimates of what might occur given the general demand boost occasioned by the decline in oil prices.

In addition, given the experiences of the 1970s and early 1980s, as the growth of actual output approaches that of capacity, many countries fear the possible consequences arising from inflationary pressures. In these circumstances, the so-called Nairu would set an effective limit on what might be achieved.[6] This in turn would turn part of the burden of adjustment on to constraints which inhibit labour and product market adaptability and the efficient working of the market mechanism more generally.

[6] Nairu — non-accelerating inflation rate of unemployment. See Chapter 4, *European Economy* No 22, for a discussion of estimates of the Nairu.

Sensitivity of productivity estimates to possible capital stock measurement problems

Although considerable work was undertaken to arrive at figures for the capital stock which were consistent with the flow and labour force aggregates and as between countries, all estimates of the capital stock are based on the perpetual inventory method used in the construction of the basic data. This method is essentially accounting in nature and as such does not take adequately into account the destruction of capacity brought about in periods when relative prices alter radically.[1] In order to assess and test for the impact of possible measurement errors of the economically viable capital stock on the results derived elsewhere in this chapter, it was assumed that the trend of the capital/labour hours ratio remains essentially stable over long periods. Trend rates of growth of the capital/labour hours ratio over the period 1960-73 in manufacturing industry were calculated, and on the assumption of an unchanged capital/labour ratio in 1983, these trends were used to calculate a predicted value in 1983,[2] which was compared with the actual recorded capital/labour hours ratio. The regression figures calculated were significant with high R^2, but a certain amount of autocorrelation was present in the residuals, in particular in the figures unadjusted for capacity utilization due to cyclical movements. Given the actual number of employment hours worked in 1983, the predicted figure for capital in 1983 was calculated and this was compared with the actual value. This method was used for both the capital/labour hours ratio and the capital (adjusted for capacity utilization)/labour ratio. The divergencies between the actual and predicted figures were as follows:

Actual/predicted figures for capital stock %

	Capital	Capital adjusted for capacity
EUR 4	22,0	11,5
USA	35,9	17,6
Japan	28,1	9,1

Maintaining the original assumption on the stability of the trend in the K/L ratio, the results suggest the importance of an appropriate adjustment for capacity utilization on capital stock figures. This factor is estimated to have accounted for approximately half the measured increase in the K/L ratio post-1973 in the Community and the USA and approximately two thirds in Japan.

The remaining 11,5 % discrepancy between the actual and predicted figures could be accounted for by two factors:

(a) further capital measurement problems; or
(b) an upward shift in the trend of the capital/labour ratio after 1973.

One plausible interpretation of the first factor could, however, include both explanations and this is the destruction in 1973-74 of a certain proportion of the capital stock by the abrupt shift in oil prices. Thus if 11,5 % of the capital stock was destroyed in economic terms in 1974 in the Community, the capital/labour hours ratio would have had to have grown faster to reach the measured level of the capital stock in 1983 when the majority of the oil intensive machines had dropped out of the perpetual inventory. The implications of this alternative for calculations of total factor productivity etc. are sketched out in Table B.2.7, together with results for the assumption of a second smaller shock in 1979-80.

The results of these alternative assumptions shown in Table 1 suggest that estimates of total factor productivity are relatively robust to plausible shocks to the measures at present used for capital stock. These hypothetical shocks need not necessarily be taken to have resulted from energy price developments, but could also have arisen (perhaps at different points in time) from increased bankruptcies and the consequent accelerating scrapping. It should, however, be noted that the latter factor could have played a more important role than indicated through its effect on measures of capacity utilization, i.e. the removal of firms operating at low capacity utilization rates will increase the national average capacity utilization and consequently actually increase our measure (adjusted for capacity utilization) of the capital stock, rather than reducing it.

A similar calculation was carried out for the broader sector of the economy i.e. non-agricultural business (excluding dwellings). Here the results showed a more substantial gap between predicted and actual values when adjusted for capacity utilization, undoubtedly due to the inclusion of the energy sector in the broader aggregate.

Sensitivity of results of total factor productivity calculations to labour hoarding

In the chapter it was considered that under-utilization of capacity reflected only on the capital factor in the production process. However, it can equally well be argued that when a machine and its operator are standing idle both factors are under-utilized to the same extent. This is particularly true in periods when labour is being hoarded as was the case in a number of countries in the period 1973-79 and possibly in Japan over the whole period. To assess the effects of this different way of approaching the problem Table 2 gives the results of alternative methods of adjusting for capacity utilization. Columns K adj. represent the method used in the rest of this chapter ascribing utilization totally to capital. The columns Q adj. show the results on the basis of adjusting output for capacity utilization, thus implying that a higher output could have been achieved with the existing two factors. Thus effectively both capital and labour are adjusted for capacity utilization. The results as can be expected boost both total factor productivity and total factor inputs and measures of labour productivity the capital/labour ratio and also the measure of capital/labour substitution.

[1] Martin N. Baily in 'Productivity and the services of capital and labour', *Brookings papers on economic activity*, No 2 1981, offers some evidence to support this contention. He argues that the low stock market valuation of firms suggests that there was greater scrapping in the 1970s than measured or that the old capital was of limited economic value. In a more recent study 'The productivity of growth slowdown by industry' he suggests that a cumulative decline in capital services of the order of 28 % for the United States would be reasonable.

[2] This assumption is quite crude since other institutional factors such as different degrees of labour hoarding will undoubtedly influence the recorded ratio.

Table 1

Some illustrative sensitivity scenarios for manufacturing industry

(Average annual % changes)

		1960-68	1968-73	1973-79		1979-83			1979-85	
D	TFI	1,4	2,0	−1,6	(−1,2)	−2,4	(−2,2)	[−2,0]	−1,1	(−1,0)	[−0,8]
	TFP	3,4	3,0	3,5	(3,2)	1,8	(1,6)	[1,3]	2,1	(2,0)	[1,8]
	Q/L	6,2	5,3	4,7		2,4			2,9		
	$S_\pi K/L$	2,8	2,2	1,2	(1,5)	0,6	(0,8)	[1,1]	0,8	(0,9)	[1,1]
F	TFI	0,9	2,9	−0,8	(−0,4)	−2,5	(−2,3)	[−2,1]	−2,2	(−2,1)	[−1,9]
	TFP	6,0	4,8	3,8	(3,4)	2,8	(2,6)	[2,4]	3,1	(3,0)	[2,7]
	Q/L	7,4	6,4	5,1		4,0			4,3		
	$S_\pi K/L$	1,2	1,6	1,3	(1,6)	1,2	(1,4)	[1,6]	1,2	(1,3)	[1,5]
I	TFI	1,4	−0,7	0,4	(0,7)	−2,3	(−2,0)	[−1,8]	−1,6	(−1,5)	[−1,2]
	TFP	6,5	6,9	2,7	(2,4)	2,3	(2,0)	[1,7]	2,7	(2,6)	[2,3]
	Q/L	8,3	8,3	3,3		2,9			3,6		
	$S_\pi K/L$	1,7	1,3	0,6	(0,9)	0,6	(0,9)	[1,2]	0,9	(1,0)	[1,2]
UK	TFI	0,2	0,1	−1,3	(−0,9)	−5,4	(−6,2)	[−5,0]	−3,5	(−3,4)	[−3,2]
	TFP	3,0	2,7	0,6	(0,2)	2,3	(2,1)	[1,9]	2,4	(2,3)	[2,1]
	Q/L	4,3	4,5	1,7		3,4			3,6		
	$S_\pi K/L$	1,2	1,8	1,1	(1,4)	1,1	(1,4)	[1,5]	1,2	(1,3)	[1,4]
USA	TFI	2,9	0,9	1,2	(1,8)	−2,6	(−2,3)	[−2,0]		:	
	TFP	2,7	2,9	0,8	(0,3)	1,8	(1,4)	[1,1]		:	
	Q/L	3,1	3,7	1,4		2,6				:	
	$S_\pi K/L$	0,4	0,8	0,6	(1,1)	0,8	(1,1)	[1,5]		:	
Japan	TFI	7,0	6,2	0,8	(1,2)	2,1	(2,3)	[2,6]		:	
	TFP	6,5	6,5	4,4	(3,9)	5,8	(5,5)	[5,3]		:	
	Q/L	10,5	12,2	6,6		6,9				:	
	$S_\pi K/L$	3,7	5,3	2,2	(2,6)	1,1	(1,3)	[1,6]		:	

Note: See *European Economy* No 22 for methodology to derive (1) Q = TFI + TFP
and (2) TFP = Q/L − $S_\pi K/L$
Figures for labour are employment hours and for capital are the capital stock adjusted for capacity utilization. The alternatives presented are:
( ) An assumption of one oil shock which provoked the destruction of 11,5% of the capital stock at a point in time at the end of 1973 and reflected in the 1973-79 average increase and not in the 1968-73 average increase. The capital stock was then assumed to grow to its measured level in 1983. The corresponding figures for the United States and Japan were 17,6% and 9,1% respectively.
[ ] An assumption of a further shock of 4% for the Community at end 1979. Shocks for the USA and Japan were 6% and 3% respectively.

Table 2

Alternative adjustment of the period 1973-79 to reflect possible labour hoarding

	D		F		I		UK		USA		Japan	
	Q adj.	K adj.	Q adj.	K adj.	Q adj.	K adj.	Q adj.	K adj.	Q adj.	K adj.	Q adj.	K adj.
TFI	−1,4	−1,6	−0,6	−0,8	0,4	0,4	−1,1	−1,3	1,4	1,2	1,3	0,8
TFP	3,9	3,5	4,2	3,8	2,9	2,7	1,1	0,6	1,2	0,8	5,2	4,3
Q/L	5,3	4,7	5,7	5,1	3,6	3,3	2,4	1,7	1,9	1,4	8,1	6,6
Q/K	0,1	0,1	−0,1	−0,1	0,6	0,6	−2,6	−2,6	−1,1	−1,1	1,1	1,1
K/L	5,2	4,6	5,8	5,2	3,0	2,7	5,2	4,4	3,0	2,5	6,9	5,5
$S_\pi K/L$	1,3	1,2	1,4	1,3	0,7	0,6	1,3	1,1	0,7	0,6	2,8	2,2

Measures of potential output in the Member States

Belgium

No official estimates are published of potential output in Belgium. However, two models (Maribel and Hermes) developed by the Planning Office contain a supply block which can be used to generate a measure of potential GDP.

Denmark

No official estimates are published of the potential growth of the Danish economy. A preliminary approach was published by the Ministry of Finance in December 1984 'Finansredegorelsen' estimating trends for labour productivity by sector with a view to explaining the impact on employment. The estimate took into account changes in relative factor costs, technical progress and working hours. The study showed a tendency in recent years for any rise in output to be accompanied by a lower rise in labour productivity particularly in manufacturing industry. The results confirm the increased potential of the economy to generate jobs noted in *European Economy* No 23, March 1985.

Federal Republic of Germany

Analysis of production potential in Germany has been a factor influencing economic policy decisions for more than a decade. Estimates of future growth of potential are, however, only published by the Bundesbank in connection with the monetary targets for the year ahead.

Three German institutions have developed different methods of measuring production potential.

The Council of Economic Experts first introduced the estimation of production potential in its 1967 annual report. Productive potential is defined as the sum of possible value-added of all sectors. For the public sector and all other private sectors excluding enterprises, it assumes full use of capacity, so that potential output corresponds to recorded value added. Consequently, potential output has only to be estimated for the enterprise sector by calculating capital stock and capital productivity, the latter being assumed to follow a declining trend. In addition, the Council bases its analysis on normal use of production potential, indicated by a rate of capacity utilization of 97 1/4 %. Criticisms of the Council's method focus on the relationship between capital stock and investment, the valuation of the 'unuseable' part of capital stock and the assumptions on declining capital productivity.

In 1973, the Ministry of Economics published a study on production potential, in which potential was estimated taking capital as the dominant production factor but without any assumptions on average productivity. No results of the estimation were, however, published.

In 1973, the Bundesbank adopted a new approach to monetary policy, in the context of which estimates of production potential became necessary for monetary targeting. The Bundesbank method of calculating production potential was based initially on a Cobb-Douglas production function with capital and labour as production factors (see 'The growth in productivity in the Federal Republic of Germany and its determinants', *Bundesbank monthly report*, January 1980). In 1981, energy was added as an additional production factor ('Recalculation of the productive potential of the Federal Republic of Germany', *Bundesbank monthly report*, October 1981). The Bundesbank changed its method of estimation following the revision of the national accounts statistics in 1985 but has not yet published details of its new method or its results. Nevertheless, it is likely that it will introduce a new production function which will take account of changes in income distribution and re-assess the role of energy as a production factor.

The growth of productive potential calculated by the Bundesbank for 1986 is 2 1/2 %. For previous years, the figures were as follows:

Growth rate of production potential, as estimated by the Bundesbank, %

1978	1979	1980	1981	1982	1983	1984	1985	1986
2	3	3	2,5	1,5-2	1,5-2	2	2	2,5

Greece

No regular official estimates are published of productive potential in Greece. Attempts have however been made, within the framework of the medium-term plans, to produce estimates based on the capital stock.

Spain

No official estimates are published on productive potential in Spain.

France

No official estimates are published of productive potential in France.

On the other hand, estimates have been carried out by some authors in specific studies. The most recent of these studies was published by P. Dubois 'Ruptures de croissance et progrès technique' — *Economie et statistique*, pp. 3-31.

In order to estimate the growth of productive potential to the year 2000, the author used a Cobb-Douglas production function (letters with a point indicate rates of growth):

$$\dot{Q} = 0{,}7\,\dot{N} + 0{,}3\,\dot{K} + \dot{\Pi}$$

Where Q represents output, N the volume of labour, K the capital stock and the level of technical progress. Assuming that the productivity of capital is constant ($\dot{Q} = \dot{K}$) this reduces to:

$$\dot{Q} = \dot{N} + 1{,}4\,\dot{\Pi}$$

For projections of the volume of labour, the following assumptions were made:

(i) a growth in available manpower of 0,5 % per annum;

(ii) a fall in the rate of unemployment to 5 % necessitating a growth in the numbers at work of 0,6 % per annum.

(iii) a reduction in the annual working-time of 0,4 % per annum;

(iv) a continuation of the trend improvement in the quality of the labour force and a slowdown in numbers leaving the land.

In total, the volume of labour would grow by 1,7 % per annum. For technical progress two assumptions were taken, 1,5 % and 2,5 % per annum. Under these conditions the growth potential of the French economy from now to the year 2000 would be between 3,8 and 5,8 % per annum. The minimum rate of growth required so that unemployment did not accelerate would be between 2,6 and 4 % per annum.

Ireland

No official estimates are published of productive potential in Ireland.

For the manufacturing sector, however, estimates have been made (e.g. O'Reilly and Nolan, 'The measurement of capacity utilization in manufacturing industry in Ireland', *Economic and social review*, Vol. 11, No 1, pp. 47-65 (1979)) of capacity utilization and productive potential using mainly the Wharton (peak-linking) method and based on manufacturing output data and figures for electricity output (on the assumption of an electricity based capital stock).

Italy

Occasional estimates have been carried out by Istat 'Problemi relativi alla definizione, stima rilevazione ed utilizzazione del capitale'; Annuali di statistica, Series VIII — Vol. 28, 1975 and the Banca d'Italia in 1981 'Misura e analisi della capacità produttiva', Bollettino unico 1981, p. 441 but no regular figures are published on the growth of productive potential.

Luxembourg

No official estimates are published on potential output in Luxembourg.

Netherlands

The Centraal Planbureau has published a number of studies concerning productive capacity. These studies have been carried out within the framework of the preparation of medium and long-term forecasts. The research is carried out at a sectoral level.

The Victor model for example covers four sectors. A brochure published by the Economics Ministry 'Een vier sectoren-model voor de Nederlandse economie' Johan Verbruggen, sets out the methods used. Other references include *De Economist*, No 3, 1985, pp. 327-351: 'A putty-clay model with three factors of production and partly endogenous technical progress' and Den Hartog and Tjan 'A clay-clay model approach for sectors of industry in the Netherlands', published in *De Economist*, Vol. 128, No 2, 1980, pp. 129-188 which also contains graphs of the development of productive capacity and real output over the period 1952-72.

Portugal

No official estimates are published on potential output in Portugal.

United Kingdom

The most recent published work giving the official approach to UK productive potential was an annex to a Green Paper on public expenditure (The next 10 years: public expenditure and taxation into the 1990s), which was presented with the March 1984 budget.

Three main factors are considered to be relevant to UK growth in the long term. These are:

(i) North Sea oil production;

(ii) Labour supply;

(iii) Productivity growth.

In the Green Paper, the first factor was expected to peak between 1986 and 1987, declining by 5 % p.a. over the period 1988-89 to 1993-94, equivalent to a reduction in the GDP growth rate of about 1/4 % p.a. Labour supply growth was expected to grow by about 120 000 per annum up to 1988 and remain virtually unchanged from then until 1991. The third factor, productivity growth, was considered to be more uncertain since the causes of the slowdown in measured productivity growth after 1973 have not yet been identified clearly. However, it was felt that some potential reasons had been reversed and productivity growth was therefore expected to improve substantially on that of the 1970s. The result of an assessment of these three factors was assumed growth rates of 2 1/4 % a year to 1988-89 and 1 1/2 % to 2 % thereafter to 1993-94.

B.3. The cooperative growth strategy from a sectoral point of view

The objective of the cooperative growth strategy is to significantly and sustainably reduce unemployment in the Community. For this purpose it suggests a variety of changes in policies and behaviour in order to accelerate economic growth and to make this growth more employment creating. It is not, however, intended to restrain productivity growth in any economic area. Productivity growth and a stronger employment intensity of economic growth have to be reconciled. One important contribution to this is a continuation of the process of sectoral change which has already steadily expanded the share of economic activities with high employment content in the Community. This has been particularly visible with regard to services. Over the last 25 years, agricultural and industrial production on the one hand significantly lost shares in total gross value-added as well as in total employment. Market and non-market service sectors on the other hand gained in importance. A continuation of these trends has to be facilitated by appropriate policies and adjustment measures. Real wage moderation across sectors combined with an appropriate adjustment of relative prices rather than systematic sectoral wage differentiation appears to be the superior strategy with regard to an efficient allocation of resources, with regard to a positive structural change as well as, in the medium term, with regard to higher income and employment. In the short run, specific temporary wage concessions in problem sectors may provide one possibility to ease the pressure on the labour market and to facilitate an orderly structural adjustment process.

B.3.1. The sectoral dimension of the cooperative growth strategy

The cooperative growth strategy for more employment (as presented in the European Commission's Annual Report 1985-86[1]) aims at a significant and substantial reduction of unemployment in the Community until 1990. Quantitative illustrations — based on the Commission's Compact model[2] — indicated that an unemployment rate of about 7 % in 1990 would be feasible for the Community of Ten, which had 11,0 % of its labour force registered as unemployed in 1985.

For this purpose the cooperative strategy implies changes in the institutional framework, in policies and in behaviour, to achieve a dynamic acceleration of real economic growth in the Community. The feasible order of magnitude for such an accelerated expansion (the cooperative growth scenario[3] assumes an average annual rate of growth of real GDP of 3,5 % between 1986 and 1990) does, however, not seem to be sufficient to achieve the unemployment target if the relation between output and employment growth remains the same as in the past. The acceleration of growth has, therefore, to be supported by a further increase in the employment intensity of growth in the Community.

The employment intensity of its economic growth, the relation between the growth of employment and output growth, has already shifted in favour of employment creation: in the 1960s, average GDP growth of just under 5 % a year was accompanied by an annual increase in employment of only 0,2 %. At the end of the 1970s (1978/79), with growth at 3,2 %, the annual increase in employment was already 0,5 %. The cooperative scenario now implies an even stronger increase of net employment creation (1 to 1,5 % per year) along with the accelerated growth (3 to 3,5 % per year).

The cooperative growth strategy is, however, not a strategy of putting the brakes on productivity growth. On the contrary, to achieve the desired significantly higher rate of economic growth as well as to defend international competitiveness, it recommends strong efforts:

(i) to accelerate technical progress, e.g. by increased R&D — nationally and at Community level — and by a faster implementation of product and process innovations,

(ii) to improve economic efficiency via higher market adaptability and production factor mobility, and

(iii) to utilize economies of scale in the internal market.

Labour productivity growth is augmented by these and other measures.

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[1] Annual Economic Report 1985-86, in: *European Economy*, No 26, November 1985, pp. 5-80.

[2] See Annual Economic Review 1985-86, 'The medium term: central projection and policy scenarios', in: *European Economy*, No 26, November 1985, pp. 5-80.

[3] Annual Economic Report 1985-86: op. cit., p. 23.

Labour productivity growth, however, is by definition just the opposite of the employment intensity of growth. There is therefore a need to reconcile the efforts to increase the growth of labour productivity with the desire to see in the whole of the economy a higher employment intensity of growth than in the past.

This reconciliation may occur in several ways. The one to be explored here is a change in the composition of total output. If an economy experiences an increasing share of activities where growth has an above average employment content, overall employment intensity of growth may increase even if other activities increase their productivity growth at the same time. Among the first to describe this 'productivity gap' between different economic activities and to analyse its structural and macroeconomic implications was Fourastié.[4]

One economic activity, which has in the past experienced relatively low rates of productivity growth, is the production of services. This is due to some of its typical properties: Personal contact between producer and consumer of services is often necessary, production and consumption often have to take place simultaneously, with the result that small scale establishments dominate. Moreover possibilities for technical progress, although differing significantly across service activities, are more limited than in the other sectors of the economy. In the Community (EUR 6[5]), observed labour productivity of market services grew at an annual rate of 2,6 %, but at 4,2 % in industrial production between 1960 and 1983.

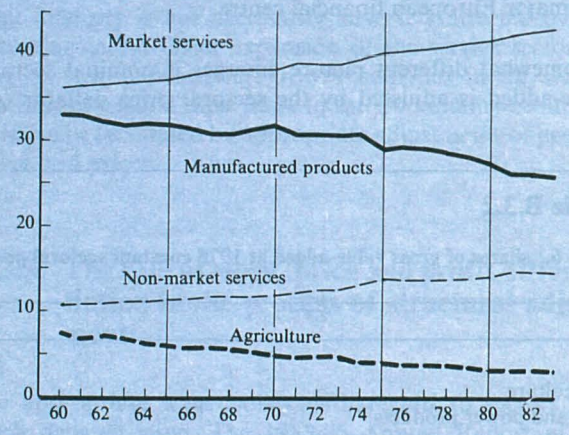
In the following, the process of structural change which is to enhance the employment intensity of growth is illustrated by sectoral developments in the Community. This provides only part of the picture, however, because some services are provided by service firms (and thus statistically accounted for under 'service sector'), others by firms predominantly producing industrial goods (thus statistically accounted for under the sector 'industry'). For the sake of simplicity no effort is made here to analyse the development of service-type jobs within industry.[6]

B.3.2. Major sectoral developments in the Community

Over the last 25 years, there has been a significant shift in the shares of the major sectors in nominal gross value-added of the Community. The main thrust of this movement has been a steady decline in shares of manufactured and agricultural products on the one hand and an expansion of both market and non-market services on the other hand (Table B.3.1).

At current market prices, the share of manufactured products in gross value-added in the Community (EUR 6[5]) has declined from 33 % in 1960 to about 26 % in 1983 (Graph B.3.1). This occurred in two stages during the early 1960s and, after a period of about 10 years, resumed more rapidly after 1974. The share of agricultural value-added also shrank from 7 % to just above 3 %. This declining pattern is mirrored by the corresponding share of market services, which expanded from 36 % to over 43 %. The share of non-market services, which include essentially general public services as well as services of education, health, etc., also grew steadily but less strongly from 11 % to 15 %.[7]

GRAPH B.3.1: Sectoral shares in gross value added in current prices (as percent)
(EUR 6[1])



[1] B, D, F, I, NL, UK.
Source: Eurostat.

[4] Fourastié, J.: *La Productivité*, Paris 1952. In Germany, it was published under the title *Die große Hoffnung des zwanzigsten Jahrhunderts* (The great hope of the 20th century), 2nd ed., Köln 1969.

[5] For the purpose of this chapter, EUR 6 refers to Belgium, the Federal Republic of Germany, France, Italy, the Netherlands and the United Kingdom.

[6] Data for some Member States are presented in J.I. Gershuny and I.D. Miles, *The new service economy*, London 1983.

[7] The sectors omitted here are fuel and power as well as building and construction.

Table B.3.1

Shares in gross value-added at current prices

(%)

	B		DK		D		F		I		IRL		GR		L		NL		UK		EUR 10	
	1970	83	70	83	70	82	70	83	70	83	70	80	70	82	70	81	70	81	70	82	70	81[1]
Agriculture	4	3	6	5	3	2	7	4	8	6	16	10	18	19	4	2	6	4	2	2	5	3
Fuel and power products	5	5	2	3	5	5	5	5	6	5	3	4	3	4	3	2	5	10	4	11	5	6
Manufactured products	30	23	21	19	37	29	29	26	29	27	24	25	20	18	45	23	26	17	32	24	33	26
Building and construction	8	6	11	6	9	7	8	6	8	8	9	9	9	6	6	5	8	7	7	6	8	6
Market services	41	47	44	43	35	43	40	45	38	40	34	35	39	38	34	57	42	47	42	41	36	44
Non-market services	12	16	16	24	11	14	11	14	11	14	14	17	11	15	8	11	13	15	13	16	13	15

[1] Estimate.
Source: Eurostat.

This general pattern of structural change is clearly discernible in most Member States (Table B.3.1). One of the notable exceptions is Denmark, where the relative contributions of the agricultural sector remained virtually unchanged and the share of non-market services grew more strongly than elsewhere to become far bigger than in any other Member State. In Ireland, the share of manufactured products still expanded somewhat during the 1970s; the same could be observed with regard to agriculture in Greece. The importance of the service sector in Luxembourg is due to its role as a major European financial centre.

A somewhat different picture emerges if nominal sectoral value-added is adjusted by the sectoral price deflator (see Table B.3.2). It shows that a significant part of the sectoral change which has occurred since 1960 was a change in relative prices rather than in volume terms. The gap between the share of manufactured products and market services has widened by nearly three times as much in value as in volume terms between 1960 and 1983. The implicit price deflator on the other hand has risen 1,4 times as much in the market service sector as for manufactured products. This indicates that manufactured products have become relatively cheaper nearly to the extent provided for by the productivity growth differential.

The evolution of the sectoral structure of employment was determined by the combined effects of the slow expansion

Table B.3.2

EUR 6,[1] shares of gross value-added at 1975 constant sectoral prices

(%)

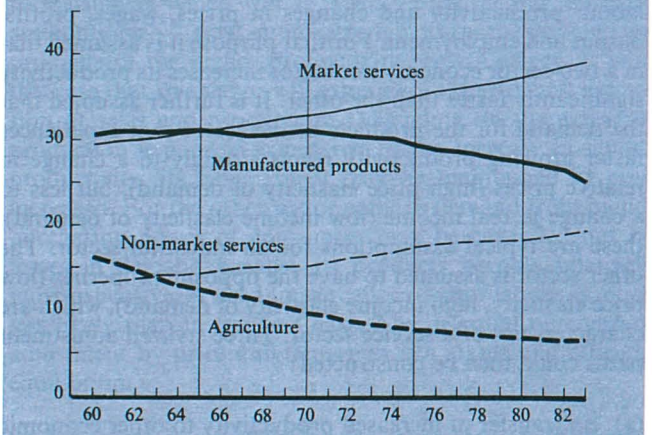
	1960	1970	1980	1982
Agriculture	6,1	4,5	3,9	4,1
Fuel and power products	5,0	5,2	6,0	5,9
Manufactured products	27,0	30,1	28,5	27,7
Building and construction	8,6	8,3	6,4	6,0
Total services	53,3	51,9	55,2	56,3
of which				
Market services	37,8	38,4	42,0	42,9
Non-market services	15,5	13,5	13,2	13,4

[1] B, D, F, I, NL, UK.
Source: Eurostat.

in real output share of market services and their significantly smaller rate of labour productivity growth (see Graph B.3.2). Whereas the Community (EUR 6) has lost roughly 20 % (6,3 million) jobs involved in the production of manufactured products between 1970 and 1983, employment in the market service sector grew by 17 % (5,8 million) and in the non-market service sector by 25 % (3,8 million) during the same period.

For the future, it seems to be unclear, however, if it is the service sector as a whole which is to serve as the 'employer of last resort' for the Community as in the 1970s. The future expansion of public employment is constrained by consolidation priorities. Employment creation in the market service sector depends on the one hand on its further expansion and on the other on a continuation of the 'productivity gap'. The latter seems to be narrowing but, so far, only very gradually. A process of assimilation of productivity developments may, however, be accelerated by the increasing impact of information technologies on the production of services and the growing extent of tradability of services.

GRAPH B.3.2: Sectoral shares in total employment (as percent) (EUR 6[1])



[1] B, D, F, I, NL, UK.
Source: Eurostat.

With regard to the demand for services, a variety of factors have to be considered:

(i) Traditional consumer services should profit from income growth, because many of them continue to be in the nature of 'luxury' goods. That is to say, expenditure on these tends to rise more than proportionally to increases in either disposable income or total expenditure. They should profit from growing leisure too, as working time is expected to continue to be reduced. They will continue, however, to become relatively more expensive. In part, services are therefore replaced by relatively cheaper manufactured goods (e.g. tools) combined with self-service activities. Furthermore, if income differentials narrow, especially between net disposable income of the higher income brackets and effective labour costs in the service sector, service demand is adversely affected.[8]

(ii) Intermediate producer services, services which are used as inputs for the production of primary goods, manufactured products or other services, have gained in importance. In particular, services purchased by industry have grown significantly faster than industrial production itself (3,6 % as compared to 2,4 %, average annual growth rates 1975-81 in EUR 6[9]). In this regard, the growth of industry serves as a direct 'engine of growth' for an important part of the service sector too.

The process of a structural change towards a higher employment intensity is not necessarily adversely affected by obstacles against a faster expansion of the service sector, as long as low productivity growth activities in all sectors continue to expand their share in the Community economy. This can be facilitated by appropriate adjustments of profits, wages and prices.

B.3.3. The role of wage, price and profit differentiation in the process of structural adjustment

The appropriate wage policy with regard to sectors is a much debated issue. The 1985-86 Annual Report of the Commission notes cautiously that 'it does appear to be the case that Community countries have shown a relatively

[8] Scharpf, Fritz W., 'Beschäftigung in der Dienstleistungsgesellschaft', in: *Internationale Chronik zur Arbeitsmarktpolitik*, No 20, April 1985, pp. 1-5.

[9] See Green, Michael, 'The development of market services in the European Community, the United States and Japan', in: *European Economy*, No 25, September 1985, p. 87, Table 16.

low real wage flexibility, both inter-sectorally and at the macroeconomic level, this running alongside increasing unemployment' (p. 27). A recent OECD study[10] finds that the 'notion that wage earnings may need to reflect more closely the profit position of individual firms implies that wages need to be lower in "sunset" than in "sunrise" industries and that total payments to labour ... become more responsive to cyclical and structural changes'. German research institutes which frequently report on structural developments and policies are divided on the issue. The IFO Institute for example claims that 'a policy of wage differentiation is at the same time a policy of structural conservation'.[11]

It is therefore to be discussed whether sectoral wage differentiation for labour of similar qualification and experience, sex, age, degree of unionization and proportion of part-time work is appropriate. The question could be put differently: should one and the same worker doing identical work be paid differently as a result of its employment in different sectors, if resources are to be allocated efficiently and if output and employment are to be improved? It should be pointed out that the following discussion does not predetermine an analysis neither of the appropriate regional wage structure nor of the most suitable wage differentiation for different qualifications.

In the Community (EUR 6) the spread of remuneration per employee across the industrial production and market service sectors, measured by the dispersion coefficient (ratio of the standard deviation to the average) was 0,05 in 1970 and 0,12 in 1982. For industrial production alone, coefficients in the range between 0,10 and 0,16 in October 1972 and somewhat lower in April 1983 were observed in the Community.[12] This indicates that between 1970 and 1982 a visible gap in remuneration arose in the Community between market services and industrial production: the annual average rate of growth of remuneration per employee was 12,7 % in industrial production as compared to 11,8 % in the market service sector over this period. This ran contrary to declining wage differentiation across industries alone. Overall wage differentiation in the Community was furthermore still significantly smaller than in the USA, where comparable dispersion coefficients were higher and increased from 0,23 in 1970 to 0,32 in 1982.[13]

As has been pointed out, an important factor separating sectors and particularly the service sector from manufacturing is the divergent development of productivity. This implies in principle a permanent need for restructuring the economy: wages and prices have to be adjusted and resources reallocated.

For an efficient adjustment process, undistorted market signals, the lack of adjustment barriers and a sufficient investment performance are prerequisites: the key signals for the adjustment process being prices, wages and profits. The main distortions are all kinds of specific subsidies and administered prices. The financial markets should allow capital to flow more freely to perceived new profit opportunities. Even in a full employment situation sectoral mobility of labour of similar qualification level is relatively low due to special searching requirements, lack of information, costs of moving, uneven regional distribution of better paid employment opportunities, etc. In a period of high and persistent unemployment, labour mobility is even lower. In fact, the emerging wage dispersion between industrial production and market services in the Community during the 1970s can be seen as indicating to a certain extent a declining degree of labour mobility between those sectors.

In order to discuss some aspects of sectoral mobility, flexibility and differentiation a simplified example may facilitate the understanding of the relations between movements in labour productivity and changes in prices, wages, profits, output and employment. For that purpose it is assumed that in a two-sector economy one sector increases its productivity significantly faster than the other. It is further assumed that the demand for the products of the sector that experiences faster growing productivity reacts strongly to a change in relative prices (high price elasticity of demand), but less to a change in real income (low income elasticity of demand); these are typical assumptions for an industrial sector. The other sector is assumed to have the opposite properties (low price elasticity, high income elasticity of demand), which are characteristics of a service sector. Three stylized adjustment paths could then be constructed:

(a) no transfer of increased productivity to other economic agents (profit differentiation);

[10] Klau, F. and Mittelstädt, A.: 'Labour market flexibility and external price shocks', *OECD working papers* No 24, Paris 1985, p. 8.

[11] Gerstenberger, Wolfgang: 'Analyse der strukturellen Entwicklung der deutschen Wirtschaft', Band 1 zur *Strukturberichterstattung 1983* Hauptband, IFO-Institut für Wirtschaftsforschung, München 1983, p. 205.

[12] Buigues, Pierre and Goybet, Philippe: 'The determinants of supply in industry in the Community', in: *European Economy*, No 25, September 1985, p. 48, Table 4.

[13] Bell, Linda and Freeman, R.: 'Does a flexible industry wage structure increase employment? The US experience', *NBER working paper* No 1604, New York 1985.

(b) transfer of increased productivity by lower relative prices (price differentiation);

(c) transfer of increased productivity by higher relative wages (wage differentiation).

The first case occurs if prices and wages do not adjust to the differences in the sectoral productivity increases. The higher productivity growth is then reflected in lower unit labour costs and higher profits. The higher rates of return will induce capital to move to this sector. Its expansion will, however, be limited because — according to the elasticity assumptions — the income gain from the stronger increase in productivity will more than proportionally be used to buy products from the sector with lower productivity growth. The higher productivity growth sector is therefore to be expected to lose employment; labour will have to move to the other sector.

Profit differentiation is transitory, however, because it is profitable for the firms in the sector with higher productivity growth to expand sales more strongly by (relatively or even absolutely) lowering product prices. In addition new investors, which are attracted by higher profits in this sector, will try to gain market shares. Eventually, if capital moves freely between sectors and there are no barriers to entry for new investors, the profit differential between the sectors will be bid away by competition.

The transitory case of profit differentiation will then give way to a situation of price differentiation, where products of the higher productivity growth sector have become cheaper relative to the products of the other sector. In this case lower prices transfer the above-average productivity gain to consumers which will — again based on our elasticity assumptions — now more strongly turn to the cheaper products of the higher productivity growth sector. It is in this case that this sector will experience the strongest expansion of sales and production. Depending on the extent of production expansion compared to the increase in labour productivity, its employment may be maintained or even increased. For the other sector gains in demand from higher purchasing power of consumers may be cancelled out by losses in demand because its products become relatively more expensive. A need for a reallocation of labour is much less likely than in the first case. The eventual outcome of adjustment by price differentiation is a stable and efficient equilibrium.

So far wages have grown at the same rate. A third case emerges if the stronger gain in productivity is immediately matched by higher wages in the sector with higher productivity growth. Sectoral wage increases now differ whereas the relation of unit labour costs, prices and profits across sectors remains unchanged. The stronger productivity gain is reaped by those employed in the higher productivity growth sector; the income of employees in the lower productivity growth sectors will increasingly fall behind. The higher productivity growth sector will expand output only to the very limited extent that its employees, with their higher incomes, expand demand for the products of their own sector. It will shed employment as far as its higher productivity is not met by higher demand and production. As no profit differential is allowed to emerge there is no incentive for additional investment in the higher productivity growth sector. Furthermore, there is no room for relatively lower prices in this sector as unit labour costs are unchanged. In this case, labour trying to move to the better paying sector has to bear the burden of providing the dynamics to sectoral adjustment. Due to low labour mobility — particularly in a situation of high unemployment — wage differentials will only slowly be bid away. Only after that profit differentials could emerge, which might in turn give way to price differentiation (according to cases one and two of the example) and provide the efficient and stable equilibrium.

It is clear that in reality the process will never occur in such a highly stylized form. Due to permanent productivity changes in a large number of sectors all three kinds of adjustment will to some extent be present at the same time. Nevertheless, the different properties of the adjustment paths may allow some conclusions with regard to the advisability of sectoral wage differentiation for comparable kinds of labour. Sectoral labour mobility is limited in a situation of high unemployment. A strategy of sectoral wage differentiation, which links sectoral wages to sectoral productivity performance, may thus be temporarily sustainable. In terms of the three cases presented above this would mean an attempt to keep sectoral adjustment on path three (wage differentiation).

(i) Sectoral wage differentiation for comparable kinds of labour sustains an inefficient allocation of labour as well as capital between sectors. The productive potential of a given amount of factors of production and a given technology is not fully materialized; losses of production and income have to be taken into account.

(ii) 'Such proposals (i.e. proposals to link wages and productivity at industry level) are not only unfair but self-defeating for they strike at the sources of increased productivity'.[14] The productive potential of an economy is in reality not exogenously given. It depends among other things on dynamic investment as well as international competitiveness. Both are likely to be impeded by sectoral wage differentiation.

[14] Salter, W.E.G.: *Productivity and technical change*, Cambridge 1966, p. 157.

If wages are too closely tied to sectoral productivity performance the initial additional profits from productivity increasing investment are passed on to the remaining employees; these temporary additional profits may, however, be a key incentive for the 'innovative entrepreneur' to take the risk of reorganization and employing new technologies.

Furthermore, sectoral wage differentiation prevents prices in the higher productivity growth sectors to be (relatively) lowered. As P. Buigues and Ph. Goybet have pointed out,[15] the European Community has lost ground in the world markets precisely in the dynamically growing sectors. A key factor they found was the lacking ability of these parts of Community industry to generate sufficient productivity growth and to translate it into lower prices to sustain a competitive world market position. Sectoral wage differentiation would endanger the position particularly of these sectors even further.

Sectoral wage differentiation is a rather defensive, conserving strategy. It may, in the longer run, severely hamper the modernization and expansion of the Community's economy.

(iii) Sectoral wage differentiation eases, however, the adjustment pressure on the low productivity growth sectors. It may, therefore, temporarily, be considered an instrument to sustain employment in these sectors, which may be especially welcome in a situation of high overall unemployment. Indeed this is suggested by the Sachverständigenrat, an economic advisory council to the Federal German Government, which claims in its recent annual report that 'it may indeed be appropriate for particular sectors... to react defensively to structural change, as long as the pull of faster growing sectors is not sufficient to generate a satisfactory overall level of employment'.[16] Thus specific temporary sectoral wage concessions may contribute to an orderly sectoral adjustment process especially in connection with other forms of sectoral subsidies.

To achieve a substantial and sustainable reduction of unemployment, economic growth in the Community has to accelerate further and has to become even more employment creating. Especially for reasons of international competitivity, productivity growth is, however, not to be impeded. Productivity growth and a higher overall employment intensity of growth can be reconciled in a variety of ways. An important contribution to this is a continuation of the ongoing process of structural change towards a growing share of activities with low productivity growth. In the Community, this has taken in part the form of a steady increase of the share of services in total value-added as well as in employment. This process can be supported by appropriate adjustment of profits, wages and prices. A sustained and systematic sectoral wage differentiation, which ties sectoral wage increases to sectoral productivity growth, impedes rather than supports a structural change towards higher production, income and employment. Adjustment of relative prices is a better way to reconcile expansion and competitivity of sectors with high productivity growth with employment increases in the economy as a whole.

[15] Buigues, Pierre and Goybet, Philippe: op. cit.

[16] Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung, *Jahresgutachten 1985-86*, p. 147, No 290.

Some aspects of job gains and losses at the sectoral level

This chapter demonstrates again the political need to increase macroeconomic employment. This need, however, has to take account of the fact that the overall employment performance of a country is the result of a continuing process of job gains and losses at the sectoral level. In order to increase total employment it will, therefore, be necessary to create conditions resulting in a process in which sectoral job creations considerably outweigh sectoral job losses. Setting up such conditions will however be facilitated if those who decide on these conditions have a realistic view on how this process is working. The present box, therefore, tries to shed some more light on these aspects. It takes the development in the Federal Republic of Germany between 1960 and 1983 as an example.[1]

The loss of occupied population in production enterprises by 2,8 million between 1960 and 1983 can essentially be traced back to a fall of 2,7 million in the self-employed and family workers (Table 1). The relatively 'small' reduction in wage and salary earners of 0,1 million hides however much bigger changes in its components. On the one hand there was, at this stage of aggregation, a fall of 1,8 million in wage and salary earners in 'Manufacturing', 'Energy, water, mining, construction' and 'Agriculture'. On the other hand the categories 'Other services'[2] and 'Trade and transportation' increased their employment by 1,7 million. Of special interest is the sector 'Other services' which increased its wage and salary earners by 83 % between 1960 and 1983; it was also the only sector with no decrease in self-employment.

One central element in the understanding of this process is the development of relative prices and their incidence on the sectoral performance of such variables as production, productivity, rates of return, etc.[3] Nominal net value-added at current prices of a sector divided by the specific price index of the same sector gives output of that sector at constant prices, i.e. in volume terms. This procedure eliminates not only the increase in the price level but also the changes in the price structure. However, for an economic agent, i.e. a sector or enterprise, it is of little importance whether an increase in its earned purchasing power originates in a change in production in volume terms or in a change in relative prices. An analysis of the overall performance of a sector — e.g. in terms of production, investment or employment — has therefore to be centred on the overall purchasing power created by that sector. For an analysis in purchasing power terms it is necessary to eliminate from the sectoral movement of a variable in current prices the inflation component. This can be done by dividing the sectoral value-added at current prices by an index for the general price level, e.g. the deflator of gross domestic product. This results in a figure for the purchasing power created by a sector independent of its possible origin, i.e. higher production or a change in relative prices.

Table 2 gives an example of this type of analysis for the sectoral evolution of net domestic product at factor costs. In 'Manufacturing' the volume of production increased by DM 111 000 million. This component was, however, reduced by DM 41 000 million due to the fall in relative prices, resulting in an increase of purchasing power of only DM 70 000 million. On the other hand 'Other services' increased production in volume terms by DM 27 000 million. The increase in relative prices raised the purchasing power created by another DM 26 000 million, so that the total purchasing power created was DM 53 000 million. As the movement of relative prices cancels out at the macroeconomic level, the increase in purchasing power for the whole economy is equal to the increase in production in volume terms. This is not true at the sectoral level, since relative price movements bring about a sectoral 'redistribution' of the results in terms of real output. At the macro-economic level these sectoral 'redistributions' cancel out as relative prices do.

If the table for net domestic product (Table 2) is divided by occupied population (Table 1), the corresponding breakdown by sectors and components for trends in labour productivity emerges (Table 3). It shows the 'redistribution' or the 'transfer' of productivity performance between sectors. In 'Manufacturing' relative prices reduced the absolute increase in labour productivity in volume terms by nearly one third. In 'Other services' the relative price component more than doubled the absolute increase in labour productivity in volume terms. In other words, developments in relative prices in the 'Other services' were even more important for productivity performance in purchasing power terms than increased production in volume terms. Traditional ideas on the relative performance of sectoral productivity in volume terms are thus more or less reversed when considering productivity in purchasing power terms. This would suggest that developments in purchasing power terms also have an important influence on the sectoral use of factors of production and on the capacity to create new jobs.

This method of analysis can also be applied to other economic variables, such as wages, relative factor rewards, etc. Table 4 summarizes the results of this procedure for a number of variables which are of interest for the understanding of the process of sectoral employment gains and losses. The presentation however is limited (a) to the two sectors which are responsible for nearly 70 % of the absolute change in wage and salary earners in production enterprises (i.e. 'Manufacturing' and 'Other services') and (b) to the absolute and relative changes between 1960 and 1983.

The development of the sectors mentioned seems to have largely been determined by two broad factors which are largely out of

[1] The time path between these two years is not analysed in this box. Such an exercise could show how far the process of structural change has been influenced by disturbances such as the oil price shocks.

[2] The 'Other services' sector is composed of credit and insurance institutions, restaurants, hotels, health, education, research, editing, cultural and personal services, etc.

[3] The analysis in this box was largely inspired by proposals made by the German Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung in their *Jahresgutachten 1984-85* (points 246-253) and by the letter of the President of the Statistisches Bundesamt commenting on these proposals (cf.Jahresgutachten 1985-86, Annex V).

Table 1

Employment 1960-83[1,2] in the Federal Republic of Germany

Sectors	1960	Change 1960-83		1983	1960	Change 1960-83		1983	1960	Change 1960-83		1983
	Wage and salary earners 1 000	Volume component		Wage and salary earners 1 000	Self-employed and family workers 1 000	Volume component		Self-employed and family workers 1 000	Occupied population 1 000	Volume component		Occupied population 1 000
		Relative	Absolute			Relative	Absolute			Relative	Absolute	
0	1	2=4:1	3=4−1	4=1+3	5	6=8:5	7=8−5	8=5+7	9	10=12:9	11=12−9	12=9+11
1. Agriculture	491	50	−244	247	3 090	37	−1 946	1 144	3 581	39	−2 190	1 391
2. Energy, water, mining, construction	2 654	83	−442	2 212	219	86	−31	188	2 873	84	−473	2 400
3. Manufacturing	8 855	87	−1 122	7 733	769	53	−361	408	9 624	85	−1 483	8 141
4. Trade and transportation	3 615	111	399	4 014	1 144	65	−397	747	4 759	100	2	4 761
5. Other services	1 596	183	1 317	2 913	768	102	19	787	2 364	157	1 336	3 700
6. Production enterprises	17 211	99	−92	17 119	5 990	55	−2 716	3 274	23 201	88	−2 808	20 393
7. General government[3]	2 862	170	2 017	4 879	—	—	—	—	2 862	170	2 017	4 879
8. Housing	—	—	—	—	—	—	—	—	—	—	—	—
9. All sectors	20 073	110	1 925	21 998	5 990	55	−2 716	3 274	26 063	97	−791	25 272

[1] The source used in setting up the tables of this box is the Statistische Bundesamt, *Volkswirtschaftliche Gesamtrechnungen*, Fachreihe 18 and the *Statistische Jahrbuch* (various editions).
[2] The relative changes (columns 2, 6 and 10) are expressed by indices 1983 (1960 = 100).
[3] Including private non-profit institutions.

the range of policy decisions by public authorities: demand and costs. The share of services in total demand is highly dependent on the level of income. Costs are made up essentially of labour costs which are, to a large extent, determined by negotiations between the social partners.

The relatively strong demand for services was certainly at the origin of the increase in net value-added in purchasing power terms of 'Other services'. This increase was more than twice as strong as in 'Manufacturing' (index of 376 in 'Other services' compared to an index of 174 in 'Manufacturing'[4]). The strong demand for 'Other services' was apparent in spite of an increase of 55 % in relative prices. This increase occurred while relative prices in manufacturing fell by 20 %. Such figures illustrate the strength of demand for services.

In spite of the very favourable development of demand for 'Other services' real wage per head in this sector grew less rapidly than in 'Manufacturing' (Table 4). This difference is even more pronounced in terms of real unit labour costs.[5] In spite of the important demand-pull for 'Other services' they fell by 10 % while rising by 20 % in 'Manufacturing'.

Thus, in the sector 'Other services' a strong increase in value added in purchasing power terms combined with a decrease in real unit labour costs can be observed. The combination of these two trends had important consequences for the net operating surplus. In purchasing power terms it more than tripled in 'Other services' (index 350) while it remained nearly constant in 'Manufacturing' (index 98).

[4] Indices mentioned in this box are those in the tables and refer to the period 1960-83 (1960 = 100).

[5] Compensation of employees per wage and salary earner (deflated by the price of GDP) divided by real net domestic value-added per head of occupied population. This indicator is equivalent to the corrected wage share (share of compensation of employees in nominal net domestic value-added divided by the share of wage and salary earner in occupied population). It, therefore, takes account of the increased share of wage and salary earners in the occupied population.

Table 2

Net domestic product at factor cost, 1960 = 100[1] in the Federal Republic of Germany

Sector	1960	Change 1960-83		1983	Change 1960-83		1983	Change 1960-83		1983	Change 1960-83		1983
	Current prices	Volume component		Prices 1960	Relative price component		Relative prices 1983	Purchasing power component		Relative prices 1983	Inflation component		Current prices
	DM 1000	relative	absolute	DM 1000	relative	absolute	DM 1000	relative	absolute	DM 1000	relative	absolute	DM 1000
0	1	2 = 4:1	3 = 4 − 1	4 = 1 + 3	5 = 7:4	6 = 7 − 4	7 = 4 + 6	8 = 2x5	9 = 3 + 6	10 = 1 + 9	11 = 13:10	12 = 13 − 10	13 = 10 + 12
1. Agriculture	15,7	99	−0,2	15,5	55	−7,0	8,4	54	−7,2	8,5	259	13,4	21,9
2. Energy, water, mining, construction	32,3	147	15,3	47,7	110	4,6	52,2	162	19,9	52,2	259	82,9	135,1
3. Manufacturing	95,0	217	110,8	205,8	80	−40,5	165,3	174	70,3	165,3	259	262,3	427,7
4. Trade and transportation	45,1	243	64,5	109,6	80	−21,4	88,2	196	43,1	88,2	259	140,0	228,2
5. Other services	19,3	243	27,5	46,9	155	25,8	72,7	376	53,3	72,7	259	115,3	188,0
Statistical divergence			−3,4	−3,4		+3,4							
6. Production enterprises (1 to 5)	207,5	203	214,5	422,0	92	−35,1	386,9	186	179,4	386,9	259	614,0	1 000,8
7. General government[2]	25,2	204	26,1	51,3	161	31,1	82,4	327	57,2	82,4	259	131,0	213,1
8. Housing	7,2	232	9,5	16,6	148	8,0	24,6	343	17,5	24,6	259	39,0	63,7
Statistical divergence			+3,9	+3,9		−3,9							
9. All sectors	239,8	206	254,0	493,8	100	0,0	493,8	206	254,0	493,8	259	783,7	1 277,6

[1] The relative changes (colums 2, 5, 8 and 11) are expressed as indices (1960 = 100).
[2] Including private non-profit institutions.

These sharply contrasting sectoral developments of operating surplus had important consequences:

(i) rates of return[6] in 'Other services' shrunk in purchasing power terms by 'only' 34 % while they fell by 60 % in 'Manufacturing';

(ii) relative rewards of labour to capital[7] in 'Other services' increased significantly less than in 'Manufacturing' (index 331 in 'Other services', index 616 in 'Manufacturing').

Movements in these variables had important consequences for other factors which are important for sectoral employment:

(i) growth of the real capital stock in 'Other services' exceeded that of 'Manufacturing' by 80 %. This can, to a great extent, be attributed to the less unfavourable performance of rates of return in 'Other services';

(ii) 'Other services' experienced significant capital widening, while this was completely absent — at least on the sectoral level — in 'Manufacturing'. This difference is due, to an important extent, to the much slower increase in relative rewards of labour to capital in 'Other services';

(iii) the relatively strong growth of the capital stock in 'Other services' made it possible for both capital widening and capital deepening to take place. Contrary to traditional

[6] Net operating surplus (without imputed labour income of the self-employed) per unit of gross capital stock. Imputed labour income of self-employed is assumed to be equal to compensation of employees per wage and salary earner. It is however imputed only to self-employed in the narrow sense and not to unpaid family workers.
[7] Labour income per head of occupied population divided by the rate of return.

Table 3

Net domestic product at factor cost per head of occupied population[1] in the Federal Republic of Germany

Sectors	1960	Change 1960-83		1983	Change 1960-83		1983	Change 1960-83		1983
	Current prices	Volume component		Prices 1960	Relative price component		Relative prices 1983	Purchasing power component		Relative prices 1983
	DM	relative	absolute	DM	relative	absolute	DM	relative	absolute	DM
0	1	2=4:1	3=4−1	4=1+3	5=7:4	6=7−4	7=4+6	8=2+5	9=3+6	10=1+9
1. Agriculture	4 390	254	6 751	11 141	55	−5 050	6 091	139	1 701	6 091
2. Energy, water, mining, construction	11 250	176	8 593	19 842	110	1 917	21 759	193	10 501	21 759
3. Manufacturing	9 872	256	15 413	25 285	80	−4 979	20 306	206	10 434	20 306
4. Trade and transportation	9 475	243	13 552	23 027	80	−4 499	18 527	196	9 053	18 527
5. Other services	8 168	155	4 494	12 662	155	6 973	19 635	240	11 467	19 635
6. Production enterprises (1 to 5)	8 941	231	11 752	20 693	92	−1 723	18 971	212	10 029	18 971
7. General government[2]	8 802	119	1 710	10 512	161	6 370	16 882	192	8 080	16 882
8. Housing	—	—	—	—	—	—	—	—	—	—
9. All sectors	9 202	212	10 339	19 541	100	0	19 541	212	10 339	19 541

[1] The relative changes (columns 2, 5, 8 and 11) are expressed as indices in 1983 (1960 = 100).
[2] Including private non-profit institutions.

thinking capital intensity[8] in volume terms increased faster in 'Other services' than in 'Manufacturing' (index 404 in 'Other services', index 337 in 'Manufacturing'). The remarkable development of capital intensity certainly contributed — in one way or the other — to improve the range, quality and rapidity of services, which in turn has again fostered demand for services.

It follows that demand is not something which sectors have to accept passively. The feedback to demand mentioned above shows that sectors can actively contribute to the expansion of demand for their products, provided that they have sufficient resources after paying costs incurred.

These trends substantially influenced the conditions which from the production side as well as from the capital side determine sectoral employment performance. On the one hand high demand for 'Other services' was an essential factor in the accumulation of an important positive gap between the increase in production and that of labour productivity, thus fulfilling the condition necessary for employment creation. On the other hand the combined effect of high demand and lower labour costs increased operating surplus and capital stock in 'Other services' to such an extent that it largely exceeded the growth of capital intensity which in turn was above that in 'Manufacturing'. Thus the necessary condition for employment growth was also realized on the capital side. Total employment in this sector rose by 57 % and that of wage and salary earners by 83 %.

The reverse was, *mutatis mutandis*, true for the development of employment conditions in 'Manufacturing'. Demand for manufactured products was so weak that it resulted in a negative gap between the increase of demand and that of productivity. This happened in spite of the fact that productivity in purchasing power terms grew less than that of 'Other services'. Under these circumstances on the production side employment in 'Manufacturing' was bound to fall. On the other hand the combination of slow demand and increased real unit labour costs resulted in such a weak development of operating surplus that the growth in the capital stock was significantly smaller than that of the, already relatively slow, increase in capital intensity. Thus, conditions on the capital side, too, made for a sizeable reduction in employment (−15 %).

[8] Gross capital stock per head of occupied population.

Table 4

Development of some key variables in 'Manufacturing' (M) and 'Other services' (S)[1] — Federal Republic of Germany

(Change 1960-83)

Key variables		Relative			Absolute		
		Volume component	Relative price component	Purchasing power component	Volume component	Relative price component	Purchasing power component
0	1	2	3	4 = 2 × 3	5	6	7 = 5 + 6
		Indices 1960 = 100			Absolute change		
1. Occupied population	M	85	—	—	−1 483	—	—
	S	157			1 336		
2. Wage and salary earners	M	87	—	—	−1 122	—	—
	S	183			1 317		
3. Capital stock	M	285	79	226	283	−91	193
	S	633	95	601	201	−12	189
4. Contribution to net domestic product	M	217	80	174	111	−41	70
	S	243	155	376	28	26	53
5. Compensation of employees	M	267	80	214	104	−33	71
	S	258	155	400	16	14	31
6. Net operating surplus	M	122	80	98	7 200	−7 909	−709
	S	226	155	350	11 462	11 329	22 791
7. Wage per head	M	306	80	246	14 418	−4 219	10 200
	S	141	155	219	2 630	4 967	7 598
8. Labour productivity	M	256	80	206	15 413	−4 979	10 434
	S	155	155	240	4 494	6 973	11 467
9. Capital productivity	M	76	101	77	−15	1	−14
	S	38	163	63	−32	12	−19
10. Real unit labour costs	M	119	100	119	14	0	14
	S	91	100	91	−7	0	−7
11. Wage share	M	123	100	123	15	0	15
	S	106	100	106	3	0	3
12. Capital intensity	M	337	79	267	37 679	−11 118	26 561
	S	404	95	384	48 678	−3 259	45 382
13. Rate of return	M	39	101	40	−11	0	−11
	S	41	163	66	−9	4	−5
14. Relative reward of labour/capital	M	777	79	616	—	—	—
	S	348	94	331	—	—	—

[1] Each line corresponds to a table of the same type as Tables B.3.3 and B.3.4 (cf. line 4 and Table B.3.3; line 8 and Table B.3.4).

B.4. Government budgets and social protection

The steep increase in the share of public expenditure in GDP over the past 15 years has its origin, principally, in the large rise in transfers to households. At the same time, taxes and social security charges have become a growing charge on income. The 1985-86 Annual Economic Report has set out the risks which the size and structure of the public sector can have on economic performance. This chapter adds some additional elements to the analysis. Firstly, it traces the trends in budgetary expenditure since 1970 briefly, moving on to study in detail the importance of social protection in the member countries and, in particular, spending on health, employment and pensions. It then approaches the problem of the growing 'wedge' between net wages and the cost of an employee to the firm, showing that growing compulsory charges on incomes have an influence on the determination of wages and on production costs. Some implications can consequently be drawn for employment and growth.

B.4.1. Trends in major categories of public expenditure since 1970 in the Community

In all Community countries, public expenditure has increased its share in GDP over the period 1970-85. Total general government expenditure, which was 37,8 % of Community GDP in 1970, reached just over half of GDP (50,3 %) in 1985 (see Table B.4.1). This movement, which had already been apparent in the 1960s, accelerated over the 1970s, before, it seems, peaking in 1984-85.

Expenditure on transfers recorded proportionally the largest increase. The strengthening of government's functional role in income redistribution did not take place in a uniform way over the past 15 years. Up to 1973, the increase in public spending, at a rate slightly above that of nominal income, reflected the acceptance, and even the desire, to extend social protection gradually, to increase staff numbers to meet greater demands for public services due to demographic growth and to improve the quality of services. Spending on capital equipment was still given a high priority. The arrival of the first oil shock very rapidly led, in 1974 and 1975, to a considerable expansion in public finance relative to GDP. The fall in activity in 1974, together with the spontaneous growth in transfers brought on by the crisis, led to a marked increase in the relative share of public spending. At the same time, the fact that this crisis was still very often considered as the adjustment cost necessary for the rise in oil prices before the hoped-for return to levels of growth close to those recorded previously, plus the existence of budgetary practises which were not especially restrictive, led to an underestimate of the difficulties involved in controlling this movement. The recovery in activity in the second half of the 1970s effectively resulted in a slowdown in the growth of the public expenditure share in GDP, without however stopping it. At the beginning of the 1980s the second oil shock, by depressing economic activity, indirectly led to a further increase in certain social transfers.

From the beginning of the 1980s the necessity of adequately controlling public expenditure was recognized on account of structural dimensions of the phenomenon. It also became apparent that the large share of the State could restrain growth. From 1984, the authorities succeeded in stabilizing the share of public expenditure in GDP on average for the Community; it was reduced slightly in 1985 and this movement is expected to continue in 1986.

Three of the main expenditure categories are shown in Table B.4.1, the fourth being debt interest payments. Between 1970 and 1975, transfers have increased by more than 5 percentage points of GDP on average for the Community, this increase stemming mainly from the growth of transfers to households which represent 80 % of total current transfers. The increase in these transfers in relation to GDP then continued at a generally less rapid pace. It can be seen that several Member States, Denmark, Germany, Spain and Luxembourg, succeeded in stabilizing in 1985, with respect to 1980, the share of current transfers in GDP. In Chapter A.7 (in the first part of this Review) which deals with budgetary trends, Table A.7.3 shows that the great majority of Member States have succeeded in stabilizing, or even reducing slightly, the weight of current transfers over recent years. In so far as public consumption is concerned, growth over 15 years has been less dynamic than that of transfers, rising only by a little over 3 percentage points of GDP on average for the Community between 1970 and 1985. Two points of this increase are explained by the growth in compensation of officials, the recruitment of which has been progressively limited, and 1 point by purchases of goods and services. Finally, capital transfers and gross capital formation has been the only category which has fallen as a share of GDP during the period considered. Indeed, expenditure and subsidies on capital equipment have very often been the target of downward adjustments when budgetary economies have been sought.

Table B.4.1

Trends in expenditure of general government as a % of GDP — 1970-85

	Total expenditure				of which	Current transfers				Public consumption				Net capital transfers and fixed capital formation			
	1970	1975	1980	1985		1970	1975	1980	1985	1970	1975	1980	1985	1970	1975	1980	1985
B	38,6	46,7	53,7	56,9		17,0	22,1	24,4	25,3	13,7	16,8	18,4	17,6	4,5	4,3	4,8	3,1
DK	42,1	48,2	56,2	59,5		14,9	17,7	21,6	21,5	20,0	24,6	26,7	25,2	6,0	4,7	4,0	3,0
D	38,7	49,0	48,4	47,5		15,9	21,6	20,9	20,6	15,8	20,5	20,1	20,0	6,1	5,5	5,4	3,9
GR	:	:	:	48,3		8,5	9,9	11,5	17,6	12,6	15,2	16,4	20,0	:	:	:	5,2
E	22,1	24,7	32,4	39,8		9,5	11,5	16,9	18,4	8,5	9,2	11,5	13,6	3,5	3,5	3,2	4,2
F	38,9	43,5	46,4	52,5		20,1	23,5	26,2	30,4	13,4	14,4	15,2	16,3	4,2	4,3	3,4	3,0
IRL	:	46,3	50,4	53,5		:	16,6	16,7	19,7	:	18,5	19,9	19,0	:	6,6	6,3	4,1
I	34,2	43,2	46,1	58,4		14,7	18,9	18,8	23,1	13,8	15,4	16,4	19,5	4,0	5,0	4,6	6,6
L	33,7	48,9	54,4	52,7		17,4	25,6	28,5	28,8	10,7	14,9	16,5	15,2	4,6	7,6	8,5	7,4
NL	42,3	51,8	57,5	60,4		18,4	26,3	30,4	32,8	15,4	17,4	17,9	16,3	5,7	5,0	5,6	5,0
P	:	:	37,4	40,7		:	:	14,4	15,1	:	:	14,8	14,5	:	:	5,1	3,4
UK	36,9	44,2	43,2	45,1		10,5	13,5	14,3	16,5	17,6	21,8	21,3	21,2	5,0	5,1	2,9	2,4
EUR[1]	37,8	45,8	47,4	50,3		15,5	20,0	21,0	22,6	15,3	18,2	18,5	18,6	5,0	4,9	4,3	4,0

[1] 1970: EUR 10 excluding GR and IRL; 1975-80: EUR 10 excluding GR; 1985: EUR 12.
Source: Commission services.

B.4.2. The size and trends in social protection in the Community economies

The preceding section has shown that the marked increase in the share of public expenditure in GDP was due, to a very large extent, to the increase in current transfers, in particular transfers to households and more specifically social benefits. As the problem of controlling the growing importance of State redistribution in the economy has become more urgent, there has been a renewal of interest in the analysis of trends in social benefits and the financing of these benefits.

Up to the beginning of the 1970s, systems of social protection, which were progressively widened to the whole population after the second world war, were being improved to give greater coverage of the risks involved. Rapid economic growth meant that the costs of social protection incurred in this period appeared substantially less than the collective well-being brought about by extending protection. The oil shocks and the slowdown in growth led to a considerable increase in the costs of social protection, the system being stretched by the extension of unemployment, the ageing of the population and increased recourse to medical services.

Today, the problem is raised of the possible adjustment of the system of social services set up in a period of economic prosperity. Can the share of social protection in GDP be expected to be stabilized or even to be limited in size, given the outlook for growth? If corrective measures are necessary, should these concern mainly the resources of social protection or spending on benefits? In what areas should the restructuring of these resources and expenditure be sought? The present section does not presume to provide precise answers to these questions but presents the statistical background on social protection so that comparisons can be made of the respective position in the Member States.

The Statistical Office of the European Communities has developed accounts on social protection which have been designed as satellite figures to the European system of integrated economic accounts (ESA). These accounts group together all social protection operations and the resources which go to finance them. Social protection is defined as the total of all collective arrangements covering charges on households resulting from certain risks being realized. Because of the collective nature of this definition, arrangements entered into at the initiative of individual households for their own benefit, such as saving plans or the subscription to private life assurance policies, are excluded.

On the expenditure side of the account, social benefit payments are to be found broken down into several functions (or risks) in addition to the administrative costs of social protection systems. These functions are the following: sickness, invalidity, occupational accidents, old-age, survivors, maternity, family, unemployment, placement etc. and others. Social contributions paid by employers, those paid by insured persons, public current contributions to social protection regimes as well as a category 'other current receipts' appear on the income side of the same account.

The social protection accounts, so constructed, are considerably more comprehensive than those for social security in two respects. On the one hand, although social security bodies are the major suppliers of social protection services, they are not alone in providing these services. Mutual insurance bodies can also exercise this function. In addition, all institutional sectors participate in social protection when they distribute benefits directly to households as an employer without passing through a specialized service. As a counterpart to such social benefits, imputed social contributions are found on the resources side of the account. In addition, the concept of social protection benefits is wider than that of social benefits, including, in addition, the benefits provided by the social services. Social benefits include, as in the framework of the national accounts statistics, all current transfers, in cash or in kind, to households in order to cover charges resulting from the appearance or existence of predetermined risks, without an equivalent and simultaneous counterpart being provided by the beneficiary. Benefits provided by the social services correspond to the total cost of services provided free of charge or with a minimal charge (non-market services) and of goods and market services provided to households at reduced prices because of the existence of these risks. The concept of social protection benefits is particularly useful since it enables comparable statistics to be produced for countries where institutional arrangements for financing social protection are different. Some countries have, for instance, a national health service which provides non-market medical services (social service benefits) and which is financed through the budget and not through social security regimes. A comparison of social security accounts alone between the countries of the Community is, therefore, biased; however, the broad coverage of the social protection accounts allows such comparative studies.

The Statistical Office of the European Communities has built up a data base on social protection for nine Member States (EUR 10 except Greece) with the series beginning in 1970 for most countries and 1975 for the others. Table B.4.2 shows the trend of social protection in the Community between 1970 and 1983. Three categories are included: the category Health covers sickness, invalidity-disability, occupational accidents and diseases, the category Employment gathers together expenditure related to unemployment and placement, guidance, resettlement and, finally, the category Pensions is the total of old age and survivors benefits.

The total of social protection benefits, which represented substantially less than 20 % of GDP on average for the Community in 1970, continued to grow at a faster rate than activity up to 1983, when it represented 26,7 % of GDP. It was during the first half of the 1970s and at the beginning of the 1980s that its growth was most rapid. During the period 1975-83, Germany stood apart from the general trend, in so far as it succeeded in reducing marginally the size of social protection benefits as a share of activity. In 1983 social protection was above 30 % of GDP in the Netherlands (32,7 %) and Denmark (30,1 %), while it was close to this level in Belgium (29,5 %). Each of the three major groups of function has increased at a faster rate than GDP over the period, with health benefits approaching 10 % of GDP on average for the Community in 1983. It was in the Netherlands and Luxembourg that they increased fastest between 1970 and 1983, rising from 8,8 % to 14,7 % of GDP in the first country and from 5,6 % to 11,1 % of GDP in the second. Denmark was an exception to this rising trend, with a reduction in the weight of health spending since 1975, while there was quasi-stability between 1975 and 1983 in Germany, Ireland and the United Kingdom.

Employment benefits have increased strongly in the Community to reach 2,5 % of GDP in 1983 or almost double their level in 1975 (1,3 %). These benefits are important in Belgium, Denmark, Ireland, and the Netherlands as a result of the magnitude of unemployment but also, in some countries, to the high levels of unemployment protection.

Pensions have also increased over the period as a result of the ageing of the population and also to the increase in coverage, particularly over the 1970s. It can be noted that the proportion of pensions is quite similar as between countries, except in Ireland where it is substantially lower and, at the other end of the scale, in Germany, which is subject to important problems in so far as the ageing of its population is concerned, and in Luxembourg; both Germany and Luxembourg have succeeded in stabilizing the weight of their expenditure on pensions over the period 1977-83.

Since the latest year available from the Eurostat data base in 1983, it is useful to estimate developments in benefits over more recent years. This has been done for Germany, France, Italy and the United Kingdom for the period 1984-87. These calculations were based on work carried out in these countries on the medium-term trends in these categories. These were adapted to correspond to the assumptions used

Table B.4.2

Social protection benefits and benefits in respect of the categories: Health, Employment and Pensions[1] as a % of GDP

	Social protection benefits					Health benefits				
	1970	1975	1977	1980	1983	1970	1975	1977	1980	1983
B	17,4	22,6	24,2	26,1	29,5	6,1	7,9	8,4	9,0	9,9
DK	19,0	25,2	24,8	27,9	30,1	8,3	10,5	10,0	10,0	9,6
D	:	28,7	28,2	27,6	27,8	:	11,0	11,1	11,3	10,7
F	18,2	21,6	22,6	24,5	27,4	6,7	8,0	8,2	8,5	9,2
IRL	13,3	19,0	16,9	19,7	23,2	5,4	8,0	7,1	8,4	8,4
I	:	21,0	20,3	20,9	25,5	:	9,4	9,1	9,6	11,2
L	15,4	21,5	24,7	24,8	25,5	5,6	8,6	9,9	10,1	11,1
NL	19,0	25,8	27,1	29,3	32,7	8,8	12,4	13,5	14,6	14,7
UK	13,8	19,2	19,2	20,8	23,2	5,1	6,8	6,6	6,8	7,0
EUR 9	:	23,2	23,3	24,3	26,7	:	9,1	9,1	9,5	9,8

	Employment benefits					Pension benefits				
	1970	1975	1977	1980	1983	1970	1975	1977	1980	1983
B	0,7	1,9	2,6	3,6	4,7	7,1	9,0	9,4	10,1	11,5
DK	0,5	2,6	3,2	3,6	5,3	7,0	8,2	7,9	9,9	10,5
D	:	2,0	1,4	1,6	2,6	:	12,6	12,9	12,0	12,1
F	0,4	0,9	1,1	1,7	2,9	7,5	9,1	9,7	10,3	11,2
IRL	0,4	2,0	1,8	1,6	3,1	5,0	5,8	5,5	6,5	7,4
I	:	0,5	0,5	0,5	0,8	:	8,4	8,8	9,1	11,5
L	:	1,2	1,1	0,5	0,8	7,8	10,7	12,2	11,9	12,0
NL	1,5	2,1	2,0	1,8	4,2	7,7	9,0	9,2	9,7	10,3
UK	0,4	1,2	1,3	2,0	2,6	6,7	8,8	8,9	8,9	9,8
EUR 9	:	1,3	1,3	1,6	2,6	:	9,8	10,1	10,1	11,1

[1] Health category = sickness + invalidity + occupational accidents and diseases
Employment category = unemployment + placement, vocational guidance, resettlement
Pensions category = old age + survivors.

Source: Eurostat, integrated social protection statistics (Sespros).

in the Commission economic forecasts. The variables included in the category Employment were numbers unemployed, the proportion of those entitled to benefit and an assumption regarding payments to the unemployed as a proportion of the average wage. For the Health category, national assumptions on the size of health benefits in volume were adjusted for price developments on the basis of prices in the economic forecasts and those in value were adapted to the common price assumptions. The trend in pensions depends on retirements, the expected trend in purchasing power of pensioners and the price assumptions used.

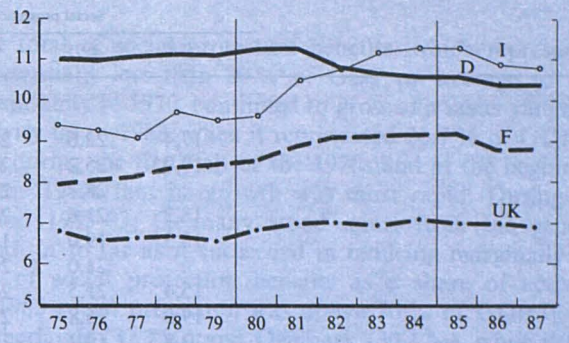
Graph B.4.1 which shows the development of the category Health from 1975 to 1987 shows, of the four countries studied, that Germany, up to 1982, devoted the largest part of GDP to health expenditure (around 11 % of GDP) and the United Kingdom the least, with a little less than 7 % of GDP. Although Germany succeeded, from 1982, in reducing the weight of health expenditure, in Italy it continued to grow and by 1984 and 1985 it had passed out the level in the former country, representing a little over 11 % of GDP. France was in an intermediate position with health expenditure on a moderate but regular growth trend up to 1985 when it had reached 9,2 % of GDP. In the United Kingdom, health expenditure has remained stable at around 7 % of GDP since 1981. Reinforced controls on health spending, which are generalized in the Community, could lead to a slight fall in the size of this cateogy with respect to activity in 1986 and 1987.

Graph B.4.2 shows that expenditure on the category concerned with employment has increased very substantially as a proportion of GDP from 1979 to 1982 except in Italy where progress has been more regular. The size of spending here is quite close in Germany, France and the United Kingdom while it is lower in Italy. The years 1984 and 1985 appear to be the peak years for this type of expenditure.

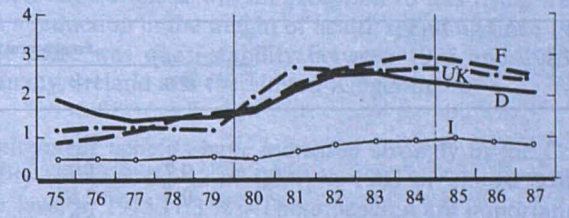
Spending on pensions appears in Graph B.4.3. While Germany devoted 12,5 % of GDP to pensions in 1975 and the three other countries between 8 and 9 %, a regrouping has since taken place between Germany, Italy and France: by 1985 levels in these countries were quite close: between 11,3 and 11,5 % of GDP. Growth has been strongest in Italy since 1975 while it has been smoothest in France. Efforts to control spending on pensions were begun earliest in Germany where the trend of their percentage in GDP has fallen since 1978; in the United Kingdom this expenditure category could be stabilized from 1984. In France and Italy, some stabilization is likely to be achieved in 1986. The outlook for this year and next fits into the general picture of the reinforced control on public expenditure as described in the section on budgetary trends in the first part of this Review.

Table B.4.3 shows the development of total current receipts of social protection as a percentage of GDP in the nine Member States for which data are available. Resources provided for social protection have risen from a little over 20 % of GDP on average for the Community in 1970 to nearly 30 % in 1983. They even end up, at the end of the period, at 41,5 % in the Netherlands; Ireland (24 % of GDP) and the United Kingdom (with 27,7 % of GDP) have the lowest levels. Germany again differs from the rest in having maintained the level of resources devoted to social protection stable, as a proportion of GDP, between 1975 and 1983.

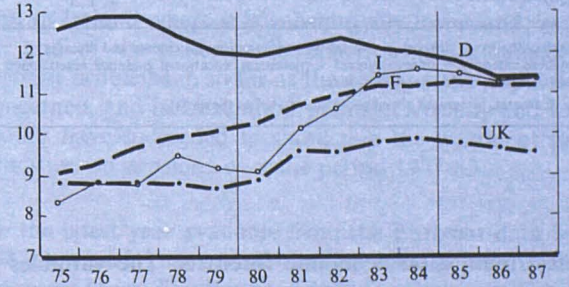
GRAPH B.4.1: **Health expenditure as a % of GDP**



GRAPH B.4.2: **Employment expenditure as a % of GDP**



GRAPH B.4.3: **Pensions expenditure as a % of GDP**



Source: Eurostat, integrated social protection statistics and Commission services.

Table B.4.3

Current receipts of social protection as a % of GDP

	1970	1975	1977	1980	1983
B	19,2	24,9	26,3	27,6	30,9
DK	19,7	27,2	26,9	30,6	33,3
D	:	30,4	29,7	30,1	29,9
F	20,0	23,6	24,9	27,0	29,5
IRL	14,2	19,2	17,8	20,8	24,0
I	:	22,2	21,8	24,4	29,3
L	18,0	24,3	28,5	27,8	29,0
NL	24,8	33,3	33,8	36,9	41,5
UK	16,7	23,6	23,3	25,7	27,7
EUR 9	:	25,8	25,8	27,6	29,9

Source: Eurostat, integrated social protection statistics (Sespros).

In Table B.4.4 the three major types of contributions to social protection are set out, i.e. employers' social insurance contributions, those of protected persons themselves and current contributions of public authorities. The gaps between the relative shares of the three contributions that can be observed between Member States is linked to the institutional differences in social protection systems. In Ireland and Denmark, direct contributions of the State to social protection represent the greater part of total receipts (60 % and 80 % respectively). This situation reflects the importance of taxation and the State budget in financing social protection expenditure. In the other Member States, current contributions of public authorities range from around 20 % or slightly less of the total (Netherlands) to a little more than 40 % (Belgium, United Kingdom). It is also interesting to note than on average for the Community employers' social contributions, with more than 40 % of the total, are twice as important as those paid by persons who are protected (around 20 %). The importance of employers' contributions *vis-à-vis* those of protected persons is least in Luxembourg and the Netherlands (33,1 % as against 25,5 % respectively in 1983 in Luxembourg and 32 % as against 36,3 % in the Netherlands, where in this particular year the portion paid by protected persons thus exceeded that transferred by employers). At the opposite end of the scale, the relative gap between the two types of contributions is particularly high in Italy (53,3 % as against 13,9 % in 1983) and was wide in France in the 1970s.

A further dominant trend is the progressive reduction in the share of employers' social contributions in the total of current resources. This shows the desire to restructure the financing of social protection by reducing the relative contribution sought from firms and increasing that levied on wage earners. Thus, on average for the Community, the share of employer's contributions has declined from 47,5 % in 1975 to 42,5 % in 1983 while contributions of protected persons have risen from 20,6 % to 22,2 % and public contributions from 27,3 % to 31 %. The greatest increases in the call on public resources came in Belgium, where it rose from 23,5 % of total receipts in 1970 to 44,2 % in 1983, and in Italy, where the increase was from 13,4 % in 1975 to 30,6 % in 1983. Elsewhere, the share of public financing has increased less and it has even fallen somewhat since 1975 in Denmark and Germany. To the extent that current contributions of public authorities can be regarded as the adjustment variable to the financing needs of the system, it can be considered that a limited increase in the share of public contributions is a good indicator of the degree to which the authorities have the development of their social accounts under control.

B.4.3. The problem of the tax wedge

Faced with a trend increase in the burden of tax and social security payments, it is not unreasonable to expect that there will be some response in labour markets. Indeed, given the tax induced reduction in net incomes, in mature and efficiently organized labour markets it is likely that there will be some attempt to shift at least some part of the direct tax and social security burden falling on dependent workers

Table B.4.4

Contributions to current receipts of social protection as a % of total current receipts[1]

	Employers' social contributions					Contributions of protected persons					Current public contributions				
	1970	1975	1977	1980	1983	1970	1975	1977	1980	1983	1970	1975	1977	1980	1983
B	51,0	46,8	45,5	43,9	43,5	21,2	19,7	18,6	17,8	18,7	23,5	30,0	32,7	34,0	44,2
DK	11,7	11,0	11,3	10,2	9,7	1,9	1,6	1,8	2,1	3,8	83,5	84,4	83,3	83,2	81,7
D	:	38,6	40,4	41,5	40,2	:	27,8	28,7	28,3	29,6	:	29,1	26,8	26,8	26,9
F	59,2	58,2	57,9	55,7	52,8	18,9	19,2	21,0	23,8	23,6	18,6	19,4	17,7	17,5	20,5
IRL	21,2	22,9	25,0	24,8	23,0	12,0	12,9	11,3	11,3	12,5	55,7	62,0	62,7	61,9	63,3
I	:	72,9	68,3	58,7	53,3	:	10,5	10,4	13,8	13,9	:	13,4	17,7	25,0	30,6
L	36,0	37,1	36,6	35,3	33,1	25,0	24,2	24,6	23,2	25,5	30,3	31,1	31,0	31,6	32,8
NL	43,3	40,0	39,2	37,1	32,0	35,8	33,8	32,5	31,0	36,3	12,5	17,0	18,4	20,5	18,4
UK	36,6	37,9	36,1	33,4	32,0	20,5	16,6	16,1	14,6	16,2	34,2	39,7	40,5	43,2	43,7
EUR 9	:	47,5	47,0	44,8	42,5	:	20,6	21,1	21,4	22,2	:	27,3	27,1	28,9	31,0

[1] The existence of a residual, other current resources, results in a total for the three contributions of less than 100.

Source: Eurostat, integrated social protection statistics (Sespros).

onto higher labour costs. Similarly, in the case of indirect taxes, since for a given wage rate the effect is to reduce the real purchasing power of the net income of dependent workers, it is to be expected that there will also be some shifting forward onto higher costs in much the same way. Thus, the degree of shifting forward in practice is likely to be stronger the more labour reacts by attempting to compensate partly or wholly for any reduction in real after tax wage incomes. This real wage resistance phenomenon is thought to be an important behavioural feature of typical industrialized economies.

Table B.4.5 shows how total general government taxes and social security contributions expressed as a percentage of GDP at market prices has evolved through the past decade and a half. The increase in Europe over the period averages some 7 percentage points which is about the same as in Japan, whereas the ratio in the USA has changed very little. Tax and social security burdens in Europe, however, are generally much higher than in these two countries.

Within a European Community setting, some very preliminary analysis by the Commission Services suggests that shifting forward in response to increases in both direct and indirect tax, probably has been fairly substantial and in the accompanying box some of these initial results are reported. In other words, industrial costs have been subject to significant upwards pressure from this particular source.

Whilst the results inevitably must be judged as tentative, the analysis presented in the box suggests that in the eight industrial countries considered, the degree of shifting forward of total taxation of real wage income onto labour costs to firms was on average:

social security contribution	20 %,
indirect taxes	35 %,
income taxes	60 %.

From these calculations we see that the response or resistance on the part of employees to increases in personal income taxes appears to be greatest. In many respects this is not surprising since income tax is relatively transparent and perception here is likely to be strongest. It is possible that realization of income deflating power of indirect taxes is not as great as that of income taxes since the price effects of changes in indirect taxes vary considerably in their timing. VAT changes, for example, appear visibly in the consumer prices index with hardly any lag, whereas certain other consumption taxes may take much longer for their full effect to appear in final prices. In addition, part of any increase in indirect taxes falls on retired people. Finally, the smallest, although still significant degree of resistance appears to hold with respect to social security contributions. Whilst contributions which fall on employees reduce gross income in a way which is virtually identical to an income tax, it is

Table B.4.5

Total general government taxes and social security contributions as a % of GDP

	1970	1973	1975	1979	1986[1]
B	34,3	36,7	40,0	43,0	44,8
DK	43,6	43,1	42,2	45,3	51,4
D	36,5	40,4	41,1	42,3	42,3
GR	24,6	23,3	24,7	28,4	35,6
E	18,1	20,1	20,6	24,3	30,5
F	36,9	36,8	38,3	41,9	45,5
IRL	:	:	30,6	30,5	36,8
I	28,6	28,5	29,5	33,6	41,6
L	31,2	34,8	43,7	46,7	46,5
NL	37,6	42,0	44,0	45,1	45,4
UK	35,8	31,5	35,5	33,9	37,4
EUR[2]	35,1	35,5	37,4	39,1	42,4
USA	28,1	28,7	27,7	29,3	28,5[3]
Japan	19,6	21,1	22,5	24,8	27,8[3]

[1] Forecasts.
[2] Excluding Greece, Spain, Ireland and Portugal.
[3] Data for 1983.

Source: Commission services.

possible that such imposts are not perceived in exactly the same way. Moreover, these contributions are associated with specific benefits received or expected by employees.

Of at least equal interest is that over the sample period, the results point to the existence of fairly substantial differences in the degree of shifting forward as between European countries on the one hand, and Japan and the USA on the other.

It is observed also that the degree of shifting forward of direct taxation and social security contributions in the USA appears to be significantly smaller than for the other countries, whereas for indirect taxation, no significant differences could be detected. In the case of Japan, indirect tax increases appear to be associated with substantial reductions in real wage costs and increases in social security contributions with a very high degree of shifting forward. However, the reliability of the results for Japan could be influenced by data problems.

The increase in all of the broad categories of tax receipts considered here has been much stronger in Europe than in the USA; moreover, the degree of shifting forward as characterized appears to be much higher in European countries. The implication, therefore, is that tax factors in Europe may well have created some upwards pressure on the growth of labour costs to the enterprise sector. Other things being equal and assuming, as seems reasonable, that a higher cost of labour discourages the demand for labour by firms, private employment will be discouraged and economic growth will be lower at least during the adjustment period. This makes the task of reducing the pool of unemployed that much more difficult.

The long-run shifting forward of taxation on wages

This box presents a pooled cross-country and time series estimates of a wage equation. The countries included in the sample are USA, Japan, Germany, France, UK, Italy, the Netherlands and Sweden. The sample period is 1960-83; annual data are used.

The equation estimated is:

$$\begin{aligned} \ln w = {} & a_0 + a_1 \ln p + a_2 \ln q + a_3 \ln (1 + t_v) \\ & + a_4 \ln (1 + t_d) + a_5 \ln (1 + t_s) + a_6 \ln (1 + t_i) \\ & + a_7 u + a'_3 D_{us} \ln (1 + t_v) + a''_3 D_j \ln (1 + t_v) \\ & a'_4 D_{us} \ln (1 + t_d) + a''_4 D_j \ln (1 + t_d) + a'_5 D_{us} \ln \\ & (1 + t_s) \\ & + a''_5 D_j \ln (1 + t_s) \end{aligned}$$

The symbols used in the equation stand for:

- w = gross yearly compensation per worker
- P = GDP deflator
- q = $\frac{Y}{L}$ = labour productivity
- t_v = Total indirect tax receipts divided by net compensation of employees
- t_d = direct tax revenues falling on dependent labourers divided by net compensation of employees
- t_s = total social security contributions divided by net compensation of employees
- t_i = inflation tax divided by net compensation of employees, where inflation tax = PD. (π − i) where π = inflation rate measured by the GDP deflator, i = long term government bond yield and PD = gross public debt of general government
- u = unemployment rate
- D_{us} = Dummy variable for the USA which assumes a value of +1 for the United States and zero for other countries
- D_j = Dummy variable for Japan

The wage equation is derived from a wage bargaining model in which workers or labour unions bargain for the net wage and in which the final wage is a weighted average of the net wage demanded by workers and the gross wage offered by firms, with weights reflecting the relative strength in the bargaining process.

The estimated parameters and their t- statistics are reported in Table 1. The t- statistics are indicated in parentheses. The parameters marked by an asterisk are constrained in estimation.

The estimated parameter a_2 implies that an increase in the productivity of labour leads to a somewhat less than proportional increase in the gross compensation per worker. Indirect taxes are shifted forward by 35 %. a_3 = 0 would imply that indirect taxes are fully shifted forward, since the GDP deflator at market prices includes indirect taxes, a_3 = −1 would imply no shifting forward. The degree of shifting forward of direct taxes on dependent labour is 0,58, while for social security contributions it is 0,20.

It is seen readily that all shifted parameters are highly significant. Thus the evidence above suggests significant differences in the degree of shifting forward of various categories of taxes. For the inflation tax no significant effects could be found for the group of countries as a whole. This might be partly due to the crude way in which the inflation tax is measured. Japan and the USA show significant differences in the tax shifting from the European countries. For the USA the coefficient of indirect taxes is the same as for the group as a whole, while for direct taxes it is negative ($a_4 + a'_4$ = −0,31). Also for social security contributions the coefficient of shifting forward is negative for the USA ($a_5 + a'_5$ = −0,41); hence the evidence presented here suggests no shifting forward of direct taxes and social security contributions for the USA. For Japan the coefficient of indirect taxation is −2,48 ($a_3 + a_3$) indicating a 'perverse' effect of higher indirect taxation on Japanese wages. For direct taxation the Japanese coefficient does not differ significantly from the other countries, while the degree of shifting forward of social security contributions is much higher ($a_5 + a_5$ = 1,42). However the results for Japan should be treated with caution. There may be multicollinearity in the Japanese data between indirect taxes and social security contributions.

The equation estimated includes 6 country dummy variables, as usual in pooled gross country-time series regressions. They are not reported here.

Increased taxation can also have negative effects on the incentive to work. Assuming less than full shifting forward of direct taxation, an increase in direct taxation reduces the after-tax wage. At the margin this tends to reduce the supply of labour as the opportunity cost of leisure falls (the pure substitution effect). However the reduced income reduces the demand for leisure and increases the number of hours worked (income effect). Which of these two effects prevails is ambiguous. Econometric studies suggest that substitution effect prevails over the income effect for married women and for men close to retirement age. For married men the empirical evidence suggests that the two effects are of about equal strength. However, the studies made tend to estimate the short-run elasticity of the supply of labour with respect to the after-tax wage rather than the long-run elasticity. The decision by men not to work, or to work in the hidden economy or to emigrate where tax rates are lower is more a long-run decision especially in rigid labour markets. Hence an increase in taxation is likely to influence the participation of men in the workforce only with long delays which depend in turn on institutional factors such as the existence of early retirement schemes, the job prospects in the hidden economy, or the possibility to emigrate to countries with lower tax burdens.

The effects of taxation on the supply of labour are likely to be more important in countries where taxation is shifted forward to a smaller degree, such as in the USA. Vice versa in Europe,

where the shifting forward is larger, the effect of taxation on employment occurs more via the cost of labour and the demand for labour by private firms.

An additional important factor influencing the supply of labour both in the USA and in Europe are generous unemployment compensations. Since leisure has some value to the worker, unemployment benefits in the order of 70-80 % of the last wage, a not uncommon proportion in European countries, could make the unemployed worker better off than the employed. If in addition the unemployed worker is able to work in the hidden economy, he may also be financially better off when he is registered as unemployed.

Table 1

Pooled cross-country time series regression; 8 industrial countries, annual data 1960-83

Constant	p	q	$1+t_v$	$1+t_d$	$1+t_s$	$1+t_i$	u	R^2	DW
13,47 (125,22)	1*	0,94 (31,73)	−0,65 (12,07)	0,58 (7,10)	0,20 (4,42)	0*	0*	1,0	1,78

	$D_i(1+t_v)$	$D_i(1+t_d)$	$D_i(1+t_s)$
USA	0*	−0,89 (5,25)	−0,61 (2,70)
Japan	−1,83 (7,10)	0*	1,22 (5,89)

Numbers in parentheses are t- statistics.
The regression contains in addition 6 country dummy variables.

Statistical annex

Notes on the statistical annex

General remarks

This year's July edition of *European Economy* again gives in its statistical annex updated time series of annual data.

Unless otherwise specified, aggregates up to 1984 are defined for member countries as in the ESA (European System of Economic Accounts), and for the USA and Japan as in the SNA (UN-OECD System of National Accounts). National accounts figures for 1985, 1986 and 1987 are estimates and forecasts made by Commission staff using the definitions and latest figures available from national sources, and so they are not fully comparable with the corresponding figures for earlier years. However, in Tables 1, 2, 4 to 8, 10 to 15, 17 to 27, 30 and 31 discontinuities have been eliminated.

Community totals are for EUR12 unless otherwise stated. Community totals for national accounts data are aggregated using purchasing power parities, except in Tables 6, 28, 29, 32 to 36 and 45 to 47, where current exchange rates have been used.

List of tables

The public sector

Table 1

Population; total

('000 persons)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	9 119	4 581	55 433	8 327	30 303	45 684	2 832	50 198	314	11 483	9 037	52 372	279 682	179 979	93 260
1961	9 166	4 617	56 185	8 398	30 592	46 163	2 818	50 523	317	11 637	9 032	52 807	282 255	182 992	94 090
1962	9 218	4 647	56 837	8 448	30 917	46 998	2 830	50 843	321	11 801	9 020	53 292	285 172	185 771	94 980
1963	9 283	4 684	57 389	8 480	31 246	47 816	2 850	51 198	324	11 964	9 082	53 625	287 941	188 483	95 900
1964	9 367	4 720	57 971	8 510	31 741	48 310	2 864	51 600	328	12 125	9 123	53 991	290 650	191 141	96 890
1965	9 448	4 758	58 619	8 550	32 085	48 758	2 876	51 987	331	12 293	9 129	54 350	293 185	193 526	97 950
1966	9 508	4 797	59 148	8 612	32 453	49 164	2 884	52 332	334	12 455	9 109	54 643	295 438	195 576	98 860
1967	9 556	4 839	59 286	8 716	32 850	49 548	2 900	52 667	335	12 597	9 103	54 959	297 357	197 457	99 920
1968	9 590	4 867	59 500	8 741	33 240	49 914	2 913	52 987	336	12 726	9 115	55 214	299 142	199 399	101 070
1969	9 613	4 891	60 067	8 773	33 566	50 318	2 929	53 317	338	12 873	9 097	55 461	301 242	201 385	102 320
1970	9 638	4 929	60 651	8 793	33 876	50 772	2 950	53 661	339	13 032	9 044	55 632	303 317	203 984	103 720
1971	9 672	4 963	61 284	8 831	34 190	51 251	2 978	54 005	342	13 194	8 990	55 907	305 608	206 827	104 750
1972	9 709	4 992	61 672	8 889	34 498	51 701	3 024	54 400	347	13 330	8 970	56 079	307 611	209 284	107 180
1973	9 738	5 022	61 976	8 929	34 810	52 118	3 073	54 779	350	13 438	8 976	56 210	309 420	211 357	108 660
1974	9 768	5 045	62 054	8 962	35 147	52 460	3 124	55 130	355	13 543	9 098	56 224	310 910	213 342	110 158
1975	9 795	5 060	61 829	9 047	35 515	52 699	3 177	55 441	359	13 660	9 426	56 215	312 223	215 465	111 520
1976	9 811	5 073	61 531	9 167	35 937	52 909	3 228	55 701	361	13 773	9 666	56 206	313 363	217 563	112 768
1977	9 822	5 088	61 400	9 308	36 367	53 145	3 272	55 929	361	13 856	9 736	56 179	314 463	219 760	113 880
1978	9 830	5 104	61 327	9 430	36 778	53 376	3 314	56 127	362	13 939	9 797	56 167	315 551	222 095	114 920
1979	9 837	5 117	61 359	9 548	37 108	53 606	3 368	56 292	363	14 034	9 842	56 227	316 701	223 567	115 880
1980	9 847	5 123	61 566	9 642	37 386	53 880	3 401	56 416	364	14 148	9 884	56 314	317 971	227 236	116 800
1981	9 852	5 122	61 682	9 729	37 751	54 182	3 443	56 502	365	14 247	9 938	56 379	319 193	229 518	117 660
1982	9 856	5 118	61 638	9 790	37 961	54 480	3 483	56 639	366	14 312	10 000	56 335	319 978	231 786	118 440
1983	9 855	5 114	61 423	9 850	38 173	54 729	3 508	56 836	366	14 365	10 064	56 377	320 660	233 981	119 259
1984	9 855	5 112	61 175	9 910	38 387	54 947	3 535	57 002	366	14 442	10 134	56 488	321 353	236 108	120 018
1985	9 855	5 113	61 015	9 959	38 602	55 180	3 560	57 060	366	14 510	10 195	56 528	321 943	238 235	120 777
1986	9 855	5 118	60 936	10 008	38 818	55 401	3 581	57 114	366	14 586	10 256	56 597	322 637	240 362	121 536
1987	9 855	5 120	60 869	10 057	39 037	55 638	3 603	57 170	366	14 654	10 318	56 684	323 370	242 489	122 295

Table 2

Employment; total economy

(Annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	0,8	1,5	1,4	1,1	0,2	0,1	−0,2	0,2	1,1	1,5	−0,3	1,2	0,7	−0,4	1,4
1962	1,6	1,5	0,3	−1,7	0,8	0,2	0,7	−1,1	0,3	2,0	−0,3	0,7	0,2	2,0	1,3
1963	0,7	1,2	0,2	−1,4	0,5	1,0	0,6	−1,5	−0,4	1,4	−0,3	0,1	0,1	0,8	0,9
1964	1,3	2,1	0,1	−1,3	0,5	1,1	0,5	−0,6	1,7	1,8	−0,3	1,1	0,5	1,8	1,3
1965	0,2	1,8	0,6	−0,7	1,0	0,4	−0,2	−1,7	0,9	0,9	−0,3	0,9	0,2	3,3	1,6
1966	0,5	0,5	−0,3	−0,9	1,0	0,8	−0,3	−1,5	0,5	0,8	−0,6	0,6	0,0	4,5	2,1
1967	−0,3	−0,6	−3,3	−1,2	0,5	0,3	−0,6	1,1	−1,1	−0,3	−0,6	−1,5	−0,8	2,5	1,9
1968	−0,1	0,8	0,1	−1,2	0,8	−0,3	0,3	0,0	−0,4	0,9	−0,6	−0,7	−0,1	2,4	1,7
1969	1,7	1,2	1,6	−0,3	1,0	1,5	0,3	0,5	1,4	1,7	−0,6	0,1	0,9	2,5	0,8
1970	−0,5	0,7	1,3	−0,1	1,0	1,4	−1,2	0,0	2,0	1,1	−0,7	−0,5	0,5	−0,8	1,1
1961-70	0,6	1,1	0,2	−0,8	−0,7	−0,6	−0,0	−0,5	0,6	1,2	−0,5	0,2	0,2	1,9	1,4
1971	1,0	0,6	0,6	0,3	0,5	0,5	0,2	−0,1	3,2	0,5	−0,3	−1,0	0,1	−0,4	0,5
1972	−0,1	2,1	−0,2	0,5	0,1	0,6	−0,5	−1,1	2,7	−0,9	−0,6	−0,2	−0,1	2,4	0,1
1973	1,3	1,2	0,7	1,0	2,4	1,4	0,7	0,8	1,9	0,1	−0,8	2,3	1,3	4,0	1,9
1974	1,4	−0,3	−1,3	0,1	0,5	0,9	1,1	1,5	2,8	0,2	−0,8	0,3	0,3	1,5	−0,4
1975	−1,4	−1,2	−2,8	0,1	−1,7	−0,8	0,4	0,2	1,2	−0,7	−3,0	−0,4	−1,1	−2,5	−0,3
1976	−0,6	1,8	−0,8	2,3	−1,0	0,7	−0,8	0,8	−0,1	0,0	0,4	−0,9	−0,1	2,7	0,9
1977	−0,2	0,8	−0,2	0,8	−0,6	0,8	1,8	0,6	−0,1	0,2	−0,1	0,1	0,2	3,4	1,3
1978	0,0	1,0	0,6	0,4	−2,3	0,4	2,5	0,6	−0,6	0,7	−1,5	0,6	0,2	5,1	1,2
1979	1,2	1,2	1,4	0,6	−2,0	0,0	3,2	1,0	0,4	1,3	3,0	1,5	0,8	3,3	1,3
1980	−0,0	−0,4	1,1	1,3	−3,6	0,1	1,0	0,9	0,8	0,7	1,4	−0,3	0,1	0,3	1,0
1971-80	0,3	0,7	−0,1	0,7	−0,8	0,5	0,9	0,5	1,2	0,2	−0,2	0,2	0,2	2,0	0,8
1981	−2,0	−1,3	−0,7	4,9	−2,8	−0,6	−0,9	0,5	0,3	−1,5	0,6	−3,9	−1,2	0,9	0,8
1982	−1,3	0,3	−1,7	−1,0	−0,5	0,1	0,2	−0,1	−0,3	−2,5	−0,5	−1,8	−0,9	−0,5	1,0
1983	−1,1	0,4	−1,5	0,5	−0,8	−0,5	−2,0	0,1	−0,1	−2,0	−1,7	−1,2	−0,8	1,0	1,7
1984	0,0	2,2	0,1	−0,2	−4,1	−1,0	−1,3	0,4	0,0	−0,5	−1,3	1,6	−0,2	4,8	0,6
1985	0,3	3,1	0,7	0,4	−1,4	−0,4	−0,3	0,5	0,4	0,9	−0,5	1,3	0,4	2,0	0,7
1986	0,3	1,6	1,3	−0,3	0,6	0,1	0,6	0,7	0,7	1,0	0,5	1,0	0,8	2,2	0,5
1987	0,1	0,8	0,9	−0,0	1,0	0,5	1,3	1,3	0,6	0,9	0,6	0,7	0,8	1,7	0,5

Table 3

Unemployment rate

(Registered unemployed as percentage of civilian labour force)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 9	EUR 12	USA	JA
1960	3,1	1,6	1,0	:	:	0,7	4,7	7,2	0,1	0,7	:	1,6	2,5	:	5,5	1,7
1961	2,5	1,2	0,7	:	:	0,6	4,3	6,6	0,1	0,5	:	1,4	2,2	:	6,7	1,5
1962	2,0	1,1	0,6	:	:	0,7	4,2	5,5	0,1	0,5	:	1,9	2,0	:	5,5	1,3
1963	1,5	1,5	0,7	:	:	0,7	4,5	5,1	0,2	0,6	:	2,3	2,1	:	5,7	1,3
1964	1,5	0,9	0,6	:	:	0,6	4,3	5,2	0,0	0,5	:	1,6	1,9	:	5,2	1,1
1965	1,8	0,7	0,6	:	:	0,7	4,5	5,7	0,0	0,6	:	1,4	1,9	:	4,5	1,2
1966	2,0	0,8	0,6	:	:	0,7	4,3	5,5	0,0	0,8	:	1,4	1,9	:	3,8	1,3
1967	2,6	1,0	1,8	:	:	1,0	4,5	5,0	0,1	1,7	:	2,2	2,4	:	3,8	1,3
1968	3,1	1,7	1,2	:	:	1,3	4,8	4,7	0,1	1,5	:	2,3	2,3	:	3,6	1,2
1969	2,3	1,4	0,7	:	:	1,1	4,6	4,4	0,0	1,1	:	2,3	2,0	:	3,5	1,1
1970	2,1	1,1	0,6	:	1,2	1,3	5,3	4,4	0,0	1,3	:	2,5	2,0	:	4,9	1,1
1961-70	2,1	1,1	0,8	:	0,1	0,9	4,5	5,2	0,1	0,9	:	1,9	2,1	:	4,7	1,2
1971	2,1	1,3	0,7	:	1,5	1,6	5,2	5,1	0,0	1,8	:	2,9	2,4	:	5,9	1,2
1972	2,7	1,3	0,9	:	1,5	1,8	6,0	5,2	0,0	3,0	:	3,2	2,7	:	5,6	1,4
1973	2,8	0,8	1,1	:	1,1	1,8	5,5	4,9	0,0	3,1	:	2,2	2,4	:	4,9	1,3
1974	3,1	2,1	2,3	:	1,1	2,3	5,9	4,9	0,0	3,7	1,0	2,2	2,9	2,6	5,6	1,4
1975	5,1	5,0	4,1	:	1,9	3,9	8,4	5,3	0,2	5,3	2,7	3,6	4,3	3,9	8,5	1,9
1976	6,5	5,2	4,0	:	2,9	4,2	9,3	5,6	0,3	5,6	4,5	4,9	4,8	4,5	7,7	2,0
1977	7,5	6,3	4,0	:	4,2	4,8	9,1	5,4	0,5	5,4	5,6	5,3	5,0	4,8	7,1	2,0
1978	8,1	7,1	3,8	:	6,3	5,2	8,3	6,1	0,7	5,4	6,9	5,1	5,2	5,3	6,0	2,2
1979	8,4	5,8	3,3	:	8,0	5,9	7,4	6,7	0,7	5,5	7,2	4,7	5,2	5,5	5,8	2,1
1980	9,1	6,7	3,4	:	9,9	6,4	8,2	7,2	0,7	6,2	6,7	6,0	5,8	6,1	7,1	2,0
1971-80	5,5	4,2	2,8	:	3,8	3,8	7,3	5,6	0,3	4,5	3,5	4,0	4,1	3,3	6,4	1,7
1981	11,1	8,9	4,8	:	12,0	7,7	10,2	8,0	1,0	8,8	5,8	9,2	7,7	7,8	7,6	2,2
1982	13,0	9,5	6,9	:	14,3	8,7	12,2	9,7	1,3	11,8	5,7	10,6	9,3	9,4	9,7	2,4
1983	14,3	10,2	8,4	7,9	16,0	8,8	14,9	10,9	1,6	14,3	5,6	11,6	10,4	10,6	9,6	2,7
1984	14,4	9,8	8,4	8,1	18,6	9,9	16,5	11,9	1,7	14,5	6,7	11,8	10,9	11,2	7,5	2,7
1985	13,6	8,6	8,5	8,5	19,8	10,3	17,6	12,8	1,6	13,4	7,7	12,1	11,1	11,6	7,2	2,6
1986	13,0	7,4	7,8	9,3	19,8	10,6	17,8	12,7	1,4	12,4	7,6	12,0	10,8	11,4	6,9	2,9
1987	13,0	7,0	7,4	10,0	19,6	10,6	17,4	12,5	1,2	11,6	7,4	11,8	10,5	11,2	6,6	2,9

Table 4

Gross domestic product at current market prices

(National currency; '000 million)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	557,0	41,15	302,7	105,2	685,5	296,5	0,631	23 207	26,11	44,42	71,4	25,73	265,5	505,4	15 865
1961	592,4	45,66	331,7	118,6	780,8	323,5	0,680	25 810	26,12	46,90	76,9	27,46	289,5	523,4	19 609
1962	633,7	51,45	360,8	126,0	902,3	361,2	0,736	28 998	27,50	50,49	81,8	28,76	316,3	563,6	21 748
1963	681,3	54,76	382,4	140,7	1 064,8	404,9	0,791	33 215	29,34	54,77	88,7	30,59	346,7	595,0	25 115
1964	762,5	62,60	420,2	158,0	1 202,2	449,2	0,901	36 360	33,49	64,45	96,3	33,33	383,5	635,8	29 691
1965	830,0	70,32	459,2	179,8	1 398,9	483,5	0,959	39 124	35,10	71,98	107,5	35,78	418,2	689,0	32 800
1966	892,1	77,18	488,2	200,0	1 618,3	523,4	1,010	42 391	36,88	78,38	117,8	38,17	452,1	754,2	38 085
1967	955,3	84,81	494,4	216,1	1 817,8	565,4	1,104	46 695	37,12	85,99	131,6	40,36	482,4	797,9	44 629
1968	1 022,3	94,36	533,3	234,5	2 037,5	614,5	1,245	50 614	40,61	95,35	145,7	43,78	525,0	871,0	52 923
1969	1 134,2	107,32	596,9	266,5	2 317,0	700,7	1,438	55 876	47,02	107,99	159,8	46,76	584,0	941,4	62 259
1970	1 262,1	118,63	675,3	298,9	2 576,2	782,6	1,620	62 883	54,97	121,18	177,8	51,30	652,6	989,5	73 345
1971	1 382,0	131,12	750,6	330,3	2 920,0	872,4	1,853	68 510	55,94	136,53	199,1	57,63	726,0	1 074,2	80 701
1972	1 545,4	150,73	823,7	377,7	3 432,3	981,1	2,238	75 124	63,07	154,26	231,8	63,81	810,6	1 181,3	92 395
1973	1 755,0	172,86	917,3	484,2	4 139,7	1 114,2	2,701	89 746	76,67	176,04	282,2	73,58	935,3	1 317,1	112 497
1974	2 056,8	193,63	984,6	564,2	5 102,0	1 278,3	2,988	110 719	93,78	199,78	339,3	83,77	1 076,0	1 423,4	134 244
1975	2 271,1	216,26	1 026,9	672,2	6 018,3	1 452,3	3,792	125 378	86,44	219,96	377,2	105,76	1 225,9	1 542,2	148 328
1976	2 573,2	251,21	1 121,7	824,9	7 234,2	1 678,0	4,653	156 657	99,71	251,93	468,9	126,18	1 433,2	1 709,9	166 573
1977	2 776,8	279,31	1 197,8	963,7	9 178,4	1 884,6	5,703	190 083	102,35	274,93	625,8	145,24	1 639,7	1 907,5	185 622
1978	2 982,2	311,38	1 285,3	1 161,4	11 230,7	2 141,1	6,757	222 254	111,82	297,01	787,3	167,46	1 862,5	2 145,7	204 405
1979	3 182,9	346,89	1 392,3	1 428,8	13 130,5	2 442,3	7,917	270 198	122,00	315,96	993,3	195,98	2 130,8	2 388,4	221 547
1980	3 434,2	373,79	1 478,9	1 710,9	15 185,1	2 769,3	9,361	338 743	132,92	336,74	1 254,9	229,46	2 434,0	2 606,6	240 177
1981	3 459,9	407,79	1 540,9	2 046,8	17 327,4	3 110,6	11,348	401 579	141,74	352,85	1 468,2	252,99	2 696,5	2 934,9	257 364
1982	3 859,1	464,47	1 597,9	2 547,8	19 870,4	3 567,0	13,262	470 484	157,03	368,86	1 851,3	275,93	2 998,9	3 045,3	269 628
1983	4 101,7	512,34	1 670,9	3 065,8	22 682,8	3 935,0	14,636	538 998	174,70	378,44	2 290,0	299,62	3 287,1	3 275,7	280 094
1984	4 381,5	559,87	1 745,6	3 772,3	25 870,4	4 277,2	16,282	612 112	195,31	394,86	2 826,7	318,30	3 576,3	3 634,6	298 089
1985	4 674,9	612,87	1 827,8	4 512,8	28 795,1	4 579,2	17,634	681 495	210,62	412,45	3 558,5	348,91	3 879,1	3 850,0	316 790
1986	4 961,0	656,90	1 942,3	5 476,5	32 836,9	4 891,3	19,305	764 127	228,34	419,91	4 364,7	370,89	4 203,9	4 064,7	329 543
1987	5 147,8	688,80	2 029,2	6 124,9	35 603,5	5 146,3	20,442	829 594	240,70	426,24	5 037,8	395,75	4 463,8	4 353,9	340 428

Table 5

Gross domestic product at current market prices

(National currency: annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	6,4	11,0	9,6	12,8	13,9	9,1	7,7	11,2	0,0	5,6	7,6	6,7	9,1	3,6	23,6
1962	7,0	12,7	8,8	6,2	15,6	11,7	8,3	12,4	5,3	7,7	6,4	4,8	9,3	7,7	10,9
1963	7,5	6,4	6,0	11,7	18,0	12,1	7,5	14,5	6,7	8,5	8,5	6,4	9,6	5,6	15,5
1964	11,9	14,3	9,9	12,3	12,9	10,9	13,8	9,5	14,2	17,7	8,5	9,0	10,6	6,9	18,2
1965	8,8	12,3	9,3	13,8	16,4	7,6	6,5	7,6	4,8	11,7	11,7	7,4	9,1	8,4	10,5
1966	7,5	9,8	6,3	11,2	15,7	8,3	5,4	8,4	5,1	8,9	9,6	6,7	8,1	9,5	16,1
1967	7,1	9,9	1,3	8,1	12,3	8,0	9,2	10,2	0,6	9,7	11,8	5,7	6,7	5,8	17,2
1968	7,0	11,3	7,9	8,5	12,1	8,7	12,8	8,4	9,4	10,9	10,7	8,5	8,8	9,2	18,6
1969	10,9	13,7	11,9	13,6	13,7	14,0	15,5	10,4	15,8	13,3	9,7	6,8	11,2	8,1	17,6
1970	11,3	10,5	13,1	12,2	11,2	11,7	12,6	12,5	16,9	12,2	11,3	9,7	11,7	5,1	17,8
1961-70	8,5	11,2	8,4	11,0	14,2	10,2	9,9	10,5	7,7	10,6	9,5	7,1	9,4	7,0	16,5
1971	9,5	10,5	11,1	10,5	13,3	11,5	14,4	8,9	1,8	12,7	12,0	12,3	11,3	8,6	10,0
1972	11,8	15,0	9,8	14,4	17,5	12,5	20,7	9,7	12,7	13,0	16,4	10,7	11,7	10,0	14,5
1973	13,6	14,7	11,4	28,2	20,6	13,6	20,7	19,5	21,6	14,1	21,7	15,3	15,4	11,5	21,8
1974	17,2	12,0	7,3	16,5	23,2	14,7	10,6	23,4	22,3	13,5	20,2	13,9	15,0	8,1	19,3
1975	10,4	11,7	4,3	19,1	18,0	13,6	26,9	13,2	−7,8	10,1	11,2	26,3	13,9	8,3	10,5
1976	13,3	16,2	9,2	22,7	20,2	15,5	22,7	24,9	15,4	14,5	24,3	19,3	16,9	10,9	12,3
1977	7,9	11,2	6,8	16,8	26,9	12,3	22,6	21,3	2,6	9,1	33,5	15,1	14,4	11,6	11,4
1978	7,4	11,5	7,3	20,5	22,4	13,6	18,5	16,9	9,3	8,0	25,8	15,3	13,6	12,5	10,1
1979	6,7	11,4	8,3	23,0	16,9	14,1	17,2	21,6	9,1	6,4	26,2	17,0	14,4	11,3	8,4
1980	7,9	7,8	6,2	19,7	15,6	13,4	18,2	25,4	8,9	6,6	26,3	17,1	14,2	9,1	8,4
1971-80	10,5	12,2	8,2	19,1	19,4	13,5	19,2	18,3	9,2	10,8	21,6	16,2	14,1	10,2	12,6
1981	3,4	9,1	4,2	19,6	14,1	12,3	21,2	18,5	6,6	4,8	17,0	10,3	10,8	12,6	7,2
1982	8,7	13,9	3,7	24,5	14,7	14,7	16,9	17,2	10,8	4,5	26,1	9,1	11,2	3,8	4,8
1983	6,3	10,3	4,6	20,3	14,2	10,3	10,4	14,6	11,3	2,6	23,7	8,6	9,6	7,6	3,9
1984	6,8	9,3	4,5	23,0	14,1	8,7	11,2	13,6	11,8	4,3	23,4	6,2	8,8	11,0	6,4
1985	6,7	9,5	4,7	19,6	11,3	7,1	8,3	11,3	7,8	4,5	25,9	9,6	8,5	5,9	6,3
1986	6,1	7,2	6,3	21,4	14,0	6,8	9,5	12,1	8,4	1,8	22,7	6,3	8,4	5,6	4,0
1987	3,8	4,9	4,5	11,8	8,4	5,2	5,9	8,6	5,4	1,5	15,4	6,7	6,2	7,1	3,3

Table 6

Gross domestic product at current market prices

(ECU: '000 million)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	10,5	5,6	68,2	3,3	10,8	56,9	1,7	35,2	0,5	11,1	2,4	68,2	274,4	478,5	41,7
1961	11,1	6,2	77,0	3,7	12,2	61,4	1,8	38,7	0,5	12,0	2,5	72,0	299,1	490,4	51,0
1962	11,8	7,0	84,3	3,9	14,1	68,4	1,9	43,4	0,5	13,0	2,7	75,3	326,3	526,9	56,5
1963	12,7	7,4	89,4	4,4	16,6	76,7	2,1	49,7	0,5	14,1	2,9	80,1	356,5	556,1	65,2
1964	14,3	8,5	98,2	4,9	18,7	85,0	2,4	54,4	0,6	16,6	3,1	87,2	394,0	594,3	77,1
1965	15,5	9,5	107,3	5,6	21,8	91,5	2,5	58,5	0,7	18,6	3,5	93,7	428,7	644,0	85,2
1966	16,7	10,4	114,1	6,2	25,2	99,1	2,6	63,4	0,7	20,2	3,8	99,9	462,5	705,0	98,9
1967	17,9	11,4	116,1	6,8	27,9	107,5	2,8	70,2	0,7	22,3	4,3	104,1	492,1	749,3	116,4
1968	19,9	12,2	129,6	7,6	28,3	121,0	2,9	78,7	0,8	25,6	4,9	102,1	533,6	846,6	142,9
1969	22,2	14,0	148,3	8,7	32,4	132,4	3,4	87,5	0,9	29,2	5,4	109,8	594,2	920,9	169,2
1970	24,7	15,5	180,5	9,7	36,1	137,8	3,8	98,4	1,1	32,7	6,1	120,4	666,9	968,0	199,3
1971	27,2	16,9	205,9	10,5	40,2	151,4	4,3	105,8	1,1	37,3	6,7	134,5	741,6	1 025,2	221,8
1972	31,3	19,4	230,3	11,2	47,7	173,4	5,0	114,8	1,3	42,9	7,6	142,1	827,0	1 053,0	272,0
1973	36,7	23,3	280,0	13,1	57,6	203,8	5,4	125,3	1,6	51,3	9,3	146,5	953,9	1 069,3	337,7
1974	44,3	26,7	319,3	15,8	74,1	222,9	5,9	142,7	2,0	62,4	11,2	164,3	1 091,4	1 193,4	386,3
1975	49,8	30,4	336,8	16,8	84,6	273,0	6,8	154,9	1,9	70,2	12,0	188,9	1 225,9	1 242,9	403,4
1976	59,6	37,2	398,4	20,2	96,8	313,9	7,5	168,4	2,3	85,3	13,9	203,0	1 406,5	1 529,4	502,9
1977	67,9	40,7	452,3	22,9	105,7	336,2	8,7	188,8	2,5	98,2	14,4	222,2	1 560,5	1 671,6	607,0
1978	74,4	44,4	502,9	24,8	115,3	373,0	10,2	205,7	2,8	107,8	14,1	252,2	1 727,7	1 684,1	765,3
1979	79,2	48,1	554,5	28,1	142,8	419,0	11,8	237,3	3,0	115,0	14,8	303,2	1 956,9	1 742,5	737,3
1980	84,6	47,8	585,9	28,8	152,3	471,9	13,8	284,8	3,3	122,0	18,0	383,4	2 196,7	1 872,1	762,4
1981	86,0	51,5	613,0	33,2	168,8	515,0	16,4	317,9	3,4	127,1	21,4	457,4	2 411,1	2 628,8	1 048,0
1982	86,3	56,9	672,5	39,0	184,7	554,6	19,2	355,4	3,5	141,1	23,7	492,3	2 629,5	3 108,3	1 107,1
1983	90,3	63,0	735,9	39,3	177,9	581,2	20,5	399,3	3,8	149,2	23,2	510,4	2 793,9	3 679,7	1 325,2
1984	96,4	68,7	779,9	42,7	204,4	622,4	22,4	443,1	4,3	156,5	24,4	538,9	3 004,3	4 605,1	1 593,2
1985	104,1	76,4	821,0	43,1	223,2	673,9	24,7	471,1	4,7	164,2	27,4	592,6	3 226,2	5 059,5	1 754,5
1986	112,8	82,7	900,9	38,5	238,2	716,6	27,2	517,0	5,2	172,7	29,3	584,8	3 425,7	4 348,7	1 929,4
1987	117,1	87,3	949,6	39,4	246,8	744,1	28,8	557,4	5,5	177,0	30,3	621,6	3 604,9	4 606,1	2 090,2

Table 7

Gross domestic product at current market prices per head of population

(ECU)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	1 157	1 231	1 231	399	357	1 245	591	700	1 574	964	260	1 303	981	2 658	447
1961	1 211	1 341	1 371	441	399	1 330	633	766	1 545	1 034	277	1 364	1 060	2 680	542
1962	1 285	1 498	1 483	465	455	1 455	680	853	1 603	1 105	295	1 413	1 144	2 836	595
1963	1 372	1 582	1 557	517	531	1 603	727	970	1 692	1 182	318	1 493	1 238	2 951	680
1964	1 522	1 795	1 694	578	591	1 760	823	1 054	1 910	1 373	343	1 616	1 356	3 109	796
1965	1 642	2 000	1 831	655	680	1 877	873	1 126	1 979	1 512	383	1 723	1 462	3 328	869
1966	1 754	2 177	1 929	724	778	2 016	917	1 212	2 065	1 625	420	1 828	1 565	3 605	1 000
1967	1 878	2 361	1 958	776	850	2 171	982	1 332	2 081	1 771	472	1 894	1 655	3 795	1 165
1968	2 072	2 512	2 178	869	851	2 424	997	1 485	2 350	2 012	540	1 850	1 784	4 246	1 414
1969	2 309	2 862	2 468	990	965	2 632	1 153	1 640	2 726	2 267	598	1 980	1 972	4 573	1 654
1970	2 562	3 139	2 976	1 109	1 066	2 715	1 289	1 834	3 170	2 513	669	2 165	2 199	4 745	1 922
1971	2 809	3 408	3 359	1 190	1 177	2 949	1 452	1 959	3 212	2 829	747	2 405	2 427	4 957	2 118
1972	3 225	3 876	3 734	1 263	1 382	3 354	1 648	2 111	3 686	3 215	848	2 535	2 688	5 032	2 538
1973	3 770	4 641	4 517	1 467	1 656	3 910	1 750	2 287	4 576	3 821	1 039	2 606	3 083	5 059	3 107
1974	4 538	5 287	5 146	1 759	2 109	4 250	1 876	2 589	5 692	4 607	1 233	2 923	3 511	5 594	3 507
1975	5 088	6 000	5 447	1 858	2 381	5 181	2 131	2 794	5 284	5 137	1 270	3 359	3 926	5 769	3 617
1976	6 076	7 324	6 475	2 201	2 693	5 934	2 319	3 024	6 403	6 190	1 443	3 612	4 488	7 030	4 460
1977	6 915	8 007	7 366	2 463	2 906	6 325	2 666	3 376	6 925	7 086	1 475	3 955	4 962	7 607	5 330
1978	7 573	8 691	8 199	2 633	3 134	6 989	3 071	3 666	7 709	7 737	1 439	4 491	5 475	7 583	6 660
1979	8 056	9 404	9 037	2 947	3 848	7 816	3 511	4 216	8 368	8 191	1 505	5 392	6 179	7 760	6 363
1980	8 591	9 321	9 517	2 991	4 074	8 758	4 072	5 049	8 985	8 623	1 825	6 808	6 908	8 239	6 527
1981	8 725	10 049	9 937	3 414	4 470	9 505	4 769	5 627	9 394	8 925	2 157	8 113	7 554	11 454	8 914
1982	8 757	11 126	10 911	3 983	4 867	10 181	5 521	6 275	9 607	9 860	2 373	8 739	8 218	13 410	9 347
1983	9 159	12 320	11 981	3 986	4 660	10 619	5 836	7 025	10 505	10 383	2 306	9 054	8 713	15 726	11 112
1984	9 784	13 444	12 749	4 309	5 325	11 328	6 345	7 774	11 743	10 835	2 411	9 541	9 349	19 504	13 275
1985	10 561	14 949	13 455	4 325	5 781	12 212	6 926	8 256	12 808	11 320	2 683	10 483	10 021	21 237	14 527
1986	11 443	16 166	14 785	3 847	6 135	12 934	7 583	9 052	14 175	11 842	2 860	10 333	10 618	18 092	15 875
1987	11 886	17 043	15 601	3 920	6 322	13 374	7 997	9 750	14 952	12 076	2 938	10 966	11 148	18 995	17 091

Table 8

Gross domestic product at constant market prices

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	5,0	6,4	4,6	11,1	11,8	5,5	4,7	8,2	3,8	3,1	5,5	3,3	5,5	2,6	14,6
1962	5,2	5,7	4,7	1,5	9,3	6,7	3,7	6,2	1,4	4,0	6,7	1,0	4,7	5,7	7,1
1963	4,4	0,6	2,8	10,1	8,8	5,3	4,8	5,6	3,4	3,6	5,9	4,2	4,6	4,0	10,5
1964	7,0	9,3	6,7	8,3	6,2	6,5	4,2	2,8	7,9	8,3	6,6	5,1	5,8	5,0	13,2
1965	3,6	4,6	5,5	9,4	6,3	4,8	2,0	3,3	1,9	5,2	7,5	2,3	4,3	6,2	5,1
1966	3,2	2,7	2,9	6,1	7,1	5,2	1,0	6,0	1,1	2,7	4,1	1,9	3,9	5,8	10,5
1967	3,9	3,4	−0,1	5,5	4,3	4,7	5,1	7,2	0,2	5,3	7,5	2,7	3,5	2,8	10,4
1968	4,2	4,0	5,6	6,7	6,8	4,3	8,1	6,5	4,2	6,4	8,9	4,1	5,3	4,0	12,6
1969	6,6	6,3	7,5	9,9	8,9	7,0	6,1	6,1	10,0	6,4	2,1	1,3	5,9	2,9	12,1
1970	6,4	2,0	5,1	8,0	4,1	5,7	3,5	5,3	1,7	5,7	9,1	2,3	4,7	−0,2	9,4
1961-70	4,9	4,5	4,5	7,6	7,3	5,6	4,3	5,7	3,5	5,1	6,4	2,8	4,8	3,9	10,5
1971	3,7	2,7	2,9	7,1	5,0	5,4	3,4	1,6	3,1	4,2	6,6	2,7	3,5	3,1	4,2
1972	5,3	5,3	4,2	8,9	8,1	5,9	6,4	3,2	6,6	3,3	8,0	2,3	4,5	5,4	8,4
1973	5,9	3,6	4,7	7,3	7,9	5,4	4,7	7,0	8,8	4,7	11,2	7,6	6,2	5,7	7,9
1974	4,1	−0,9	0,3	−3,6	5,7	3,2	4,3	4,1	4,1	4,0	1,1	−1,0	2,0	−0,9	−1,2
1975	−1,5	−0,7	−1,6	6,1	1,1	0,2	3,7	−3,6	−5,7	−0,1	−4,3	−0,7	−1,0	−0,8	2,6
1976	5,3	6,5	5,4	6,4	3,0	5,2	1,4	5,9	2,4	5,1	6,9	3,8	4,9	4,7	4,8
1977	0,4	1,6	3,0	3,4	3,3	3,1	8,2	1,9	1,8	2,3	5,6	1,0	2,4	5,5	5,3
1978	3,0	1,5	2,9	6,7	1,8	3,8	7,2	2,7	3,7	2,5	3,4	3,6	3,1	4,7	5,1
1979	2,1	3,5	4,2	3,7	0,2	3,3	3,1	4,9	3,1	2,4	6,2	2,2	3,2	2,6	5,2
1980	4,0	−0,4	1,4	1,8	1,5	1,1	3,1	3,9	1,5	0,9	4,5	−2,3	1,2	−0,4	4,4
1971-80	3,2	2,2	2,7	4,7	3,7	3,6	4,5	3,1	2,9	2,9	4,8	1,9	3,0	2,9	4,6
1981	−1,5	−0,9	0,2	−0,3	0,4	0,5	2,6	0,2	−1,4	−0,7	0,4	−1,4	−0,1	3,4	3,9
1982	1,5	3,0	−0,6	−0,2	0,9	1,8	0,8	−0,5	0,8	−1,4	3,5	1,5	0,6	−3,0	2,8
1983	−0,1	2,0	1,2	0,3	2,1	0,7	−0,0	−0,4	2,8	0,9	−0,3	3,4	1,2	2,9	3,1
1984	1,4	3,4	2,6	2,6	2,2	1,3	4,4	2,6	4,9	1,7	−1,7	1,8	2,0	7,2	5,8
1985	1,3	3,8	2,5	2,1	2,1	1,3	2,1	2,3	2,1	2,3	3,7	3,3	2,3	2,5	4,6
1986	2,0	2,5	3,5	−0,4	2,7	2,3	3,2	2,7	2,2	1,7	3,9	2,6	2,7	2,5	3,2
1987	2,1	2,2	3,0	−0,2	2,7	2,9	3,7	3,8	2,5	1,8	3,6	2,4	2,8	2,7	3,2

Table 9

Industrial production

(Annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 10	USA	JA
1960	6,8	8,7	11,7	:	:	8,9	6,9	15,7	9,0	10,0	:	6,8	10,6	2,2	24,4
1961	6,2	5,1	6,1	:	:	5,5	8,6	10,8	2,9	3,6	:	0,0	5,5	0,7	19,6
1962	5,7	8,9	9,2	:	10,1	5,1	7,1	9,6	−4,2	3,5	:	1,1	5,1	8,3	8,0
1963	7,4	1,3	3,5	10,4	11,9	7,1	5,8	8,8	1,0	5,1	:	4,0	5,7	6,0	11,5
1964	6,5	11,7	7,7	10,9	11,2	6,1	7,7	1,2	9,2	9,7	:	7,9	6,2	6,8	15,4
1965	2,5	6,6	5,3	8,5	14,3	1,9	4,2	4,6	0,8	4,4	:	3,3	4,0	10,0	4,1
1966	2,0	2,9	1,3	16,0	15,2	5,4	3,0	11,4	−3,2	4,2	:	1,4	4,4	8,8	12,8
1967	1,8	3,9	−2,5	4,6	5,9	2,5	8,1	8,3	−0,6	2,7	:	0,2	1,8	2,3	19,2
1968	5,5	7,4	9,7	7,8	7,4	3,5	10,4	6,4	6,0	9,2	:	6,7	7,0	6,3	15,2
1969	9,7	12,4	12,7	11,8	15,8	10,4	7,1	3,7	12,8	10,8	8,0	3,3	8,3	4,5	16,0
1970	3,1	2,5	6,1	10,5	10,0	5,3	4,4	6,5	0,5	7,8	6,3	0,5	4,8	−3,0	13,6
1961-70	5,0	6,2	5,8	:	:	5,3	6,6	7,1	2,4	6,2	:	2,8	5,3	5,0	13,4
1971	1,7	2,4	1,4	11,3	3,2	4,8	3,7	−0,6	−1,1	5,5	7,8	−0,2	1,7	1,7	2,7
1972	7,5	4,4	4,2	14,1	15,9	6,7	4,3	4,9	4,2	5,1	13,0	2,2	4,7	9,2	7,3
1973	6,2	3,4	7,2	15,3	15,2	6,7	9,8	9,7	11,9	7,7	11,8	8,7	8,0	8,4	14,9
1974	4,0	−0,8	−1,1	−1,5	9,2	2,3	3,0	4,0	3,5	4,7	2,8	−2,4	0,8	−0,3	−3,9
1975	−9,8	−6,0	−6,2	4,3	−6,5	7,5	−6,1	−8.9	−21,9	−5,1	−4,9	−4,7	−6,7	−8,9	−10,5
1976	7,8	9,6	7,4	10,6	5,1	8,7	8,7	11,6	3,8	7,7	3,4	2,7	7,6	10,8	11,0
1977	0,5	0,8	2,1	1,5	5,3	1,9	8,0	0,0	0,5	0,5	13,1	4,7	2,0	5,9	4,1
1978	2,4	2,3	3,0	7,5	2,3	2,4	7,9	2,1	3,2	0,8	6,9	3,8	2,8	6,5	6,2
1979	4,5	3,6	5,1	6,0	0,8	4,1	7,7	6,7	3,4	3,1	7,2	3,8	4,9	3,9	7,1
1980	−1,3	0,2	0,2	0,9	1,2	−0,5	−0,8	5,0	−3,3	−0,9	5,4	−6,7	−0,5	−1,9	4,6
1971-80	2,2	1,9	2,3	6,9	5,0	2,9	4,5	3,3	0,0	2,8	6,5	1,1	2,4	3,4	4,1
1981	−2,7	0,0	−1,9	−0,6	−1,0	−2,4	2,2	−2,2	−5,7	−1,3	0,5	−3,4	−2,3	2,2	1,0
1982	0,0	2,7	−2,9	−4,2	−1,1	−1,2	0,3	−3,1	0,9	−3,7	4,6	1,9	−1,5	−7,1	0,3
1983	2,0	3,2	0,6	−0,7	2,7	1,1	6,5	−2,4	5,4	1,9	1,6	3,6	0,9	5,9	3,6
1984	2,5	9,7	3,0	3,5	0,8	2,5	12,9	3,3	13,3	4,6	−0,1	1,3	2,9	11,5	11,1
1985	2,2	4,2	5,7	2,6	2,2	0,5	2,2	1,4	6,9	3,6	4,2	4,7	3,3	2,2	4,6
1986	3,0	4,7	4,5	−1,0	:	2,4	3,7	2,3	2,0	4,2	:	2,5	3,0	:	:
1987	2,9	4,0	3,5	1,0	:	2,7	5,5	3,6	3,2	3,3	:	2,3	3,0	:	:

Table 10

Private consumption at current prices

(As percentage of GDP at current market prices)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	69,2	62,0	59,4	80,3	71,6	61,9	76,6	62,7	54,0	58,5	73,1	66,3	63,6	63,8	58,9
1961	67,9	62,1	59,5	76,8	71,1	62,1	75,0	61,7	56,9	59,7	73,6	65,3	63,2	63,6	54,6
1962	66,6	61,9	59,5	76,4	70,5	62,1	74,7	62,0	56,9	60,3	69,7	66,1	63,3	62,7	57,2
1963	67,1	61,4	59,6	74,3	71,7	62,6	74,1	63,3	57,5	61,8	69,4	66,1	63,8	62,7	58,1
1984	64,1	60,3	58,4	73,6	70,6	61,6	72,6	62,7	56,7	59,4	68,2	64,8	62,6	62,8	57,2
1965	64,3	58,9	59,2	72,8	71,2	61,1	71,7	62,3	58,2	59,4	67,9	64,3	62,5	62,2	58,5
1966	63,9	59,6	59,7	72,3	70,6	61,0	71,8	63,4	58,2	59,3	67,9	63,7	62,7	61,4	57,9
1967	62,9	59,9	60,8	72,4	70,5	61,2	70,1	63,7	59,1	58,7	65,4	63,3	62,9	61,3	56,7
1968	63,7	58,8	60,1	71,9	70,1	61,4	71,0	62,8	57,7	57,9	68,5	62,8	62,4	61,6	54,6
1969	62,2	57,5	59,1	69,2	68,1	61,2	69,8	62,3	53,4	58,5	69,1	62,3	61,8	61,8	53,5
1970	59,8	57,4	58,4	69,2	68,0	60,0	68,9	62,6	50,4	58,4	65,9	61,8	61,2	62,8	52,3
1961-70	64,3	59,8	59,4	72,9	70,2	61,4	72,0	62,7	56,5	59,3	68,6	64,0	62,6	62,3	56,1
1971	60,3	55,8	58,7	68,0	68,0	60,5	68,0	62,4	54,7	57,8	68,3	61,6	61,3	62,8	53,6
1972	60,2	53,4	59,3	65,7	67,8	60,4	65,0	62,6	53,5	57,3	64,2	62,9	61,5	62,6	54,0
1973	60,6	54,5	58,8	63,4	67,7	60,0	64,4	62,5	48,9	56,7	64,8	62,2	61,1	61,9	53,6
1974	59,8	54,3	59,6	67,7	67,9	61,1	68,4	62,8	45,9	56,8	72,7	63,0	61,9	62,6	54,3
1975	61,2	55,5	63,0	67,5	68,2	61,9	64,1	64,3	57,8	58,6	77,1	61,3	63,0	63,5	57,1
1976	61,0	56,6	62,5	65,8	69,3	62,1	64,5	62,8	56,5	58,7	75,0	59,6	62,4	63,8	57,5
1977	61,9	56,9	63,0	65,9	69,4	62,2	64,1	62,1	59,7	59,8	72,0	59,2	62,4	63,5	57,7
1978	61,6	56,2	62,7	65,2	68,6	62,0	63,7	61,6	58,2	60,3	68,0	59,1	62,1	62,9	57,7
1979	62,6	56,4	62,4	63,3	69,0	62,1	65,3	61,1	57,9	60,9	67,5	60,0	62,2	63,2	58,7
1980	62,9	55,9	63,0	64,0	69,8	63,0	65,7	61,5	58,8	61,1	67,4	59,4	62,6	64,3	58,8
1971-80	61,2	55,5	61,3	65,6	68,6	61,5	65,3	62,4	55,2	58,8	69,7	60,8	62,0	63,1	56,3
1981	65,5	56,0	64,1	66,6	69,8	64,6	66,6	62,3	61,0	60,4	68,9	59,9	63,5	63,5	58,0
1982	65,3	55,0	63,8	66,5	70,0	64,5	62,3	62,4	61,7	60,1	68,2	60,0	63,4	65,6	59,2
1983	65,0	54,5	63,6	66,0	69,3	64,7	59,9	62,4	60,5	60,5	68,6	60,4	63,4	66,2	59,9
1984	65,1	54,6	63,0	64,0	66,8	64,1	58,1	62,2	57,9	59,2	69,7	60,7	62,8	64,8	59,0
1985	64,4	54,6	62,4	65,4	66,0	64,6	57,4	62,4	56,8	59,1	66,5	60,1	62,6	65,2	58,4
1986	63,2	53,5	61,6	65,1	64,2	63,7	55,7	60,6	54,5	59,8	63,5	60,8	61,8	65,0	58,2
1987	63,1	53,4	62,0	65,0	63,8	63,7	55,6	61,0	54,6	60,3	62,3	61,4	62,0	64,5	58,2

Table 11

Private consumption at constant prices

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	1,6	7,3	5,8	6,8	11,0	5,9	2,8	7,5	5,0	5,2	6,7	2,2	5,4	2,1	8,4
1962	3,9	5,9	5,5	4,3	8,8	7,1	3,6	7,1	4,4	6,1	2,1	2,2	5,4	4,5	9,5
1963	4,4	0,0	3,0	5,1	11,3	6,9	4,1	9,3	4,6	7,0	6,7	4,6	5,9	3,8	9,6
1964	2,6	7,8	5,3	8,8	4,3	5,6	4,3	3,3	9,2	5,9	−1,4	3,0	4,4	5,5	11,6
1965	4,3	3,4	7,0	7,7	7,0	4,0	0,4	3,3	4,0	7,5	4,5	1,5	4,4	5,6	5,6
1966	2,7	4,3	3,7	6,8	6,9	4,8	1,7	7,2	1,6	3,2	0,9	1,7	4,2	5,1	9,7
1967	2,8	2,9	1,4	6,2	6,0	5,1	3,4	7,4	−0,0	5,4	4,9	2,4	4,0	3,1	9,4
1968	5,3	1,9	4,9	6,9	6,0	4,0	8,5	5,2	4,3	6,6	26,6	2,8	4,8	5,4	8,3
1969	5,4	6,3	7,6	6,2	7,0	6,0	5,7	6,6	5,2	7,9	4,4	0,6	5,5	3,7	10,1
1970	4,4	3,5	7,3	8,8	4,2	4,3	2,9	7,6	6,1	7,4	2,6	2,7	5,4	2,3	6,9
1961-70	3,7	4,3	5,1	6,7	7,2	5,4	3,7	6,4	4,4	6,2	5,6	2,3	4,9	4,1	8,9
1971	4,8	−0,8	5,5	5,6	4,9	6,6	3,2	2,9	5,4	3,3	12,7	3,1	4,6	3,7	5,6
1972	5,9	1,7	4,9	7,0	8,3	6,1	5,1	3,4	4,9	3,5	4,0	6,1	5,3	5,7	9,3
1973	7.8	4,8	3,5	7,6	8,0	5,8	7,2	5,9	5,8	4,0	12,0	5,1	5,5	4,0	9,2
1974	2,6	−2,9	1,3	0,7	5,2	2,9	1,6	2,6	4,4	3,7	9,7	−1,5	1,9	−0,7	−0,3
1975	0,6	3,7	3,8	5,5	2,4	3,4	−2,7	−1,6	5,3	3,3	−0,9	−0,7	1,7	2,1	4,4
1976	4,6	7,9	3,9	5,3	4,7	5,6	2,8	3,4	3,1	5,3	3,5	0,3	3,8	5,6	3,5
1977	2,3	1,1	3,9	4,6	2,5	3,1	6,8	1,4	2,5	4,6	0,6	−0,5	2,4	4,8	4,2
1978	2,6	0,7	3,9	5,7	1,3	4,2	9,0	2,7	3,0	4,3	−1,7	5,6	3,7	4,2	5,4
1979	4,4	1,4	3,5	2,6	1,2	3,5	4,5	4,9	3,3	3,0	0,9	4,5	3,6	2,7	6,5
1980	1,8	−3,7	1,5	−0,3	1,3	1,5	0,4	4,8	2,7	0,0	3,2	−0,4	1,5	0,6	1,4
1971-80	3,7	1,3	3,6	4,4	4,0	4,3	3,7	3,0	4,0	3,5	4,3	2,1	3,4	3,2	4,9
1981	−0,4	−2,3	−0,1	0,9	−0,9	2,1	1,4	0,8	1,9	−2,5	2,3	−0,3	0,3	2,0	1,3
1982	1,0	1,4	−1,3	2,6	0,7	3,1	−5,7	0,2	1,2	−1,2	2,0	0,7	0,6	1,2	4,1
1983	−1,6	2,0	1,0	0,7	0,7	0,9	−2,0	−0,5	1,1	0,4	−1,0	3,9	1,1	4,5	3,2
1984	1,0	2,7	1,1	1,1	−1,0	0,3	−0,5	2,0	0,6	−0,5	−3,0	1,7	0,9	5,3	2,8
1985	0,7	4,3	1,7	3,2	1,3	2,4	1,5	1,9	1,7	2,0	0,7	2,8	2,1	3,3	2,7
1986	2,8	2,6	4,9	−1,3	2,8	2,9	3,2	3,2	3,2	3,1	4,6	3,6	3,5	2,7	3,2
1987	1,9	2,4	4,0	−0,9	2,8	2,9	4,3	4,2	3,7	2,0	3,6	3,6	3,4	2,2	3,6

Table 12

Public consumption at current prices

(As percentage of GDP at current market prices)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	12,4	13,3	10,7	11,7	7,4	13,0	12,5	12,8	9,8	12,6	10,5	16,4	12,8	16,9	7,9
1961	11,9	14,4	11,1	11,3	7,3	13,1	12,4	12,7	9,9	13,1	12,5	16,6	12,9	17,8	7,5
1962	12,3	15,2	11,9	11,6	7,2	13,3	12,5	13,1	10,9	13,7	12,9	17,0	13,3	18,0	7,8
1963	13,0	15,4	12,6	11,3	7,5	13,4	12,7	13,9	12,3	14,4	12,3	16,9	13,7	17,8	8,0
1964	12,5	15,6	11,9	11,7	7,3	13,3	13,3	14,3	10,8	14,6	12,3	16,4	13,4	17,5	7,8
1965	12,8	16,3	12,1	11,7	7,4	13,1	13,6	15,1	10,9	14,6	12,0	16,8	13,6	17,1	8,2
1966	13,1	17,1	12,1	11,8	7,7	13,0	13,6	14,9	11,4	14,9	12,1	17,1	13,7	18,1	8,0
1967	13,5	17,8	12,6	13,0	8,4	13,0	13,4	14,4	12,1	15,3	13,1	17,9	14,0	19,4	7,6
1968	13,6	18,6	11,8	12,9	8,2	13,5	13,4	14,5	12,1	14,9	13,1	17,6	13,8	19,2	7,4
1969	13,6	18,9	11,9	12,7	8,3	13,3	13,5	14,2	11,0	15,0	12,9	17,2	13,7	18,9	7,3
1970	13,4	20,0	12,0	12,6	8,5	13,4	14,6	13,8	10,5	15,4	13,8	17,6	13,8	19,2	7,4
1961-70	13,0	16,9	12,0	12,1	7,8	13,3	13,3	14,1	11,2	14,6	12,7	17,1	13,6	18,3	7,7
1971	14,1	21,3	12,7	12,5	8,6	13,4	15,2	15,5	11,7	16,0	13,5	17,9	14,4	18,5	8,0
1972	14,5	21,3	12,7	12,2	8,6	13,2	15,3	16,1	11,8	15,8	13,4	18,4	14,4	18,4	8,2
1973	14,5	21,3	13,0	11,5	8,6	13,2	15,7	15,5	11,3	15,6	12,8	18,2	14,4	17,8	8,3
1974	14,7	23,4	13,9	13,8	8,8	13,6	17,2	15,1	11,4	16,2	14,1	20,0	15,0	18,5	9,1
1975	16,4	24,6	14,4	15,2	9,2	14,4	18,6	15,4	15,0	17,4	15,0	21,9	15,9	19,1	10,0
1976	16,5	24,1	13,7	15,1	9,8	14,6	18,0	14,8	14,7	17,3	13,7	21,4	15,6	18,7	9,9
1977	16,8	23,9	13,6	16,0	10,0	14,7	17,1	15,3	15,9	17,4	14,0	20,3	15,6	18,2	9,8
1978	17,4	24,5	13,7	15,9	10,4	15,0	17,2	15,9	15,7	17,7	13,9	20,0	15,7	17,7	9,7
1979	17,6	25,0	13,7	16,3	10,9	14,9	18,1	16,2	16,0	18,1	13,9	19,8	15,8	17,6	9,7
1980	17,9	26,7	13,9	16,4	11,5	15,2	19,9	16,4	16,7	17,9	14,6	21,3	16,3	18,3	9,8
1971-80	16,1	23,6	13,5	14,5	9,6	14,2	17,2	15,6	14,0	16,9	13,9	19,9	15,3	18,3	9,2
1981	18,9	27,8	14,2	18,0	11,6	15,8	19,8	18,3	17,4	17,8	15,0	21,9	17,0	18,2	9,9
1982	18,3	28,2	14,1	18,4	12,0	16,2	19,8	18,6	16,9	17,7	14,8	21,9	17,1	19,2	9,9
1983	17,8	27,4	13,9	18,7	12,3	16,4	19,7	19,3	16,3	17,6	14,9	21,9	17,3	19,3	10,0
1984	17,4	26,1	13,6	19,0	12,3	16,4	19,0	19,4	15,7	16,8	14,7	21,9	17,1	18,8	9,8
1985	17,2	25,2	13,6	19,7	12,5	16,3	18,7	19,5	15,3	16,3	14,5	21,2	17,0	19,6	:
1986	16,7	24,2	13,3	18,9	12,3	15,7	18,3	19,0	14,8	16,0	14,0	21,3	16,6	:	:
1987	16,3	24,0	13,3	18,6	12,3	15,3	18,1	18,8	14,9	15,8	13,8	21,1	16,5	:	:

Table 13

Public consumption at constant prices

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	1,9	5,3	6,6	4,4	5,6	4,8	2,9	4,4	1,3	2,8	26,7	3,5	4,7	6,1	6,1
1962	8,6	9,9	10,4	6,7	6,7	4,7	2,9	3,9	2,4	3,3	8,5	3,1	5,6	5,3	8,4
1963	11,6	2,9	6,3	4,2	9,7	3,4	4,2	4,3	5,8	4,7	3,0	1,8	4,3	1,5	8,7
1964	4,2	7,3	0,8	9,3	1,3	4,2	3,0	4,2	−0,8	1,7	6,8	1,6	2,6	2,5	6,0
1965	5,5	3,4	4,0	9,0	3,7	3,2	3,6	4,0	2,5	1,5	7,4	2,6	3,5	2,8	6,3
1966	4,7	5,8	1,0	6,3	1,7	2,7	1,1	4,0	5,8	1,7	5,3	2,7	2,6	10,2	5,8
1967	5,7	7,6	3,0	8,5	2,4	4,3	5,3	4,4	4,2	2,4	10,7	5,7	4,4	8,0	4,7
1968	3,5	4,7	−1,4	1,3	1,8	5,6	4,9	5,2	5,6	2,2	8,5	0,4	2,2	3,0	5,7
1969	6,3	6,8	4,6	7,7	4,2	4,1	6,7	2,8	3,3	4,5	3,5	−1,9	2,7	0,5	5,1
1970	3,1	6,9	4,3	5,9	5,2	4,2	7,5	2,6	4,1	6,0	7,0	1,7	3,6	−1,2	5,7
1961-70	5,5	6,0	3,9	6,3	4,2	4,1	4,2	4,0	3,4	3,1	8,6	2,1	3,6	3,8	6,2
1971	5,5	5,5	3,8	4,9	4,7	3,5	8,7	5,7	3,9	4,4	6,4	3,0	4,1	−2,1	5,5
1972	5,9	5,7	2,3	5,7	5,5	2,7	7,5	5,3	4,3	0,8	8,6	4,2	3,8	2,5	5,6
1973	5,3	4,0	3,7	6,8	6,7	3,2	6,8	2,4	3,9	0,8	7,8	4,3	3,7	0,6	5,4
1974	3,4	3,5	2,4	12,1	8,2	1,2	7,6	2,8	5,2	2,2	17,3	1,9	2,8	3,3	3,1
1975	4,5	2,0	1,5	11,9	5,3	4,7	6,5	3,2	6,7	4,1	6,6	5,6	4,1	2,2	6,7
1976	3,7	4,5	−0,2	5,1	5,3	6,2	2,6	2,2	2,4	4,1	7,0	1,2	2,7	1,9	4,7
1977	2,3	2,4	1,7	6,5	4,1	1,4	2,1	2,8	2,6	3,4	11,8	−1,7	1,5	1,9	4,4
1978	6,0	6,2	3,7	3,5	5,5	4,3	8,2	2,3	2,1	3,9	4,3	2,3	3,6	2,1	5,2
1979	2,5	5,9	3,6	5,8	4,2	1,8	4,5	1,6	2,9	2,8	8,9	2,2	2,7	2,5	4,4
1980	1,5	4,3	2,1	0,2	4,4	1,8	7,2	2,1	3,1	0,6	6,5	1,3	2,0	2,6	2,8
1971-80	4,1	4,4	2,5	6,2	5,4	3,1	6,1	3,0	3,7	2,7	8,5	2,4	3,1	1,7	4,8
1981	1,2	2,6	1,2	6,8	1,5	2,4	0,4	3,3	1,4	2,0	3,4	−0,1	1,7	2,4	4,8
1982	−1,2	3,1	−0,7	1,9	6,6	2,4	3,8	2,4	0,5	0,7	4,7	0,9	1,5	2,8	1,9
1983	0,7	−0,8	0,3	2,1	4,6	1,5	−0,0	2,5	1,4	1,5	2,2	1,9	1,6	1,6	2,8
1984	−0,1	−0,7	0,9	3,9	2,0	0,3	−1,2	2,7	0,4	−1,6	1,8	1,0	1,0	3,5	2,3
1985	1,0	1,6	2,1	2,3	3,5	1,3	0,5	2,5	1,0	0,6	1,6	0,5	1,6	3,5	2,6
1986	0,4	−0,2	2,5	−0,8	2,3	0,6	1,0	2,1	1,2	0,5	1,0	0,8	1,3	1,5	2,5
1987	0,0	0,9	2,3	−1,3	1,3	0,3	0,4	2,2	1,1	0,1	1,0	0,7	1,1	0,7	1,7

Table 14

Gross fixed investment at current prices; total economy

(As percentage of GDP at current market prices)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	19,3	21,6	24,3	19,0	17,9	20,1	14,4	22,6	20,9	24,1	23,2	16,4	20,7	17,9	29,5
1961	20,7	23,2	25,2	18,2	18,8	21,2	16,3	23,2	24,2	24,8	23,2	17,3	21,6	17,4	32,5
1962	21,3	23,1	25,7	20,1	19,2	21,4	17,9	23,7	25,9	24,5	22,4	17,0	21,8	17,6	32,9
1963	20,7	22,0	25,6	19,2	19,4	22,1	19,5	24,0	30,1	23,8	23,7	16,8	21,9	17,9	31,5
1964	22,4	24,5	26,6	21,0	20,7	22,9	20,5	22,2	33,7	25,5	22,8	18,4	22,6	18,1	31,7
1965	22,4	24,1	26,1	21,6	21,7	23,3	21,4	19,3	28,0	25,2	22,8	18,5	22,3	18,7	29,8
1966	22,9	24,1	25,4	21,7	22,0	23,7	19,8	18,8	26,6	26,3	25,1	18,5	22,2	18,5	30,4
1967	22,9	24,2	23,1	20,3	22,3	23,8	20,1	19,5	23,9	26,4	26,6	19,1	21,9	17,9	32,0
1968	21,5	23,4	22,4	23,2	22,8	23,3	20,9	20,3	22,1	26,9	22,2	19,4	21,9	18,1	33,2
1969	21,3	24,6	23,3	24,6	23,2	23,4	23,3	21,0	22,2	24,6	22,6	18,9	22,1	18,2	34,4
1970	22,7	24,7	25,5	23,6	23,2	23,4	22,7	21,4	23,1	25,9	23,2	19,0	22,8	17,6	35,5
1961-70	21,9	23,8	24,9	21,4	21,3	22,9	20,2	21,3	26,0	25,4	23,4	18,3	22,1	18,0	32,4
1971	22,1	24,2	26,1	25,2	21,2	23,6	23,6	20,4	28,4	25,4	24,7	18,9	22,7	18,1	34,2
1972	21,3	24,6	25,4	27,8	22,2	23,7	23,7	19,8	27,8	23,6	27,1	18,7	22,4	18,7	34,1
1973	21,4	24,8	23,9	28,0	23,6	23,8	25,3	20,8	27,3	23,1	26,8	20,0	22,6	19,1	36,4
1974	22,7	24,0	21,6	22,2	24,7	24,3	24,6	22,4	24,5	21,9	26,0	20,9	22,6	18,4	34,8
1975	22,5	21,1	20,4	20,8	23,3	23,3	22,7	20,6	27,8	21,1	25,9	19,9	21,4	17,0	32,5
1976	22,1	23,0	20,1	21,2	21,8	23,3	25,0	20,0	24,9	19,4	25,1	19,4	21,0	17,1	31,2
1977	21,7	22,1	20,2	23,0	21,0	22,3	24,8	19,6	25,1	21,1	26,5	18,6	20,6	18,3	30,2
1978	21,7	21,7	20,7	23,9	19,9	21,4	27,7	18,7	24,1	21,3	27,9	18,5	20,4	19,5	30,4
1979	20,8	20,9	21,8	25,8	18,9	21,5	30,5	18,8	24,3	21,0	26,6	18,8	20,6	19,8	31,7
1980	21,2	18,8	22,7	24,2	19,4	21,9	28,6	19,8	27,0	21,0	28,6	18,1	20,9	18,5	31,6
1971-80	21,8	22,5	22,3	24,2	21,6	22,9	25,6	20,1	26,1	21,9	26,5	19,2	21,5	18,4	32,7
1981	18,1	15,6	21,8	22,3	20,3	21,4	29,1	20,2	25,4	19,2	32,2	16,4	20,2	17,8	30,7
1982	17,4	16,1	20,5	20,2	19,7	20,8	25,9	19,0	25,9	18,2	32,3	16,4	19,5	16,5	29,7
1983	16,4	15,9	20,6	20,3	18,8	19,8	22,7	18,0	23,7	18,1	30,3	16,4	18,9	16,8	28,3
1984	16,1	17,1	20,3	18,6	17,8	18,9	21,0	17,9	22,2	18,4	24,7	17,4	18,6	17,9	27,8
1985	16,2	18,8	19,7	19,2	18,1	18,8	20,8	17,9	21,8	18,4	22,5	17,0	18,5	18,4	:
1986	16,3	19,9	19,8	18,8	18,0	18,6	20,0	17,8	20,9	18,7	22,7	17,4	18,5	:	:
1987	16,6	19,6	20,4	18,6	18,6	18,7	20,1	18,1	20,6	19,1	24,0	17,4	18,8	:	:

Table 15

Gross fixed investment at constant prices; total economy

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	12,4	13,9	6,7	8,1	17,9	10,9	15,9	11,6	9,0	6,0	6,0	9,8	9,6	1,6	27,8
1962	5,9	6,7	4,0	8,4	11,4	8,5	14,8	9,8	7,8	3,4	1,1	0,7	5,7	7,4	11,3
1963	0,1	−2,4	1,4	5,5	11,4	8,8	12,0	8,1	14,2	1,1	14,6	1,4	4,6	7,4	10,4
1964	14,7	23,5	11,4	20,7	15,0	10,5	11,6	−5,8	22,1	19,2	4,5	16,6	9,7	6,6	16,7
1965	4,1	4,7	4,7	12,8	16,6	7,0	10,0	−8,4	−13,9	5,3	10,5	5,2	3,9	10,3	3,2
1966	6,8	4,3	1,2	3,2	12,7	7,3	−3,0	4,3	−5,1	8,0	17,4	2,5	4,6	5,0	13,4
1967	2,9	5,4	−6,9	−1,6	6,0	6,0	6,5	11,7	−7,9	8,5	5,8	8,8	3,7	−1,3	17,7
1968	−1,3	1,9	3,6	21,4	9,4	5,5	13,1	10,8	−4,2	11,2	−9,3	6,1	6,3	6,1	19,9
1969	5,3	11,8	9,8	18,6	9,8	9,2	18,3	7,8	10,5	−2,2	9,0	−0,5	6,8	2,4	18,5
1970	8,4	2,2	9,4	−1,4	3,0	4,6	0,3	3,0	7,5	7,5	11,5	2,5	5,2	−3,6	16,9
1961-70	5,8	7,0	4,4	9,3	11,2	7,8	9,8	5,1	3,4	6,7	6,9	5,2	6,0	4,1	15,4
1971	−1,9	1,9	6,1	14,0	−2,9	7,1	8,8	−3,2	12,6	1,5	9,8	1,9	2,9	5,4	4,1
1972	3,4	9,3	2,7	15,4	15,9	7,2	7,4	0,9	6,7	−2,3	13,5	−0,3	4,1	8,5	10,0
1973	7,0	3,5	−0,3	7,7	14,3	6,1	16,2	7,7	11,9	4,2	9,5	6,5	5,5	7,3	12,6
1974	6,9	−8,9	−9,6	−25,6	6,6	0,9	−11,6	3,3	−6,1	−4,0	−7,0	−2,5	−2,5	−6,8	−9,5
1975	−1,9	−12,4	−5,3	0,2	−3,9	−3,2	−2,6	−12,7	−6,9	−4,4	−11,3	−1,7	−5,3	−11,2	−1,2
1976	4,0	17,1	3,6	6,8	−2,0	3,7	13,6	2,3	−3,8	−2,2	0,8	1,6	2,6	6,3	2,7
1977	0,0	−2,4	3,6	7,8	−0,2	−0,8	4,1	−0,4	−1,1	9,7	12,0	−1,8	1,1	10,5	4,0
1978	2,8	1,1	4,7	6,0	−2,3	1,5	18,9	−0,1	1,3	2,5	7,1	3,1	2,3	9,5	8,5
1979	−2,7	−0,4	7,2	8,8	−4,5	3,7	13,6	5,8	3,8	−1,7	−0,9	2,6	3,5	3,1	5,3
1980	4,6	−12,6	2,8	−6,5	1,3	3,2	−4,7	9,4	11,6	−0,9	10,3	−5,2	1,9	−6,1	0,0
1971-80	2,2	−0,8	1,4	2,8	2,0	2,9	5,9	1,1	2,8	0,2	4,1	0,4	1,6	2,4	3,5
1981	−16,3	−19,2	−4,8	−7,5	1,2	−1,1	7,5	0,6	−6,7	−10,4	4,6	−9,4	−4,1	1,1	3,1
1982	−1,7	7,1	−5,3	−1,9	−2,4	0,7	−5,1	−5,2	2,4	−4,1	2,9	6,4	−1,5	−6,6	0,8
1983	−3,9	0,9	3,2	−1,9	−3,6	−2,3	−9,4	−3,8	−5,4	0,4	−7,5	4,6	−0,4	8,1	−0,1
1984	1,0	11,0	0,8	−4,7	−3,5	−2,2	−1,8	4,1	−1,4	4,3	−18,0	8,2	1,3	18,0	5,7
1985	3,3	14,7	−0,3	3,4	5,4	3,0	1,6	4,1	1,7	2,4	−1,8	1,0	2,3	7,3	5,6
1986	5,3	10,8	5,8	−2,5	6,6	3,9	2,5	5,9	2,7	3,7	8,6	3,6	5,0	2,6	6,7
1987	4,1	1,2	5,7	−0,3	6,3	4,4	5,0	7,5	2,0	3,2	8,5	2,6	4,9	5,7	5,3

Table 16

Net stockbuilding at current prices

(As percentage of GDP at current market prices)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	−0,1	4,4	2,9	−0,4	−0,5	3,0	2,0	2,1	2,4	3,3	1,4	2,2	2,3	0,7	3,6
1961	0,5	1,9	1,9	1,8	1,7	1,7	1,4	2,3	2,2	2,7	3,9	1,0	1,7	0,4	7,2
1962	−0,0	2,9	1,7	1,1	3,6	2,3	1,6	1,7	5,6	1,5	1,8	−0,0	1,5	1,2	2,2
1963	0,4	0,8	0,5	2,1	3,4	1,5	0,9	1,0	−0,1	1,1	2,0	0,5	1,1	0,9	3,6
1964	1,5	1,7	1,4	4,7	2,6	2,4	1,2	0,5	−1,2	3,0	3,3	2,1	1,8	0,7	3,7
1965	0,8	2,3	2,3	4,7	3,0	1,6	2,3	0,7	2,1	1,9	4,4	1,3	1,7	1,3	2,1
1966	1,0	0,8	1,0	0,6	2,9	2,0	0,8	0,8	1,7	1,3	1,8	0,8	1,3	1,5	2,1
1967	0,4	0,0	−0,1	2,0	1,4	1,8	−0,4	1,1	−3,0	0,9	0,6	0,7	0,8	1,2	3,4
1968	0,9	0,6	2,1	−0,1	0,8	1,8	1,1	0,0	−1,9	0,6	3,1	1,0	1,2	1,1	3,6
1969	1,9	1,3	2,9	1,3	2,5	2,6	2,4	0,7	−1,2	2,1	1,8	1,1	2,0	1,1	3,1
1970	1,6	1,0	2,0	4,5	1,3	2,7	1,7	1,7	3,1	2,0	5,9	0,7	1,8	0,2	3,5
1961-70	0,9	1,3	1,6	2,3	2,3	2,0	1,3	1,1	0,7	1,7	2,9	0,9	1,5	1,0	3,5
1971	1,4	0,6	0,6	2,7	1,4	1,5	0,3	0,6	1,9	1,1	3,2	0,2	0,9	0,8	1,5
1971	0,5	0,2	0,6	1,8	1,4	1,9	1,4	0,6	1,6	0,5	3,6	0,0	0,9	0,7	1,4
1973	1,3	1,3	1,3	7,8	1,2	2,4	1,6	3,4	0,7	1,4	5,9	2,1	2,2	1,2	1,7
1974	2,2	1,2	0,2	7,1	3,4	2,4	4,4	4,2	−1,9	2,3	5,2	1,2	2,1	0,8	2,5
1975	−0,6	−0,2	−0,7	6,2	3,3	−0,3	0,6	−0,3	−4,1	−0,4	−3,3	−1,3	−0,2	−0,4	0,3
1976	0,2	1,0	1,4	5,1	3,1	1,2	0,4	3,6	−1,0	1,2	1,8	0,7	1,7	0,7	0,7
1977	0,3	0,8	0,7	3,5	1,6	1,1	3,2	1,8	−3,2	0,6	2,5	1,3	1,2	1,4	0,7
1978	0,2	−0,2	0,5	3,7	0,4	0,6	1,4	1,3	1,9	0,6	2,6	1,1	0,8	1,3	0,5
1979	0,7	0,5	1,7	4,3	1,2	1,4	2,5	2,4	−1,1	0,5	2,9	1,1	1,5	0,6	0,8
1980	0,8	−0,3	0,8	4,4	1,8	1,7	−0,8	5,2	−0,4	0,5	4,1	−1,3	1,5	−0,3	0,7
1971-80	0,7	0,5	0,7	4,6	1,9	1,4	1,5	2,3	−0,6	0,8	2,8	0,5	1,3	0,7	1,1
1981	−0,1	−0,2	−0,8	3,2	0,4	−0,2	−1,3	1,1	0,2	−0,9	3,6	−1,2	−0,2	1,2	0,5
1982	−0,2	0,2	−0,7	2,1	0,1	0,9	−0,5	1,0	−0,9	−0,3	4,3	−0,4	0,2	−0,5	0,4
1983	−0,8	0,2	−0,1	1,1	0,2	−0,0	0,6	−0,3	1,9	−0,2	−1,3	0,3	−0,0	−0,5	0,1
1984	−0,3	1,2	0,6	1,4	0,2	0,3	2,1	0,7	3,2	0,5	−1,9	−0,1	0,4	1,5	0,5
1985	−0,0	1,1	0,8	7,5	0,2	−0,1	0,8	0,7	4,9	1,1	−0,4	0,3	0,6	0,5	:
1986	0,3	0,7	1,4	5,0	0,3	0,2	1,3	1,0	4,6	0,7	1,2	0,2	0,7	:	:
1987	0,2	0,6	1,0	4,1	0,3	0,2	1,2	1,3	4,5	0,6	1,3	0,3	0,7	:	:

Table 17

Price deflator of GDP at market prices

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	1,3	4,3	4,7	1,5	1,8	3,4	2,8	2,8	−3,7	2,4	2,0	3,3	3,3	1,0	7,9
1962	1,7	6,6	3,8	4,6	5,7	4,7	4,4	5,8	3,9	3,5	−0,2	3,7	4,3	1,9	3,6
1963	3,0	5,8	3,1	1,4	8,5	6,4	2,6	8,5	3,1	4,7	2,4	2,0	4,8	1,5	4,5
1964	4,6	4,6	3,0	3,7	6,3	4,1	9,2	6,5	5,8	8,7	1,8	3,7	4,6	1,7	4,4
1965	5,1	7,4	3,6	4,0	9,4	2,7	4,4	4,2	2,8	6,1	3,9	4,9	4,5	2,0	5,1
1966	4,2	6,8	3,3	4,9	8,1	2,9	4,3	2,2	3,9	6,0	5,3	4,7	4,0	3,5	5,1
1967	3,1	6,3	1,4	2,4	7,7	3,2	3,9	2,8	0,4	4,2	3,9	2,9	3,1	2,9	6,2
1968	2,7	7,0	2,2	1,7	5,0	4,2	4,4	1,7	5,0	4,2	1,7	4,2	3,3	5,0	5,3
1969	4,0	7,0	4,2	3,4	4,4	6,6	8,9	4,1	5,3	6,4	7,4	5,4	5,1	5,1	5,0
1970	4,6	8,3	7,6	3,9	6,8	5,6	8,9	6,9	14,9	6,2	2,0	7,3	6,7	5,3	7,7
1961-70	3,4	6,4	3,7	3,1	64	4,4	5,4	4,5	4,1	5,2	3,0	4,2	4,4	3,0	5,5
1971	5,6	7,7	8,0	3,2	8,0	5,8	10,6	7,2	−1,3	8,1	5,0	9,4	7,5	5,3	5,6
1972	6,2	9,2	5,3	5,0	8,7	6,2	13,5	6,3	5,7	9,4	7,8	8,3	6,9	4,4	5,6
1973	7,2	10,7	6,4	19,4	11,8	7,8	15,3	11,6	11,8	9,0	9,5	7,1	8,7	5,5	12,9
1974	12,6	13,1	7,0	20,9	16,6	11,1	6,1	18,5	17,5	9,2	18,9	14,9	12,8	9,0	20,8
1975	12,1	12,4	6,0	12,3	16,7	13,4	22,4	17,5	−2,2	10,2	16,2	27,1	15,0	9,2	7,7
1976	7,6	9,1	3,6	15,4	16,7	9,9	21,0	18,0	12,7	9,0	16,3	15,0	11,4	5,9	7,2
1977	7,5	9,4	3,7	13,0	22,8	9,0	13,3	19,1	0,8	6,7	26,4	13,9	11,7	5,7	5,8
1978	4,3	9,9	4,3	12,9	20,2	9,5	10,5	13,9	5,4	5,4	21,7	11,3	10,2	7,4	4,8
1979	4,6	7,6	4,0	18,6	16,7	10,4	13,7	15,9	5,8	3,9	18,8	14,5	10,8	8,5	3,0
1980	3,8	8,2	4,8	17,7	13,9	12,2	14,7	20,6	7,4	5,7	20,9	19,9	12,9	9,6	3,8
1971-80	7,1	9,7	5,3	13,7	15,1	9,5	14,0	14,8	6,2	7,6	16,0	14,0	10,8	7,0	7,6
1981	5,0	10,1	4,0	20,0	13,6	11,8	18,2	18,3	8,1	5,5	16,5	11,8	10,9	8,9	3,2
1982	7,1	10,6	4,4	24,7	13,7	12,6	15,9	17,8	9,9	6,0	21,8	7,5	10,6	6,9	1,9
1983	6,4	8,1	3,3	19,9	11,8	9,5	10,4	15,0	8,2	1,6	24,1	5,0	8,3	4,5	0,8
1984	5,3	5,7	1,9	19,9	11,6	7,3	6,6	10,7	6,6	2,6	25,6	4,4	6,6	3,5	0,6
1985	5,3	5,4	2,2	17,1	9,1	5,7	6,1	8,8	5,6	2,1	21,3	6,1	6,0	3,4	1,6
1986	4,0	4,5	2,7	21,8	11,1	4,5	6,1	9,1	6,1	0,1	18,1	3,6	5,6	3,0	0,8
1987	1,7	2,6	1,5	12,0	5,6	2,2	2,2	4,6	2,8	−0,3	11,4	4,2	3,3	4,2	0,1

Table 18

Price deflator of private consumption

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	2,7	3,5	3,6	1,1	1,8	3,3	2,6	1,7	0,5	2,4	1,6	2,9	2,8	1,1	5,6
1962	1,1	6,2	3,2	1,3	5,3	4,4	4,0	5,3	0,8	2,6	−1,4	3,7	3,9	1,7	6,1
1963	3,7	5,6	3,1	3,4	7,8	5,7	2,5	7,0	3,1	3,8	1,2	1,7	4,3	1,6	6,9
1964	4,2	4,0	2,3	2,2	6,7	3,4	6,9	4,9	3,0	6,8	8,1	3,6	4,0	1,4	4,4
1965	4,6	6,1	3,4	4,6	9,7	2,6	4,8	3,6	3,4	4,0	6,2	4,9	4,3	1,7	6,8
1966	4,1	6,5	3,5	3,5	7,3	3,2	3,8	2,9	3,4	5,4	8,7	4,0	4,0	2,8	4,9
1967	2,5	7,4	1,6	1,9	5,8	3,0	3,1	3,2	2,3	3,0	2,6	2,6	2,9	2,4	4,8
1968	2,9	7,1	1,6	0,7	5,1	5,0	5,2	1,5	2,5	2,6	−8,5	4,6	3,2	4,1	5,6
1969	2,8	4,6	2,3	3,0	3,4	7,1	7,4	2,9	1,9	6,1	5,9	5,5	4,3	4,5	4,7
1970	2,5	6,6	4,0	3,1	6,6	5,0	8,1	5,0	4,0	4,4	3,4	5,9	5,0	4,5	7,6
1961-70	3,1	5,8	2,9	2,5	5,9	4,3	4,8	3,8	2,5	4,1	2,7	4,0	3,8	2,6	5,7
1971	5,3	8,3	6,0	2,9	8,0	5,5	9,4	5,5	4,7	7,9	2,9	8,7	6,5	4,6	6,8
1972	5,4	8,2	5,7	3,3	8,2	5,8	9,7	6,4	5,2	8,3	5,2	6,6	6,4	3,8	5,6
1973	6,1	11,7	6,6	15,0	11,4	6,8	11,6	12,5	4,9	8,5	9,8	8,3	8,7	5,9	10,7
1974	12,8	15,0	7,4	23,5	17,5	13,5	15,7	20,9	10,2	9,5	22,8	17,1	14,4	10,1	21,2
1975	12,3	9,9	6,2	12,7	15,6	11,3	22,3	17,7	10,2	10,1	19,1	23,7	14,0	7,7	11,3
1976	7,9	9,9	4,2	13,4	16,8	9,8	20,0	18,1	9,4	9,0	16,8	15,7	11,6	5,4	9,2
1977	7,1	10,6	3,7	11,9	24,0	9,0	14,1	18,2	5,8	6,1	27,3	14,9	11,8	5,9	7,2
1978	4,1	9,2	2,8	12,8	19,2	8,7	8,0	12,9	3,4	4,5	21,0	9,1	9,0	6,9	4,5
1979	3,9	10,4	4,0	16,5	16,2	10,4	14,9	15,1	5,2	4,3	24,0	13,5	10,6	9,0	3,6
1980	6,5	10,7	5,8	21,2	15,6	13,2	18,6	20,2	7,7	6,9	22,3	16,4	13,2	10,3	7,1
1971-80	7,1	10,4	5,2	13,2	15,2	9,4	14,3	14,6	6,6	7,5	16,8	13,3	10,6	6,9	8,6
1981	8,1	12,0	6,0	23,3	15,1	12,8	21,2	19,2	8,6	6,3	16,9	11,5	12,1	9,0	4,4
1982	7,4	10,2	4,7	21,2	14,2	11,2	16,0	17,0	10,6	5,3	22,5	8,5	10,4	5,9	2,6
1983	7,5	7,2	3,1	18,6	12,2	9,5	8,2	15,1	8,0	2,8	25,5	5,2	8,4	3,8	1,8
1984	5,9	6,5	2,4	18,0	11,1	7,3	8,5	11,1	6,4	2,6	29,3	5,1	7,0	3,2	2,1
1985	4,9	5,0	2,0	18,4	8,4	5,5	5,4	9,4	4,0	2,2	19,3	5,4	5,8	3,2	2,3
1986	1,2	2,4	−0,0	22,5	8,0	2,4	2,9	5,6	0,8	−0,0	12,0	3,9	3,5	2,5	0,5
1987	1,7	2,1	1,1	12,6	4,8	2,2	1,3	4,8	1,8	0,2	9,3	4,0	3,1	3,9	−0,3

Table 19

Price deflator of exports of goods and services

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	0,6	−1,2	0,3	0,2	2,0	0,3	−0,1	−0,8	−3,0	−1,7	3,5	1,3	0,3	1,1	−2,1
1962	1,0	2,5	0,5	1,1	4,8	1,2	1,5	0,8	−1,7	−0,1	2,1	0,8	1,2	−0,3	−1,3
1963	2,1	2,8	0,9	8,0	6,3	2,8	2,0	3,3	−0,0	2,6	9,6	0,9	2,6	0,1	2,2
1964	4,2	3,4	2,5	0,9	2,8	4,4	4,9	4,1	2,2	2,5	−8,4	2,4	2,7	−0,5	2,0
1965	1,4	2,2	2,5	−1,1	5,6	1,1	1,8	−0,0	1,4	2,3	5,2	1,9	1,8	3,4	0,5
1966	3,7	3,0	2,5	3,9	5,7	2,0	1,8	0,2	0,8	0,7	−4,8	3,7	2,2	2,9	1,2
1967	0,5	1,2	0,2	−2,7	7,9	−0,4	0,7	1,1	0,4	−0,0	8,5	2,2	1,3	1,8	1,2
1968	0,2	3,0	−0,1	−1,3	9,1	−0,4	6,5	0,3	1,3	−0,5	5,4	8,4	2,4	2,2	0,7
1969	4,6	6,7	4,1	0,5	1,6	4,8	6,1	2,7	6,5	2,2	4,0	2,5	3,5	3,1	2,5
1970	5,7	6,5	4,4	3,1	5,0	7,8	6,8	6,1	12,5	5,8	12,9	8,7	6,6	5,1	3,5
1961-70	2,4	3,0	1,8	1,2	5,1	2,3	3,2	1,8	2,0	1,3	3,6	3,2	2,5	2,0	1,0
1971	2,1	3,5	4,0	1,7	6,0	4,8	7,3	4,3	−3,8	3,2	4,8	4,7	4,1	4,3	2,8
1972	1,7	6,9	2,0	5,7	6,3	0,7	11,5	2,8	0,7	1,8	6,7	4,6	2,8	3,0	−0,7
1973	8,3	12,0	6,3	26,1	10,4	7,4	19,7	15,2	13,8	7,2	14,7	12,5	10,2	13,0	9,1
1974	24,5	20,5	15,1	31,6	22,1	22,7	23,0	34,9	27,1	26,0	43,4	25,2	24,4	22,1	30,7
1975	5,5	7,7	4,2	12,9	10,4	4,7	18,8	11,3	−1,1	5,1	0,0	20,4	9,5	10,9	3,1
1976	5,8	7,0	3,6	10,0	15,1	7,8	23,0	20,4	8,5	6,6	6,2	19,6	11,6	3,6	1,7
1977	3,7	6,7	1,9	9,9	20,1	9,0	14,8	19,2	−2,6	3,6	33,2	15,5	11,0	4,1	−3,6
1978	1,1	6,3	1,5	8,2	15,9	6,3	6,6	8,2	1,8	−1,3	23,7	7,5	6,2	6,9	−5,6
1979	9,1	8,2	4,8	14,5	8,0	10,0	9,6	15,6	7,9	8,3	30,3	11,4	10,6	13,4	9,1
1980	9,3	14,6	6,1	34,2	19,6	12,4	10,8	18,2	6,7	12,3	19,8	14,7	13,5	10,9	9,2
1971-80	6,9	9,2	4,9	15,0	13,3	8,4	14,4	14,7	5,6	7,1	17,5	13,4	10,3	9,1	5,2
1981	9,5	12,7	5,5	21,1	19,7	13,5	16,4	21,1	9,0	14,0	21,2	9,4	13,2	8,4	1,1
1982	13,0	10,6	4,0	22,4	12,8	14,1	10,8	15,5	14,0	3,9	13,2	6,3	10,3	1,3	2,7
1983	7,3	6,3	1,8	15,4	18,6	8,5	9,1	8,5	6,6	−0,4	26,7	7,2	7,4	1,4	−6,7
1984	7,5	7,7	3,3	21,3	13,0	8,9	7,5	10,1	9,2	6,1	30,4	7,3	8,4	3,3	−2,3
1985	3,1	4,7	2,7	16,3	6,5	3,7	3,1	8,1	3,1	1,9	15,5	5,1	5,0	−2,1	−0,7
1986	−5,0	−4,7	−3,3	14,7	−1,3	−2,9	−2,3	−2,9	−2,0	−11,3	7,3	−6,8	−3,7	5,4	−11,5
1987	1,2	1,2	0,2	9,3	4,3	2,3	1,1	3,7	1,5	−0,7	11,5	2,1	2,3	4,6	−0,5

Table 20

Price deflator of imports of goods and services

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	2,6	0,1	−2,4	−1,7	2,0	0,1	0,9	−2,2	1,4	−1,9	1,1	0,0	−0,6	−0,9	0,6
1962	0,8	−0,1	−0,1	−0,7	2,0	2,7	0,5	0,4	0,8	−0,9	−1,2	−0,2	0,7	−2,1	−2,6
1963	4,0	1,9	2,4	3,0	2,0	1,1	1,8	1,5	1,2	1,4	2,0	2,5	2,4	1,4	3,1
1964	3,2	1,3	1,7	3,0	2,4	0,9	1,3	3,4	2,1	2,4	5,3	2,5	2,4	2,1	1,3
1965	0,2	1,6	2,9	0,3	0,2	1,4	2,5	0,6	1,7	0,5	7,2	1,6	1,6	1,0	−2,1
1966	3,2	1,6	2,0	3,3	0,2	3,2	0,2	1,9	1,4	0,7	−0,3	1,6	1,5	2,1	2,1
1967	0,5	2,5	−1,4	−3,0	2,8	−1,3	−0,3	0,7	−0,7	−0,9	13,1	1,3	0,1	0,5	−1,5
1968	0,6	5,0	0,4	0,2	10,7	−1,1	7,9	0,7	0,0	−2,9	−16,0	11,1	2,6	1,3	2,0
1969	3,2	2,9	2,4	0,0	3,0	4,9	4,2	1,4	3,1	3,3	−2,1	2,8	2,5	2,4	3,8
1970	5,1	5,6	−0,2	4,0	5,1	9,7	6,9	3,7	6,6	6,6	19,2	7,1	5,1	6,6	3,0
1961-70	2,3	2,2	0,7	0,8	3,0	2,1	2,6	1,2	1,7	0,8	2,4	3,0	1,8	1,4	0,9
1971	3,4	6,1	1,0	2,9	5,0	3,7	5,4	5,3	6,3	4,3	1,5	3,8	3,5	5,4	−1,9
1972	0,4	2,0	2,1	7,7	1,6	−1,8	5,8	3,9	−0,2	−0,4	3,4	3,0	1,6	7,3	−4,4
1973	7,5	16,8	8,1	21,9	10,4	6,8	13,9	26,1	9,8	7,5	14,1	23,2	14,1	17,5	18,5
1974	27,5	32,7	22,9	41,6	42,1	42,0	44,4	56,2	22,5	32,7	43,5	41,9	38,2	44,1	63,5
1975	6,7	4,9	3,2	17,4	7,0	−0,2	20,5	6,4	9,8	4,3	15,5	13,7	6,4	9,6	9,1
1976	6,3	8,5	5,0	11,2	14,4	8,6	19,0	24,1	6,8	6,4	13,2	21,8	12,8	2,8	5,9
1977	3,1	7,7	2,2	5,8	21,9	10,7	16,8	17,1	1,5	3,2	29,3	14,1	10,5	10,5	−3,7
1978	1,1	2,7	−2,1	9,7	7,3	1,2	4,7	4,7	2,6	−1,6	22,5	3,0	2,6	4,6	−14,7
1979	8,9	13,7	8,0	17,7	7,3	10,3	13,7	17,4	7,1	10,9	31,8	8,6	11,7	17,2	28,7
1980	13,6	21,7	12,3	34,1	36,5	16,8	18,0	21,9	8,3	14,5	25,6	9,6	17,1	20,0	38,8
1971-80	7,6	11,3	6,1	16,4	14,7	9,2	15,7	17,4	7,3	7,8	19,4	13,7	11,4	13,4	11,9
1981	13,8	17,7	11,6	15,3	27,1	16,2	18,6	27,6	9,2	14,3	25,0	8,2	16,8	0,9	0,8
1982	13,0	10,1	2,9	26,1	12,9	9,2	7,5	11,4	13,9	1,3	17,1	6,6	8,3	−6,3	3,5
1983	7,0	5,0	0,5	21,9	21,0	6,5	5,2	5,2	7,3	0,7	28,6	7,7	6,6	−4,5	−5,7
1984	7,4	8,6	4,7	23,6	10,0	9,4	9,4	10,7	6,8	5,5	31,5	8,8	8,8	−2,9	−4,3
1985	2,3	2,8	2,3	17,4	3,7	0,5	2,6	7,2	1,6	1,3	11,2	3,5	3,5	−2,1	−2,5
1986	−8,8	−10,1	−10,7	12,8	−15,4	−11,9	−6,9	−14,4	−7,1	−12,6	−2,6	−4,1	−9,7	1,3	−28,0
1987	1,2	0,2	0,2	8,4	3,7	1,2	0,6	2,8	0,8	0,3	10,1	1,8	1,7	0,4	−4,0

Table 21

Terms of trade; goods and services; including intra-Community trade

(1980 = 100)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	USA	JA
1960	106,0	112,1	100,7	108,8	92,9	105,7	106,2	120,1	115,2	101,9	104,4	100,1	139,5	184,5
1961	103,9	110,7	103,5	110,9	92,8	105,9	105,1	121,8	110,2	102,1	106,9	101,4	142,3	179,5
1962	104,1	113,5	104,2	112,9	95,4	104,2	106,2	122,4	107,5	102,9	110,5	102,4	145,0	182,0
1963	102,2	114,5	102,7	118,4	99,4	105,9	106,4	124,5	106,1	104,1	118,7	100,8	143,1	180,3
1964	103,2	116,9	103,5	116,0	99,8	109,6	110,2	125,3	106,2	104,2	103,3	100,8	140,8	181,6
1965	104,4	117,5	103,2	114,4	105,2	109,2	109,4	124,5	105,9	106,0	101,5	101,1	144,1	186,5
1966	105,0	119,1	103,8	115,0	110,9	107,9	111,2	122,5	105,3	106,0	96,9	103,1	145,2	184,7
1967	105,0	117,6	105,5	115,4	116,3	109,0	112,4	123,0	106,4	106,9	92,9	104,1	147,0	189,7
1968	104,5	115,4	105,0	113,6	114,7	109,7	110,8	122,5	107,8	109,4	116,5	101,5	148,4	187,4
1969	106,0	119,7	106,8	114,2	113,2	109,6	112,8	124,1	111,4	108,2	123,9	101,3	149,3	185,1
1970	106,6	120,7	111,8	113,1	113,1	107,6	112,8	126,9	117,6	107,3	117,4	102,8	147,2	186,0
1971	105,3	117,8	115,0	111,7	114,2	108,7	114,8	125,7	106,4	106,2	121,2	103,6	145,8	194,9
1972	106,7	123,5	115,0	109,6	119,4	111,4	121,1	124,4	107,4	108,6	125,0	105,2	139,9	202,5
1973	107,5	118,5	113,1	113,4	119,3	112,0	127,2	113,6	111,3	108,2	126,6	96,1	134,5	186,4
1974	104,9	107,6	105,9	105,4	102,5	96,8	108,4	98,1	115,5	102,8	125,4	84,8	113,9	149,0
1975	103,8	110,4	106,9	101,3	105,8	101,6	106,9	102,7	104,0	103,6	108,6	89,8	115,3	140,9
1976	103,2	108,9	105,5	100,3	106,4	100,8	110,5	99,6	105,7	103,7	101,9	88,2	116,2	135,3
1977	103,8	107,8	105,2	104,2	104,9	99,3	108,5	101,4	101,5	104,1	105,0	89,3	109,4	135,4
1978	103,8	111,5	109,1	102,7	113,3	104,2	110,5	104,8	100,7	104,4	106,0	93,2	111,8	149,9
1979	104,0	106,2	105,8	99,9	114,1	104,0	106,5	103,1	101,5	101,9	104,8	95,6	108,2	127,1
1980	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
1981	96,3	95,7	94,5	105,0	94,2	97,7	98,1	94,9	99,8	99,7	96,9	101,1	107,4	100,3
1982	96,3	96,1	95,5	101,9	94,1	102,1	101,1	98,4	99,9	102,3	93,7	100,8	116,2	99,6
1983	96,6	97,3	96,8	96,5	92,3	104,1	104,8	101,5	99,3	101,2	92,3	100,4	123,4	98,5
1984	96,7	96,5	95,6	94,7	94,7	103,7	103,1	100,9	101,4	101,8	91,5	98,9	131,3	100,5
1985	97,4	98,2	95,9	93,9	97,3	107,0	103,5	101,8	103,0	102,4	95,1	100,4	131,2	102,4
1986	101,5	104,2	103,9	95,4	113,4	117,9	108,7	115,5	108,6	103,9	104,7	97,6	136,5	125,8
1987	101,5	105,2	103,9	96,2	114,0	119,2	109,2	116,6	109,4	102,8	106,1	97,9	142,3	130,4

Table 22

Compensation per employee; total economy

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	3,2	12,9	10,2	3,7	12,9	10,6	9,5	8,2	2,9	7,4	6,4	6,8	8,8	3,2	13,4
1962	7,2	11,1	9,1	7,1	15,2	11,6	9,3	13,5	4,8	6,8	6,2	4,7	9,2	4,4	14,0
1963	8,0	4,6	6,1	7,5	21,1	11,4	6,1	19,7	8,0	9,3	8,9	5,0	9,9	4,0	14,2
1964	9,7	10,7	8,2	13,1	13,7	9,2	14,2	12,3	13,3	16,5	8,5	7,1	9,7	5,1	11,9
1965	9,5	13,8	9,5	12,0	16,1	6,5	3,2	7,7	4,2	11,7	11,7	6,8	8,7	3,7	11,5
1966	8,6	10,2	7,6	12,4	17,3	6,0	8,5	7,9	5,0	11,1	10,6	6,4	8,0	5,1	9,9
1967	7,4	10,9	3,3	9,3	15,2	6,9	8,0	8,4	2,8	9,3	13,8	6,2	7,0	4,3	12,1
1968	6,3	10,0	6,7	9,7	8,8	11,3	10,6	7,4	5,9	8,6	3,6	7,8	8,2	7,4	13,7
1969	8,4	11,0	9,5	9,4	12,0	11,1	13,9	7,6	5,6	13,2	10,0	7,1	9,4	7,4	15,8
1970	9,4	11,0	16,0	8,7	11,0	10,5	16,8	15,7	15,1	12,4	27,4	13,0	13,5	7,6	16,7
1961-70	7,8	10,6	8,6	9,3	14,3	9,5	9,9	10,8	6,7	10,6	10,6	7,1	9,2	5,2	13,3
1971	11,7	11,7	11,6	8,3	14,4	11,5	14,0	13,1	7,8	13,8	16,3	11,4	12,1	7,2	14,9
1972	14,0	7,9	9,9	13,4	17,5	10,2	16,9	11,1	9,7	12,8	16,4	13,1	11,8	7,4	14,6
1973	13,0	13,1	12,1	18,0	18,1	12,7	19,8	19,6	11,5	15,4	18,0	13,2	14,6	7,0	20,9
1974	18,2	18,4	11,5	20,0	22,2	17,5	18,6	22,1	23,0	15,7	35,5	18,8	17,8	8,1	26,1
1975	16,5	14,0	7,2	21,1	20,5	18,3	26,9	21,0	12,4	13,3	34,5	31,2	18,6	9,2	16,2
1976	15,9	11,7	7,9	21,3	24,1	14,7	19,9	20,9	11,3	10,8	22,3	14,8	15,0	8,0	10,8
1977	8,6	9,7	6,6	22,8	26,6	12,6	14,6	21,4	9,9	8,5	24,6	10,8	13,4	7,5	10,0
1978	7,5	9,2	5,6	23,3	25,4	12,4	15,6	16,2	6,1	7,2	19,0	13,4	12,5	7,6	7,2
1979	5,6	9,4	5,9	23,4	19,6	13,1	19,3	17,9	7,0	6,0	18,7	15,1	12,7	8,5	5,9
1980	9,2	10,0	6,9	16,2	17,8	14,7	22,1	22,5	9,1	5,5	23,3	19,4	14,7	9,9	6,0
1971-80	12,0	11,5	8,5	18,7	20,5	13,8	18,7	18,5	10,7	10,8	22,7	16,0	14,3	8,0	13,1
1981	6,4	9,2	5,2	23,4	16,3	14,3	17,3	21,9	8,8	3,5	20,6	13,2	12,8	9,5	6,5
1982	8,1	12,1	4,2	25,4	12,8	13,7	14,6	17,2	7,2	5,8	18,5	9,1	10,9	6,5	4,0
1983	6,4	7,9	3,8	21,8	13,5	10,7	10,5	16,5	7,6	3,2	21,6	9,2	9,9	5,7	2,7
1984	6,8	5,4	3,2	22,6	13,0	7,8	9,9	12,0	6,8	0,8	19,8	5,5	7,6	4,1	4,1
1985	5,7	4,4	3,1	22,0	9,2	6,9	6,6	10,0	4,6	1,3	21,3	7,5	6,9	4,7	3,6
1986	3,0	3,1	4,0	15,2	8,6	4,3	6,6	7,6	4,2	2,2	17,2	7,7	6,1	3,5	4,0
1987	2,6	2,9	3,3	10,9	6,1	2,7	4,7	6,1	5,6	1,9	12,5	6,7	4,7	4,2	3,5

Table 23

Real compensation per employee; total economy

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	0,6	9,0	6,4	2,6	10,9	7,0	6,7	6,4	2,4	4,9	4,8	3,7	5,8	2,1	7,4
1962	6,1	4,7	5,7	5,8	9,4	7,0	5,1	7,8	4,0	4,1	7,7	0,9	5,1	2,7	7,4
1963	4,2	−0,9	2,9	4,0	12,4	5,4	3,5	11,8	4,7	5,3	7,5	3,2	5,4	2,4	6,8
1964	5,3	6,4	5,7	10,6	6,6	5,6	6,8	7,1	10,0	9,1	0,4	3,3	5,5	3,6	7,2
1965	4,7	7,3	5,9	7,1	5,9	3,9	−1,5	4,0	0,8	7,4	5,1	1,8	4,2	1,9	4,4
1966	4,3	3,4	4,0	8,6	9,3	2,8	4,6	4,8	1,6	5,4	1,7	2,3	3,9	2,2	4,8
1967	4,7	3,3	1,6	7,3	8,9	3,7	4,7	5,1	0,5	6,1	10,9	3,5	4,0	1,9	6,9
1968	3,3	2,7	5,0	8,9	3,4	6,0	5,1	5,8	3,3	5,9	13,3	3,1	4,9	3,2	7,7
1969	5,4	6,1	7,0	6,2	8,4	3,7	6,1	4,5	3,7	6,7	3,9	1,6	4,9	2,7	10,6
1970	6,7	4,1	11,5	5,4	4,2	5,2	8,1	10,1	10,7	7,7	23,2	6,7	8,1	3,0	8,4
1961-70	4,5	4,6	5,5	6,6	7,9	5,0	4,9	6,7	4,1	6,3	7,7	3,0	5,2	2,6	7,1
1971	6,0	3,1	5,3	5,3	5,9	5,7	4,2	7,2	2,9	5,4	13,0	2,5	5,2	2,5	7,6
1972	8,2	−0,2	4,0	9,8	8,6	4,2	6,6	4,4	4,3	4,2	10,7	6,1	5,1	3,5	8,6
1973	6,5	1,3	5,2	2,6	6,0	5,6	7,4	6,3	6,3	6,3	7,4	4,5	5,5	1,0	9,3
1974	4,9	3,0	3,8	−2,8	3,9	3,5	2,5	1,0	11,7	5,6	10,4	1,4	3,0	−1,9	4,0
1975	3,8	3,7	0,9	7,4	4,2	6,4	3,8	2,8	2,0	2,9	13,0	6,1	4,0	1,4	4,4
1976	7,5	1,6	3,6	6,9	6,3	4,5	−0,1	2,4	1,7	1,7	4,7	−0,7	3,0	2,5	1,5
1977	1,4	−0,8	2,8	9,7	2,0	3,3	0,4	2,7	3,9	2,2	−2,1	−3,5	1,4	1,5	2,6
1978	3,3	−0,1	2,7	9,3	5,1	3,4	7,1	2,9	2,6	2,5	−1,7	4,0	3,3	0,6	2,6
1979	1,6	−0,9	1,8	5,9	2,9	2,4	3,8	2,4	1,8	1,6	−4,3	1,4	1,9	−0,4	2,2
1980	2,6	−0,6	1,0	−4,2	1,9	1,3	3,0	1,9	1,3	−1,3	0,8	2,6	1,3	−0,4	−1,0
1971-80	4,5	1,0	3,1	4,9	4,7	4,0	3,8	3,4	3,8	3,1	5,0	2,4	3,4	1,0	4,1
1981	−1,5	−2,5	−0,8	0,1	1,0	1,3	−3,2	2,3	0,1	−2,7	3,2	1,5	0,6	0,4	2,0
1982	0,7	1,6	−0,5	3,4	−1,2	2,3	−1,2	0,2	−3,1	0,5	−3,3	0,5	0,4	0,5	1,4
1983	−1,0	0,6	0,7	2,7	1,1	1,1	2,1	1,2	−0,4	0,4	−3,1	3,9	1,4	1,8	0,9
1984	0,8	−1,1	0,8	3,9	1,7	0,5	1,3	0,8	0,4	−1,7	−7,4	0,4	0,6	0,8	1,9
1985	0,8	−0,6	1,0	3,1	0,7	1,3	1,1	0,5	0,6	−1,0	1,7	2,0	1,0	1,5	1,3
1986	1,8	0,6	4,0	−5,9	0,6	1,9	3,6	1,8	3,3	2,2	4,6	3,6	2,5	1,0	3,5
1987	0,9	0,8	2,2	−1,5	1,2	0,5	3,3	1,2	3,7	1,7	2,9	2,6	1,6	0,3	3,7

Table 24

Adjusted share of labour income; total economy

(As percentage of GDP at factor cost)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	69,2	71,4	70,6	99,1	73,6	72,3	86,5	80,8	66,1	63,7	66,5	71,6	74,6	73,6	84,2
1961	68,3	72,4	72,1	92,4	72,9	73,2	87,0	79,0	68,9	65,9	65,8	72,3	74,9	73,1	78,1
1962	69,6	73,0	72,5	92,1	73,2	73,2	88,1	78,7	68,3	66,8	65,9	72,9	75,1	72,2	81,0
1963	70,4	73,4	72,6	87,7	75,4	73,7	88,0	80,9	68,7	68,3	65,8	72,0	75,3	71,8	80,6
1964	69,9	72,6	71,4	87,2	76,5	73,6	89,2	82,4	68,9	68,7	65,9	71,9	75,1	71,9	76,9
1965	70,1	75,4	71,6	85,2	77,3	72,8	86,5	80,9	69,4	69,4	65,8	72,6	75,0	70,9	78,7
1966	71,8	76,6	72,2	85,7	79,5	71,9	89,9	79,2	69,5	71,6	66,2	73,2	75,1	70,8	75,8
1967	72,2	77,4	71,5	85,9	81,8	70,9	87,9	79,3	70,3	71,2	67,5	72,6	74,8	71,7	73,8
1968	71,3	77,9	70,0	86,6	79,7	71,7	86,4	78,1	67,7	70,8	62,8	72,1	73,9	72,4	71,8
1969	70,7	77,1	70,5	83,5	79,8	71,3	86,2	76,1	62,7	71,3	62,9	73,5	73,9	73,8	71,1
1970	68,9	78,1	72,1	80,5	80,4	71,0	88,6	78,2	63,0	72,6	72,1	75,3	75,0	75,3	71,3
1961-70	70,3	75,4	71,6	86,7	77,6	72,3	87,8	79,3	67,8	69,7	66,1	72,8	74,8	72,4	75,9
1971	70,8	79,4	72,8	78,4	81,1	71,2	88,6	80,7	69,9	74,2	74,3	72,9	75,3	74,1	74,8
1972	71,3	76,0	72,8	77,8	81,3	70,3	85,0	79,9	70,3	73,5	73,7	73,7	75,0	73,9	74,9
1973	71,5	75,2	73,6	71,5	81,8	70,5	84,5	80,4	65,4	73,9	70,6	73,3	75,2	73,7	75,9
1974	73,3	78,0	75,1	72,5	80,6	72,5	90,3	81,0	66,7	74,9	78,1	75,3	76,6	74,9	79,3
1975	75,9	79,0	74,9	75,2	80,6	74,6	88,2	84,9	83,9	76,8	92,1	77,8	78,4	73,6	83,0
1976	77,3	77,6	73,4	75,9	82,2	74,8	87,9	83,7	79,8	74,2	91,4	74,6	77,3	73,5	82,8
1977	77,6	78,0	73,2	81,0	81,5	75,0	80,5	84,8	85,5	74,5	85,0	72,9	77,0	73,0	83,2
1978	77,8	77,9	72,5	83,3	80,7	74,9	78,6	84,5	83,1	74,5	77,9	72,1	76,4	73,1	81,8
1979	77,7	78,3	72,0	84,5	81,2	74,8	82,1	82,2	81,9	74,8	75,3	73,2	76,1	73,3	81,5
1980	78,8	79,3	73,3	81,2	79,7	75,8	87,7	81,7	83,3	74,6	75,6	74,9	76,8	74,2	80,4
1971-80	75,2	77,9	73,4	78,1	81,1	73,4	85,3	82,4	77,0	74,6	79,4	74,1	76,4	73,7	79,8
1981	79,5	78,3	73,5	86,3	79,6	76,4	85,9	84,0	84,9	72,5	78,4	74,6	77,3	73,1	80,7
1982	78,3	76,4	72,4	87,0	77,6	76,2	85,4	83,9	82,2	71,1	73,4	73,7	76,4	74,5	81,0
1983	77,3	75,1	70,9	89,4	76,8	76,0	84,1	86,7	79,9	70,2	71,6	72,8	76,1	73,8	81,4
1984	77,1	74,4	70,1	89,3	73,0	74,8	81,5	85,8	77,6	67,4	68,6	73,3	75,1	72,4	80,2
1985	76,5	73,7	69,2	89,9	71,2	74,5	79,7	84,8	75,3	65,9	:	72,8	74,3	73,0	78,7
1986	74,4	73,0	68,5	88,0	68,8	72,9	78,6	82,1	72,7	66,9	:	75,1	73,5	73,2	79,1
1987	73,7	72,7	68,5	91,5	68,4	71,6	78,9	81,4	73,2	68,3	:	75,9	73,4	72,4	79,6

Table 25

Relative unit labour costs; total economy (calculated in a common currency against 19 countries)

(1972 = 100)

	B/L	DK	D	GR	E	F	IRL	I	NL	P	UK	EUR 12	USA	JA
1960	104,5	82,1	81,2	163,3	80,8	115,4	93,6	96,9	72,0	103,0	112,5	89,1	124,0	80,7
1961	98,6	84,5	87,5	147,9	78,7	116,6	93,9	93,0	75,8	99,9	114,1	93,2	120,8	78,9
1962	98,1	86,5	88,0	147,3	80,7	117,4	96,2	94,5	76,8	95,7	115,3	94,9	117,8	83,2
1963	97,7	88,0	87,3	136,8	87,1	120,6	96,0	101,8	79,0	94,4	111,7	96,5	114,8	84,7
1964	98,1	87,9	85,3	136,7	90,7	120,5	102,2	106,8	83,7	92,6	110,9	97,5	113,4	82,4
1965	100,1	93,6	85,0	133,7	96,4	117,9	98,7	105,2	86,2	92,2	112,8	98,5	109,3	86,5
1966	101,4	96,7	85,0	135,2	102,7	114,5	101,0	101,3	90,0	93,5	114,0	98,8	109,4	84,4
1967	101,9	99,4	82,5	135,0	109,0	113,9	99,7	101,0	91,5	95,7	110,3	96,3	109,9	84,6
1968	101,4	99,0	82,0	135,6	96,6	120,0	92,9	100,3	92,9	91,0	96,8	91,3	115,8	85,2
1969	99,8	99,7	83,2	129,1	95,7	115,2	95,0	97,3	96,5	93,7	97,8	90,7	118,5	84,6
1970	94,8	100,7	94,5	118,2	94,9	103,7	97,4	98,0	94,4	100,2	99,7	94,8	116,5	84,4
1971	95,4	101,2	98,6	108,3	95,6	99,4	100,5	100,4	96,7	100,7	99,6	97,1	109,0	89,9
1972	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
1973	100,7	108,4	109,3	94,0	105,0	102,9	99,2	93,2	104,9	98,7	88,4	102,8	88,3	112,0
1974	103,7	113,4	109,5	102,9	109,5	96,2	95,7	87,8	107,9	112,6	89,5	101,0	84,6	117,0
1975	108,2	114,9	101,3	93,2	109,3	108,2	93,0	93,9	109,3	128,6	96,1	107,3	78,0	114,0
1976	113,1	115,6	99,5	95,8	111,4	106,5	90,6	83,9	110,5	124,8	83,6	97,2	80,3	119,0
1977	119,8	115,5	101,9	103,3	110,4	103,2	86,9	86,5	114,8	106,4	81,2	98,9	77,6	130,0
1978	120,2	117,1	103,2	101,7	112,0	103,5	89,6	86,7	116,0	89,3	84,0	101,0	71,6	152,3
1979	118,7	116,0	103,0	107,1	132,8	106,1	98,3	88,8	115,2	80,7	95,0	110,7	71,0	132,5
1980	112,2	106,1	99,3	97,0	124,0	109,7	102,0	92,8	110,3	84,0	116,4	117,7	71,4	117,1
1981	103,1	98,1	88,8	104,1	115,8	103,7	96,9	92,1	99,5	89,5	118,7	101,6	79,2	126,4
1982	91,4	95,4	88,5	110,6	111,9	98,9	101,7	94,2	102,0	82,5	110,8	95,3	90,2	112,9
1983	89,3	96,2	87,7	104,7	96,6	95,6	100,9	101,8	99,3	74,1	102,6	89,8	94,9	121,4
1984	89,0	93,4	83,7	103,5	97,0	92,9	97,0	102,2	93,0	71,3	100,1	83,5	101,8	123,1
1985	90,6	94,1	81,4	100,7	96,0	95,0	98,2	101,1	89,7	70,6	101,5	82,7	107,3	121,4
1986	93,7	98,1	86,9	90,0	97,1	97,6	104,4	106,0	93,6	70,6	101,9	90,3	91,7	142,6
1987	92,5	97,4	86,9	90,1	94,7	94,1	104,0	106,6	93,4	67,5	104,3	89,0	90,4	147,0

Table 26

Exports of goods and services at current prices

(As percentage of GDP at current market prices)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	38,4	32,2	18,8	9,1	10,4	15,0	31,8	14,1	86,7	47,7	17,5	21,1	19,9	5,1	10,8
1961	39,6	29,9	17,9	9,3	10,0	14,5	34,6	14,4	86,9	45,5	16,4	20,6	19,3	5,0	9,2
1962	41,2	28,5	17,2	9,7	10,2	13,4	32,3	14,2	79,9	44,8	18,7	20,2	18,7	4,9	9,5
1963	42,4	30,3	17,7	10,0	9,6	13,1	33,6	13,7	77,7	44,9	19,1	20,0	18,6	4,9	9,0
1964	43,2	29,7	17,9	9,2	11,0	13,2	33,4	14,4	78,8	43,5	25,6	19,4	18,8	5,2	9,4
1965	42,6	29,2	17,9	9,0	10,6	13,8	34,8	16,1	80,7	42,9	26,8	19,3	19,1	5,1	10,5
1966	44,3	28,4	19,0	11,3	11,2	13,8	37,2	16,5	77,2	41,7	27,1	19,5	19,5	5,1	10,6
1967	43,4	27,2	20,3	10,7	10,2	13,7	37,8	16,3	78,5	40,5	27,2	19,1	19,4	5,2	9,7
1968	45,5	27,5	21,2	9,6	11,8	13,7	38,8	17,1	80,5	41,0	25,0	21,4	20,5	5,2	10,1
1969	49,5	27,4	21,6	9,7	12,2	14,6	37,3	17,8	84,3	42,5	24,4	22,4	21,2	5,2	10,5
1970	51,9	27,9	21,1	10,0	13,5	16,3	37,0	17,8	88,4	44,8	24,4	23,3	21,9	5,7	10,8
1961-70	44,4	28,6	19,2	9,8	11,0	14,0	35,7	15,8	81,3	43,2	23,5	20,5	19,7	5,2	9,9
1971	50,6	27,6	20,9	10,3	14,3	17,1	36,1	18,2	87,7	45,4	25,1	23,2	22,1	5,5	11,7
1972	51,1	27,1	20,8	11,7	14,5	17,2	34,6	18,9	81,9	45,0	27,2	22,0	22,0	5,7	10,6
1973	55,6	28.5	22,0	14,2	14,4	18,2	38,0	18,8	88,3	47,4	26,7	23,9	23,2	6,9	10,0
1974	61,3	31,8	26,4	16,1	14,4	21,5	42,6	22,3	101,3	53,9	26,9	28,1	26,8	8,4	13,6
1975	53,7	30,1	24,5	16,9	13,3	19,5	42,7	22,8	91,5	49,9	20,4	26,1	25,0	8,5	12,8
1976	57,0	28,8	25,6	17,6	14,0	20,2	46,3	24,6	86,8	51,0	17,4	28,4	26,3	8,3	13,6
1977	55,8	28,8	25,3	16,8	14,4	21,3	49,4	26,3	84,9	47,6	18,4	30,2	26,8	7,9	13,1
1978	53,9	27,8	24,8	17,6	15,1	21,3	49,9	26,8	82,2	44,9	20,1	28,7	26,4	8,2	11,1
1979	59,4	29,2	24,9	17,5	14,9	21,9	49,7	27,9	89,2	49,1	27,1	28,4	27,2	9,1	11,6
1980	62,4	32,7	26,2	20,9	15,5	22,2	49,6	25,1	86,3	52,5	27,4	27,8	27,4	10,2	13,7
1971-80	56,1	29,2	24,1	16,0	14,5	20,1	43,9	23,2	88,0	48,7	23,7	26,7	25,3	7,9	12,2
1981	68,3	36,5	28,6	20,2	17,3	23,6	48,5	26,7	84,1	58,0	27,8	27,1	29,0	9,7	14,8
1982	72,3	36,4	29,6	18,1	18,2	23,1	48,5	26,6	86,4	57,6	26,6	26,7	29,2	8,6	14,6
1983	75,2	36,4	28,7	19,1	20,5	23,6	53,0	26,1	86,0	58,0	32,1	27,0	29,5	7,7	14,0
1984	79,2	37,3	30,6	21,0	23,3	25,4	59,8	26,8	97,0	63,1	38,8	29,1	31,7	7,5	15,2
1985	78,4	36,9	32,3	20,4	23,4	25,2	60,8	28,2	96,6	64,6	39,9	29,5	32,4	7,0	15,1
1986	73,0	33,7	30,3	20,4	20,5	23,4	56,7	25,4	89,1	57,5	36,4	26,6	29,6	7,3	13,0
1987	74,2	33,9	30,2	20,9	20,5	23,9	57,4	25,6	88,3	58,2	37,6	26,3	29,7	7,4	13,1

Table 27

Exports of goods and services at constant prices

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	9,2	4,3	3,7	14,5	7,9	5,1	17,2	14,8	3,5	2,3	−2,6	3,1	5,4	0,6	6,9
1962	10,1	4,9	4,1	10,0	12,8	1,8	−0,7	10,4	−1,6	6,2	19,1	1,8	5,0	5,3	16,8
1963	8,2	10,0	8,0	6,7	3,8	7,1	9,7	6,5	3,8	6,0	0,9	4,5	6,4	6,7	7,3
1964	9,4	8,5	8,5	1,7	25,5	6,7	7,9	10,8	13,3	11,3	58,7	3,2	8,8	12,1	21,0
1965	6,1	7,9	6,6	12,7	6,9	11,5	9,0	20,0	5,8	7,6	11,1	4,5	8,5	2,4	22,6
1966	7,7	3,9	10,1	34,4	15,2	6,6	10,7	11,2	−0,2	5,2	16,3	4,0	8,0	7,2	15,5
1967	4,3	4,0	7,7	5,1	−4,7	7,3	10,2	7,2	1,9	6,6	3,6	1,5	5,1	4,3	5,7
1968	12,2	9,3	13,0	−1,0	18,4	9,4	8,8	13,9	10,7	12,8	−3,4	12,0	11,9	7,8	23,1
1969	15,3	6,2	9,3	14,6	15,5	15,7	4,6	11,8	13,8	14,9	2,9	8,9	11,4	4,8	19,6
1970	10,2	5,6	5,8	12,4	17,4	16,1	4,4	5,8	9,0	11,9	−1,6	4,9	8,2	9,5	16,8
1961-70	9,2	6,4	7,6	10,7	11,6	8,6	8,1	11,1	5,9	8,4	9,3	4,8	7,9	6,0	15,4
1971	4,5	5,6	6,3	11,9	13,0	11,0	4,1	7,0	4,9	10,7	9,9	7,0	7,8	0,9	16,1
1972	11,1	5,6	7,1	22,9	12,2	12,9	3,6	10,6	4,6	10,0	18,5	0,4	8,1	9,4	4,2
1973	14,2	7,8	10,7	23,4	9,0	11,8	10,9	3,3	15,1	12,1	4,2	11,5	10,3	19,5	5,8
1974	3,8	3,5	11,7	0,1	0,8	10,4	0,7	8,5	10,4	2,6	−15,7	6,8	7,1	8,9	23,7
1975	−8,2	−1,8	−7,2	10,6	−1,4	−1,5	7,2	3,8	−15,8	−3,1	−15,6	−2,8	−3,2	−1,3	0,8
1976	13,6	4,1	10,2	16,4	10,1	10,6	8,1	12,4	0,9	9,9	0,0	8,7	10,2	3,9	16,9
1977	1,9	4,1	3,8	1,8	8,5	9,0	14,0	8,5	3,1	−1,8	5,9	6,2	5,3	2,1	11,7
1978	2,6	1,2	3,3	16,4	10,7	6,6	12,3	10,2	3,9	3,3	11,1	1,7	5,1	9,4	−1,0
1979	7,9	8,4	4,1	6,7	6,4	6,9	6,5	9,5	9,7	7,4	30,2	4,0	6,6	8,7	3,3
1980	3,7	5,2	5,1	6,6	0,6	2,4	6,4	−4,6	−1,2	1,5	6,8	−0,2	1,5	10,1	17,5
1971-80	5,3	4,3	5,4	11,4	6,9	7,9	7,3	6,8	3,2	5,1	4,7	4,2	5,8	7,0	9,6
1981	3,3	8,2	7,7	−4,1	6,9	5,2	2,0	4,1	−4,6	1,5	−2,0	−1,8	3,7	−1,1	14,2
1982	1,8	2,5	3,3	−9,0	6,7	−2,0	5,5	1,3	−0,2	−0,0	6,5	1,3	1,5	−8,8	1,0
1983	3,0	3,7	−0,3	9,9	8,3	4,2	10,5	3,5	3,9	3,6	17,7	2,3	3,1	−5,2	6,9
1984	4,6	4,1	7,6	11,6	15,0	7,4	16,9	6,2	15,4	7,0	14,7	6,7	7,6	4,7	18,1
1985	2,4	3,6	7,6	−0,3	4,7	2,3	6,8	8,2	4,1	4,9	12,0	6,0	5,7	0,8	6,0
1986	4,0	2,8	3,0	5,9	1,4	2,0	4,4	4,0	2,0	2,2	4,3	2,8	2,9	4,7	1,8
1987	4,1	4,0	4,0	5,1	3,6	5,1	6,1	5,3	3,0	3,4	6,9	3,2	4,3	3,7	4,0

Table 28

Intra-Community exports of goods at current prices

(As percentage of GDP at current market prices)

	B/L	DK	D	GR	F	IRL	I	NL	UK	EUR 10
1960	20,2	14,8	6,4	2,6	4,4	20,6	4,0	23,3	3,3	6,3
1961	20,8	13,4	6,7	2,3	4,8	23,0	4,4	23,2	3,6	6,6
1962	22,6	12,7	6,7	3,0	4,7	20,2	4,7	23,6	3,9	6,8
1963	25,1	13,4	7,4	2,7	4,8	21,4	4,4	24,5	4,2	7,1
1964	26,3	12,9	7,5	2,8	4,9	22,0	5,1	25,1	4,1	7,4
1965	27,3	12,1	7,3	2,7	5,2	20,4	5,9	24,6	4,0	7,5
1966	27,4	11,3	7,8	2,7	5,4	20,9	6,1	23,5	3,9	7,7
1967	26,3	10,3	8,4	3,3	5,1	22,8	5,8	22,9	3,7	7,6
1968	27,8	9,7	8,7	3,2	5,2	22,2	6,1	23,6	4,2	8,0
1969	32,0	9,3	9,3	3,2	6,1	20,8	6,5	24,0	4,6	8,9
1970	33,3	9,2	9,0	3,4	7,1	21,7	6,6	25,6	4,8	9,2
1961-70	26,9	11,4	7,9	2,9	5,3	21,5	5,6	24,1	4,1	7,7
1971	31,8	8,7	9,1	3,2	7,3	21,9	7,0	26,5	4,7	9,4
1972	32,9	8,7	8,7	3,6	7,6	22,6	7,5	26,2	4,7	9,5
1973	35,1	10,1	9,4	4,9	8,1	24,5	7,5	27,8	5,6	10,4
1974	36,0	10,6	10,7	5,4	9,3	28,3	8,4	31,7	6,7	11,9
1975	31,9	10,5	9,7	5,5	7,7	30,4	8,5	29,2	6,1	10,8
1976	35,2	10,1	10,7	5,7	8,2	30,6	9,8	30,8	7,4	12,0
1977	33,5	9,7	10,5	5,0	8,5	34,3	10,1	27,7	8,4	12,0
1978	32,9	10,1	10,4	5,4	8,6	34,5	10,6	26,0	8,5	11,9
1979	36,5	11,1	11,2	5,0	9,2	35,0	11,3	29,6	9,2	12,8
1980	38,1	12,9	11,6	6,2	8,8	33,6	9,7	31,5	9,1	12,7
1971-80	34,4	10,2	10,2	5,0	8,3	29,6	9,0	28,7	7,1	11,3
1981	39,0	13,2	12,0	5,1	8.5	30,6	9,3	34,5	8.5	12,5
1982	42,2	13,5	12,9	5,2	8,3	30,8	9,7	34,7	8,5	12,8
1983	43,6	13,9	12,5	6,8	8,6	33,1	9,5	35,8	8,9	13,0
1984	44,8	12,9	13,3	7,8	9,2	38,0	9,6	39,3	9,9	13,9
1985	44,7	13,1	13,9	7,4	9,4	37,3	10,1	42,0	10,3	14,3

Table 29

Extra-Community exports of goods at current prices

(As percentage of GDP at current market prices)

	B/L	DK	D	GR	F	IRL	I	NL	UK	EUR 10
1960	13,8	11,4	10,2	3,5	7,6	3,2	6,2	14,9	11,9	9,8
1961	12,9	11,2	9,8	3,7	7,0	3,4	6,2	14,3	11,3	9,3
1962	12,1	11,0	9,0	3,4	6,1	3,5	5,8	13,2	10,8	8,6
1963	11,1	11,9	8,9	3,9	5,8	3,7	5,6	12,2	10,7	8,3
1964	11,0	11,8	9,0	3,4	5,6	3,1	5,7	11,4	10,5	8,2
1965	11,9	11,9	9,3	3,2	5,7	2,9	6,2	11,5	10,7	8,5
1966	11,7	11,7	9,8	3,8	5,6	3,9	6,3	11,5	10,8	8,6
1967	11,2	11,4	10,3	4,0	5,4	5,9	6,5	11,3	10,0	8,5
1968	11,4	11,5	10,4	3,0	5,3	6,3	6,7	10,5	10,9	8,6
1969	11,3	11,8	10,2	3,2	5,2	6,6	6,8	9,8	11,3	8,6
1970	11,5	12,1	9,9	3,1	5,8	6,4	6,7	9,9	11,2	8,7
1961-70	11,6	11,6	9,6	3,5	5,8	4,6	6,3	11,6	10,8	8,6
1971	11,1	11,5	9,9	2,8	5,7	6,0	6,6	9,1	11,1	8,6
1972	11,1	11,3	9,3	3,3	5,7	5,4	6,8	8,5	10,5	8,3
1973	12,2	11,6	10,0	4,0	6,1	7,3	6,8	9,7	11,2	8,9
1974	14,8	13,6	12,6	5,4	7,9	9,3	9,2	11,9	12,9	11,1
1975	12,5	12,6	11,9	5,5	7,7	7,3	9,5	10,6	12,5	10,5
1976	11,9	11,8	12,1	5,7	7,7	9,1	9,8	10,7	12,9	10,7
1977	12,8	12,0	12,3	5,5	8,1	9,8	10,7	10,4	14,1	11,1
1978	12,4	10,7	11,7	5,2	7,5	9,4	10,5	9,7	13,6	10,6
1979	13,0	11,3	11,3	5,1	7,9	9,4	10,6	10,1	12,5	10,5
1980	14,6	12,6	11,9	6,9	8,1	10,8	9,8	11,2	12,2	10,8
1971-80	12,6	11,9	11,3	4,9	7,2	8,4	9,0	10,2	12,3	10,1
1981	16,2	15,0	13,5	6,6	9,2	12,6	11,9	12,8	12,2	12,0
1982	17,0	14,2	13,8	6,1	8,7	12,3	11,1	12,4	12,2	11,8
1983	18,2	14,9	13,4	6,1	8,9	14,2	10,9	12,9	11,5	11,7
1984	19,9	16,7	14,5	6,6	9,6	16,6	11,3	14,2	12,4	12,6
1985	19,7	16,8	15,4	6,4	9,5	17,3	11,6	14,4	11,9	12,8

Table 30

Imports of goods and services at current prices

(As percentage of GDP at current market prices)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1960	39,3	33,4	16,2	16,7	7,5	12,9	37,3	14,3	73,7	45,9	23,7	22,4	19,1	4,4	10,3
1961	40,6	31,5	15,5	16,4	9,4	12,6	39,8	14,3	80,2	45,4	27,7	20,9	18,7	4,2	10,7
1962	41,4	31,6	16,0	16,9	11,1	12,4	38,9	14,6	79,2	44,5	23,5	20,3	18,7	4,3	9,3
1963	43,5	30,0	16,0	18,0	11,9	12,8	40,8	15,9	77,5	45,6	24,3	20,4	19,0	4,2	9,8
1964	43,7	31,8	16,3	19,0	12,2	13,4	41,0	14,1	78,8	45,6	29,9	21,2	19,3	4,3	9,6
1965	42,9	30,7	17,6	20,3	14,0	12,9	43,9	13,4	79,9	43,6	31,5	20,2	19,2	4,4	9,1
1966	45,2	30,0	17,3	18,8	14,4	13,6	43,2	14,4	75,1	43,1	31,0	19,6	19,3	4,8	9,0
1967	43,1	29,2	16,6	18,0	12,8	13,4	40,9	15,0	70,6	41,4	29,5	20,1	19,0	4,8	9,4
1968	45,3	28,9	17,6	18,4	13,6	13,8	45,2	14,7	70,4	41,0	29,8	22,2	19,8	5,2	9,0
1969	48,6	29,6	18,8	18,7	14,3	15,2	46,3	16,1	69,7	42,7	28,6	21,9	20,7	5,2	8,9
1970	49,4	30,9	19,0	18,4	14,4	15,8	45,0	17,2	75,6	46,6	30,9	22,4	21,4	5,5	9,5
1961-70	44,4	30,4	17,1	18,3	12,8	13,6	42,5	15,0	75,7	43,9	28,7	20,9	19,5	4,7	9,5
1971	48,4	29,4	19,1	18,4	13,5	16,1	43,4	17,1	84,4	45,7	32,1	21,8	21,2	5,7	9,0
1972	47,6	26,5	18,8	20,0	14,5	16,3	39,9	18,0	76,6	42,2	31,9	22,1	21,2	6,1	8,3
1973	53,4	30,4	19,1	25,2	15,5	17,6	44,8	20,9	76,5	44,2	33,7	26,4	23,4	6,8	10,0
1974	60,7	34,7	21,7	25,6	19,2	23,0	57,2	26,8	81,3	51,2	42,2	33,2	28,4	8,8	14,3
1975	53,3	31,0	21,6	26,9	17,2	18,8	48,8	22,7	88,0	46,5	32,8	27,8	25,1	7,8	12,8
1976	56,7	33,5	23,2	25,8	18,1	21,3	54,2	25,9	82,0	47,6	30,9	29,6	27,0	8,6	12,8
1977	56,6	32,5	23,0	25,2	16,5	21,6	58,5	25,0	82,4	46,3	33,5	29,6	26,7	9,3	11,5
1978	54,8	29,9	22,3	25,6	14,4	20,3	59,8	24,2	82,1	44,9	32,5	27,4	25,4	9,6	9,4
1979	61,2	32,1	24,4	25,3	14,7	21,8	66,1	26,5	86,3	49,6	37,9	28,1	27,3	10,3	12,5
1980	65,1	33,8	26,7	26,4	18,0	24,0	63,0	28,0	88,4	53,0	42,1	25,3	28,7	11,0	14,6
1971-80	55,8	31,4	22,0	24,4	16,2	20,1	53,6	23,5	82,8	47,1	35,0	27,1	25,4	8,4	11,5
1981	70,7	35,8	27,8	26,3	19,4	25,2	62,7	28,6	88,2	54,5	47,4	24,0	29,6	10,4	14,0
1982	73,1	35,9	27,2	28,0	20,0	25,5	55,9	27,6	89,9	53,4	46,3	24,6	29,5	9,5	13,8
1983	73,6	34,4	26,7	29,2	21,1	24,5	55,8	25,4	88,5	54,1	44,6	26,0	29,1	9,4	12,2
1984	77,5	36,2	28,1	29,3	20,4	25,2	60,1	27,2	95,9	58,0	46,0	29,0	30,7	10,5	12,4
1985	76,1	36,7	28,7	32,5	20,2	24,9	58,5	28,6	94,4	59,4	41,9	28,2	30,9	10,1	11,4
1986	69,3	32,0	26,3	28,6	15,9	21,6	51,9	23,8	83,1	52,8	36,8	26,5	27,4	10,2	8,3
1987	70,1	31,3	26,8	27,5	16,2	21,9	52,3	24,8	82,1	54,0	38,1	26,6	27,8	10,0	8,5

Table 31

Imports of goods and services at constant prices

(National currency; annual percentage change)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12	USA	JA
1961	7,2	4,4	7,8	12,7	40,1	6,9	13,9	13,7	7,3	6,4	24,7	−0,7	6,9	0,2	27,2
1962	8,2	13,4	12,6	10,1	34,4	6,7	5,4	14,9	3,2	6,5	−8,7	2,1	8,5	12,2	−0,7
1963	8,6	−1,1	3,2	15,4	23,5	14,1	10,7	22,5	3,1	9,8	9,9	4,0	9,2	2,9	18,0
1964	8,9	19,6	9,8	15,2	13,0	15,1	12,9	−6,1	13,6	14,9	27,0	10,5	9,4	5,5	14,1
1965	6,6	6,9	14,8	21,2	33,1	2,2	11,1	2,0	4,5	6,1	9,6	0,7	7,0	11,1	7,1
1966	9,9	5,4	2,4	−0,5	19,0	10,6	3,5	14,0	−2,5	7,0	8,4	2,1	6,8	15,3	12,4
1967	1,6	4,5	−1,0	7,1	−3,3	8,3	3,8	13,5	−4,8	6,3	−6,0	7,4	4,9	7,0	24,5
1968	11,7	4,9	13,5	10,3	8,1	12,9	15,6	5,9	9,1	13,0	33,0	7,4	10,6	15,4	10,8
1969	15,5	13,1	17,0	15,5	15,8	19,5	13,4	19,3	11,2	14,1	7,6	2,7	13,6	5,9	12,7
1970	7,6	9,3	14,4	6,2	7,0	6,3	2,3	16,0	19,0	14,7	0,9	4,7	10,0	3,8	21,8
1961-70	8,5	7,9	9,3	11,2	18,4	10,2	9,2	11,3	6,1	9,8	9,9	4,0	8,7	7,8	14,5
1971	3,6	−0,7	10,8	7,6	0,6	9,1	4,7	2,6	6,9	6,1	14,5	5,3	6,3	6,4	5,9
1972	9,6	1,5	5,9	15,4	24,7	16,0	5,1	11,0	2,6	4,8	12,0	9,1	9,7	11,1	10,3
1973	18,5	12,8	4,3	32,2	16,4	15,2	19,0	10,3	10,5	11,0	12,7	11,9	11,6	4,7	24,3
1974	4,4	−3,8	−0,7	−16,3	7,7	5,2	−2,3	1,2	6,1	−0,8	4,8	1,0	1,3	−3,1	4,6
1975	−9,0	−4,8	0,9	6,3	−1,1	−6,6	−10,2	−9,7	−9,2	−4,1	−25,2	−7,0	−5,6	−12,3	−9,9
1976	13,3	15,6	11,6	6,1	10,1	20,3	14,7	14,7	0,7	10,1	3,4	4,1	11,7	20,1	6,0
1977	4,5	0,0	3,3	8,0	−4,7	2,9	13,3	−0,0	1,6	2,9	12,0	0,9	2,2	8,6	3,9
1978	2,9	0,1	6,5	7,2	−0,7	5,4	15,7	8,1	6,2	6,3	−0,2	3,7	5,2	11,1	5,7
1979	9,3	5,0	9,7	7,2	11,5	11,1	13,9	13,5	7,1	6,0	11,5	10,5	10,3	1,6	12,0
1980	1,1	−6,8	3,5	−6,6	3,8	6,9	−4,5	8,4	3,0	−0,4	11,7	−3,8	2,6	−3,2	−8,7
1971-80	5,6	1,7	5,5	6,0	6,5	8,3	6,5	5,8	3,4	4,1	5,0	3,4	5,4	4,1	5,0
1981	−1,4	−1,7	−2,9	3,4	−3,5	1,6	1,7	−5,1	−2,6	−5,9	5,5	−3,4	−2,4	6,1	1,7
1982	−0,4	3,8	−1,3	5,1	4,8	6,2	−3,1	1,7	−0,8	1,1	5,0	5,0	2,3	1,6	0,4
1983	−0,1	0,5	2,1	2,8	−0,3	−0,6	4,7	0,2	2,0	3,3	−7,3	6,2	1,5	11,1	−2,7
1984	4,8	6,0	5,2	−0,1	0,0	2,3	9,5	9,7	13,5	5,9	−3,2	9,2	5,6	27,0	12,5
1985	2,4	7,8	4,6	13,2	6,2	5,3	2,9	9,4	4,4	5,7	3,3	3,0	5,4	4,3	0,4
1986	5,9	4,2	8,9	−5,3	5,9	5,3	4,3	8,9	2,7	3,4	10,6	4,1	6,2	5,0	5,0
1987	3,8	2,4	6,5	−0,9	6,5	5,3	6,1	10,3	3,4	3,5	8,4	5,1	6,1	4,7	10,4

Table 32

Intra-Community imports of goods at current prices

(As percentage of GDP at current market prices)

	B/L	DK	D	GR	F	IRL	I	NL	UK	EUR 10
1960	20,0	17,1	5,6	9,4	3,7	24,0	4,7	23,2	3,8	6,3
1961	21,3	16,3	5,6	9,5	4,0	26,7	4,9	25,8	3,8	6,5
1962	22,0	15,9	5,9	10,1	4,3	26,4	5,4	25,4	3,8	6,8
1963	23,6	14,5	6,0	9,4	4,9	28,1	6,2	26,8	3,8	7,1
1964	24,5	15,3	6,3	9,7	5,2	27,9	5,3	27,1	4,2	7,4
1965	24,3	14,5	7,4	10,4	5,1	27,8	4,7	26,0	4,1	7,6
1966	26,5	13,8	7,2	10,2	5,6	26,2	5,2	25,7	4,2	7,8
1967	24,5	12,8	6,9	9,6	5,7	25,2	5,7	24,2	4,5	7,7
1968	25,5	12,3	7,4	9,9	6,1	28,3	5,5	23,8	4,9	8,1
1969	28,2	12,9	8,4	9,5	7,3	29,2	6,3	23,8	4,7	9,0
1970	28,9	13,4	8,3	10,0	7,5	29,6	7,0	25,6	4,9	9,3
1961-70	25,0	14,2	6,9	9,9	5,6	27,5	5,6	25,4	4,3	7,7
1971	30,6	11,7	8,8	9,6	7,4	27,3	6,8	24,0	5,1	9,4
1972	30,2	10,7	8,5	10,2	7,7	26,1	7,5	22,6	5,5	9,5
1973	33,1	12,5	8,4	10,6	8,2	30,3	8,9	23,6	7,1	10,4
1974	35,8	14,3	8,9	10,1	10,0	37,3	10,3	25,7	8,4	11,9
1975	32,3	12,7	9,1	10,9	7,9	31,2	8,8	23,1	7,4	10,7
1976	34,8	14,1	9,7	10,7	9,2	35,2	10,3	23,4	8,0	11,8
1977	34,1	13,6	9,8	11,1	9,1	37,4	9,7	22,5	9,7	12,0
1978	34,2	12,8	9,7	10,7	8,9	39,0	9,8	22,2	9,3	11,8
1979	34,5	14,3	10,5	10,9	9,7	44,3	10,7	24,2	10,1	12,6
1980	35,7	14,5	11,0	10,6	10,0	43,9	11,2	24,3	8,6	12,5
1971-80	33,5	13,1	9,4	10,5	8,8	35,2	9,4	23,6	7,9	11,2
1981	36,8	14,8	11,5	12,1	10,1	44,3	10,5	24,4	8,2	12,5
1982	40,3	14,9	11,5	12,2	10,8	38,6	10,3	24,5	8,8	12,7
1983	42,9	14,2	11,8	13,4	10,7	36,7	9,7	24,8	9,6	12,9
1984	44,5	14,5	12,4	13,6	11,3	38,8	10,5	26,7	10,6	13,7
1985	45,8	15,6	12,9	14,5	11,5	37,6	11,4	29,7	10,7	14,4

Table 33

Extra-Community imports of goods at current prices

(As percentage of GDP at current market prices)

	B/L	DK	D	GR	F	IRL	I	NL	UK	EUR 10
1960	15,9	14,9	9,2	11,7	7,3	12,6	8,7	20,2	14,8	11,1
1961	15,0	14,0	8,6	9,7	6,9	13,0	8,6	19,2	13,3	10,3
1962	14,9	14,8	8,7	7,8	6,7	12,1	8,5	18,1	12,9	10,0
1963	14,9	14,2	8,6	8,9	6,5	12,3	9,0	18,0	13,0	10,0
1964	15,3	15,7	8,5	8,3	6,7	12,5	8,0	17,9	14,1	10,2
1965	14,6	15,1	8,9	9,8	6,2	12,7	7,9	16,6	13,1	9,9
1966	14,8	14,8	8,6	9,4	6,4	12,5	8,3	16,4	12,4	9,7
1967	13,9	14,6	8,0	7,9	5,8	12,4	8,3	15,4	12,4	9,3
1968	14,8	14,1	8,1	8,4	5,4	12,6	7,5	14,7	13,7	9,3
1969	15,0	14,3	8,4	8,8	5,7	12,6	7,9	13,8	13,4	9,4
1970	15,2	15,0	8,2	10,1	6,3	11,6	8,2	15,3	13,1	9,6
1961-70	14,8	14,7	8,5	8,9	6,3	12,4	8,2	16,6	13,1	9,8
1971	13,0	14,0	7,9	9,3	6,0	12,2	7,6	15,2	11,9	9,0
1972	12,1	12,6	7,1	8,4	6,0	10,8	7,5	13,5	11,9	8,5
1973	13,6	14,7	7,4	10,6	6,5	11,3	9,1	14,9	14,4	9,6
1974	18,2	17,0	9,3	13,3	9,9	16,5	13,8	18,9	18,8	12,9
1975	15,6	14,9	8,9	14,7	8,1	13,3	11,3	17,3	14,9	11,1
1976	16,5	15,7	10,1	16,2	9,2	14,8	13,1	18,7	16,1	12,4
1977	16,2	14,9	9,8	15,0	9,2	16,6	12,6	18,2	15,0	12,0
1978	15,2	12,9	9,3	14,1	8,3	15,9	11,8	16,3	15,1	11,2
1979	19,0	14,1	10,4	14,1	8,8	16,9	13,2	18,4	14,5	12,2
1980	23,2	15,0	12,0	16,0	10,5	14,7	14,0	21,0	13,7	13,4
1971-80	16,3	14,6	9,2	13,2	8,2	14,3	11,4	17,2	14,6	11,2
1981	25,3	16,1	12,4	12,1	10,9	14,7	15,3	22,2	12,6	13,7
1982	25,7	15,6	12,0	14,1	10,4	13,4	14,3	20,9	12,7	13,3
1983	23,8	15,0	11,6	14,5	9,5	14,0	13,0	21,7	12,7	12,7
1984	25,2	16,1	12,4	15,3	9,7	16,3	13,7	24,9	14,4	13,7
1985	22,3	16,2	12,4	16,5	9,4	15,4	13,9	25,3	13,5	13,4

Table 34

Current account of balance of payments

(As percentage of GDP at current market prices)

	B/L	DK	D	GR	E	F	IRL	I	NL	P	UK	EUR 10	USA	JA
1960	0,7	−1,5	1,7	−2,9	:	1,5	−0,1	0,8	3,0	−4,0	−1,0	0,7	0,6	0,3
1961	0,2	−2,0	1,1	−2,2	:	1,1	0,2	1,2	1,4	−10,0	0,0	0,7	0,7	1,8
1962	0,6	−3,4	−0,2	−1,6	:	1,0	−1,8	0,6	1,0	−3,4	0,4	0,3	0,6	−0,1
1963	−0,5	0,1	0,4	−2,2	:	0,3	2,8	−1,4	0,7	−3,3	0,3	−0,0	0,7	1,1
1964	0,2	−2,4	0,3	−4,3	0,1	−0,3	−3,5	1,1	−1,1	0,0	−1,3	−0,3	1,1	−0,6
1965	0,6	−1,8	−1,2	−5,8	−2,1	0,8	−4,4	3,6	0,1	−0,4	−0,4	0,2	0,8	1,1
1966	−0,2	−1,9	0,2	−2,0	−2,1	0,1	−1,6	3,3	−1,0	0,8	0,1	0,4	0,4	1,3
1967	1,0	−2,4	2,2	−2,2	−1,5	0,0	1,4	2,2	−0,3	3,7	−0,9	0,6	0,3	0,0
1968	1,2	−1,7	2,3	−3,6	−0,8	−0,5	−1,3	3,3	0,3	1,5	−0,8	0,8	0,1	0,8
1969	1,7	−2,8	1,4	−4,0	−1,1	−1,1	−4,8	2,7	0,2	3,6	0,6	0,6	0,0	1,3
1970	3,3	−3,9	0,6	−3,1	0,2	0,1	−4,0	1,2	−1,4	1,9	1,2	0,5	0,2	1,0
1961-70	0,9	−2,2	0,7	−3,1	:	0,2	−2,3	1,0	0,0	:	−0,0	0,4	0,5	0,8
1971	2,3	−2,4	0,4	−1,5	2,2	0,6	−3,8	1,8	−0,3	2,5	1,7	0,8	−0,1	2,5
1972	3,9	−0,4	0,4	−1,2	1,2	0,5	−2,2	1,6	2,8	5,5	0,1	0,8	−0,5	2,2
1973	2,5	−1,7	1,3	−3,8	0,6	−0,2	−3,5	−1,7	3,8	3,0	−2,0	0,0	0,5	0,0
1974	1,4	−3,1	3,1	−3,3	−3,5	−2,3	−9,9	−4,6	3,0	−6,2	−4,6	−0,9	0,3	−1,0
1975	0,4	−1,5	1,0	−4,2	−3,0	−0,0	−1,5	−0,2	2,4	−5,5	−2,1	0,0	1,2	−0,1
1976	0,9	−4,9	1,1	−2,6	−3,5	−1,5	−5,3	−1,5	3,0	−8,0	−1,7	−0,5	0,3	0,7
1977	−0,5	−4,0	0,9	−1,9	−1,8	−0,7	−5,4	1,2	0,7	−9,4	−0,1	0,1	−0,7	1,5
1978	−0,7	−2,7	1,4	−1,3	0,9	0,6	−6,8	2,4	−0,8	−5,7	0,4	0,7	−0,7	1,7
1979	−1,8	−4,7	−0,8	−1,9	0,3	−0,0	−13,4	1,7	−1,1	−2,6	0,0	−0,4	−0,1	−0,9
1980	−3,6	−3,7	−1,7	−0,3	−2,4	−1,4	−11,8	−2,5	−1,5	−6,3	1,6	−1,3	0,2	−1,0
1971-80	0,6	−2,9	0,0	−2,2	0,9	−0,4	−6,4	−0,2	1,2	−3,3	−0,6	−0,1	−0,0	0,6
1981	−3,6	−3,0	−0,7	−0,2	−2,4	−1,4	−14,8	−2,3	2,1	−11,8	2,4	−0,6	0,2	0,5
1982	−2,1	−4,2	0,5	−3,8	−2,3	−3,0	−10,7	−1,6	2,8	−14,3	1,5	−0,6	−0,2	0,7
1983	0,6	−2,2	0,7	−4,7	−1,4	−1,7	−6,9	0,2	2,9	:	0,8	0,0	−1,0	1,8
1984	1,2	−3,2	1,0	−3,9	1,3	−0,6	−5,7	−1,0	4,1	−3,0	0,3	0,1	−2,6	3,0
1985	1,8	−4,4	2,2	−8,7	1,7	−0,8	−3,2	−1,1	4,6	1,8	0,8	0,5	−2,9	3,7
1986	3,2	−2,5	2,4	−5,0	4,0	0,6	−1,3	1,0	4,0	2,0	0,1	1,1	−2,5	4,5
1987	3,3	−1,8	1,8	−3,1	3,9	0,8	−1,5	0,6	3,5	0,8	−0,4	0,9	−2,5	3,9

Table 35

Structure of EC exports by country and region, 1958 and 1985

(As percentage of total exports)

Exports of / to		B/L		DK		D		GR		E	F		IRL		I		NL		P	UK		EUR 12	
		1958	1985	1958	1985	1958	1985	1958	1985	1985	1958	1985	1958	1985	1958	1985	1958	1985	1985	1958	1985	1958	1985
B/L		—	—	1,2	1,9	6,6	6,9	1,0	1,9	2,6	6,3	8,5	0,8	4,1	2,3	3,0	15,0	15,1	3,6	1,9	4,3	4,9	6,3
DK		1,6	1,1	—	—	3,0	2,2	0,2	0,7	0,4	0,8	0,8	0,1	0,9	0,8	0,8	2,6	1,5	2,0	2,4	1,8	2,0	1,5
D		11,6	18,5	20,1	15,9	—	—	20,5	20,1	9,9	10,4	15,0	2,2	10,1	14,3	16,1	19,0	30,0	13,8	4,2	11,4	7,4	12,1
GR		0,7	0,6	0,4	0,8	1,4	1,0	—	—	0,6	0,7	0,8	0,1	0,5	2,1	1,7	0,9	0,8	0,3	0,7	0,4	1,0	0,9
F		10,6	18,9	3,0	4,4	7,6	11,9	12,9	8,0	16,0	—	—	0,8	8,4	5,3	14,0	4,9	10,2	12,7	2,4	9,9	4,6	10,1
IRL		0,4	0,4	0,3	0,7	0,3	0,5	0,4	0,4	0,6	0,2	0,3	—	—	0,1	0,2	0,5	0,5	0,6	3,5	4,7	1,1	1,1
I		2,3	5,4	5,3	3,9	5,0	7,8	6,0	11,3	7,2	3,4	10,9	0,4	3,7	—	—	2,7	5,8	4,0	2,1	4,4	3,1	6,2
NL		20,7	14,2	2,2	3,6	8,1	8,6	2,0	4,1	5,4	2,0	4,9	0,5	6,8	2,1	3,1	—	—	6,9	3,1	9,4	5,4	6,7
UK		5,7	9,8	25,9	12,5	4,0	8,6	7,6	6,9	8,6	4,9	8,2	78,8	33,0	6,8	7,0	11,9	9,4	14,6	—	—	5,5	7,6
Total	EUR10	53,5	68,9	58,3	43,8	35,9	47,4	50,5	53,3	51,1	28,6	49,6	83,6	67,5	33,8	46,0	57,5	73,3	58,5	20,3	46,2	34,9	52,5
intra-Community trade	EUR12	—	70,0	—	44,7	—	49,4	—	54,4	53,3	—	53,2	—	68,7	—	48,3	—	74,4	62,5	—	48,8	—	—
Other European OECD countries		10,4	8,0	17,2	26,5	23,7	20,0	6,7	7,7	8,3	10,5	12,7	1,8	7,1	16,6	13,3	12,3	7,6	15,5	9,6	11,9	16,4	14,1
USA		9,4	6,3	9,3	10,2	7,3	10,3	13,6	8,1	10,2	5,9	8,7	5,9	9,8	9,7	12,3	5,6	5,1	9,2	8,8	14,9	7,8	10,1
Canada		1,1	0,7	0,7	1,0	1,2	1,0	0,3	0,7	1,1	0,8	1,1	0,7	1,8	1,2	1,2	0,8	0,5	1,0	5,8	2,2	2,3	1,2
Japan		0,6	0,8	0,2	3,0	1,0	1,5	1,4	9,7	0,9	0,3	1,2	0,1	1,6	0,3	1,2	0,4	0,5	0,9	0,6	1,3	0,6	1,2
Australia		0,6	0,3	0,3	0,7	1,0	0,9	0,1	0,5	0,5	0,4	0,5	0,1	1,3	1,0	1,0	0,7	0,4	0,4	7,1	1,8	2,5	0,9
Developing countries		18,8	11,2	9,7	11,7	22,3	12,3	7,2	19,9	20,9	48,4	21,6	1,6	8,6	27,9	19,0	18,1	8,9	11,1	33,8	17,6	27,9	15,0
of which:																							
OPEC		3,3	3,3	2,3	3,1	4,8	4,7	0,1	9,6	7,3	21,3	7,4	1,3	4,0	7,5	9,3	4,5	3,2	2,5	7,0	6,6	7,8	5,7
Other developing countries		15,5	7,9	7,3	8,6	17,5	7,6	7,1	10,3	13,6	27,1	14,2	1,3	4,6	20,4	9,7	13,7	5,7	8,6	26,8	11,0	20,1	9,3
Centrally-planned economies		3,8	2,6	3,8	2,6	5,0	5,3	16,3	8,3	6,2	3,7	3,9	0,2	0,8	4,7	4,5	2,0	1,7	2,0	3,1	2,1	3,9	3,7
Rest of world and unspecified		1,9	1,2	0,5	0,6	2,6	1,2	4,0	0,5	0,8	1,3	0,7	6,2	1,5	5,1	1,6	2,6	2,0	1,4	10,8	1,9	3,8	1,3
World (excl. EC)		46,4	31,1	41,7	56,2	64,1	52,6	49,5	46,7	48,9	71,4	50,0	16,4	32,5	66,2	54,0	42,5	26,7	41,5	79,7	53,8	65,1	47,5
World (incl. EC)		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Table 36

Structure of EC imports by country and region, 1958 and 1985

(As percentage of total imports)

Imports of / from		B/L		DK		D		GR		E	F		IRL		I		NL		P	UK		EUR 10	
		1958	1985	1958	1985	1958	1985	1958	1985	1985	1958	1985	1958	1985	1958	1985	1958	1985	1985	1958	1985	1958	1985
B/L		—	—	3,8	3,4	4,5	6,7	3,3	2,8	1,7	5,4	10,2	1,8	2,3	2,0	3,7	17,9	11,8	2,2	1,6	4,4	4,4	6,2
DK		0,5	0,5	—	—	3,4	1,8	0,7	1,1	0,5	0,6	0,7	0,7	0,9	2,2	0,8	0,7	0,9	0,6	3,1	2,0	2,0	1,2
D		17,2	20,7	19,8	21,9	—	—	20,3	17,0	11,0	11,6	17,4	4,0	8,3	12,1	16,6	19,5	21,4	11,4	3,6	14,6	8,2	13,1
GR		0,1	0,2	0,0	0,2	1,7	0,7	—	—	0,2	0,6	0,4	0,2	0,1	0,5	0,8	0,1	0,3	0,1	0,2	0,4	0,4	0,5
F		11,6	14,9	3,4	4,2	7,6	10,7	5,4	6,4	9,8	—	—	1,6	5,1	4,9	12,5	2,8	6,4	8,0	2,7	7,7	4,2	8,2
IRL		0,1	0,5	0,0	0,4	0,1	0,7	0,0	0,4	0,5	0,1	0,8	—	—	0,1	0,4	0,1	0,8	0,3	2,9	3,3	0,9	1,1
I		2,1	3,5	1,7	3,3	5,5	7,9	8,8	9,3	4,7	2,4	9,9	0,9	1,9	—	—	1,8	2,9	5,1	2,0	5,6	2,5	5,5
NL		15,7	20,0	7,3	6,1	8,0	14,6	4,8	5,8	2,1	2,5	7,1	2,9	4,6	2,6	5,1	—	—	3,2	4,2	6,8	6,4	9,0
UK		7,4	6,7	22,8	9,6	4,4	7,8	9,9	3,8	6,7	3,6	8,4	56,4	47,2	5,5	4,9	7,4	9,7	7,5	—	—	5,0	6,9
Total	EUR10	54,7	67,0	59,0	49,1	35,2	50,9	53,3	46,7	37,2	26,7	54,9	68,4	70,5	29,8	44,5	50,1	54,0	38,4	20,3	44,3	34,0	51,6
intra-Community trade	EUR12	—	68,4	—	50,6	—	52,8	—	48,1	37,9	—	58,5	—	71,9	—	46,8	—	55,7	45,7	—	47,0	—	—
Other European OECD countries		8,1	7,6	19,5	26,4	15,8	16,4	9,5	7,1	5,8	8,0	11,4	4,3	5,3	12,0	11,6	7,7	8,5	14,1	13,9	16,7	12,0	13,2
USA		9,9	6,0	9,1	5,5	13,6	6,5	13,7	3,1	10,8	10,0	6,4	7,0	14,4	16,2	6,0	11,3	8,4	9,7	9,3	13,0	11,4	7,7
Canada		1,4	0,6	0,2	0,4	3,1	0,8	0,8	0,3	0,5	1,0	0,7	3,0	0,8	1,4	0,6	1,5	0,6	1,1	8,2	1,9	3,7	0,9
Japan		0,6	2,2	1,5	3,5	0,6	4,2	2,0	6,4	3,1	0,2	2,2	1,1	2,9	0,4	1,6	0,8	2,5	3,0	0,9	5,1	0,7	3,3
Australia		1,7	0,3	0,0	0,6	1,2	0,4	0,3	0,5	0,5	2,4	0,6	1,2	0,1	3,0	0,6	0,2	0,4	0,6	5,4	1,0	2,7	0,6
Developing countries		19,7	9,6	6,1	8,7	24,4	14,5	9,6	27,3	38,6	46,7	19,1	9,7	3,7	31,2	26,1	25,0	19,7	30,1	35,0	13,6	30,3	16,8
of which:																							
OPEC		5,9	2,3	0,3	2,8	6,7	5,5	1,7	22,3	20,1	19,7	9,7	0,7	0,2	13,9	15,9	11,5	9,4	17,6	11,3	3,6	10,9	7,6
Other developing countries		13,8	7,3	5,8	5,9	17,7	9,0	7,8	5,0	18,5	27,0	9,4	9,0	3,5	17,3	10,2	13,5	10,3	12,5	23,7	10,0	19,4	9,2
Centrally-planned economies		2,0	3,1	4,6	4,8	5,3	5,5	8,1	7,9	2,7	3,3	3,7	1,2	1,5	3,6	6,2	2,6	5,6	1,5	3,2	2,5	3,5	4,5
Rest of world and unspecified		1,9	3,6	0,0	1,0	0,8	0,8	2,9	0,8	0,8	1,6	1,0	4,2	0,9	2,3	2,5	0,8	0,1	1,5	3,8	2,0	1,5	1,3
World (excl. EC)		45,3	33,0	41,0	50,9	64,8	49,1	46,7	53,3	62,8	73,3	45,1	31,6	29,5	70,2	55,5	49,9	46,0	61,6	79,7	55,7	66,0	48,4
World (incl. EC)		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Table 37

Money supply (M2/M3)

(Annual percentage change)

	B/L	DK	D	GR	E	F	IRL	I	NL	P	UK	EUR 10	EUR 12	USA	JA
1960	4,3	8,0	11,1	20,2	:	16,7	5,5	19,6	7,0	:	0,9	10,5	:	4,9	20,1
1961	9,9	9,8	12,9	17,0	:	17,2	7,3	14,9	5,4	:	2,3	10,7	:	7,4	20,2
1962	7,4	8,5	10,4	21,5	:	18,7	9,6	17,0	6,6	:	2,6	10,9	:	8,1	20,3
1963	10,3	12,5	9,9	21,4	:	14,1	5,8	13,5	9,8	:	7,8	11,0	:	8,4	24,0
1964	7,6	11,1	9,4	16,1	:	9,8	9,4	12,7	10,4	:	5,8	9,3	:	8,1	18,7
1965	9,6	9,7	10,6	12,9	:	10,9	6,7	15,2	6,2	:	7,6	10,4	:	8,1	18,0
1966	8,2	12,8	8,3	18,2	:	10,6	10,6	13,0	5,9	:	3,4	8,5	:	4,5	16,3
1967	7,1	9,8	12,0	16,1	:	13,1	12,7	13,7	10,9	11,7	9,6	11,7	:	9,1	15,5
1968	8,6	14,5	11,8	17,8	:	11,6	16,9	13,1	4,8	14,1	7,3	11,2	:	7,9	14,8
1969	7,0	10,2	9,4	16,2	:	6,1	11,2	12,5	10,2	17,8	2,0	7,7	:	4,0	18,5
1970	10,0	3,3	9,1	19,3	15,4	15,4	14,0	15,9	11,0	12,4	9,6	11,9	12,2	6,2	16,9
1961-70	8,6	10,2	10,4	17,6	:	12,7	10,4	14,2	9,1	:	5,7	10,2	:	7,2	17,9
1971	12,9	8,5	13,5	22,4	24,3	17,8	12,9	17,2	9,0	21,0	14,1	15,0	15,8	13,4	24,3
1972	17,0	15,0	14,4	23,6	23,1	18,5	14,2	19,0	11,9	23,4	24,6	18,5	18,9	13,0	24,7
1973	15,4	12,6	10,1	14,5	25,0	15,0	26,0	23,1	21,9	28,9	27,0	18,0	18,8	7,0	16,8
1974	14,0	8,9	8,5	20,9	19,9	15,9	20,6	15,7	20,0	12,1	10,7	12,9	13,5	5,5	11,5
1975	15,1	25,1	8,6	26,5	19,3	18,2	18,9	23,7	5,7	13,1	6,3	13,7	14,2	12,6	16,5
1976	14,3	10,9	8,4	26,7	19,0	12,8	14,5	20,8	22,7	16,4	9,7	13,2	13,8	13,7	15,4
1977	10,3	9,9	11,2	22,7	18,6	13,9	17,1	21,7	3,6	21,8	9,4	13,1	13,7	10,6	13,4
1978	10,2	8,7	11,0	26,0	19,7	12,2	29,0	22,6	4,2	26,0	15,3	14,2	14,8	8,0	14,0
1979	8,2	10,8	6,0	18,4	18,3	14,0	18,7	20,8	6,9	31,0	13,2	12,4	13,2	7,9	10,8
1980	6,5	8,1	6,2	24,7	16,9	8,4	17,7	12,7	4,4	28,6	18,5	10,8	11,6	8,9	9,5
1971-80	12,4	11,7	9,8	22,6	20,4	14,7	18,9	19,7	10,8	22,2	14,7	14,2	14,8	10,0	15,6
1981	10,0	9,1	5,0	34,7	17,0	10,4	17,4	10,0	5,3	23,8	13,7	9,8	10,6	10,0	11,2
1982	7,5	11,4	7,1	29,0	16,6	10,8	13,0	18,0	7,6	24,6	8,9	10,9	11,6	9,0	9,1
1983	7,1	25,4	5,3	20,3	15,9	11,2	5,6	12,3	10,4	16,3	10,4	10,0	10,6	12,0	8,3
1984	6,2	17,8	4,7	29,4	13,1	8,3	10,1	12,1	7,6	24,5	10,0	8,9	9,5	8,4	8,1
1985	6,7	15,8	5,0	26,1	12,8	6,0	5,3	11,2	10,2	29,5	13,5	9,0	9,7	8,1	8,7

Table 38

Short-term interest rates

(%)

	B/L	DK	D	GR	E	F	IRL	I	NL	P	UK	EUR 10	USA	JA
1960	:	:	5,1	8,0	:	4,1	:	3,5	2,1	:	:	:	:	:
1961	4,6	6,3	3,6	8,0	:	3,6	6,2	3,5	1,1	:	5,2	3,9	2,4	8,5
1962	3,4	6,5	3,4	8,0	:	3,6	5,0	3,5	1,9	:	4,1	3,6	2,8	9,0
1963	3,6	6,1	4,0	7,9	:	4,0	4,3	3,5	2,0	:	3,7	3,7	3,2	7,4
1964	4,9	6,2	4,1	7,8	:	4,7	5,5	3,5	3,4	:	5,0	4,4	3,6	10,0
1965	5,0	6,5	5,1	7,8	:	4,2	6,8	3,5	4,0	:	6,8	5,0	4,0	7,0
1966	5,5	6,5	6,6	8,0	:	4,8	7,0	3,5	4,9	3,0	7,0	5,6	4,9	5,6
1967	5,5	6,6	4,3	8,5	:	4,8	6,3	3,5	4,7	3,1	6,3	4,9	4,3	6,2
1968	4,5	6,6	3,8	8,3	:	6,2	7,9	3,5	4,5	3,4	7,9	5,3	5,4	7,6
1969	7,3	8,2	5,8	8,0	:	9,3	9,2	3,7	5,7	3,4	9,2	7,1	6,7	7,6
1970	8,1	9,0	9,3	8,0	:	8,6	7,0	5,2	6,1	4,0	8,1	7,9	6,3	8,0
1961-70	5,2	6,8	5,0	8,0	:	5,3	6,5	3,8	3,8	:	6,6	5,1	4,3	7,7
1971	5,3	7,6	7,1	8,0	:	6,0	6,6	5,7	4,5	4,3	6,2	6,1	4,3	6,4
1972	4,2	6,3	5,7	8,0	:	5,3	7,1	5,2	2,7	4,4	6,8	5,4	4,2	4,7
1973	6,6	8,1	12,2	9,0	:	9,2	12,2	7,0	7,5	4,4	11,8	9,7	7,2	7,2
1974	10,6	13,3	9,8	11,8	:	13,0	14,5	14,9	10,4	5,3	13,4	12,0	7,9	12,5
1975	7,0	6,5	4,9	11,9	:	7,6	10,9	10,4	5,3	6,8	10,6	7,5	5,8	10,7
1976	10,1	10,3	4,3	11,5	:	8,7	11,7	16,0	7,4	8,4	11,5	8,6	5,0	7,0
1977	7,3	14,5	4,3	12,0	15,5	9,1	8,4	14,0	4,8	11,1	8,0	7,5	5,3	5,7
1978	7,3	15,4	3,7	13,5	17,6	7,8	9,9	11,5	7,0	15,5	9,4	7,1	7,4	4,4
1979	10,9	12,5	6,9	16,7	15,5	9,7	16,0	12,0	9,6	16,1	13,9	9,8	10,1	6,3
1980	14,2	16,9	9,5	16,4	16,5	12,0	16,2	16,9	10,6	16,3	16,7	12,6	11,6	10,9
1971-80	8,3	11,1	6,8	12,3	:	8,8	11,3	11,3	6,9	9,3	10,8	8,6	6,8	7,5
1981	15,6	14,8	12,3	16,8	16,2	15,3	16,7	19,3	11,8	16,0	14,1	14,1	14,0	7,4
1982	14,1	16,4	8,8	18,9	16,3	14,6	17,5	19,9	8,2	16,8	12,2	11,9	10,6	6,9
1983	10,5	12,0	5,8	16,6	20,0	12,4	14,0	18,3	5,7	20,9	10,1	9,1	8,7	6,4
1984	11,5	11,5	6,0	15,7	14,9	11,6	13,2	17,3	6,1	22,5	10,0	9,2	9,4	6,1
1985	9,6	10,0	5,4	17,0	12,2	9,9	11,9	15,2	6,4	21,0	12,3	9,0	7,5	6,5

Table 39

Long-term interest rates

(%)

	B/L	DK	D	GR	E	F	IRL	I	NL	P	UK	EUR 10	USA	JA
1960	:	:	6,3	:	:	5,7	5,4	5,3	4,2	:	5,4	:	:	:
1961	5,9	6,6	5,9	:	:	5,5	6,2	5,2	3,9	:	6,3	5,7	3,9	6,4
1962	5,2	6,6	5,9	:	:	5,4	6,0	5,8	4,2	:	5,9	5,6	3,9	6,4
1963	5,0	6,5	6,0	:	:	5,3	5,6	6,1	4,2	:	5,4	5,6	4,0	6,4
1964	5,6	7,1	6,2	:	:	5,4	6,0	7,4	4,9	:	6,0	6,1	4,1	6,4
1965	6,4	8,6	7,0	6,2	:	6,2	6,4	6,9	5,2	:	6,6	6,6	4,2	6,4
1966	6,7	8,7	8,1	7,4	:	6,6	6,8	6,5	6,2	5,5	6,9	7,0	4,6	6,8
1967	6,7	9,1	7,0	7,4	:	6,7	6,7	6,6	6,0	5,8	6,8	6,8	4,9	6,8
1968	6,5	8,7	6,4	7,3	:	7,0	6,5	6,7	6,2	6,5	7,6	6,9	5,3	6,8
1969	7,3	9,7	6,8	7,1	:	7,9	7,3	6,9	7,0	6,5	9,1	7,7	6,2	6,8
1970	7,8	11,1	8,3	7,4	:	8,6	7,8	9,0	7,8	7,1	9,3	8,7	6,6	7,1
1961-70	6,3	8,3	6,8	7,1	:	6,5	6,5	6,7	5,6	:	7,0	6,7	4,8	6,7
1971	7,3	11,0	8,0	7,5	:	8,4	9,2	8,3	7,0	7,7	8,9	8,3	5,7	7,0
1972	7,0	11,0	7,9	7,8	:	8,0	9,1	7,5	6,7	7,7	9,0	8,0	5,6	6,9
1973	7,5	12,6	9,3	9,3	:	9,0	10,7	7,4	7,3	7,8	10,8	9,0	6,3	7,0
1974	8,8	15,9	10,4	10,5	:	11,0	14,6	9,9	10,7	10,0	15,0	11,3	7,0	8,1
1975	8,5	12,7	8,5	9,4	:	10,3	14,0	11,5	9,1	12,0	14,5	10,5	7,0	8,4
1976	9,1	14,9	7,8	10,2	:	10,5	14,6	13,1	9,2	12,5	14,6	10,5	6,8	8,2
1977	8,8	16,2	6,2	9,5	:	11,0	12,9	14,6	8,5	16,0	12,5	9,8	7,1	8,2
1978	8,5	16,8	5,7	10,0	12,0	10,6	12,8	13,7	8,1	21,1	12,6	9,3	7,9	6,3
1979	9,7	16,7	7,4	11,2	13,3	10,9	15,1	14,1	9,2	22,2	13,0	10,2	8,7	7,3
1980	12,2	18,7	8,5	17,1	16,0	13,6	15,4	16,1	10,7	22,2	13,9	11,9	10,8	8,5
1971-80	8,7	14,6	8,0	10,3	:	10,3	12,8	11,6	8,6	13,9	12,5	9,9	7,3	7,5
1981	13,8	19,3	10,4	17,6	15,8	16,3	17,3	20,6	12,2	22,6	14,8	13,9	12,9	8,2
1982	13,4	20,5	8,9	15,4	16,0	16,0	17,0	20,9	10,5	25,2	12,7	12,7	12,2	8,0
1983	11,8	14,4	7,9	18,2	16,9	14,4	13,9	18,0	8,8	30,4	10,8	10,9	10,8	7,8
1984	12,0	14,0	7,8	18,5	16,5	13,4	14,6	14,9	8,5	32,5	10,7	10,5	12,0	7,4
1985	10,6	11,6	6,9	15,8	13,4	11,9	12,7	13,0	7,8	30,8	10,6	9,7	10,8	6,5

Table 40

Gross official reserves

(End year, '000 million ECU)

	B/L	DK	D	GR	E	F	IRL	I	NL	P	UK	EUR 12
1960	1,438	0,271	6,671	0,228	0,513	2,166	0,305	3,097	1,776	0,607	3,548	20,620
1961	1,692	0,264	6,681	0,249	0,827	3,140	0,318	3,545	1,826	0,515	3,096	22,153
1962	1,635	0,239	6,485	0,267	0,974	3,775	0,334	3,792	1,813	0,634	3,085	23,033
1963	1,838	0,438	7,133	0,272	1,070	4,577	0,378	3,375	1,959	0,683	2,936	24,659
1964	2,076	0,601	7,359	0,262	1,413	5,346	0,416	3,570	2,192	0,813	2,164	26,212
1965	2,182	0,548	6,943	0,234	1,329	5,930	0,381	4,484	2,256	0,877	2,808	27,972
1966	2,205	0,559	7,529	0,256	1,176	6,322	0,462	4,604	2,298	1,010	2,908	29,329
1967	2,516	0,519	7,920	0,278	1,069	6,803	0,425	5,304	2,547	1,199	2,617	31,197
1968	2,420	0,459	10,553	0,340	1,269	4,832	0,546	5,759	2,724	1,491	2,640	33,033
1969	2,347	0,437	7,008	0,311	1,260	3,775	0,677	4,960	2,488	1,421	2,484	27,168
1970	2,874	0,476	13,537	0,311	1,805	5,071	0,681	5,411	3,279	1,526	2,847	37,818
1971	3,366	0,662	17,468	0,484	3,028	7,977	0,903	6,588	3,711	1,893	8,101	54,181
1972	4,562	0,820	24,443	1,022	4,896	11,543	1,034	7,530	5,663	2,754	5,637	69,904
1973	6,819	1,228	35,066	1,094	6,581	13,207	0,894	10,341	8,766	4,038	6,730	94,764
1974	9,096	0,953	39,322	1,160	6,809	18,626	1,062	14,988	11,777	5,068	7,946	116,807
1975	8,579	0,908	36,703	1,265	6,451	19,432	1,354	11,139	10,745	3,683	6,485	106,744
1976	8,121	0,961	40,607	1,215	5,867	17,027	1,663	12,761	11,066	3,456	5,497	108,241
1977	8,950	1,558	44,286	1,359	6,827	18,494	1,984	17,790	12,050	3,547	19,422	136,267
1978	9,886	2,602	54,764	1,569	9,743	23,515	2,015	21,745	12,706	4,272	15,410	158,227
1979	10,406	2,592	57,593	1,466	12,283	29,443	1,617	26,692	14,516	5,324	17,394	179,326
1980	20,536	3,277	76,565	2,494	15,257	57,097	2,245	45,935	27,502	10,025	23,689	284,622
1981	18,281	3,014	79,810	2,191	15,842	52,522	2,594	45,476	26,260	9,405	22,134	277,529
1982	16,239	2,938	82,135	2,309	13,268	46,296	2,841	39,018	26,524	8,573	19,713	259,854
1983	20,941	5,167	98,195	2,949	15,917	63,694	3,333	56,310	33,245	10,207	23,168	333,126
1984	21,973	4,994	100,903	3,212	23,505	66,181	3,030	59,666	32,886	9,953	22,513	348,816
1985	19,022	6,775	88,940	2,625	19,619	62,530	3,454	44,240	29,545	9,742	21,023	307,515

Table 41

ECU exchange rates

(National units per ECU; annual average)

	B/L	DK	D	GR	E	F	IRL	I	NL	P	UK	USA	JA
1960	52,810	7,2954	4,4361	31,69	63,37	5,2145	0,37721	660,1	4,0136	30,37	0,37721	1,0562	380,23
1961	53,367	7,3722	4,3074	32,02	64,04	5,2695	0,38119	667,1	3,8985	30,69	0,38119	1,0673	384,24
1962	53,490	7,3893	4,2792	32,09	64,13	5,2817	0,38207	668,6	3,8727	30,76	0,38207	1,0698	385,13
1963	53,490	7,3893	4,2792	32,09	64,13	5,2817	0,38207	668,6	3,8727	30,76	0,38207	1,0698	385,13
1964	53,490	7,3893	4,2792	32,09	64,13	5,2817	0,38207	668,6	3,8727	30,76	0,38207	1,0698	385,13
1965	53,490	7,3893	4,2792	32,09	64,13	5,2817	0,38207	668,6	3,8727	30,76	0,38207	1,0698	385,13
1966	53,490	7,3893	4,2792	32,09	64,13	5,2817	0,38207	668,6	3,8727	30,76	0,38207	1,0698	385,13
1967	53,240	7,4229	4,2592	31,94	65,11	5,2570	0,38765	665,5	3,8546	30,61	0,38765	1,0648	383,33
1968	51,444	7,7166	4,1155	30,87	72,02	5,0797	0,42870	643,1	3,7246	29,58	0,42870	1,0289	370,40
1969	51,109	7,6664	4,0262	30,67	71,55	5,2903	0,42591	638,9	3,7003	29,39	0,42591	1,0222	367,99
1970	51,112	7,6668	3,7414	30,67	71,36	5,6777	0,42593	638,9	3,7005	29,38	0,42593	1,0222	368,00
1971	50,866	7,7526	3,6457	31,43	72,57	5,7721	0,42858	647,4	3,6575	29,64	0,42858	1,0478	363,82
1972	49,361	7,7891	3,5768	33,65	72,00	5,6572	0,44894	654,3	3,5999	30,48	0,44894	1,1218	339,72
1973	47,801	7,4160	3,2764	36,95	71,81	5,4677	0,50232	716,5	3,4285	30,27	0,50232	1,2317	333,17
1974	46,399	7,2593	3,0835	35,78	68,82	5,7339	0,50980	775,7	3,2022	30,25	0,50980	1,1927	347,47
1975	45,569	7,1227	3,0494	39,99	71,16	5,3192	0,56003	809,5	3,1349	31,50	0,56003	1,2408	367,68
1976	43,165	6,7618	2,8154	40,88	74,74	5,3449	0,62158	930,1	2,9551	33,62	0,62158	1,1181	331,21
1977	40,883	6,8557	2,6483	42,04	86,85	5,6061	0,65370	1 006,8	2,8001	43,59	0,65370	1,1411	305,80
1978	40,061	7,0194	2,5561	46,78	97,43	5,7398	0,66389	1 080,2	2,7541	55,86	0,66391	1,2741	267,08
1979	40,165	7,2091	2,5109	50,77	91,97	5,8295	0,66948	1 138,5	2,7486	67,04	0,64639	1,3706	300,47
1980	40,598	7,8274	2,5242	59,32	99,70	5,8690	0,67600	1 189,2	2,7603	69,55	0,59849	1,3923	315,04
1981	41,295	7,9226	2,5139	61,62	102,68	6,0399	0,69102	1 263,2	2,7751	68,50	0,55311	1,1164	245,38
1982	44,711	8,1569	2,3760	65,34	107,56	6,4312	0,68960	1 323,8	2,6139	78,01	0,56045	0,9797	243,54
1983	45,438	8,1319	2,2705	78,09	127,50	6,7708	0,71496	1 349,9	2,5372	98,69	0,58701	0,8902	211,35
1984	45,442	8,1465	2,2381	88,34	126,57	6,8717	0,72594	1 381,4	2,5233	115,67	0,59063	0,7893	187,10
1985	44,918	8,0185	2,2264	104,75	129,03	6,7954	0,71524	1 446,6	2,5111	130,08	0,58879	0,7610	180,56
1986	43,990	7,9404	2,1559	142,25	137,87	6,8259	0,71091	1 477,9	2,4311	148,81	0,63421	0,9347	170,80
1987	43,948	7,8944	2,1369	155,37	144,26	6,9164	0,70952	1 488,3	2,4086	166,16	0,63668	0,9453	162,87

Table 42

Central rates against the ECU

(National currency per ECU)

Date	B/L	DK	D	GR	F	IRL	I	NL	UK[1]
13. 3.1979	39,4582	7,08592	2,51064	:	5,79831	0,662638	1 148,15	2,72077	(0,663247)
24. 9.1979	39,8456	7,36594	2,48557	:	5,85522	0,669141	1 159,42	2,74748	(0,649821)
30.11.1979	39,7897	7,72336	2,48208	:	5,84700	0,668201	1 157,79	2,74362	(0,648910)
23. 3.1981	40,7985	7,91917	2,54502	:	5,99526	0,685145	1 262,92	2,81318	(0,542122)
5.10.1981	40,7572	7,91117	2,40989	:	6,17443	0,684452	1 300,67	2,66382	(0,601048)
22. 2.1982	44,6963	8,18382	2,41815	:	6,19564	0,686799	1 305,13	2,67296	(0,557037)
14. 6.1982	44,9704	8,2340	2,33379	:	6,61387	0,691011	1 350,27	2,57971	(0,560453)
21. 3.1983	44,3662	8,04412	2,21515	:	6,79271	0,717050	1 386,78	2,49587	(0,629848)
18. 5.1983	44,9008	8,14104	2,24184	:	6,87456	0,725690	1 403,49	2,52595	(0,587087)
17. 9.1984	44,9008	8,14104	2,24184	87,4813	6,87456	0,725690	1 403,49	2,52595	(0,585992)
22. 7.1985	44,832	8,12857	2,2384	100,719	6,86402	0,724578	1 520,6	2,52208	(0,555312)
7. 4.1986	43,6761	7,91896	2,13834	135,659	6,9628	0,712956	1 496,21	2,40935	(0,630317)

[1] The pound sterling and, since 19 September 1984, the drachma are represented in the ECU, but do not participate in the EMS exchange rate mechanism.

Table 43

Bilateral central rates since 7 April 1986

		BFR/LFR (Bruxelles)	DKR (København)	DM (Frankfurt)	FF (Paris)	IRL (Dublin)	LIT (Roma)	HFL (Amsterdam)	UKL[1] (London)
BFR/LFR 100	±2,25	100	18,1312	4,8959	15,9419	1,63237	3 425,7	5,51640	—
DKR 100	±2,25	551,536	100	27,0028	87,9257	9,00315	18 894,0	30,4251	—
DM 100	±2,25	2 042,52	370,332	100	325,617	33,3416	69 970,6	112,673	—
FF 100	±2,25	627,278	113,732	30,7109	100	10,2395	21 488,6	34,6032	—
IRL 100	±2,25	61,2606	11,1072	2,99926	9,7661	1	2 098,6	3,37938	—
LIT 1 000	±6,00	29,1912	5,29268	1,42917	4,65362	0,476508	1 000	1,61030	—
HFL 100	±2,25	1 812,78	328,676	88,7526	288,991	29,5912	62 100,2	100	—
(UKL 1)	—	—	—	—	—	—	—	—	

[1] The pound sterling does not participate in the EMS exchange rate mechanism.

Table 44

Effective exchange rates against 19 countries

(1972 = 100)

	BFR/LFR	DKR	DM	DR	PES	FF	IRL	LIT	HFL	ESC	UKL	EUR 10	USD	YEN
1960	96,7	106,6	79,4	109,3	113,4	113,4	109,5	102,0	93,7	97,7	120,4	97,4	107,1	86,7
1961	95,5	105,6	82,3	108,4	112,8	112,5	109,4	101,1	96,6	97,1	119,8	98,9	107,3	86,3
1962	95,6	105,6	82,7	108,3	113,1	112,5	109,6	101,1	97,2	97,3	120,1	99,4	108,2	86,4
1963	95,4	105,7	83,0	108,4	113,2	112,5	109,5	101,0	97,3	97,1	119,9	99,5	108,5	86,4
1964	95,6	105,5	83,3	108,4	113,2	112,5	109,4	100,5	97,1	96,9	119,6	99,4	108,5	86,3
1965	95,9	105,6	82,9	108,5	113,2	112,6	109,5	100,5	97,4	97,0	119,8	99,3	108,5	86,4
1966	95,8	105,8	82,9	108,6	113,3	112,4	109,5	100,7	97,0	97,1	119,8	99,2	108,6	86,2
1967	96,0	105,1	83,4	108,8	111,5	112,5	108,7	100,9	97,6	97,5	117,8	99,1	109,0	86,5
1968	97,0	101,4	84,9	110,7	99,7	114,2	102,1	103,0	99,1	101,5	104,1	96,3	111,4	88,4
1969	97,2	101,0	87,2	110,9	99,8	108,6	102,2	102,7	99,2	102,3	104,2	95,9	111,5	89,0
1970	97,3	100,2	94,5	109,3	99,4	99,9	102,0	101,7	97,7	101,7	103,7	97,3	110,1	88,6
1971	97,2	99,3	97,4	106,8	98,2	97,6	102,1	100,7	98,6	101,1	103,8	98,2	107,1	90,0
1972	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
1973	101,4	106,1	110,5	92,0	101,5	103,3	93,1	89,8	103,2	101,8	89,6	102,5	92,0	105,6
1974	102,8	106,6	116,4	92,3	104,6	96,4	90,8	81,1	108,6	100,4	86,5	100,4	93,9	98,7
1975	104,4	110,2	118,3	83,2	101,9	105,8	85,6	77,7	111,2	97,4	79,5	102,0	93,1	95,8
1976	106,8	112,7	125,0	78,7	93,6	101,9	76,9	64,4	114,3	88,9	68,1	93,5	98,0	100,7
1977	112,9	112,1	135,1	76,4	82,0	97,0	74,2	59,3	120,3	69,7	64,9	94,2	97,3	111,6
1978	116,2	112,0	143,1	69,4	74,1	95,8	74,6	55,6	123,2	55,5	65,0	95,9	88,3	136,0
1979	117,6	111,2	149,9	65,5	81,0	96,4	74,8	53,7	125,0	47,0	69,0	101,5	85,8	125,9
1980	117,0	102,4	150,5	56,7	75,4	96,9	73,2	51,8	125,3	45,5	75,9	103,8	85,7	120,8
1981	110,2	94,7	142,1	51,0	68,2	88,3	66,8	45,4	119,8	43,8	76,0	88,6	96,6	137,3
1982	100,0	90,6	149,1	46,9	64,0	81,0	66,1	42,3	125,9	38,2	72,7	83,4	108,2	130,4
1983	97,3	90,1	155,1	38,4	53,0	75,2	63,4	40,7	128,5	30,1	67,6	78,6	114,4	144,6
1984	95,1	86,7	152,8	33,0	51,8	71,6	60,7	38,4	126,5	24,9	64,4	72,1	123,3	152,5
1985	95,9	87,8	153,3	27,8	50,6	72,4	61,4	36,4	126,9	22,0	64,3	71,2	128,3	157,2
1986	100,9	92,7	166,3	22,2	49,7	75,3	65,0	37,3	134,6	20,1	62,6	77,4	109,2	188,8
1987	101,0	93,1	168,1	20,5	47,5	74,3	65,1	37,0	135,9	18,0	62,3	77,0	106,4	198,8

Table 45

Current receipts of general government

(Percentage of GDP at current market prices)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 8
1960	27,5	27,3	35,1	21,1	:	34,9	24,8	28,8	32,5	33,9	:	30,1	32,2
1961	28,4	26,6	36,3	22,0	:	36,2	25,7	28,2	34,1	34,9	:	31,3	33,0
1962	29,2	28,2	36,6	23,2	:	36,3	25,2	29,1	33,5	34,4	:	32,9	33,7
1963	29,4	29,9	36,9	23,2	:	37,1	26,1	29,5	33,6	35,6	:	31,5	33,8
1964	30,0	29,7	36,4	24,0	:	38,0	26,9	30,6	33,5	35,7	:	31,5	34,1
1965	30,7	31,2	35,7	23,7	:	38,4	27,9	30,1	35,2	37,3	:	33,2	34,5
1966	32,4	33,5	36,2	25,3	:	38,4	30,0	30,1	35,8	39,2	:	34,4	35,1
1967	33,2	34,1	36,9	26,2	:	38,2	30,6	31,0	35,7	40,6	:	36,3	36,0
1968	33,8	36,9	38,0	27,3	:	38,8	31,0	31,6	34,5	42,4	:	37,7	36,9
1969	34,3	37,2	39,4	27,2	:	39,8	31,6	30,7	34,3	43,2	:	39,6	37,9
1970	35,2	41,7	38,3	26,8	:	39,0	35,3	30,4	35,0	44,5	:	40,5	37,8
1961-70	31,7	32,9	37,1	24,9	:	38,0	29,0	30,1	34,5	38,8	:	34,9	35,3
1970	36,5	46,2	38,9	26,5	22,9	39,8	:	30,7	35,8	41,1	:	39,9	38,0
1971	37,1	46,9	40,0	26,3	23,0	39,1	:	31,4	39,2	43,5	:	37,9	38,0
1972	37,6	46,5	40,4	26,3	23,4	39,0	:	31,2	39,3	44,6	:	36,3	37,8
1973	38,2	47,3	42,9	25,1	24,1	39,4	:	30,8	39,4	46,4	:	35,5	38,4
1974	39,2	49,1	43,4	26,7	23,3	40,3	34,3	30,9	40,5	47,1	:	39,2	39,6
1975	42,0	46,8	43,4	27,1	24,8	41,2	33,7	31,6	49,3	49,4	:	39,7	40,4
1976	41,8	47,6	44,6	29,2	25,7	43,5	36,9	33,2	50,5	49,8	:	38,9	41,3
1977	43,5	48,3	45,7	29,6	26,9	43,4	35,5	34,5	54,8	50,6	:	38,4	41,9
1978	44,1	50,3	45,4	29,9	27,5	43,3	34,3	36,3	55,9	51,1	:	37,1	41,9
1979	44,8	51,5	45,1	30,4	28,8	44,8	35,0	35,9	53,2	52,1	:	38,0	42,4
1980	44,4	52,9	45,4	30,2	30,4	46,6	37,7	38,1	54,1	53,5	29,2	39,7	43,7
1971-80	41,3	48,7	43,6	28,1	25,8	42,1	:	33,4	47,6	48,8	:	38,1	40,6
1981	45,3	52,9	45,6	29,0	31,1	47,4	38,4	39,6	53,4	53,8	30,2	41,6	44,7
1982	47,0	52,0	46,1	31,5	30,8	48,3	40,7	42,2	53,8	54,2	30,3	42,6	45,8
1983	46,1	54,4	45,9	31,9	33,6	48,9	42,5	45,3	57,0	56,0	33,6	41,6	46,4
1984	47,3	56,7	46,3	34,2	32,7	49,9	42,8	44,5	55,6	55,3	31,9	42,0	46,7
1985	47,6	57,6	46,4	34,4	33,6	49,9	42,2	44,4	56,8	55,3	29,6	42,0	46,7
1986	46,7	58,8	45,9	37,6	33,5	49,2	41,3	44,0	54,5	54,9	32,6	40,9	46,1
1987	46,6	58,1	46,2	39,3	33,9	48,7	40,9	43,0	52,8	53,7	33,3	40,1	45,6

Table 46

Total expenditure of general government

(Percentage of GDP at current market prices)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 8
1960	30,3	24,8	32,5	:	:	34,6	28,0	30,1	30,5	33,7	:	32,4	32,3
1961	29,8	27,1	33,8	:	:	35,7	29,7	29,4	30,3	35,4	:	33,1	33,0
1962	30,5	28,1	35,6	:	:	37,0	29,5	30,5	32,2	35,6	:	34,0	34,2
1963	31,5	28,6	36,4	:	:	37,8	30,5	31,1	32,1	37,6	:	35,4	35,2
1964	30,8	28,4	36,1	:	:	38,0	31,8	31,8	32,3	37,8	:	33,7	34,8
1965	32,3	29,9	36,7	:	:	38,4	33,1	34,3	33,3	38,7	:	36,2	36,3
1966	33,5	31,7	36,9	:	:	38,5	33,6	34,3	35,0	40,7	:	35,4	36,3
1967	34,5	34,3	38,8	:	:	39,0	34,8	33,7	37,5	42,5	:	38,3	37,7
1968	36,3	36,3	39,2	:	:	40,3	35,2	34,7	37,3	43,9	:	39,3	38,7
1969	36,1	36,3	38,8	:	:	39,6	36,6	34,2	34,1	44,4	:	41,3	38,8
1970	36,5	40,2	38,6	:	:	38,9	39,6	34,2	33,1	46,0	:	39,2	38,3
1961-70	33,2	32,1	37,1	:	:	38,3	33,5	32,8	33,7	40,3	:	36,6	36,3
1970	38,6	42,1	38,7	:	22,1	38,9	:	34,2	33,1	42,3	:	36,9	37,8
1971	40,3	43,0	40,2	:	23,5	38,3	:	36,6	36,9	44,5	:	36,6	38,6
1972	41,3	42,6	40,9	:	23,1	38,3	:	38,6	37,3	45,0	:	37,6	39,5
1973	41,5	42,1	41,7	:	22,9	38,5	:	37,8	36,1	45,4	:	38,2	39,7
1974	41,8	45,9	44,7	:	23,0	39,7	42,5	37,9	35,8	47,3	:	42,9	42,0
1975	46,7	48,2	49,0	:	24,7	43,5	46,3	43,2	48,4	51,8	:	44,2	45,8
1976	47,3	47,8	48,0	:	25,9	44,0	45,5	42,2	49,1	52,7	:	43,7	45,4
1977	49,0	48,8	48,1	:	27,4	44,2	43,1	42,5	51,9	52,4	:	41,7	45,2
1978	50,1	50,6	47,8	:	29,3	45,2	44,0	46,1	51,5	53,8	:	41,5	46,1
1979	51,9	53,2	47,7	:	30,5	45,5	46,4	45,5	52,4	55,8	:	41,2	46,2
1980	53,4	56,2	48,4	:	32,4	46,4	50,4	46,1	54,9	57,5	37,8	43,2	47,4
1971-80	46,3	47,8	45,6	:	26,3	42,3	:	41,6	45,4	50,6	:	41,1	43,6
1981	58,1	59,8	49,3	40,7	34,1	49,1	51,6	51,4	56,5	59,2	40,3	44,4	49,8
1982	58,1	61,1	49,4	40,4	36,9	51,1	54,5	54,8	56,1	61,3	39,1	45,0	51,2
1983	57,8	61,7	48,5	37,1	39,1	52,0	54,2	57,1	57,6	62,5	40,7	45,3	51,7
1984	57,2	60,9	48,2	44,3	37,8	52,8	52,5	57,4	54,0	61,6	39,6	46,2	52,0
1985	56,9	59,5	47,5	48,3	39,8	52,5	53,5	58,4	52,6	60,4	40,7	45,1	51,5
1986	55,1	56,4	46,6	47,1	38,6	51,7	50,9	56,7	50,7	60,2	43,9	44,0	50,4
1987	53,5	54,9	46,5	45,7	38,6	51,2	50,0	55,9	50,2	59,5	44,5	43,0	49,8

Table 47

Net lending or net borrowing of general government

(Percentage of GDP at current market prices)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 8
1960	−2,8	3,1	3,0	:	:	0,9	−2,4	−0,9	3,1	0,8	:	−1,0	0,6
1961	−1,3	0,1	2,8	:	:	1,0	−3,2	−0,8	4,8	0,1	:	−0,7	0,6
1962	−1,3	0,6	1,4	:	:	−0,1	−3,6	−1,0	2,3	−0,6	:	−0,0	0,1
1963	−2,1	1,9	0,9	:	:	−0,1	−3,6	−1,2	2,6	−1,3	:	−2,8	−0,8
1964	−0,8	1,8	0,7	:	:	0,7	−4,1	−0,8	2,2	−1,5	:	−1,1	−0,1
1965	−1,6	1,8	−0,6	:	:	0,7	−4,3	−3,8	2,9	−0,8	:	−2,0	−1,2
1966	−1,0	2,3	−0,2	:	:	0,6	−2,8	−3,8	1,9	−0,9	:	−0,0	−0,6
1967	−1,3	0,4	−1,4	:	:	0,0	−3,3	−2,2	−0,7	−1,3	:	−1,0	−1,1
1968	−2,5	1,1	−0,8	:	:	−0,8	−3,3	−2,8	−1,7	−0,9	:	−0,5	−1,1
1969	−1,8	1,4	1,1	:	:	0,9	−4,2	−3,1	1,2	−0,5	:	−0,6	−0,3
1970	−1,3	2,1	0,2	:	:	0,9	−3,7	−3,5	2,8	−0,8	:	2,5	0,1
1961-70	−1,5	1,3	0,4	:	:	0,4	−3,6	−2,3	1,8	−0,8	:	−0,6	−0,4
1970	−2,2	4,1	0,2	:	0,7	0,9	:	−3,5	2,7	−1,2	:	3,0	0,2
1971	−3,2	3,9	−0,2	:	−0,6	0,7	:	−5,2	2,3	−1,0	:	1,3	−0,6
1972	−3,7	3,9	−0,5	:	0,3	0,8	:	−7,5	2,0	−0,4	:	−1,3	−1,7
1083	−3,3	5,2	1,2	:	1,1	0,9	:	−7,0	3,3	1,0	:	−2,7	−1,3
1974	−2,6	3,1	−1,3	:	0,2	0,6	−8,2	−7,0	4,8	−0,2	:	−3,8	−2,4
1975	−4,7	−1,4	−5,6	:	0,0	−2,2	−12,5	−11,7	0,9	−2,4	:	−4,5	−5,4
1976	−5,5	−0,2	−3,4	:	−0,3	−0,5	−8,6	−9,0	1,4	−2,9	:	−4,9	−4,1
1977	−5,5	−0,5	−2,4	:	−0,6	−0,8	−7,6	−8,0	2,9	−1,8	:	−3,2	−3,3
1978	−6,0	−0,3	−2,4	:	−1,8	−1,9	−9,7	−9,7	4,4	−2,8	:	−4,4	−4,2
1979	−7,1	−1,7	−2,6	:	−1,7	−0,7	−11,4	−9,5	0,8	−3,7	:	−3,3	−3,8
1980	−9,0	−3,3	−2,9	:	−2,0	0,2	−12,7	−8,0	−0,8	−4,0	−8,6	−3,5	−3,6
1971-80	−5,1	0,9	−2,0	:	−0,5	−0,3	:	−8,3	2,2	−1,8	:	−3,0	−3,0
1981	−12,8	−6,9	−3,7	−11,7	−3,0	−1,8	−13,2	−11,9	−3,1	−5,5	−10,0	−2,8	−5,2
1982	−11,1	−9,1	−3,3	−9,1	−6,1	−2,7	−13,8	−12,6	−2,3	−7,1	−8,7	−2,4	−5,4
1983	−11,7	−7,2	−2,5	−8,9	−5,6	−3,1	−11,8	−11,7	−0,6	−6,5	−7,1	−3,7	−5,3
1984	−9,8	−4,2	−1,9	−10,1	−5,0	−2,9	−9,7	−13,0	1,5	−6,3	−7,7	−4,2	−5,3
1985	−9,3	−1,9	−1,1	−13,9	−6,2	−2,6	−11,4	−14,0	4,2	−5,1	−11,1	−3,1	−4,8
1986	−8,4	2,4	−0,7	−9,5	−5,1	−2,4	−9,6	−12,7	3,7	−5,2	−11,2	−3,2	−4,3
1987	−6,9	3,2	−0,3	−6,4	−4,7	−2,6	−9,1	−12,8	2,6	−5,8	−11,2	−2,9	−4,2

Table 48

Budgetary expenditure of the European Communities (a)

(Million u.a./EUA/ECU)

	ECSC operational budget	European Development Fund	Euratom (b)	EC general budget						Total
				EAGGF (c)	Social Fund	Regional Fund	Industry Energy, Research	Adm. and others (d)	Total EC	
1958	21,7	—	7,9	—	—	—	—	5,9	5,9	35,5
1959	30,7	51,2	39,1	—	—	—	—	25,2	25,2	146,2
1960	23,5	63,2	20,0	—	—	—	—	28,3	28,3	135,0
1961	26,5	172,0	72,5	—	8,6	—	—	25,4	34,0	305,0
1962	13,6	162,3	88,6	—	11,3	—	—	81,0	92,3	356,8
1963	21,9	55,5	106,4	—	4,6	—	—	79,5	84,1	267,9
1964	18,7	35,0	124,4	—	7,2	—	—	85,9	93,1	271,1
1965	37,3	248,8	120,0	102,7	42,9	—	—	55,5	201,1	607,2
1966	28,1	157,8	129,2	310,3	26,2	—	—	65,8	402,2	717,3
1967	10,4	105,8	158,5	562,0	35,6	—	—	77,5	675,1	949,8
1968	21,2	121,0	73,4	2 250,4	43,0	—	—	115,3	2 408,6	2 624,2
1969	40,7	104,8	59,2	3 818,0	50,5	—	—	182,7	4 051,2	4 255,9
1970	56,2	10,5	63,4	5 228,3	64,0	—	—	156,1	5 448,4	5 578,5
1971	37,4	236,1	—	1 883,6	56,5	—	65,0	284,3	2 289,3	2 562,8
1972	43,7	212,7	—	2 477,6	97,5	—	75,1	424,3	3 074,5	3 330,9
1973	86,9	210,0	—	3 768,8	269,2	—	69,1	533,8	4 641,0	4 937,9
1974	92,0	157,0	—	3 651,3	292,1	—	82,8	1 011,9	5 038,2	5 287,2
1975	127,4	71,0	—	4 586,6	360,2	150,0	99,0	1 017,8	6 213,6	6 412,0
1976	94,0	320,0	—	6 033,3	176,7	300,0	113,3	1 329,2	7 952,6	8 366,6
1977 (e)	93,0	800,0	—	6 667,6	55,3	400,0	167,0	1 303,9	8 483,2	9 376,2
1978	159,1	394,5	—	9 552,3	256,5	254,9	266,8	1 430,8	11 884,2	12 190,8
1979	173,9	480,0	—	10 765,0	527,0	499,0	288,0	2 368,0	14 602,5	15 256,4
1980	175,7	508,5	—	11 596,1	502,0	751,8	212,8	2 994,9(f)	16 057,5	16 741,7
1981	261,0	658,0	—	11 443,0	547,0	547,0	232,0	4 060,0	18 546,0(g)	19 465,0
1982	243,0	750,0	—	12 792,0	910,0	2 766,0(h)	346,0	4 613,0	21 427,0(i)	22 420,0
1983	300,0	752,0	—	16 331,3	801,0	2 265,5	1 216,2	4 151,5	24 765,5(j)	25 817,5
1984	408,0	810,0	—	18 985,8	1 116,4	1 283,3	1 346,4	3 387,4	26 119,3(k)	27 337,3
1985	453,0	710,0	—	20 546,4	1 413,0	1 624,3	706,9	3 932,4	28 223,0(l)	29 386,0
1986	439,0	800,0	—	23 104,0	2 533,0	2 373,0	762,0	6 402,0	35 174,0(m)	36 413,0
1987	—	—	—	24 077,0	2 589,0	2 495,0	1 055,0	6 461,0	36 677,0(n)	—

Table 49

Budgetary receipts of the European Communities (a)

(Million u.a./EUA/ECU)

	ECSC levies and other	European Dev. Fund contributions	Euratom contributions (research only)	EC budget						Total
				Miscellaneous and contributions under special keys	Own resources				Total EC	
					Miscellaneous	Agricultural levies	Import duties	GNP contributions or VAT (b) (c)		
1958	44,0	116,0	7,9	0,02	—	—	—	5,9	5,9	173,8
1959	49,6	116,0	39,1	0,1	—	—	—	25,1	25,2	229,9
1960	53,3	116,0	20,0	0,2	—	—	—	28,1	28,3	217,6
1961	53,1	116,0	72,5	2,8	—	—	—	31,2	34,0	275,6
1962	45,3	116,0	88,6	2,1	—	—	—	90,2	92,3	342,2
1963	47,1	—	106,4	6,7	—	—	—	77,4	84,1	237,5
1964	61,3	—	124,4	2,9	—	—	—	90,1	93,1	278,7
1965	66,1	—	98,8	3,5	—	—	—	197,6	201,1	366,0
1966	71,2	—	116,5	3,9	—	—	—	398,3	402,2	590,0
1967	40,3	40,0	158,5	4,2	—	—	—	670,9	675,1	913,9
1968	85,4	90,0	82,0	—	—	—	—	—	2 408,6	2 666,0
1969	106,8	110,0	62,7	78,6	—	—	—	3 972,6	4 051,2	4 330,7
1970	100,0	130,0	67,7	121,1	—	—	—	5 327,3	5 448,4	5 746,1
1971	57,9	170,0	—	—	69,5	713,8	582,2	923,8	2 289,3	2 517,2
1972	61,1	170,0	—	—	80,9	799,6	957,4	1 236,6	3 074,5	3 305,6
1973	120,3	150,0	—	—	511,0	478,0	1 564,7	2 087,3	4 641,0	4 911,3
1974	124,6	150,0	—	—	65,3	323,6	2 684,4	1 964,8	5 038,2	5 312,8
1975	189,5	220,0	—	—	320,5	590,0	3 151,0	2 152,0	6 213,6	6 623,1
1976 (d)	129,6	311,0	—	—	282,8	1 163,7	4 064,6	2 482,1	7 993,1	8 433,7
1977	123,0	410,0	—	—	283,0	1 778,5	3 927,2	2 494,5	8 483,2	9 016,2
1978	164,9	147,5	—	—	217,2	2 283,3	4 407,9	4 975,8	11 884,2	12 196,6
1979	168,4	480,0	—	—	230,3	2 143,4	5 189,1	7 039,8	14 602,5	15 251,0
1980	226,2	555,0	—	—	1 055,9(e)	2 002,3	5 905,8	7 093,5	16 057,5(f)	16 838,7
1981	264,0	658,0	—	—	1 219,0	1 747,0	6 392,0	9 188,0	18 546,0(g)	19 468,0
1982	243,0	750,0	—	—	187,0	2 228,0	6 815,0	12 197,0	21 427,0	22 420,0
1983	300,0	700,0	—	—	1 565,0	2 295,0	6 988,7	13 916,8	24 765,5(h)	25 765,5
1984	408,0	810,0	—	—	1 060,7(i)	2 436,3	7 960,3	14 594,6	26 052,4(j)	—
1985	453,0	710,0	—	—	2 491,0(k)	2 179,0	8 310,0	15 218,0	28 198,0	29 361,0
1986	439,0	800,0	—	—	96,0	2 699,0	9 700,0	22 679,0	35 174,0(l)	36 413,0
1987	—	—	—	—	276,0	3 297,0	9 762,0	23 342,0	36 677,0(m)	—

Table 50

Borrowing operations of the European Communities and of the European Investment Bank

(Million u.a./EUA/ECU)

	ECSC	EIB	Euratom	EEC(b)	EEC-NCI(c)	Total
1958	50	—	—	—	—	50
1959	—	—	—	—	—	—
1960	35	—	—	—	—	35
1961	23	21	—	—	—	44
1962	70	32	—	—	—	102
1963	33	35	5(d)	—	—	73
1964	128	67	8(d)	—	—	203
1965	54	65	11(d)	—	—	130
1966	103	139	14(d)	—	—	256
1967	58	195	3(d)	—	—	256
1968	108	213	—	—	—	321
1969	52	146	—	—	—	198
1970	60	169	—	—	—	229
1971	102	413	1(d)	—	—	516
1972	230	462	—	—	—	692
1973	263	608	—	—	—	871
1974	528	826	—	—	—	1 354
1975	731	814	—	—	—	1 545
1976	956	732	—	1 249	—	2 937
1977	729	1 030	99	571	—	2 429
1978	981	1 863	72	—	—	2 916
1979	837	2 437	153	—	178	3 605
1980	1 004	2 384	181	—	305	3 874
1981	325	2 243	373	—	339	3 280
1982	712	3 146	363	—	773	4 994
1983	750	3 508	369	—	1 617	6 244
1984	822	4 339(e)	214	—	967	6 342
1985	1 265	5 699(f)	344	—	860	8 168

Table 51

Net outstanding borrowing of the European Communities and of the European Investment Bank

(Million u.a./EUA/ECU) (a)

	ECSC	EIB	Euratom	EEC(b)	EEC-NCI(c)	Total
1958	212	—	—	—	—	212
1959	209	—	—	—	—	209
1960	236	—	—	—	—	236
1961	248	21	—	—	—	269
1962	304	54	—	—	—	358
1963	322	88	—	—	—	410
1964	436	154	—	—	—	590
1965	475	217	—	—	—	692
1966	560	355	—	—	—	915
1967	601	548	—	—	—	1 149
1968	686	737	—	—	—	1 423
1969	719	883	—	—	—	1 602
1970	741	1 020	—	—	—	1 761
1971	802	1 423	—	—	—	2 225
1972	963	1 784	—	—	—	2 747
1973	1 157	2 287	—	—	—	3 444
1974	1 615	3 124	—	—	—	4 739
1975	2 391	3 926	—	—	—	6 317
1976	3 478	4 732	—	1 161	—	9 371
1977	3 955	5 421	99	1 500	—	10 975
1978	4 416	6 715	172	1 361	—	12 664
1979	4 675	8 541	323	965	178	14 682
1980	5 406	10 604	502	1 016	402	18 019
1981	5 884	13 482	902	1 062	894	22 224
1982	6 178	16 570	1 272	591	1 747	26 358
1983	6 539	20 749	1 680	4 610	3 269	36 847
1984	7 119	25 007	1 892	4 932	4 432	43 382
1985	7 034	26 736	2 013	3 236	4 960	43 979

Notes on the tables

Table 1

Source: EC: Eurostat, Cronos data bank, USA: Department of Commerce, Bureau of the Census, series p-25; Japan: OECD, National accounts, Volume 1.

Table 2

Definition: NL: full-time equivalent; USA: persons engaged.

Source: EC: as Table 1; USA: by Department of Commerce, Survey of Current Business; Japan: national publications.

Table 3

Definition: EC: SOEC; USA, Japan: OECD.

Source: Eurostat, Cronos data bank.

Belgium: For certain categories of unemployed the obligation to register was ended with effect from 1 April 1985.

Greece: Estimates of Commission services based on national surveys.

The Netherlands: For those unemployed aged 57 1/2 years or over, the obligation to register was ended with effect from 1 January 1984.

Tables 4 to 8, 10 to 22, 26 and 27, 30 and 31

Source: EC: Eurostat, Cronos data bank; USA, Japan: OECD, National accounts, Volume 1.

Table 9

Coverage: Construction excluded.

Source: Eurostat, Cronos data bank.

Table 23

Definition: Compensation per employee deflated by the price index of private consumption.

Table 24

Definition: Compensation of employees adjusted for the share of self-employed in total employment as per cent of GDP at current factor cost.

Tables 25 and 44

For a detailed commentary on the method used see *European Economy* No 8, March 1981.

EUR 10: against 11 non-member countries (Australia, Austria, Canada, Finland, Japan, Norway, Portugal, Spain, Sweden, Switzerland, USA).

Tables 28 and 29; 32 and 33; 35 and 36

Source: Eurostat, Cronos data bank.

Table 34

Definition: Net lending or borrowing of the nation minus net capital transfers to the rest of the world.

Source: Eurostat, Cronos data bank.

Table 37

Definition: B up to 1969, monetary claims on the main monetary institutions; from 1969, M2. DK: M2; new definitions from 1975. D: M3. GR: M3. E: M3. F: up to 1978, total M2; from 1978 residents M2. IRL: M3; breaks in series 1971 and 1983. I: up to 1975 and from 1982 M2; otherwise M3. NL: M2; breaks in series 1976, 1977 and 1978. P: M2. UK: sterling M3. EC: rate of growth of the harmonic mean, weighted by GDP at current prices and purchasing power parities of the money stock indices of the countries (1975 = 100). The weight of Luxembourg has been added to that of Belgium.

Table 38

Definition: DK: Discount rate until 1976, day-to-day rate since 1977. D: 3-month inter-bank rate. GR: interest rates on credit for working capital to industry until 1980; from 1981, rate on large time deposits. E: 3-month inter-bank rate. F: Day-to-day rate until 1968, 1-month commercial paper rate since 1969. IRL: up to 1970: 3-month inter-bank loans in London; from 1971: 3-month inter-bank loans in Dublin. I: 12-month Treasury bill rate until 1970, inter-bank call money rate since 1971. NL: Treasury bill 3-months up to 1972; inter-bank loans 3-months from 1973. B: rate 4-month certificates of Fonds des Rentes. P: 6-month deposit rate. UK: 3-month Treasury bill rate until September 1964, 3-month inter-bank rate since October 1964. EC: geometrically weighted average with weights based on 1975 GDP at 1975 prices and purchasing power parities. The weight of Luxembourg has been added to that of Belgium.

Table 39

Definition: DK: yield on first-class mortgage loans. D: average yield on all public sector bonds. GR: weighted average yield of government bonds. E: public sector bond yield (more than 2 years). F: yield on public sector bonds. IRL: up to 1970: yield on government securities with maturity 20 years in London; from 1971: yield on government securities with maturity 15 years in Dublin. I: yield on Crediop public bonds. NL: yield of 3,25% government bonds up to 1973. Private loan to public utilities from 1974. B: yield on 5-year government bonds. P: yield on long-term bonds (over 5 years). UK: yield on 20-year government securities. EC: as for Table 38.

Table 40

Source: IMF. International Financial Statistics and Commission departments. Gold is valued at market-related prices.

Table 41

Source: Eurostat and Commission departments.

Tables 42 to 44

Source: Commission departments.

Tables 45 to 47

Source: EC: 1960-70 OECD, 1970-85 member countries national accounts and Commission departments; USA, Japan: OECD.

EUR 8: Community excluding Greece and Ireland.

Table 48

Source: 1958-85 Management accounts.

(a) u.a. until 1977, EUA/ECU 1978 onwards. (b) Incorporated in the EC budget from 1971. (c) This column includes, for the years to 1970, substantial amounts carried forward to following years. (d) Including the European Parliament, the Council, the Court of Justice, the Court of Auditors and the administrative part of the ECSC budget. (e) In 1977 appropriations for the Social Fund carried forward from 1976 and subsequently cancelled amounted to 227 716 611 u.a., while total expenditure for 1977 amounted to only 172 439 999 u.a. giving the net figure shown here. (f) Including surplus of 82,4 million ECU carried forward to 1981. (g) Including 1 173 million ECU carried forward to 1982. (h) Including 1 819 million ECU UK special measures. (i) Including 2 211 million ECU carried forward to 1983. (j) Including 1 707 million ECU carried forward to 1984. (k) There was a small deficit in 1984 in respect of EC budget due largely to late payment of advances by some Member States. (l) There was a cash deficit in 1985 of 25 million ECU due to late payment of advances by some Member States. (m) Budget adopted on 10 July 1986 — includes cost of refund of 2 685 million ECU to UK. (n) Preliminary draft budget 1987 — includes cost of refund of 2 366 million ECU to UK.

Table 49

Source: 1958-85 Management accounts.

(a) u.a. until 1977, EUA/ECU 1978 onwards. (b) GNP until 1978, VAT from 1979 onward. (c) This column includes for the years to 1970 surplus revenue from previous years carried forward to following years. (d) As a result of the calculations to establish the relative shares of the Member States in the 1976 budget, an excess of revenue over expenditure occurred amounting to 40 543 573 u.a. This was carried forward to 1977. (e) Including surplus brought forward from 1979 and balance of 1979 VAT and financial contributions. (f) Including surplus of 82,4 million ECU carried forward to 1981. (g) Including surplus of 661 million ECU. (h) Includes surplus of 307 million ECU. (i) Includes 593 million ECU of repayable advances by Member States. (j) See note (k) to Table 48. (k) Includes non-repayable advances by Member States of 1981, 6 million ECU. (l) Budget adopted on 10 July 1986. (m) Preliminary draft budget 1987.

Tables 50 and 51

Source: European Economy No 6, 'Borrowing and lending instruments looked at in the context of the Community's financial instruments', No 8, 'The Community's borrowing and lending operations: recent developments affecting certain instruments', and No 13, September 1982, 'The borrowing and lending activities of the Community'.

(a) ECSC: 1958-74, u.a.; 1975-82, EUA/ECU. EIB: 1961-73, u.a.; 1974-82, EUA/ECU. Euratom: 1963-71 u.a.; 1977-84, EUA/ECU. (b) EEC balance of payments financing. (c) EEC New Community Instrument (for investment). (d) Drawings under credit lines opened with Eximbank (USA). (e) Including 289 million ECU of short-term borrowing. (f) Including 374 million ECU of short-term borrowing.

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