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COUNCIL

COUNCIL DECISION

of 25 February 1992

adopting the annual economic report 1991/92 on the economic situation in the Community
and determining the economic policy orientations for the Community in 1992

(92/180/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

HAS ADOPTED THIS DECISION:

Having regard to the Treaty establishing the European Economic Community,

Having regard to Council Decision 90/141/EEC of 12 March 1990 on the attainment of progressive convergence of economic policies and performance during stage one of economic and monetary union ⁽¹⁾, and in particular Article 4,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament ⁽²⁾,

Having regard to the opinion of the Economic and Social Committee ⁽³⁾,

Article 1

The Annual Economic Report 1991/92, attached to this Decision, is hereby adopted, and the economic policy orientations for the Community for 1992 put forward in that report are adopted.

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 25 February 1992.

For the Council

The President

Vitor MARTINS

⁽¹⁾ OJ No L 78, 24. 3. 1990, p. 23.

⁽²⁾ OJ No C 39, 17. 2. 1992.

⁽³⁾ Opinion delivered on 29 January 1992 (not yet published in the Official Journal).

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ANNUAL ECONOMIC REPORT 1991/92

INTRODUCTION AND SUMMARY

1991 to 1992: Two years of slower growth

World economic growth practically ground to a halt in 1991: + 0,2 % in real terms. Cyclical factors, reinforced by the negative effects of the Gulf crisis, have pushed into recession the economies of many important industrialized countries: United States, Canada, some EFTA countries and the United Kingdom. In addition, the far-reaching transformation occurring in central and eastern Europe is inevitably provoking a temporary, but substantial, decline in output in those countries: the impact on the Community remains limited though. The end of the recessionary phase in output in some countries and a certain improvement in world trade lead to the expectation of a recovery to growth rates of about 2 % in 1992.

The economy of the European Community has also been affected by these factors, but it has withstood them much better than many other world regions. The fundamental improvement in the functioning of the Community economy which took place during the 1980s and the strong positive growth impulses stemming from German unification have ensured the continuation of growth, albeit at a reduced rate. The rate of growth in the Community is estimated to drop in 1991 to about 1,25 % from the 2,8 % recorded in 1990. 1992 should see a slight improvement of growth, about 2,25 % for the Community as a whole, as the expected recovery in the United Kingdom is offset by a slow-down in Germany once the effects of unification peter out.

The current economic slow-down must be seen against the backdrop of the strong growth which preceded it. The Community economy has been growing at a satisfactory pace since 1984. The last few years have been characterized by unusually high rates of growth of investment which were difficult to sustain: In 1990 the amount of investment in equipment made by Community firms was about 50 % higher in real terms than that of 1984. The expectations created by the internal market programme may, in 1987 to 1989, have led firms to bring investment forward in anticipation of the actual internal market effects. These effects will be felt in the years to come as the political and legislative decisions already taken are implemented and lead to an actual dismantling of the residual internal barriers.

The Community economy — Key indicators

	Average 1983-1987	Average 1988-1989	1990	1991	(**) 1992	(**) 1993
Real GDP (annual % increase)	2,4	3,7	2,8	1,3	2¼	2½
Inflation ^(a) (increase)	5,9	4,3	5,2	5,0	4½	4¼
Real compensation per head	1,3	1,6	2,3	2,0	1¼	1¼
Employment (increase)	0,1	1,6	1,4	0,5	¼	½
Unemployment (% of active population)	10,5	9,3	8,4	8,6	9	9¼
Budget deficit ^(b) (% of GDP)	4,9	3,3	4,1	4,4	4½	4¼
Current account balance (% of GDP)	0,7	0	-0,2	-0,8	-1	-¾

(**) Forecast

^(a) Private consumption deflator

^(b) General government net borrowing requirement

Slower growth contains risks for the major Community projects

The current economic slow-down carries a double economic policy message for the Community.

- (i) On the one hand, it represents an unwelcome development which is reducing the margin for manoeuvre for economic policy in many countries. The lower rates of growth are leading, already in 1991, to an increase in unemployment, thus bringing to a halt the continuous downward trend evident since 1986. Social resistance to change risks increasing as the positive consequences of the present structural adjustment take more time to materialize and become thus less visible than the temporary negative ones. Convergence is interrupted in the run up to economic and monetary union (EMU) and slower growth further complicates the task of budgetary consolidation where this is still necessary and creates less favourable conditions for a rapid catching-up process.
- (ii) On the other hand, it constitutes a powerful reminder that the economic policy adjustment which took place during the 1980s, although substantial, was not sufficient or complete. Wage moderation helped improve the profitability of investment which had deteriorated substantially in the wake of the two oil shocks and of the unsettled conditions which followed them. This positive trend, however, came to a halt in 1990 when the correction was not yet complete. Further efforts are necessary to bring investment profitability back at least to its level of the 1960s.

The strong growth of 1988 to 1990 was not exploited to further the adjustment process where this was necessary. In some Member States the rates of inflation, even if substantially reduced by comparison with the beginning of the 1980s, were at the end of the decade still too high for the stated ambition of moving rapidly towards economic and monetary union. Insufficient structural adjustment had taken place. The strong employment growth of 1988 to 1990 led to unwarranted wage increases in 1990 notwithstanding still high unemployment. Equally worrying is the situation in the budgetary area. The strong rates of growth offered a golden opportunity, which was not seized, to take bold steps to consolidate the budgetary position at little cost. In many cases, strong consolidation would have helped in preventing overheating with positive consequences on inflationary pressures. In some countries there remained problems of external competitiveness as shown by continuing fragile external positions. Very often efforts were interrupted too soon in this area as well.

The policies which have brought about the turn-around in the performance of the Community economy during the 1980s must be implemented again with more determination. In an interdependent world economy, healthy fundamentals and a flexible economy go a long way towards ensuring that the effects of adverse external developments do not jeopardize the pursuits of fundamental Community economic policy objectives.

With appropriate policies medium-term perspectives remain good

The rate of growth of the Community economy is currently expected to pick up to about 2,5 % in 1993. The slow pace of the recovery constitutes a reflection of the fact that many Member States are expected to embark on policies aimed at resuming adjustment efforts. Under these conditions the Community economy could return to stronger rates of growth sustainable in both economic and environmental terms.

The processes launched with the major Community programmes — completion of the internal market, transition to economic and monetary union, reinforcement of economic and social cohesion — are irreversible. Bold decisions and determined actions would have a substantial positive effect on the confidence of economic agents and give an immediate impulse to economic growth.

The efforts to complete the internal market have resulted in the most wide-ranging supply side initiative in the history of the Community. Most of the required decisions have been taken. Their transposition into national law, however, is lagging behind and a number of difficult issues have still to be solved. The recent agreement on the setting up of a European economic area will extend and reinforce the effects of the internal market programme.

Economic and monetary union will result in an amplification of the type of economic benefits that follow from the 1992 programme. Indeed only a single currency will allow the full potential benefits of the Single Market to be achieved. The primary aim of EMU is therefore to strengthen the integration of the Community and improve its economic performance. After many years of remarkable progress, the trend towards the degree of nominal convergence necessary for a smooth transition to EMU has come to a halt in 1989/90. Few Member States are yet in a position to make the transition to EMU without considerable adjustment. Recognizing the need to resume the movement towards greater convergence, Member States have agreed to embark upon ambitious convergence programmes. It is important that these programmes be implemented in a resolute way. The Member States, in which the adjustment needs are still large, will be reinforced in their determination by a successful and clear outcome of the Maastricht meetings, by the results already achieved by their partners and by enhanced coordination procedures at the Community level.

The Community policy priorities require a consistent implementation of appropriate macroeconomic policies and policies for structural adjustment

Continued efforts are required in all countries to improve the flexibility of the economy. The coexistence of very high overall levels of unemployment and bottle-necks in certain sectors of the labour market suggest that greater efforts must be developed to improve training and reduce skill mismatches. At the same time, greater flexibility will be needed both in wage determination and the wage structure. It is important to review wage setting procedures so as to make them more responsive to macroeconomic considerations and to the need of furthering structural adjustment.

The Community, and the whole world, is facing a shortage of savings which risks becoming more acute in the years to come. Notwithstanding a subdued demand for investment in the industrialized world, real long-term interest rates in 1991 are high, which points to the fact that available savings are insufficient to meet the demand for capital. This situation risks becoming even less favourable once investment activity picks up again and the huge pent-up capital demand from central and eastern Europe translates into actual demand for funds. Authorities should embark on a systematic review of all structural impediments to saving.

The single most important contribution to increased national saving, however, would be a significant reduction in public deficits in most countries. Various Member States (Greece, Italy, Portugal, Belgium, the Netherlands, Ireland and Germany) present, to different degrees, unsatisfactory budgetary positions. These positions must be corrected to improve macroeconomic conditions in the countries concerned and to allow for a smooth transition to EMU. The necessary progress towards these goals would also help to reduce the overall shortage of savings and would ease the burden presently carried by monetary policy.

The success of monetary authorities in preserving price stability and exchange rate stability within the Community has been acknowledged by the markets and interest rate differentials among the EMS (European Monetary System) currencies have come down substantially. They have all but disappeared at the short end of the market between the currencies of the initial narrow band participants. Under these conditions the room for manoeuvre at the national level is extremely reduced. It is therefore all the more urgent to move to full EMU. Given the continued strength of inflationary pressures in the vast majority of Member States, however, overall monetary policies should remain cautious.

Given the constraints that the high degree of economic integration and exchange rate stability now prevailing in the Community exert on monetary and budgetary policy, the task of creating conditions conducive to an harmonious development of all Community countries and regions falls more on policies for structural adjustment. Such policies need to be supported by appropriate policy measures in key sectors of the economy to facilitate the required adjustment. Member States and the Community must ensure that supply conditions improve everywhere to create additional employment. Conditions must be created which will attract job-creating investment where unemployment is high. Such conditions would also contribute to the catching-up process, that could be further reinforced by a strengthening of the Community's cohesion policies. Better infrastructure, closer cooperation, less rigid labour markets and tax structures which do not penalize entrepreneurial activities are all particularly important factors. Member States should give the improvement of supply policies a prominent place in their economic policy concept. Cooperation at the Community level and supply side policies in Member States are a necessary complement to macroeconomic strategies.

Improvement of supply conditions must go hand in hand with maintaining open and undistorted competition. Public subsidies can threaten the functioning of a competitive market process by confining specific advantages to competing companies. In the run-up to EMU State aids should come under closer scrutiny to improve convergence. The Commission strives to limit subsidization and to incorporate it in a context of restructuring.

A commitment to more discipline on subsidies would also contribute to the achievement of a more open international trading system. A timely conclusion of the Uruguay Round would not only ensure market access and reduced protection in the traditional areas of trade negotiation but also allow the extension of multilaterally agreed rules to new areas of great relevance for the Community: services, intellectual property rights and international investment. It is important to improve access to our trade markets for those products with which central and eastern European countries can compete effectively on the world stage: agriculture, textiles, coal and steel. This improvement in market access will not be carried out at the expense of existing commercial relations with other partners, in particular developing countries. Only a strong, competitive and open Community economy will be able to satisfactorily assist the developing world and central and eastern Europe in their development.

I. ECONOMIC SITUATION AND OUTLOOK

1. 1991, a phase of slower growth

A. *A less dynamic world economy*

Over the last two years the Community has had to operate in an increasingly unfavourable economic climate. After peaking in 1988 at around 4 %, the growth of world output excluding the Community has been slowing continuously and was near zero in 1991, the weakest rate since 1982. The growth in the volume of world trade (again excluding the Community) has declined even more from a rate in excess of 7 % in 1988 to less than 2 % in 1991 (*Table 1*). The decline in activity has been more pronounced than assumed at the beginning of the year with the expected recovery less forthcoming. The previous assessment of the economic outlook has been clearly too optimistic.

B. *A diversified growth pattern in the Community*

The picture of the Community is rather differentiated: relatively weak activity in France, Italy and a recession in the United Kingdom, which seems to have bottomed out, contrast

sharply with continued though declining rates of expansion in Germany, Luxembourg and Spain, while the other countries hover between these extremes.

Table 1

Real GDP, domestic demand and world trade

	(% change)					
	1981-1985	1986-1989	1990	1991 (*)	1992 (*)	1993 (*)
GDP						
World (excluding the Community)	2,6	3,8	1,8	-0,2	2,1	3,1
USA	2,9	3,5	0,9	-0,4	2,1	2,2
Japan	3,9	4,4	5,6	4,6	3,5	3,5
Community	1,5	3,2	2,8	1,3	2,2	2,4
Domestic demand						
USA	3,7	3,0	0,5	-1,0	2,1	2,1
Japan	2,9	5,6	5,8	3,4	3,7	3,7
Community	0,9	4,2	2,9	1,1	2,2	2,6
World trade						
World imports (excluding the Community)	3,0	6,0	3,0	1,8	5,1	6,1
German imports	1,6	6,1	11,4	12,8	5,0	4,7
Community imports (**)	2,0	8,8	4,7	2,5	5,2	5,5
Current account (% of GDP)						
USA	-1,2	-2,8	-1,6	-0,1	-0,7	-0,6
Japan	1,9	3,2	1,2	1,5	1,6	1,7
Community (***)	-0,1	0,5	-0,2	-0,8	-0,9	-0,8

(*) Forecast

(**) Community excluding Germany

(***) Community including unified Germany from 1991 onwards

Source: Commission Services

(a) Expansion continued, particularly in Germany, but at a slowing rate

Germany continued its buoyant growth path under the impact of the significant expansionary impulse of fiscal policy stemming from unification. Fiscal policy gave a strong boost to private consumption, while the investment performance was underpinned by investors' intentions to widen production capacities in order to serve the market of the five new Länder. These demand pressures could not be met by domestic supply, resulting in a strong spill-over to foreign suppliers implying a swing in the current account position from a surplus of 4,7 % of GDP (West Germany) in 1989 to a deficit of 1,1 % of GDP (unified Germany) in 1991.

But even this strong external leakage of domestic demand was not sufficient to prevent internal pressures from developing. A number of factors, including indirect tax increases, have contributed to an upward movement of the price level. Core inflation crept up and inflation in West Germany is now above 4 %. Wage agreements have been concluded that granted pay rises of 6 to 7 %. With productivity growth declining, this resulted in an increase of unit labour costs of almost 6 % with profit margins declining, although from high levels.

Of account of the strong rise of transfer payments in the context of unification, the fiscal balance has shifted from equilibrium in 1989 to a deficit of 3,6 % of GDP in

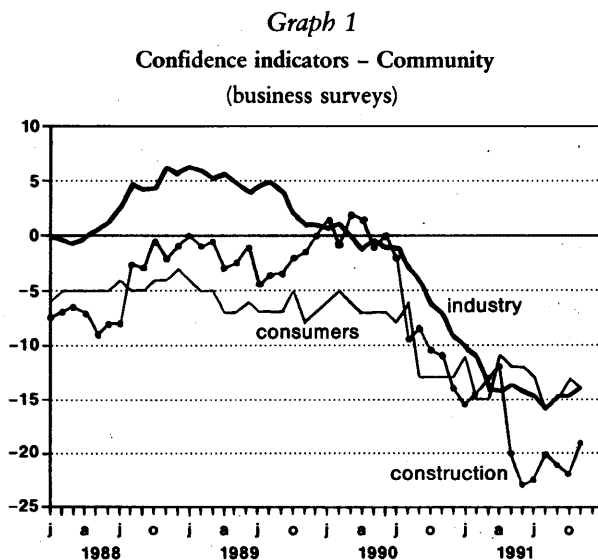
1991, despite revenue increasing and expenditure dampening measures of about 2 % of GDP adopted in early 1991.

Since about mid-1991 the growth process has been losing momentum as the expansionary impulse from unification is petering out and as it had to be flanked with a restrictive monetary policy intended to dampen down inflationary expectations. Furthermore the outlook for profitability has deteriorated following the increase in unit labour costs. At the same time, the capacity-widening effect of the investment of recent years has led to some fall in the high rate of capacity utilization since the spring of this year. Although the danger of a demand-led inflation has eased somewhat, there are considerable risks of tax and cost-push inflation implied in the present fiscal policy choices, which have unduly relied on the revenue side.

(b) Slower growth in the rest of the Community

The United Kingdom registered a deep recession in 1991, with GDP declining by close to 2 %. Private consumption and particularly investment declined significantly under the delayed influence of the restrictive monetary policy pursued in 1989 and 1990 to cool off the overheating of the economy in the previous consumer boom.

The rest of the Community registered a more subdued rate of growth of 1,5 % compared to 2,7 % in 1990. Overall, it was, in particular, the growth of private consumption and exports that retreated, while investment even stagnated. Confidence of consumers and industry has been low since the outbreak of the Gulf crisis and has shown a limited recovery since (*Graph 1*).



Source: Commission Services.

Investment stagnated for the first time after a particularly strong investment boom during the last five years, in the course of which the European capital stock grew by close to 15 % in real terms. Such a pause for breath was almost unavoidable after the first wave of investment in anticipation of the completion of the internal market. The effects of the internal market measures will be felt in the years to come as the political and legislative decisions already taken are implemented and lead to an actual dismantling of the residual internal barriers (*Table 2*).

However, the dent in growth would have been more pronounced in the absence of German unification. Indeed the growth performance of the Community countries was

strongly sustained by the demand effects coming from the German economic expansion. The total impact of German unification on the other Community countries is estimated at 0,5 of a percentage point per year on average over the period 1990 to 1991 (*see box*).

Table 2

Key indicators of the Community economy

	1983-1987	1988-1989	1990	1991(*)	1992(*)	1993(*)
GDP growth	2,4	3,7	2,8	1,3	2,2	2,4
Employment	0,3	1,6	1,4	0,5	0,3	0,5
Real compensation (**)	1,3	1,6	2,3	2,0	1,3	1,4
Inflation (***)	5,8	4,3	5,2	5,0	4,5	4,2
Real unit labour costs	-1,1	-1,0	0,5	0,6	-0,7	-0,7
Investment	2,6	7,9	4,1	-0,5	2,2	3,7
of which: equipment	4,9	9,9	4,7	-0,4	2,6	4,8

(*) Forecast

(**) Real compensation of employees per head (private consumption deflator)

(***) Private consumption deflator

Source: Commission Services

The slow-down in growth was largely cyclical in countries such as Spain, Portugal, the Netherlands, Belgium, Luxembourg, Ireland, Italy and France. The cyclical downswing has brought out underlying structural weakness in some countries who would have had difficulty in maintaining a more sustained pace of economic activity relative to their trading partners in view of the fragility of their external accounts. Price competitiveness has significantly deteriorated in Italy. In France, the sectoral composition of the trade balance gives reason for concern: while the surplus on agricultural products is growing, its surplus on manufactured goods of the mid-1980s has turned into a significant deficit, although some improvement could be noticed in 1991.

The lower growth performance has had, of course, significant consequences for the employment situation in the Community, which has developed favourably over the 1980s with a net addition of 9 million jobs since 1984 (*Table 3*). Despite the fact that growth became more employment intensive, employment growth slowed down markedly for the first time since 1982, resulting in a significant increase in the unacceptable high level of unemployment.

Table 3

Employment in the Community

	Total employment		Unemployment rate (**)
	in millions	% change	
1980	128		6,0
1984	124,8	-0,6 (***)	10,7
1990	133,6	1,4	8,4
1991 (*)	134,2	0,5	8,6
1992 (*)	134,6	0,3	9,1
1993 (*)	135,3	0,5	9,2

(*) Forecast

(**) In percent of the civilian labour force

(***) Average 1980-1984

Source: Commission Services

Economic consequences of German unification for the Community

In general terms, German unification had both real effects via intra-Community trade impulses and monetary effects via interest rate and exchange rate movements.

On the real side, the transmission mechanisms are working via real trade balance effects: the considerable current and capital transfers in favour of the five new Länder is partly converted into additional demands mostly addressed to West German exporting firms, given their comparative advantages (geographical proximity, common language, common currency). The induced boost on West Germany's final demand in turn results in increased imports addressed to the rest of the world and, notably to the other Member States of the Community, with positive impacts on their own final demand and GDP growth, all other things being equal.

The size of these positive effects of course depends not only on the relative importance of exports to Germany in total exports but also on the share of exports in GDP (see Table 1). Thus, the smaller, open economies having close ties with Germany like the Benelux countries and Denmark are likely to be more positively affected, in relation to GDP, than the larger countries.

In the first 12 months since the unification, trade movements confirmed the estimates made in May/June 1990: purchases of the five new Länder from the rest of the world including West Germany went up from DM 18 billion to about 130 billion, an amount close to the equivalent of public transfers received by these Länder. At the same time all other Community countries except Greece registered considerable upswings in their bilateral trade with Germany (see Table 2).

Table 1

Impact of German unification on the growth rate of the other Member countries

	Memorandum items 1990		Impact on rate of growth in % points per year	
	Share of exp. to D in total exports (%)	Share of exports in GDP (%)	1990 (*)	1991
BLEU	19,8	75,3	+ 0,6	+ 1,0
Denmark	18,2	35,1	+ 0,4	+ 0,7
Greece	25,1	23,4	+ 0,2	+ 0,4
Spain	11,1	17,7	+ 0,3	+ 0,5
France	18,7	23,4	+ 0,4	+ 0,7
Ireland	12,2	63,5	+ 0,3	+ 0,8
Italy	17,4	20,6	+ 0,3	+ 0,6
Netherlands	28,1	56,4	+ 0,7	+ 0,9
Portugal	15,8	37,3	+ 0,3	+ 0,4
United Kingdom	12,7	24,8	+ 0,2	+ 0,5
EUR 11	12,8	28,0	+ 0,4	+ 0,6

(*) Second semester, in yearly terms

Source: Commission Services

From these elements, it can be estimated that the growth impact for the Community in 1990 (second semester) and 1991 would be respectively around 0,4 and 0,6 points (see Table 1). Smaller and more open economies generally display a higher impact, particularly in the second year when they also benefit from the indirect effects of unification.

In May/June 1990, it was expected that the unification would cause a general rise in German interest rates and a revaluation of the Mark, movements that would have to be followed by all other countries member of the ERM with negative effects on their growth rates. The reaction of financial markets in the first quarters of 1990 seemed to confirm those views. Since then, however, the effective exchange rate, after its initial revaluation, fell back near its pre-unification level and nominal interest rates both long and short for most Community countries followed the same profile of initial rise followed by a decrease.

Table 2

Quarterly bilateral exports to Germany (% change over same quarter to of the previous year)

	1990				1991	
	I	II	III	IV	I	II
BLEU	7,8	3,2	12,1	31,9	28,8	27,0
Denmark	10,8	8,8	22,5	31,2	33,9	29,2
Greece	3,4	-2,7	3,5	8,4	8,1	4,9
Spain	16,3	9,5	30,5	38,0	48,7	41,2
France	15,9	-8,4	15,1	10,6	21,0	38,7
Ireland	9,0	5,8	11,7	6,9	13,6	13,3
Italy	13,0	8,0	17,5	20,1	22,0	19,1
Netherlands	5,7	-0,5	8,7	17,1	20,9	18,5
Portugal	21,5	14,8	17,5	20,1	22,5	21,5
United Kingdom	6,7	-0,5	7,1	13,4	17,5	21,6

Source: Bundesbank, monthly report, supplement 3, 1991

It may therefore be estimated that the monetary effects of the unification on Member States will be somewhat weaker than initially expected and will not have much impact on the estimates presented in Table 2. Thus, although *ceteris paribus* reasoning is always difficult in economics, it may be estimated that, without the unification effect, Germany would have followed the same downward cyclical movement as the other countries and the Community economy would have registered very low growth in 1991.

It is moreover to be noted that in this document all historical data labelled Germany are for West Germany only since major statistical problems prevent presenting a reliable picture for the whole of Germany. However, there are a few noteworthy exceptions to this general rule, implying a methodological break in the time series concerned. First, trade figures based on customs data cover exports and imports of goods of unified Germany. Second, the forecast of the general government account includes public transfers to the five new Länder as well as the deficit of the territorial authorities of these Länder from 1991 onwards. Third, current account data relate also to unified Germany. When expressed as a percentage of GDP, in these three cases the GDP of unified Germany is used.

Obviously, the aggregation of national data to a Community total takes into account the treatment given to German data. In the table below, an idea is given to what extent the forecasts for unified Germany, uncertain though they are, affect the aggregates for the Community as a whole, in particular with regard to real growth, the unemployment rate and inflation.

	1991	1992	1993
Real GDP growth (% p.a.)			
Community	1,3	2,2	2,4
Community (*)	0,9	2,2	2,5
Unemployment rate			
Community	8,6	9,1	9,2
Community (*)	9,3	9,8	9,9
Inflation (% p.a.) ^(a)			
Community	5,0	4,5	4,2
Community (*)	5,3	4,7	4,3
Net borrowing ^(b)			
Community	-4,3	-4,3	-4,1
Community (*)	-4,4	-4,4	-4,3
Current account balance ^(c)			
Community	-0,3	-0,3	-0,4
Community (*)	-0,8	-0,9	-0,8

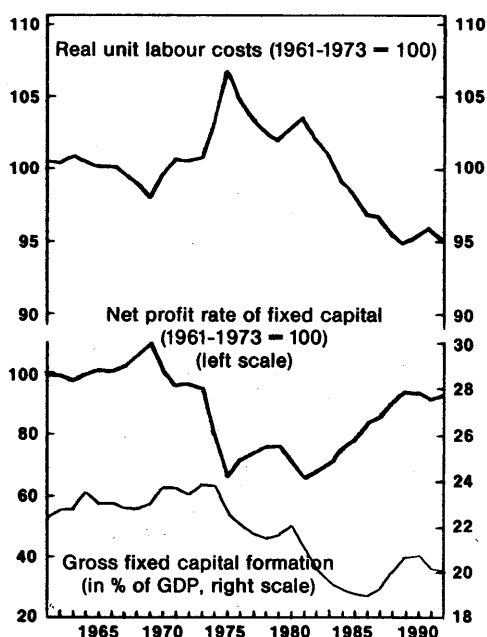
(*) Community including the five new Länder

^(a) Deflator of private consumption^(b) General government; as a percentage of GDP^(c) As a percentage of GDP

Nonetheless, despite the greater slack in the labour market, wage pressures abated only marginally: nominal compensation per employee rose by 7 % in 1991, a rate only marginally below the one in 1990 (7,6 %). With the cyclical slowdown in productivity growth this resulted in a new increase in nominal unit labour cost and, due to the inability to raise prices sufficiently, in a further rise in real unit labour costs with a consequent negative impact on profitability and international competitiveness.

Despite this decline, profitability remains at a high level. But if unit profit rates per value added have recovered to levels prevailing in the period 1961 to 1973, the profitability of the capital stock has not yet. The productivity of capital declined sharply from 1970 to 1983 and only recovered slowly from 1985 onwards. As a consequence, the profitability of fixed capital is still below its 1961 to 1973 level so that further efforts are needed to achieve a full restoration of profitability (Graph 2).

Graph 2
Profitability of fixed capital



Source: Commission Services.

The deterioration of profitability in 1990 and 1991 is certainly not dramatic (Table 4). However, while relative factor prices and profitability have only a limited impact over the short term on investment, their impact becomes stronger in the longer run. A continuation of this tendency of faltering profitability would therefore be detrimental for a recovery in investment and employment. Since 1985 investment has strongly recovered on the basis of significantly improved profitability: real investment is now about one third higher than in 1985. Nevertheless the investment GDP ratio is still more than a full percentage point below the average level of the 1961 to 1973 period. Further progress in this ratio is still warranted to reduce the high level of unemployment in the Community.

Sustained wage pressures and increases in taxation in some countries did not allow price increases to abate despite the cyclical slow-down. Consumption prices and the GDP deflator increased at the same pace as in 1990 at around 5 %.

Table 4

Supply-side factors in the Community
(annual % change, unless otherwise stated)

	1981- 1986	1987- 1989	1990- 1991	1991 (*)	1992 (*)
Total investment	0,1	7,1	1,8	-0,5	2,2
of which:					
equipment	1,7	9,4	2,2	-0,4	2,6
construction	-1,0	4,9	1,7	-0,5	1,8
capital stock	2,3	2,7	2,9	2,8	2,8
capital productivity	-0,6	0,7	-0,8	-1,5	-0,6
real compensation per employee (**)	0,9	1,7	2,1	2,0	1,3
real unit labour costs	-1,0	-0,7	0,5	0,6	-0,7
profitability (***)	73,8	90,2	92,5	91,6	92,9
real i.t. interest rate (****)	4,3	5,0	5,3	5,1	:

(*) Forecast

(**) Adjusted by the private consumption deflator

(***) Net return on net capital stock (1961 to 1973 = 100)

(****) Adjusted by the GDP deflator

2. The outlook for 1992 and 1993: a gradual recovery

After bottoming out in the second half of 1991, activity is expected to pick up moderately in 1992 mainly because of domestic factors. Although the external environment is expected to improve as a result of a take off of world output and trade, the Member States of the Community may only benefit to a limited degree from this recovery, since this positive development would be compensated by the petering-out of the demand-pull effect of German unification. The foreign balance therefore is not expected to significantly support GDP growth in most countries. Still, extra Community markets are expected to play a more important part in the growth of Community exports than in the last few years. The preservation of external competitiveness is therefore crucial.

Confidence is expected to be restored gradually leading to a modest recovery in private consumption and investment in 1992. With the pursuit of sound policies, the price and cost performance is expected to improve, reversing the deterioration in profitability during the period 1990 to 1991.

As a result of slower activity, employment growth is expected to slow down further from 1,5 % on average over the period 1988 to 1990 to 0,5 % in 1991 and to 0,3 % in 1992. Combined with the sustained growth of the labour force in the Community, this slower employment growth will lead to a further increase in the unemployment rate from 8,6 % in 1991 to 9,1 % in 1992.

For 1993 a further strengthening of the recovery is anticipated with real GDP growth rising to around 2,5 %. Still the higher level of activity is not yet expected to result in sufficient job creation to match the rise in the labour force resulting in a further, but marginal, rise in the unemployment rate.

The risk factors surrounding the outlook lie clearly more within the Community than outside it, although external uncertainties could still affect significantly the outcome in the Community. The outlook for a gradually strengthening recovery is closely linked to the maintenance of adequate policies.

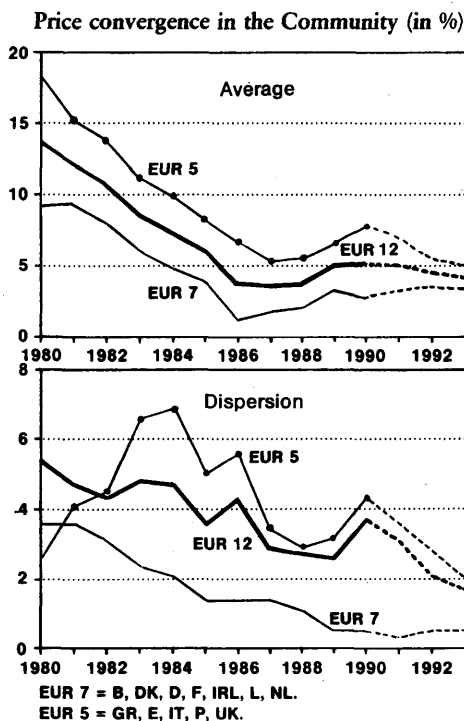
An improvement in the cost performance after the deterioration in 1990 to 1991 is likely to support a gradual pick up of investment. But if this improvement were not to materialize, it is uncertain how investors would respond. Stronger growth is, however, needed to reduce the still high level of unemployment and to facilitate the structural adjustment in relation to the completion of the internal market and the transition towards economic and monetary union.

II. PROGRESS IN ECONOMIC CONVERGENCE IS STALLING

1. Nominal convergence is slipping, but fundamentals remain positive

After deteriorating significantly in 1990, price convergence (measured by the dispersion of private consumption deflators ⁽¹⁾) has improved somewhat in 1991 but on a less favourable inflation average than in the period 1987 to 1989 (Graph 3). This was mainly due to an increase of the average inflation in the original narrow-band countries (EUR 7) attributable essentially to special developments in Germany and the Netherlands, while price performance generally improved in the other ERM countries. In the countries not originally belonging to the narrow-band price increases declined and particularly in the United Kingdom. Price developments in the Community are, however, still a matter of concern, because the average level of inflation is still near 5 % at a moment of slowing down of economic activity.

Graph 3



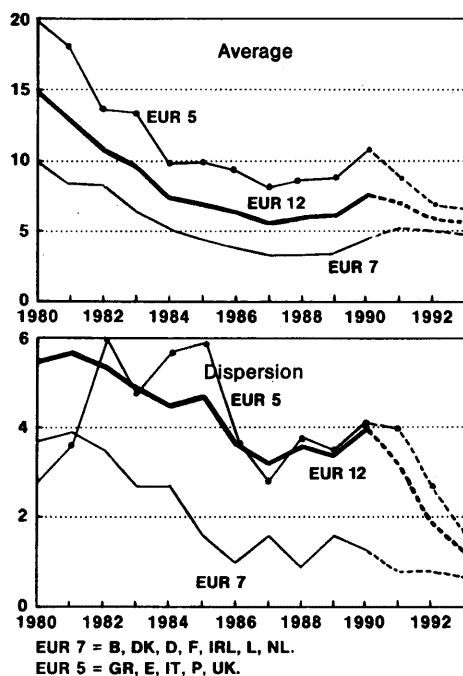
Wage developments and tax increases seem to be the main factors responsible for the slippage in price performance. Among the original narrow-band countries wage developments have been unsatisfactory in 1991 (Graph 4) and in Germany, in particular, there is a potential risk of the development of cost-push inflation.

The growing tendency to rely more on the revenue side to correct budget deficits is not without danger for price performance, as it may reignite the struggle over the distribution of income.

⁽¹⁾ Dispersion is measured as the unweighted mean of the absolute deviation from the weighted mean of all the countries considered.

Graph 4

Wage convergence in the Community (in %)



In the framework of EMU, the Community's price and cost performance is still unsatisfactory. For EMU it would be desirable to have average price inflation down to the 2 to 3 % range, while divergence is being reduced at the same time.

In the budgetary area the lack of improvement in convergence, as in the field of prices and costs, is due mainly to a less favourable situation in countries that performed well in the years before. In 1990, the budget situation worsened in most countries, despite a still sustained level of activity, but the deterioration was particularly marked in Germany and the United Kingdom (Table 5). In 1991 again, the less favourable budget position in the Community as a whole is mainly due to the widening deficit in the UK and in Germany. In most other countries the deficit more or less stabilized in terms of GDP, in a context of slower activity. Hence, even automatic stabilizers have not been allowed to exert their full effect. This was needed to prevent a further increase of the budget deficits.

German unification has also contributed to a significant change in the external position of the Community. The Community current account position has deteriorated continuously since 1986 from a surplus of 1,4 % of GDP to an expected deficit of close to 1 % of GDP in 1991 (Table 6). This is due to a weakening of the current account in most countries, except Denmark, Ireland and the Netherlands. The deterioration was particularly marked in the United Kingdom (from 1986 to 1989), Spain (from 1987 to 1989) and Germany (from 1989 to 1991). But also in France and Italy the external accounts weakened significantly, but to a lesser degree. The trade deficit of France stabilized in 1990 and was reduced in 1991. This deterioration resulted in most countries from high domestic demand in relation to production potential.

The most outstanding development of recent years in the external accounts is the complete disappearance of the German current account surplus. The counterpart of the disappearance of this surplus is not to be fully found within the Community. About half of the demand impact of German unification seems to have leaked outside the Community more or less in line with the market shares of Germany's trade partners outside the Community. The deterioration in the external accounts is particularly marked in the trade of manufactured goods: extra-Community

Table 5

General government net lending (+) or borrowing (–) (**)

(in % of GDP)

	1981	1985	1989	1990	1991	1992 (*)
Community	– 5,3	– 5,2	– 2,9	– 4,1	– 4,4	– 4,4
Greece	– 11,0	– 13,8	– 18,3	– 19,8	– 17,3	– 14,0
Italy	– 11,4	– 12,5	– 10,1	– 10,6	– 9,9	– 9,3 (***)
Belgium	– 12,8	– 8,5	– 6,7	– 5,6	– 6,3	– 6,2
Portugal	– 9,3	– 10,1	– 3,4	– 5,8	– 5,4	– 4,6
Netherlands	– 5,5	– 4,8	– 5,2	– 5,3	– 4,4	– 4,1
Germany	– 3,6	– 0,9	0,2	– 1,9	– 3,6	– 3,4
Ireland	– 13,4	– 11,2	– 3,5	– 3,6	– 4,1	– 4,1
Spain	– 3,9	– 6,9	– 2,7	– 4,0	– 3,9	– 3,6
United Kingdom	– 2,6	– 2,8	1,3	– 0,7	– 1,9	– 3,6
Denmark	– 6,9	– 2,0	– 0,5	– 1,5	– 1,7	– 1,5
France	– 1,9	– 2,9	– 1,2	– 1,6	– 1,5	– 1,7
Luxembourg	– 3,5	5,3	4,3	4,7	1,9	2,0

(*) Forecast on the basis of unchanged policies.

(**) Countries are ranked by size of deficit in 1991.

(***) Does not fully incorporate the effect of the measures of the convergence programme.

Source: Commission Services

Table 6

Balance on current transactions

(in % of GDP)

	1980	1986	1990	1991 (*)	1992 (*)
Community	– 1,2	1,4	– 0,2	– 0,8	– 0,9
Belgium	– 4,3	2,1	1,0	1,0	1,1
Denmark	– 3,7	– 5,4	0,8	1,4	2,2
Germany	– 1,7	4,4	3,2	– 1,1	– 0,9
Greece	0,5	– 5,3	– 6,1	– 4,1	– 3,4
Spain	– 2,4	1,6	– 3,5	– 3,1	– 3,2
France	– 0,6	0,5	– 1,0	– 0,7	– 0,8
Ireland	– 11,8	– 2,9	3,4	2,3	2,0
Italy	– 2,2	0,5	– 1,4	– 1,3	– 1,5
Luxembourg	18,7	39,4	31,2	28,1	26,1
Netherlands	– 1,5	2,7	3,8	4,1	4,4
Portugal	– 5,9	2,4	– 0,3	– 1,1	– 1,5
United Kingdom	1,5	– 0,9	– 2,6	– 1,1	– 1,4

(*) Forecast

Source: Commission Services

imports of manufactured goods have grown on average more rapidly than intra-Community imports; among high-tech products more specifically, Community producers seem to have conceded some ground to extra-Community producers. Also on the export side the growth of export of manufactures has been modest, well below the rate of growth of intra-Community export volumes. This trend points to a reorientation of trade flows to a particularly dynamic internal market.

However, of great concern is the fact that this deterioration in the external account also signals a reduced level of competitiveness, particularly in third markets and, even more disquieting, in the high-tech segment of the market. The Community's currencies have, on balance, continuously appreciated in real terms since 1984, leading to a loss of market shares. This development raises questions about the strength of the economy in some Member States, and its capacity to compete effectively with the outside world. Wage competitiveness is therefore an issue that certainly warrants closer scrutiny in countries where the external position remains fragile, particularly if growth of domestic demand were to accelerate relative to outside markets.

In order to improve convergence during stage one of EMU, Member States have therefore been called upon to draw up so-called convergence programmes that are to be discussed and agreed upon at the Community level in the context of multilateral surveillance. Such programmes have been presented or are in the process of being formulated by most Member States, with a view to achieving lasting progress on convergence.

2. Real convergence is slowing down

Over recent years, the countries which are in the process of catching up, with the exception of Greece, have succeeded in reducing their income gap with the Community average (*Table 7*). Appropriate domestic policies and the doubling of resources made available through the Structural Funds, have contributed to this outcome.

Table 7
The catching up process in the Community

(GDP per head of population, Community = 100)

	Spain	Greece	Ireland (**)	Portugal
1975	81,9	57,3	62,7	52,2
1980	74,2	58,1	64,0	55,0
1986	72,8	55,9	63,4	52,5
1991 (*)	79,0	52,5	68,9	56,3
1992 (*)	79,9	52,1	68,9	56,3
Differences				
1986-1980	- 1,4	- 2,2	- 0,6	- 2,5
1991-1986	6,2	- 3,4	5,5	3,8

(*) Forecast.

(**) Reference to GDP may overstate progress to the extent that income transfers to abroad may have outpaced nominal GDP growth.

Source: Commission Services

In Spain and Portugal, catching-up was led by investment as a result of strongly improved profitability and the opening up of the Community market. The share of investment in GDP expanded by almost a quarter between 1986 and 1990 (*Table 8*). Domestic savings were inadequate to support such expansion so that the current account of the balance of payments moved to a deficit which was significant in the case of Spain. The continuation of the catching-up process in these countries will therefore rely, among other important factors, on the generation of adequate domestic savings resulting mainly from further reductions in public dissaving.

In Ireland, however, the acceleration of growth was mainly export-led. Budget consolidation efforts and moderate wage developments dampened domestic demand while at the same time

Table 8

Investment and export shares and real unit labour costs in the catching-up countries

	GR	E	IRL	P	EUR 4	EUR 8
Investment shares (in % of GDP)						
1986	18,5	19,5	18,1	22,1	19,6	18,9
1990	18,9	24,4	18,6	26,7	23,7	20,3
1992 (*)	18,5	24,1	18,7	26,0	23,4	19,6
Export shares (in % of GDP)						
1986	22,4	19,9	55,2	33,2	23,8	28,0
1990	22,6	17,2	62,1	36,4	22,8	28,9
1992 (*)	21,2	17,3	65,0	30,0	22,0	29,9
Real unit labour costs (1961—73 = 100)						
1986	102,3	91,1	92,8	98,4	94,2	98,1
1990	102,4	87,5	88,9	93,8	90,8	96,8
1992 (*)	95,0	86,3	92,5	97,6	90,0	96,9

(*) Forecast

Source: Commission Services

improved competitiveness boosted exports. This export-led expansion made Ireland more vulnerable than Spain and Portugal to the deterioration in the international economic climate. Now that Ireland has established a sound basis for further catching-up, more emphasis should be given to the development of domestic production potential. The investment ratio is still relatively low and has not increased much. The supply side of the economy, in particular, needs further improvement.

In Greece, the catching-up process has receded over recent years as a result of inadequate policies. The 1991 stabilization and structural adjustment programme adopted by the government is a serious effort to reverse the country's macroeconomic decline and restore its production potential. The broad aims of the programme are fiscal reform and structural renewal. The measures for fiscal adjustment and structural reform are interdependent and if applied effectively should allow Greece to exploit the gains from the process of European integration. Recent developments indicate, however, that the implementation of the programme has encountered serious difficulties and delays. Failure to fully implement the programme will further delay the resumption of the catching-up process.

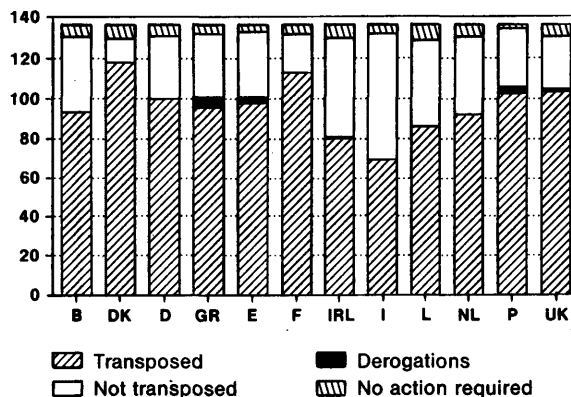
III. PRIORITIES OF ECONOMIC POLICY IN THE COMMUNITY

With the international environment likely to improve only moderately in the year ahead, it is particularly important for the Community to reinforce its internal potential. Economic policies should therefore contribute to the swift realization of the major Community projects.

The completion of the internal market remains an immediate priority for the Community and the remaining work is still considerable: of the 282 White Paper measures, 69 still require a Council decision. The transposition of directives into national law needs to be speeded up. 166 White Paper measures have entered into force of which 134 require national implementing measures. Of these national measures on average 71 % have already been taken (*Graph 5*). Member States seem to have recognized their responsibilities and the need for greater haste.

Graph 5

Transposition of internal market directives (*)



Source: Commission Services.

(*) situation as of 15 October 1991.

The internal market programme has already been a decisive driving force in adding to Community growth prospects and prosperity: economic agents have already to some extent anticipated the highly competitive environment and the new operating conditions and opportunities that will prevail by 1993. This has resulted in a strong expansion of investment in the period 1986 to 1990.

The real effects of the internal market measures will be felt in the years to come, especially as residual internal barriers are actually dismantled. Determined actions and decisions would have a substantial positive effect on the confidence of economic agents and give a new impulse to economic growth.

An economic and monetary union in the Community will result in an amplification of the economic benefits that will follow from the 1992 programme. Indeed only a single currency will allow the full potential benefits of a Single Market to be achieved.

The primary aim of EMU is to strengthen the integration of the Community and improve its economic performance. EMU will ensure a climate of stability so that the process of self-sustaining growth would be strengthened. The experience of the 1980s has clearly confirmed that there is no long-term trade-off between higher inflation and lower unemployment. On the contrary a climate of stability is increasingly perceived as an essential prerequisite for an improved real economic performance.

The income gap between the catching-up countries and the Community average remains sizable and it will therefore take many years to bridge the gap. This process can only be built on the basis of sound growth, which increases domestic production potential.

Policies at the national and Community level have to provide the basis for a continuous relative stronger growth of real GDP, without inflationary pressures and unsustainable internal and external imbalances. First and foremost, responsibility for rapid economic and social convergence lies for the most part in the least favoured countries themselves. Recent developments have confirmed that sound macroeconomic policies are an essential condition to improve their internal growth conditions by all available means.

The economically stronger countries must also contribute to this process by supporting dynamic medium-term growth.

The Community shall take into account the objective of strengthening economic and social cohesion in the implementation of its common policies and of the internal market. The economic policy actions at Community level must act in a synergetic way to national policies to strengthen economic performance in the least favoured Member countries. The Structural Funds and other

financial instruments, provided they are efficiently used in a conducive national framework, will considerably improve both supply and demand conditions in the recipient countries. These instruments should be reinforced to take account of previous developments and the stronger integration in the Community.

The environment and its importance in the overall context of the quality of life is increasingly becoming a matter for Community preoccupation. The Commission has recently outlined a coherent Community strategy aiming to stabilize CO₂ emissions in the Community by the year 2000 at their 1990 level. The strategy consists of a range of regulatory, voluntary and possible fiscal measures taken at the Community level in combination with complementary national programmes. The envisaged reliance on fiscal instruments, notably a new combined CO₂/energy tax, which respects fiscal neutrality, is considered an important condition for reaching the Community's CO₂ emission stabilization objective in the most cost effective way. By giving the right price signals all economic agents will be induced to adopt environmentally sound behaviour. It is in the interest of long-term economic sustainability and prosperity, as well as of the environment, that environmental considerations are satisfactorily integrated into the Community's other policies, notably in the fields of energy, transport and agriculture.

IV. MACROECONOMIC POLICIES AND POLICIES FOR STRUCTURAL ADJUSTMENT

1. Monetary policy and the EMS

The aim of the EMS is to contribute to achieving price stability and nominal convergence in the Community through exchange rate stability and an appropriate monetary policy. The conditions for attaining this have become more difficult over the past year. In the autumn of 1990, monetary conditions in the Community were tightened in response to rising oil prices. But during the course of 1991, market interest rates were on average lower than the previous year. This occurred against a background in which inflationary pressures in several countries of the Community persisted or even strengthened despite the fall in oil prices after the Gulf war. In the second half of the year, however, short-term interest rates rose again.

With the Community economy slowing in 1991, a certain easing of monetary conditions was welcome and does not appear to have adversely affected long-term inflation expectations: yield curves have tended to shift downwards this year rather than simply to steepen, as long rates in most markets were lower than a year ago. With rising short term interest rates in the second half of the year, monetary policies remained tight. It is indeed essential to ensure that nominal convergence goes together with an absolute, not a relative, standard of price stability and that the functioning of the EMS remains a powerful force for preserving price stability up to a full EMU.

In this respect, the mechanism through which monetary policy in the Community appears to have eased this year presents some difficulties. During the 1980s the deflation process in the Community was determined by Germany and transmitted through the exchange rate discipline of the EMS to other ERM narrow-band countries. This link was reinforced after the last realignment in January 1987, when anticipation of further realignments gradually disappeared. The German strategy was based on fiscal consolidation and the successful targeting of monetary aggregates. This strategy left underlying inflation at low, if gradually rising, levels even when monetary targets were applied with greater flexibility in response to external circumstances.

The progressive disappearance of realignment expectations have significantly altered this configuration. The considerable expansionary swing in fiscal policy in Germany as a result of unification coupled with the pursuit of a stability oriented monetary policy in theory leads to a real appreciation of the currency as real demand exceeds real domestic supply. Indeed the excessive demand pressures have had a strong influence on the wage-bargaining process, feeding creeping price rises. This process has been exacerbated by the heavy reliance on revenue measures to limit the fiscal impact of unification. This policy mix and the impossibility to allow the ensuing real appreciation to take place through a nominal exchange-rate adjustment in the ERM, put considerable additional pressure on interest rates in Germany and consequently in other ERM countries.

Uncertainty over the extent to which the Bundesbank will be able to preserve the same policy strategy as in the past has at times surfaced in the markets. These uncertainties and the expectations of stable exchange rates and decreasing inflation differences have resulted in a significant reduction within the ERM in interest rate differentials *vis-à-vis* the Mark, where the exchange risk premium has more or less disappeared.

Given that inflationary pressures remain significant in the Community as a whole, any further loosening of the stance of overall monetary policy is at present not warranted. The necessary collective character of the EMS implies that other members of the ERM than Germany, and in particular the bigger countries must accept a share of responsibility for achieving a monetary policy in the Community consistent with the lowest level of price increases and with continued downward convergence by the high-inflation countries.

In the two countries not yet participating in the ERM, Portugal and Greece, inflation is [...] well above the levels consistent with nominal convergence, although it has recently decelerated in both countries. In Portugal, where inflation, measured by the consumption price index, fell in the last quarter of 1991 to under 10 %, the immediate priority is to maintain monetary policy tight enough to reduce overheating in the labour market. Given the scale of capital inflows, this will probably have to involve some continued upward flexibility, for a time, of the real exchange rate. The aim should be to adhere to the ERM at a time when sufficient steam had already been taken out of the economy to ensure that the ERM constraint did not lead to an inappropriate loosening of monetary policy.

In Greece, monetary policy must continue to try to contain the inflationary pressures created by a clearly excessive budget deficit. But monetary policy cannot cope indefinitely with the consequences of the public finance problem. Only adherence to the budget ceilings laid down in the stabilization programme can hope to ensure early and lasting nominal convergence in Greece.

2. Budgetary policy

Since budgetary authority will remain at the level of the Member State, progress towards EMU necessitates increased coordination by reference to principles or rules that ensure that fiscal policy will not undermine stability in the Community.

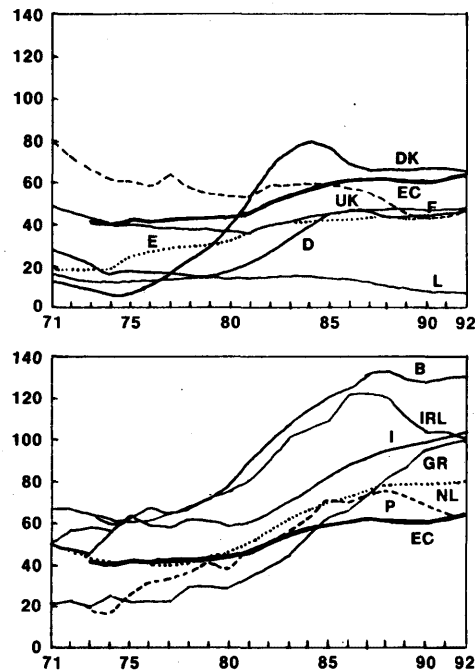
A first group of countries (Greece and Italy) have been showing excessive budget deficits for many years and steadily increasing public debt burdens (*Table 5 and Graph 6*).

In Greece, budgetary developments in 1991 show a departure from previous trends as a result of the implementation of the new three-year convergence programme. Budgetary adjustment and reform will, however, fall short of the targets. The programme needs to be implemented more vigorously to ensure a significant reduction of the budget deficit and a stabilization of the public debt ratio.

The budgetary performance of Italy continues to diverge from the other narrow-band members of the ERM. The budget deficit has remained persistently around 10 % of GDP despite repeated attempts to correct it. As a result the public debt/GDP ratio passed the 100 % mark in 1990 and has continued to increase since then. There has clearly been no lack of adjustment programmes but rather of forceful implementation. More emphasis should be laid on the instruments that will be used to meet the targets and on structural measures to improve the public finances. Even if forcefully implemented, the present programme still risks falling short of the announced targets as it rests on a very positive growth scenario. Moreover, this programme is markedly tax-centred. The forward shifting of increase in direct taxation, on the

Graph 6

Trends in gross public debt (in % of GDP)



Source: Commission Services.

part of tax payers, on to higher wage claims could contribute to inflationary pressure. It is encouraging, though, that the Italian Government has confirmed its willingness to take corrective measures should targets not be met.

A second group of countries (Belgium, Netherlands, Portugal and Ireland) still has sizable deficits and excessively high public debt ratios. In Belgium, consolidation efforts undertaken during the period of strong growth (1988 to 1990) were not sufficient to prevent a new rise of the public debt ratio in 1991, when economic activity slowed down. The double government norm, aimed at freezing real non-interest expenditures and keeping the central government deficit constant in nominal terms, is clearly insufficient and needs to be extended to all levels of government, including social security. A significant reduction of the deficit is needed to bring the public debt ratio, which is still double the Community average, on to a clearly declining trend.

Consolidation efforts in the Netherlands have also been inadequate during the period of strong growth (1988 to 1990). Additional measures have been taken in 1991 so that public finance target will be reached. The persistence of public dissaving, however, would warrant a strict implementation of government medium term targets (a deficit of 3 % of GDP in 1994) in order to reduce the public debt ratio.

The reduction in public finance imbalance in Portugal in recent years reflects the complete overhaul of the tax system which increased its efficiency, an effort of expenditure restraint, the cyclical upturn of the economy and the privatization process. However, the relative size of both the general government deficit and public debt are above the Community average. Consequently and also in order to assist the disinflationary process, fiscal adjustment remains one of the main priorities of economic policy and should continue to be vigorously implemented.

Ireland has been remarkably successful in consolidating its public finances in the late eighties. Further consolidation has since been slowed because of the effects of weaker growth on revenue and pressures on public expenditure from rising unemployment and increases in public sector pay. Consolidation efforts should be maintained over the medium term to keep the public debt ratio in a firm downward path.

Germany and the United Kingdom are separate cases.

In Germany, as a direct consequence of the large financing needs arising from unification, the swing in the public sector accounts has been significantly close to 4 % of GDP between 1989 to 1991 despite a sustained level of activity. Even if the present deficit is less a matter of concern, apart from contributing to a biased policy mix, the medium-term prospects for bringing the deficit under control are rather disquieting. Even if consumption supporting outlays will be reduced, they will gradually be replaced by large scale infrastructural investment; the dynamics between a steeply rising public sector indebtedness and interest charges will put further pressure on outlays. Fiscal consolidation will therefore be a major policy challenge for the years to come.

Moreover, considerable emphasis has recently been laid on increasing revenues. Higher direct or indirect taxes are, however, very likely to be reflected in higher wage demands to compensate for the income loss. In these conditions, excessive reliance on tax increases may initiate a new cycle of ever-rising claims on income distribution. There is still considerable scope on the expenditure side to reduce the budget deficit. In addition income support schemes should be designed in such a way as to ensure their temporary character.

In the United Kingdom, deterioration in the budget balance is primarily due to the working of the automatic stabilizers during the severe recession. The authorities' medium-term objective remains that of attaining broad budget balance on a cyclically adjusted basis. A cautious policy stance remains appropriate to maintain compliance with the medium-term objective of a balanced budget and continued positive public saving.

In the last group of countries (Denmark, Spain, France and Luxembourg) budget balances and public debt burdens are broadly under control. These countries have positive public savings and have a public debt ratio below the Community average. There is still a need to maintain a cautious policy stance in these countries since some of them have strong inflationary pressures and large external deficits (Spain) or a high foreign debt (Denmark).

The insistence on budget consolidation is motivated by several considerations: first it is intended to redress the presently lopsided policy mix of a relatively loose fiscal policy combined with a relatively restrictive monetary policy. Even when budget deficits are justifiable by temporary and exceptional factors, it would still be appropriate to reduce them as fast as possible to achieve a more balanced policy mix. Second, there is a need for higher saving within the Community for which the reduction of public deficits should provide a significant contribution. Finally, a more restrained fiscal policy is likely to result in more balanced wage developments, which would contribute to better convergence.

A desired additional increase in the investment ratio to increase growth and employment raises the issue of the adequacy of saving. Although there are few signs that the low level of saving has had major repercussions on economic performance so far, it has contributed to keeping real long interest rates high. The inadequacy of saving, however, risks becoming a more decisive

constraint on growth in the future, particularly for the newly liberalizing countries in Eastern and Central Europe and the developing world. A saving surplus can only be realized if the considerable public dissaving in the Community and in the other major Western countries is reversed. The generation of sufficient public saving is therefore also an essential precondition for a successful take-off of market economies in central and eastern Europe.

Finally, in a fully fledged EMU, fiscal policy and particularly monetary policy will have less room for manoeuvre. Therefore more emphasis will have to be laid on structural measures to bring about the necessary adjustment in the Community economies.

3. Policies for structural adjustment

The efforts to establish an internal market have resulted in the most wide-ranging supply side initiative in the history of the Community. The dynamic of the internal market has, however, not only increased the growth potential of the Community, it has also highlighted the still sizable rigidities present in markets. Such rigidities become more visible when competition increases. In the present less supportive international environment it is also important for the Community to reinforce its own domestic growth.

Policies of structural adjustment, supported by adequate industrial policies, improve the adaptability and efficiency of the Community economies. In line with the implementation of the 1992 programme, the Commission has emphasized the need for industrial policy measures in various important sectors and has put forward proposals to this effect. Policies of structural adjustment must accompany the completion of the internal market in order to ensure that its full benefits are actually forthcoming.

Furthermore in EMU the nominal exchange rate will no longer be available between full participants as an instrument for adjustment. Increased flexibility in all markets will therefore be necessary to ensure a balanced development of all areas of the union. In EMU, adaptability of the labour market will be an important element for adjustment if one wants to avoid further increases in unemployment.

Both national and Community policies for structural adjustment will have to play an even more important role. Together with prudent macroeconomic policies and the Community policy on economic and social cohesion which will have to be reinforced, this must constitute the Community's response to restore sustainable growth rates above 3,5 % a year in order to reduce the still high level of unemployment. Four areas in particular deserve further structural improvements: cooperation, the labour market, competition policy and international trade.

Cooperation can improve the underlying conditions within which companies operate and strengthen the Community's international competition by mustering energies and innovation. A policy to improve infrastructure, and especially transportation, is an indispensable element in the creation of the internal market. It is equally an element in the cohesion process in the sense that a better working infrastructure lowers transportation and communications costs and brings the peripheral regions closer to the centre of the Community.

Further efforts will also have to be undertaken in the area of innovation, research and development. Research and development policies will stimulate the competitiveness of the Community companies, but, in a period of intense technological change often involving massive development costs, the results of such efforts must be spread more widely through increased cooperation. This will hasten the adjustment of our economies to new technological advances. Also in the area of industrial restructuring and the environment, increased cooperation is likely to facilitate adjustment. Cooperation in these areas should allow the Community to better face international competition. The Community can play an important stimulating role in bringing enterprises together.

Labour markets in the Community have been showing greater adaptability, but this improvement is still insufficient. Rising wage pressures at a time when more than 9 % of the civilian labour force is still unemployed suggest that significant structural problems persist in labour markets.

The completion of the internal market at a time of reduced growth in the Community economy and increased competition from abroad means that companies and workers have to adapt working methods and practices to these new circumstances. Flexibility in companies' responses to the new operating environment have to be matched by flexibility in the labour market in terms of training and skills as well as in the employment conditions and practices.

In most countries, the adjustment of wage costs is still insufficient to ensure full employment. If increased unemployment is to be avoided, the social partners must take the need for adjustment more into account in their negotiations. Member States' authorities should therefore make their policy objectives more visible so that macroeconomic prospects can be better taken into consideration in wage negotiations. Credible commitment to convergence by Member Governments provides one such approach.

Rigid wage structures, employment practices and lack of training have accentuated the problems of those outside the work force. The large number of untrained unemployed illustrates the problem of cost and adequate skills in relation to their productive potential. Member States should examine labour market regulations and social security provisions in order to rectify features that impede entry or re-entry into the labour market.

Finally, there seems to be a good case for encouraging a more active labour market policy with greater emphasis on retraining than on the provision of unemployment support.

Competition is bound to intensify with the completion of the internal market as barriers are systematically reduced. European companies must be prepared for this greater competition, that has already generated a wave of merger activities within the Community. To avoid dominant positions that reduce competition and lessen overall welfare, the Community pursues an active competition policy.

Increased competition may also lead to calls for more aid to defend companies or industries that are coming under pressure from such competition. State subsidies can threaten, however, the functioning of the market process by confining specific advantages to competing companies. They also risk preventing the necessary restructuring of industry. Therefore the Commission strives to limit subsidization and to incorporate it in a context of restructuring.

The economically stronger countries in the Community should resist the temptation to compensate by domestic subsidies the greater competition resulting from the opening of markets. Indeed such subsidies risk cancelling out the competitive advantages gained by the least favoured countries in specific sectors.

Free and undistorted competition in the Community requires efficient surveillance of State aids. The Commission undertook two surveys on public aids in the European Community in 1988 and in 1990 and is consistently striving for greater transparency in this field. Public aids still absorb a significant share of public resources in Member States (Table 9). The second survey identified total national public aids amounting to 2,2 % of Community GDP, or more than twice the Community budget. The differences between Member States are considerable, with Denmark and the United Kingdom spending just 1 % of their GDP, but Belgium, Greece, Italy and Luxembourg spending 3 % and more.

Table 9

State aids in the Community (*) (average 1986-1988)

	in % of GDP	in % of public expenditure	Granted in the form of (%)	
			public expenditure	tax expenditure
Belgium	3,2	5,8	89	11
Denmark	1,0	1,7	100	0
Germany	2,5	5,3	36	64
Greece	3,1	6,5	100	0
Spain	2,3	5,5	100	0
France	2,0	3,8	82	18
Ireland	2,7	5,2	63	37
Italy	3,1	6,2	64	36
Luxembourg	4,1	7,6	91	9
Netherlands	1,3	2,1	70	30
Portugal	2,3	5,3	41	60
United Kingdom	1,1	2,6	94	6

(*) Refers to subsidies that are subject to Community rules. The total of subsidies granted is difficult to establish due to the various forms subsidies can take and the lack of comprehensive national data.

Source: Commission survey on State aids.

State aids are heavily concentrated: the manufacturing sector took 41 %, the transport sector 30 %, the coal industry 16 % and agriculture (national aids) 13 %.

In the run-up to EMU, national expenditures on subsidies should come under closer scrutiny to improve convergence. A commitment to more discipline on subsidies would also contribute to the achievement of a more open international trading system.

The resurgence of protectionist tendencies in international trade is a worrisome development. Friction among trading partners has been intense, particularly with regard to the subsidization of agriculture and some declining industries. The use of non-tariff measures to protect domestic products has intensified in various parts of the world. The Community is committed to achieving an ambitious, global and balanced result to the Uruguay Round, which is presently in a crucial phase. This is necessary in order to strengthen the multilateral trading system and to reverse the trend towards protectionism. Further delays could undermine the adjustment strategy of many developing and central and eastern European countries which have adopted an outward-looking market-oriented approach to growth and development. The major industrial countries carry a large responsibility in this area and should strive for an early conclusion of the Uruguay Round.

A successful outcome of the Round would not only serve the interests of the Community by ensuring market access and reduced protection in the traditional areas of trade negotiations. It would also allow the extension of multilaterally agreed rules to new areas of great relevance for the Community: services, intellectual property rights and international investment.

The negotiations between the Community and EFTA countries with the aim of erecting an European economic area are being concluded and will increase the benefits of the internal market to an even greater area. By facilitating the flow of goods, services, capital and labour between the Community and EFTA, the agreement will make a further contribution to more competition and the improvement of the supply side of the economy.

The Community is actively involved in assisting central and eastern European countries to advance political and economic reforms. The Commission not only manages the Community's own programmes of assistance, but is also coordinator for the G-24, a group comprising all major industrialized countries.

Assistance takes a variety of forms, including support for economic reconstruction, food-aid and emergency assistance, technical assistance, balance of payments support, investment finance and export credits. The Community has become the main source of funds for central and eastern European countries, providing about half of the total aid they receive. Moreover, the Community has completed negotiation for Europe agreements establishing relations of association with Hungary, Poland and Czechoslovakia. These agreements will enable central and eastern European countries to participate in the process of European integration. They are of an overriding political and economic importance, at a time when these countries' reforms are at a crucial stage and their main traditional export market (the USSR) has collapsed. The establishment of free trade will encourage private investment in these countries, which is one of the main conditions for the economic reforms to be successful. The Community is ready to negotiate similar agreements with other central and eastern European countries which satisfy the necessary political and economic conditions.

The Community has shown its willingness to improve access to its markets to central and eastern Europe for products with which these countries can compete effectively on world markets including, agriculture, textiles, coal and steel. Account should be taken of the implications and difficulties of this improved access for the sectors and regions concerned in the Community. This improvement in market access will not be carried out at the expense of existing commercial relations with other partners, in particular developing countries with which the Community has cooperation agreements. Such market access is critical for successful development of these economies.

MAIN ECONOMIC INDICATORS 1989 to 1993

COMMUNITY, USA AND JAPAN

(a) GDP at constant prices ⁽¹⁾

	(annual % change)				
	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	3,9	3,7	1,3	2 1/4	2 1/2
DK	1,2	2,1	1,8	3	3 1/4
D	3,3	4,7	3,3	2 1/4	1 3/4
GR	2,8	-0,3	0,7	1 1/4	2
E	4,8	3,7	2,5	3	3 1/4
F	3,6	2,8	1,3	2 1/4	2 1/2
IRL	5,9	5,7	1,3	2 1/4	2 3/4
I	3,2	2,0	1,1	2	2 1/2
L	6,1	2,3	3,0	3 1/2	3 1/4
NL	4,0	3,9	2,3	1 1/4	2
P	5,4	4,0	2,0	1 3/4	2
UK	2,2	0,8	-1,8	2	2 3/4
EC	3,3	2,8	1,3	2 1/4	2 1/2
USA	2,8	0,9	-0,4	2	2 1/4
JAP	4,9	5,6	4,6	3 1/2	3 1/2

(b) Domestic demand at constant prices

	(annual % change)				
	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	4,9	3,4	1,2	2 1/4	2 1/4
DK	0,3	-0,7	0,4	2	3 1/4
D	2,7	5,0	3,0	2 1/4	2
GR	3,3	3,3	-0,3	1	2 1/4
E	7,8	4,6	3,1	3 1/2	3 1/2
F	3,2	3,2	1,1	2	2 1/4
IRL	6,0	5,4	0,6	1 1/4	1 3/4
I	3,6	1,9	1,5	2 1/4	2 3/4
L	7,8	3,4	4,3	3 3/4	3 3/4
NL	4,9	3,6	2,1	1/4	1 1/2
P	4,0	5,8	4,6	3 1/4	3 1/4
UK	3,1	-0,1	-3,0	2 1/4	3
EC	3,7	2,9	1,1	2 1/4	2 1/2
USA	2,2	0,5	-1,0	2	2
JAP	5,7	5,8	3,4	3 3/4	3 3/4

(c) Deflator of private consumption

	(annual % change)				
	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	3,5	3,5	3,2	3 1/2	3 1/2
DK	5,1	2,5	2,4	2 1/4	2 1/2
D	3,1	2,6	3,5	4 1/4	4
GR	14,7	20,2	18,3	14 1/4	11
E	6,6	6,4	5,8	5 1/2	5 1/4
F	3,5	2,9	3,0	3	2 3/4
IRL	3,9	2,6	3,0	3	2 3/4
I	5,8	6,2	6,4	5 1/4	5 1/4
L	3,4	4,2	3,4	3 3/4	3 1/4
NL	2,9	2,5	3,2	3 1/2	3 1/4
P	12,8	13,6	11,7	9 1/2	7 3/4
UK	5,9	8,4	6,5	4 1/2	4
EC	4,9	5,2	5,0	4 1/2	4 1/4
USA	4,5	5,0	4,4	4 3/4	5
JAP	1,7	2,4	2,8	2 1/2	2 1/2

(d) Balance on current transactions

	(as a % of GDP)				
	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	1,1	1,0	1,0	1	1 1/4
DK	-1,2	0,8	1,4	2 1/4	2 1/2
D ⁽²⁾	4,7	3,2	-1,1	-1	- 3/4
GR	-4,8	-6,1	-4,1	-3 1/4	-2 3/4
E	-3,2	-3,5	-3,1	-3 1/4	-3 1/4
F	0,1	-1,0	-0,7	- 3/4	- 3/4
IRL	1,3	3,4	2,3	2	1 3/4
I	-1,4	-1,4	-1,3	-1 1/2	-1 3/4
L	34,4	31,2	28,1	26 1/4	25 1/2
NL	3,3	3,8	4,1	4 1/2	4 3/4
P	-2,9	-0,3	-1,1	-1 1/2	-2 1/2
UK	-4,8	-2,6	-1,1	-1 1/2	-1 1/4
EC	-0,1	-0,2	-0,8	-1	- 3/4
USA	-1,9	-1,6	-0,1	- 3/4	- 3/4
JAP	2,1	1,2	1,5	1 1/2	1 3/4

(*) Based on the forecasts of October 1991.

⁽¹⁾ GNP for USA and Japan from 1990 onwards.⁽²⁾ Current account balance of unified Germany as percentage of GDP of unified Germany from 1991 onwards.

Source: Commission services.

(e) Number of unemployed as % of the civilian labour force

	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	8,5	8,1	8,6	8 1/2	8 1/2
DK	7,8	8,2	9,5	9 1/2	9
D	5,5	5,1	4,6	5	5 1/2
GR	7,5	7,5	8,8	9 1/4	9 3/4
E	17,1	16,1	15,8	15 1/2	15 1/4
F	9,4	9,0	9,5	10	10 1/4
IRL	16,0	15,6	16,8	18	18 1/2
I	10,7	9,8	9,4	9 1/2	9 1/4
L	1,8	1,7	1,6	1 1/2	1 1/2
NL	8,7	8,1	7,2	7 3/4	7 3/4
P	4,8	4,6	4,0	4 1/4	4 3/4
UK	7,0	6,4	8,4	9 3/4	10
EC	8,9	8,4	8,6	9	9 1/4
USA	5,3	5,5	6,7	7	6 3/4
JAP	2,3	2,1	2,2	2 1/4	2 1/4

(f) General government lending and borrowing

(as a % of GDP)

	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	- 6,7	- 5,6	- 6,3	- 6 1/4	- 5 3/4
DK	- 0,5	- 1,5	- 1,7	- 1 1/2	- 1 1/2
D (1)	0,2	- 1,9	- 3,6	- 3 1/4	- 3 3/4
GR	-18,3	-19,8	-17,3	-14	-10 1/4
E	- 2,7	- 4,0	- 3,9	- 3 1/2	- 3 1/4
F	- 1,2	- 1,6	- 1,5	- 1 3/4	- 1 1/2
IRL	- 3,5	- 3,6	- 4,1	- 4	- 4
I (2)	-10,1	-10,6	- 9,9	- 9 1/4	- 9 1/2
L	- 4,3	4,7	1,9	2	2
NL	- 5,2	- 5,3	- 4,4	- 4	- 3 3/4
P	- 3,4	- 5,8	- 5,4	- 4 1/2	- 4
UK	1,3	- 0,7	- 1,9	- 3 1/2	- 3 1/4
EC	- 2,9	- 4,0	- 4,4	- 4 1/2	- 4 1/4
USA	- 1,7	- 2,4	- 2,3	- 2	- 1 1/2
JAP	2,5	2,2	1,8	2	2

(g) Total employment

(annual % change)

	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	1,6	0,9	-0,3	0	1/4
DK	-0,6	-0,4	-1,0	0	1
D	1,4	2,8	2,8	1	1/4
GR	0,4	0,2	0,8	-0	1/4
E	3,6	2,6	0,7	1 1/4	1 1/2
F	1,1	1,2	0,4	-0	1/2
IRL	-0,1	1,3	0,0	1/4	3/4
I	0,2	1,0	0,9	1/2	3/4
L	4,0	4,2	1,9	1 1/2	1 1/2
NL	1,6	2,1	1,0	- 1/4	0
P	1,0	1,1	1,1	0	- 1/2
UK	2,8	0,4	-2,3	- 3/4	1/2
EC	1,5	1,4	0,5	1/4	1/2
USA	2,3	0,5	0,8	1	1 1/2
JAP	1,9	2,0	1,6	1 1/2	1 1/2

(h) Real compensation of employees per head (3)

(annual % change)

	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	0,1	2,8	1,9	2 1/4	2
DK	-1,6	1,0	1,1	1 1/4	1 1/2
D	-0,2	1,5	2,6	1 1/2	1 1/2
GR	2,9	0,0	-1,7	-2 1/4	- 3/4
E	-0,5	1,2	1,8	1 1/4	1 1/4
F	1,2	1,9	1,5	1	1
IRL	2,2	5,9	3,5	3	2 1/4
I	3,0	3,9	1,7	1 1/2	1 1/2
L	3,0	1,0	1,3	1 1/2	1 3/4
NL	-2,4	1,1	1,5	1 1/2	2
P	0,8	3,7	6,6	4 1/2	2
UK	2,8	2,7	1,7	1 1/4	1 1/2
EC	1,1	2,3	2,0	1 1/4	1 1/4
USA	-1,0	-0,1	0,3	-0	- 1/4
JAP	2,5	1,8	1,0	1	1

(*) Based on the forecast of October 1991.

(1) Including current transfers to the five new Länder and the deficit of the territorial authorities of these Länder as a percentage of GDP of unified Germany from 1991 onwards.

(2) 1992 and 1993: This forecast, made in October 1991, could not incorporate the effects of the measures of the convergence programme.

(3) Deflated by the deflator of private consumption.

Source: Commission services.

(i) Investment in construction at constant prices

(annual % change)

	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	8,9	6,7	- 1,4	3 1/4	2 3/4
DK	- 4,6	- 6,1	- 6,5	-1	4
D	5,1	5,3	3,5	2 1/2	1 3/4
GR	2,0	2,1	- 5,0	2 1/2	5
E	14,9	10,7	5,3	4	4
F	5,3	2,3	1,2	2	3
IRL	9,8	8,4	- 2,9	4	4
I	3,6	2,5	0,4	1 1/4	1 1/4
L	4,4	5,9	5,9	4 1/2	3
NL	1,6	1,3	- 0,6	-1	1 1/4
P	3,5	6,5	4,5	3	4
UK	2,5	- 1,1	-12,9	- 3/4	4 3/4
EC	5,3	3,6	- 0,5	1 3/4	2 3/4

(j) Investment in equipment at constant prices

(annual % change)

	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	18,2	10,3	3,0	2 3/4	2 3/4
DK	6,3	3,0	3,0	5	10
D	10,0	12,9	10,0	5	4 1/2
GR	17,4	7,9	3,0	4 1/2	6
E	13,0	1,2	- 2,5	3	4
F	5,8	5,0	- 1,8	1 1/2	3 1/2
IRL	15,3	6,8	1,8	3 3/4	4 1/2
I	6,2	3,5	- 1,1	3 1/2	4 1/2
L	26,3	13,7	6,4	4 3/4	4 3/4
NL	4,5	7,7	3,0	-1 1/4	2 1/2
P	10,0	8,5	4,5	3	3 1/2
UK	8,3	- 3,6	-12,8	-1	8
EC	8,5	4,7	- 0,4	2 1/2	4 3/4

(k) Gross fixed capital formation at constant prices

(annual % change)

	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	13,6	8,3	0,6	3	2 3/4
DK	0,2	- 1,9	- 1,9	2	7 1/4
D	7,1	8,8	6,6	3 3/4	3
GR	8,6	4,8	- 1,2	3 1/2	5 1/2
E	13,7	6,7	2,2	3 3/4	4
F	5,8	3,8	- 0,6	1 3/4	3 1/4
IRL	11,3	7,5	- 0,4	3 3/4	4 1/4
I	5,1	3,0	- 0,4	2 1/2	3
L	13,4	3,3	6,2	4 3/4	4
NL	3,0	4,2	- 1,1	-1	2
P	7,5	7,5	4,5	3	3 3/4
UK	4,8	- 2,4	-12,8	- 3/4	6 1/2
EC	6,7	4,1	- 0,5	2 1/4	3 3/4
USA	2,7	0,9	- 4,4	4 1/2	5 1/2
JAP	11,0	10,9	4,6	3 1/2	4

(l) GDP per head (EC = 100) at current prices and current PPS

	1989	1990	1991 (*)	1992 (*)	1993 (*)
B	95,4	101,2	100,6	103,4	103,8
DK	118,3	113,1	117,0	110,2	111,4
D	117,9	111,1	114,0	113,6	112,3
GR	38,6	56,8	55,9	52,1	52,0
E	60,3	79,0	72,8	79,9	80,7
F	105,8	110,4	110,1	108,8	108,8
IRL	60,8	58,9	63,4	68,9	69,2
I	86,5	93,3	103,0	103,2	103,4
L	158,5	141,9	126,2	131,7	134,3
NL	118,6	113,1	106,0	102,7	102,0
P	38,7	56,4	52,2	56,3	56,2
UK	128,6	108,5	105,4	102,1	102,5
EC	100,0	100,0	100,0	100,0	100,0
USA	189,6	161,6	155,7	145,9	148,1
JAP	55,8	96,2	110,6	124,3	125,6

(*) Based on the forecasts of October 1991.

Source: Commission services.

COUNCIL DECISION

of 2 March 1992

concerning the conclusion of a Cooperation Agreement between the European Economic Community and COST third States on five concerted action projects in the field of biotechnology (Specific research and technological development programme 'Bridge')

(92/181/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

HAS DECIDED AS FOLLOWS:

Article 1

Having regard to the Treaty establishing the European Economic Community, and in particular Article 130q (2) thereof,

Having regard to the proposal from the Commission (1),

In cooperation with the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas, by Decision 89/621/EEC (4), the Council adopted a specific research and technological development programme in the field of biotechnology (1990 to 1994) ('Bridge'); whereas Article 8 of the said Decision authorizes the Commission to negotiate agreements, *inter alia*, with third countries participating in European cooperation in the field of Scientific and Technical Research (COST) and those European countries having concluded framework agreements in scientific and technical cooperation with the Community,

The Cooperation Agreement between the European Community and COST third States on five concerted action projects in the field of biotechnology (Specific research and technological development programme Bridge) is hereby approved on behalf of the European Economic Community.

The text of the Agreement is attached to this Decision.

Article 2

The President of the Council is hereby authorized to designate the persons empowered to sign the Agreement in order to bind the Community.

Done at Brussels, 2 March 1992.

For the Council

The President

João PINHEIRO

(1) OJ No C 224, 29. 8. 1991, p. 16.

(2) OJ No C 326, 16. 12. 1991, p. 65, and Decision of 12 February 1992 (not yet published in the Official Journal).

(3) OJ No C 40, 17. 2. 1992, p. 22.

(4) OJ No L 360, 9. 12. 1989, p. 32.

COOPERATION AGREEMENT

between the European Economic Community and COST third States on five concerted action projects in the field of biotechnology (Specific research and technological development programme Bridge)

THE EUROPEAN ECONOMIC COMMUNITY,

hereinafter called 'the Community', and

THE SIGNATORY STATES TO THIS AGREEMENT,

hereinafter called 'the participating non-Member States',

both hereinafter called 'the Contracting Parties',

Whereas two Community-COST concertation agreements on two concerted action projects in the research sectors of aquatic primary biomass (COST 48) and plant *in vitro* culture (COST 87) were concluded by the Council on 14 July 1986 ⁽¹⁾ and signed respectively by Norway (COST 48) and Finland, Sweden and Switzerland (COST 87);

Whereas a memorandum of understanding in the framework of COST for carrying out a European research project on vesicular-arbuscular mycorrhizae (VA-mycorrhizae) (COST 810) entered into force on 26 January 1989 for a period extending until 25 January 1994 and was signed by Denmark, the Federal Republic of Germany, France, Italy, the United Kingdom, Spain, Austria, Finland and Switzerland;

Whereas a memorandum of understanding in the framework of COST for carrying out a European research project on methods for early detection and identification of plant diseases (COST 88) entered into force on 27 November 1986 for a period extending until 26 November 1991 and was signed by Belgium, Denmark, the Federal Republic of Germany, France, Ireland, the Netherlands, the United Kingdom, Spain, Austria, Finland, Sweden, Switzerland and Turkey;

Whereas a memorandum of understanding in the framework of COST for carrying out a European research project on coccidiosis and development of vaccines (COST 89) entered into force on 22 March 1989 for a period extending until 21 March 1994 and was signed by Belgium, Denmark, the Federal Republic of Germany, Italy, Spain and Switzerland;

Whereas a memorandum of understanding in the framework of COST may expire on the entry into force of a Community-COST Agreement between the Contracting Parties having the same aim as that of the memorandum of understanding;

Whereas, by its Decision of 27 November 1989 ⁽²⁾, the Council of the European Communities adopted a specific research and technological development programme in the field of biotechnology (Bridge) for the period 1990 to 1994, hereinafter called 'the Community programme', covering among other possibilities, the implementation of concerted action projects;

Whereas the Member States of the Community and the participating non-Member States intend, subject to the rules and procedures applicable to their national programmes, to carry out the research described in Annex A and are prepared to integrate such research into a process of concertation which they consider will be of mutual benefit,

HAVE AGREED AS FOLLOWS:

Article 1

The Contracting Parties shall participate for a period extending until 31 December 1993 in one or several of the following concerted action projects:

- COST 48: aquatic primary biomass (marine macroalgae),
- COST 810: vesicular-arbuscular mycorrhizae (VA-mycorrhizae),
- COST 87: *in vitro* cultures for the purification and propagation of plants,
- COST 88: methods for early detection and identifications of plant diseases,
- COST 89: coccidiosis and development of vaccines.

The said projects consist in concertation between the Community concerted action projects and the corresponding programmes of the participating

⁽¹⁾ OJ No L 216, 5. 8. 1986, pp. 13 and 19.

⁽²⁾ OJ No L 360, 9. 12. 1989, p. 32.

non-Member States. The content of research topics covered by this Agreement is specified in Annex A.

The Member and non-Member States of the Community shall remain entirely responsible for the research carried out by their own institutions or bodies.

Article 2

The estimated financial contributions of the Contracting Parties to the coordination costs for the period referred to in the first paragraph of Article 1 shall be, for each of the five concerted action projects:

- COST 48: ECU 400 000 from the Community, ECU 34 000 from each participating non-Member State;
- COST 810: ECU 400 000 from the Community, ECU 34 000 from each participating non-Member State;
- COST 87: ECU 400 000 from the Community, ECU 34 000 from each participating non-Member State;
- COST 88: ECU 400 000 from the Community, ECU 34 000 from each participating non-Member State;
- COST 89: ECU 400 000 from the Community, ECU 34 000 from each participating non-Member State.

The rules governing the financing of this Agreement and the timetable of the commitment estimates are set out in Annex B.

Article 3

1. For the purposes of this Agreement, a Cooperation Committee, hereinafter referred to as 'the Committee', is hereby established to assist the Commission in the implementation of the concerted action projects of the specific research and technological development programme in the field of biotechnology (Bridge programme), adopted by Decision of the Council of the European Communities of 27 November 1989.

2. The Committee shall consist of representatives of the Community and the participating non-Member States for the implementation of the concerted action projects.

3. The Committee shall be consulted on all the matters concerning the implementation of this Agreement. For this purpose, it shall make recommendations.

4. The representative of the Community shall take the appropriate steps to ensure coordination between the implementation of this Agreement and the decisions taken by the Community in respect of the implementation of the Community programme.

5. For the purpose of the proper implementation of this Agreement, the Contracting Parties shall exchange information, and at the request of any of the parties, hold consultations within the Committee.

6. The Committee shall adopt its own rules of procedure and shall meet, at the request of any of the Contracting Parties, in accordance with the conditions to be laid down in its rules of procedure.

Article 4

1. The Contracting Parties shall regularly exchange all useful information resulting from the carrying out of the research covered by the concerted action projects. They shall also endeavour to provide information on similar research planned or carried out by other bodies. Any information shall be treated as confidential if the Contracting Party which provides it so requests.

2. The scientific results of the concerted action projects shall be published by the Commission, except in so far as they are declared confidential by one of the Contracting Parties.

3. The Commission shall prepare activity reports on the basis of the information supplied and shall forward them to the Member and non-Member States of the Community.

4. At the end of the period of the Bridge programme, the Commission shall forward to the Member and non-Member States of the Community the general reports on the execution and results of these concerted action projects.

Article 5

1. This Agreement shall be open for signature by the Community and by the participating non-Member States which took part in the ministerial conference held in Brussels on 22 and 23 November 1971.

2. As a prerequisite to its participation in the concerted action projects defined in Article 1, each of the Contracting Parties shall, when signing this Agreement, have notified the Secretary-General of the Council of the European Communities of the concerted action projects in which it intends to participate and, after signing this Agreement, have notified the Secretary-General of the Council of the European Communities of the completion of the procedures necessary under its internal provisions for the implementation of this Agreement.

3. For the Contracting Parties which transmit the latter notification, provided for in paragraph 2, this Agreement

shall come into force on the first day of the month following that in which the Community and at least one of the participating non-Member States transmitted these notifications.

For those Contracting Parties which transmit the notification after the entry into force of this Agreement, it shall come into force on the first day of the second month following that in which the notification was transmitted. Contracting Parties which have not transmitted this notification when this Agreement comes into force shall be able to take part in the work of the Committees without voting rights.

4. The Secretary-General of the Council of the European Communities shall inform each of the Contracting Parties of the notifications made pursuant to paragraph 2 and of the date of entry into force of this Agreement.

Article 6

1. This Agreement shall be concluded for the duration of the Community programme. Should the Community revise the Community programme, the Agreement may be denounced under mutually agreed conditions between the Contracting Parties.

2. Where the Community adopts a new R&D programme in the field of biotechnology, this Agreement may be

renegotiated or renewed under mutually agreed conditions.

3. Subject to paragraph 1, any of the Contracting Parties may at any time terminate this Agreement with six months' notice. The projects and work in progress at the time of termination and/or expiry of this Agreement shall be continued until they are completed under the conditions laid down in this Agreement.

Article 7

This Agreement shall apply, on the one hand, to the territories in which the Treaty establishing the European Economic Community is applied and under the conditions laid down in that Treaty and, on the other hand, to the territories of the participating non-Member States.

Article 8

This Agreement, drawn up in a single original in the Danish, Dutch, English, French, German, Greek, Italian, Portuguese and Spanish languages, each text being equally authentic, shall be deposited in the archives of the General Secretariat of the Council of the European Communities which shall transmit a certified copy to each of the Contracting Parties.

ANNEX A

RESEARCH TOPICS COVERED BY THE AGREEMENT

The Community programme includes the following five COST concerted action projects:

Cost project 48: Aquatic primary biomass (marine macroalgae)*Purification*

- utilization of seaweeds as bio-indicators for radionuclides and pollution level,
- determination of the seaweed species and of the conditions required to achieve pollution abatement of waste waters throughout the year.

Fermentations

- means to treat the proliferating algae biomass,
- use of seaweeds to purify the environment.

Harvesting, food and technological processes

Study of the problems of harvesting connected with purification and fermentation.

Cost project 810: Vesicular-arbuscular mycorrhizae (VA mycorrhizae)

The importance of endomycorrhizae in a soil, their impact on plant nutrition, stress tolerance and soil structure.

The interaction between VAM and other soil organisms.

The micropropagation, root morphology and VAM infections.

Cost project 87: *In vitro* cultures for the purification and propagation of plants

The primary aims of this research consist of developing tissue culture methods for:

- rapid multiplication of healthy plants,
- freeing plants from pathogens,
- safe long-term storage of plant cultures.

The model plants selected are:

Apple rootstock M26, *Betula* and *Quercus*, *Gerbera*, *Pelargonium*.

Cost project 88: methods for early detection and identification of plant diseases

The main objective of COST 88 is to coordinate research on the early detection and identification of plant diseases in Europe, in particular in the following fields:

- molecular hybridization techniques,
- advanced immunochemical techniques,
- defining standards for the development of these techniques and diagnosis,
- setting up a European bank for standards for the diagnosis of plant diseases.

Cost project 89: Basic research on coccidiosis of poultry and farm animals and development of vaccines using biotechnological procedures (short title: Coccidiosis and development of vaccines)

The aim of this programme is to develop vaccines against coccidiosis of poultry and farm animals.

Special attention will be paid to the criteria for vaccine evaluation and to several species, such as *Eimeria intestinalis*, *Eimeria stiedae*, *Isospora suis*, *Cryptosporidium parvum* etc.

ANNEX B

FINANCING RULES

1. These provisions lay down the financial rules referred to in Article 2 of the Agreement.
2. Annually, or whenever the Community programme is revised so as to involve an increase in the amount estimated as necessary for its implementation, the Commission shall send to the participating non-Member States a call for funds corresponding to their contribution to the costs under the Agreement.

In particular at the beginning of each year, the Commission shall send to each participating non-Member State a call for funds corresponding to the number of, and the amount involved in, concerted action projects in which it participates and to its share of the annual coordination costs under the Agreement, calculated in proportion to the amounts laid down in Article 2 of the Agreement. This contribution shall be expressed both in ecu and the currency of the participating non-Member State concerned, the composition of the ecu being defined in Council Regulation (EEC) No 3180/78 ⁽¹⁾, as amended by Regulation (EEC) No 1971/89 ⁽²⁾. The value of the ecu shall be determined on the date of the call of funds.

The total contributions shall cover the travel and subsistence costs of the delegates, in addition to the coordination costs proper.

Each participating non-Member State shall pay its annual contribution to the coordination costs under the Agreement at the beginning of each year, and by 31 March at the latest. Any delay in the payment of the annual contribution shall give rise to the payment of interest by the participating non-Member State concerned at a rate equal to the highest discount rate obtained in the Member States of the Community on the due date. The rate shall be increased by 0,25 of a percentage point for each month of delay. The increased rate shall be applied to the entire period of delay. However, such interest shall be chargeable only if payment is effected more than three months after the issue of a call for funds by the Commission.

3. The funds paid by participating non-Member States shall be credited to the concerted action projects in which they participate as budget receipts allocated to a heading in the statement of the revenue of the general budget of the European Communities (Commission Section).
4. The financial plan for the coordination costs referred to in Article 2 of the Agreement is appended hereto.
5. The Financial Regulation in force applicable to the general budget of the European Communities shall apply to the management of the appropriations.
6. At the end of the programme, a statement of appropriations for each concerted action project shall be prepared and transmitted to the participating non-Member States for information.

⁽¹⁾ OJ No L 379, 30. 12. 1978, p. 1.

⁽²⁾ OJ No L 189, 4. 7. 1989, p. 1

Financial appendix

'BRIDGE': CONCERTED ACTION PROJECTS COST 48, 810, 87, 88, 89

Yearly financial contributions (ecu) of the Community and of each participating non-Member State for each of the five abovementioned projects

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	100 000	100 000	100 000	100 000	400 000
Total:	100 000	100 000	100 000	100 000	400 000
2. Contributions from participating non-Member States	(n × 8 500)	(n × 8 500)	(n × 8 500)	(n × 8 500)	(n × 34 000)
New total:	100 000 + (n × 8 500)	100 000 + (n × 8 500)	100 000 + (n × 8 500)	100 000 + (n × 8 500)	400 000 + (n × 34 000)

n = number of participating non-Member States.
COST 48: aquatic primary biomass (marine macroalgae).
COST 810: vesicular-arbuscular mycorrhizae (VA-mycorrhizae).
COST 87: *in vitro* cultures for the purification and propagation of plants.
COST 88: methods for early detection and identifications of plant diseases.
COST 89: basic research on coccidiosis of poultry and farm animals and development of vaccines using biotechnological procedures (short title: coccidiosis and development of vaccines).

COUNCIL DECISION

of 2 March 1992

concerning the conclusion of a Cooperation Agreement between the European Economic Community and COST third States on 11 concerted action projects in the field of food science and technology (Specific research and technological development programme 'Flair')

(92/182/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

HAS DECIDED AS FOLLOWS:

Article 1

Having regard to the Treaty establishing the European Economic Community, and in particular Article 130 q (2) thereof,

Having regard to the proposal from the Commission ⁽¹⁾,

In cooperation with the European Parliament ⁽²⁾,

Having regard to the opinion of the Economic and Social Committee ⁽³⁾,

Whereas, by Decision 89/411/EEC ⁽⁴⁾, the Council adopted a specific research and technological development programme in the field of food science and technology (1989 to 1993) (Flair); whereas Article 7 of the said Decision authorizes the Commission to negotiate agreements with, *inter alia*, third countries participating in European Cooperation in the field of Scientific and Technical Research (COST) and those European countries having concluded framework agreements in scientific and technical cooperation with the Community,

The Cooperation Agreement between the European Economic Community and COST third states on 11 concerted action projects in the field of food science and technology (specific research and technological development programme (Flair)) is hereby approved on behalf of the European Economic Community.

The text of the Agreement is attached to this Decision.

Article 2

The President of the Council is hereby authorized to designate the persons empowered to sign the Agreement in order to bind the Community.

Done at Brussels, 2 March 1992.

For the Council

The President

João PINHEIRO

⁽¹⁾ OJ No C 224, 29. 8. 1991, p. 5.

⁽²⁾ OJ No C 326, 16. 12. 1991 and Decision of 12 February 1992 (not yet published in the Official Journal).

⁽³⁾ OJ No C 40, 17. 2. 1992, p. 24.

⁽⁴⁾ OJ No L 200, 13. 7. 1989, p. 18.

COOPERATION AGREEMENT

between the European Economic Community and COST third States on 11 concerted action projects in the field of food science and technology (Specific research and technological development programme 'Flair')

THE EUROPEAN ECONOMIC COMMUNITY,

of concertation which they consider will be of mutual benefit,

hereinafter called 'the Community', and

THE SIGNATORY STATES TO THIS AGREEMENT,

HAVE AGREED AS FOLLOWS:

hereinafter called 'the participating non-Member States',

both hereinafter called 'the Contracting Parties',

Article 1

Whereas European cooperation in the field of food science and technology is likely to contribute to the combined progress in public health and consumer protection with industrial and economic development within the Community;

The Contracting Parties shall participate for a period extending until 30 June 1993 in one or several of the following concerted action projects:

Whereas four Community-COST concertation agreements on four concerted action projects (COST 90, COST 91, COST 90a and COST 91a projects) in the field of food science and technology have produced encouraging results and further initiatives in the COST framework in this field are underway;

— COST 901: spectroscopic techniques 'Near infrared (NIR), Fourier transform infrared (FTIR), Nuclear magnetic resonance (NMR)' for the rapid direct measurement of food quality,

— COST 902: relating sensory, instrumental and consumer choice studies,

— COST 905: predictive modelling of microbial growth and survival in foods,

Whereas the *ad hoc* COST Technical Committee in the field of food technology together with the CREST *ad hoc* Committee have recommended that a number of concerted action projects could be implemented as category A COST projects in the framework of a Community programme in this field — this COST category A being defined by the COST Senior Officials Committee at its meetings of 20 and 21 April 1989 and 28 and 29 June 1989;

— COST 906: prevention and control of potentially pathogenic micro-organisms in poultry and poultry meat processing,

— COST 907: food safety and quality based on the application of combined processes and hazard analysis critical control point (HACCP),

Whereas, by its Decision of 20 June 1989 ⁽¹⁾, the Council of the European Communities adopted a specific research and technological development programme in the field of food science and technology (Flair) for the period 1989 to 1993, hereinafter called 'the Community programme', covering, among other possibilities, the implementation of concerted action projects;

— COST 908: *in vitro* toxicological studies and real-time analysis of residues in food,

— COST 909: improvement of food safety and quality through the use of interactive and competitive bindings of food lectins and bacterial adhesins in the gut,

Whereas the Member States of the Community and the participating non-Member States intend, subject to the rules and procedures applicable to their national programmes, to carry out the research described in Annex A and are prepared to integrate such research into a process

— COST 910: measurement of micronutrient absorption and status,

— COST 911: physiological implications of the consumption of resistant starch in man,

— COST 912: improvement of the quality and compatibility of food consumption and food composition data in Europe,

⁽¹⁾ OJ No L 200, 13. 7. 1989, p. 18.

- COST 913: information flow on food technology, food safety and healthy eating to small and medium-sized enterprises (SMEs) and consumers (Fair-Flow project).

The said projects shall consist in concertation between the Community concerted action projects and the corresponding programmes of the participating non-Member States. The content of research topics covered by this Agreement is specified in Annex A.

The Member and non-Member States of the Community shall remain entirely responsible for the research carried out by their own institutions or bodies.

Article 2

The estimated financial contributions of the Contracting Parties to the coordination costs for the period referred to in the first paragraph of Article 1 shall be, for each of the eleven concerted action projects:

- COST project 901: ECU 550 000 from the Community,
ECU 46 000 from each participating non-Member State;
- COST project 902: ECU 730 000 from the Community,
ECU 61 000 from each participating non-Member State;
- COST project 905: ECU 325 000 from the Community,
ECU 27 000 from each participating non-Member State;
- COST project 906: ECU 325 000 from the Community,
ECU 27 000 from each participating non-Member State;
- COST project 907: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State;
- COST project 908: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State;
- COST project 909: ECU 220 000 from the Community,
ECU 18 500 from each participating non-Member State;
- COST project 910: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State;

- COST project 911: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State;
- COST project 912: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State;
- COST project 913: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State.

The rules governing the financing of this Agreement and the timetable of the commitment estimates are set out in Annex B.

Article 3

1. For the purposes of this Agreement, a Cooperation Committee, hereinafter referred to as 'the Committee', is hereby established to assist the Commission in the implementation of the concerted action projects of the specific research and technological development programme in the field of food science and technology (Flair programme), adopted by Decision of the Council of the European Communities of 20 June 1989.
2. The Committee shall consist of representatives of the Community and the participating non-Member States for the implementation of the concerted action projects.
3. The Committee shall be consulted on all the matters concerning the implementation of this Agreement. For this purpose, it shall make recommendations.
4. The representative of the Community shall take the appropriate steps to ensure coordination between the implementation of this Agreement and the decisions taken by the Community in respect of the implementation of the Community programme.
5. For the purpose of the proper implementation of this Agreement, the Contracting Parties shall exchange information, and at the request of any of the Parties, hold consultations within the Committee.
6. The Committee shall adopt its own rules of procedure and shall meet, at the request of any of the Contracting Parties, in accordance with the conditions to be laid down in its rules of procedure.

Article 4

1. The Contracting Parties shall regularly exchange all useful information resulting from the carrying-out of the research covered by the concerted action projects. They shall also endeavour to provide information on similar

research planned or carried out by other bodies. Any information shall be treated as confidential if the Contracting Party which provides it so requests.

2. The scientific results of the concerted action projects shall be published by the Commission, except in so far as they are declared confidential by one of the Contracting Parties.

3. The Commission shall prepare activity reports on the basis of the information supplied and shall forward them to the Member and non-Member States of the Community.

4. At the end of the period of the Flair programme, the Commission shall forward to the Member and non-Member States of the Community the general reports on the execution and results of these concerted action projects.

Article 5

1. This Agreement shall be open for signature by the Community and by the participating non-Member States which took part in the ministerial conference held in Brussels on 22 and 23 November 1971.

2. As a prerequisite to its participation in the concerted action projects defined in Article 1, each of the Contracting Parties shall, when signing this Agreement, have notified the Secretary-General of the Council of the European Communities of the concerted action projects in which it intends to participate and, after signing this Agreement, have notified the Secretary-General of the Council of the European Communities of the completion of the procedures necessary under its internal provisions for the implementation of this Agreement.

3. For the Contracting Parties which transmit the latter notification, provided for in paragraph 2, this Agreement shall come into force on the first day of the month following that in which the Community and at least one of the participating non-Member States transmitted these notifications.

For those Contracting Parties which transmit the notification after the entry into force of this Agreement, it shall come into force on the first day of the second month following that in which the notification was transmitted. Contracting Parties which have not transmitted this notification when this Agreement comes into force shall be

able to take part in the work of the Committees without voting rights.

4. The Secretary-General of the Council of the European Communities shall inform each of the Contracting Parties of the notifications made pursuant to paragraph 2 and of the date of entry into force of this Agreement.

Article 6

1. This Agreement shall be concluded for the duration of the Community programme. Should the Community revise the Community programme, the Agreement may be denounced under mutually agreed conditions between the Contracting Parties.

2. Where the Community adopts a new R&D programme in the field of food science and technology, this Agreement may be renegotiated or renewed under mutually agreed conditions.

3. Subject to paragraph 1, any of the Contracting Parties may at any time terminate this Agreement with six months' notice. The projects and work in progress at the time of termination and/or expiry of this Agreement shall be continued until they are completed under the conditions laid down in this Agreement.

Article 7

This Agreement shall apply, on the one hand, to the territories in which the Treaty establishing the European Economic Community is applied and under the conditions laid down in that Treaty and, on the other hand, to the territories of the participating non-Member States.

Article 8

This Agreement, drawn up in a single original in the Danish, Dutch, English, French, German, Greek, Italian, Portuguese and Spanish languages, each text being equally authentic, shall be deposited in the archives of the General Secretariat of the Council of the European Communities which shall transmit a certified copy to each of the Contracting Parties.

ANNEX A

RESEARCH TOPICS COVERED BY THE AGREEMENT

The Community programme includes the following 11 COST concerted action projects:

1. Spectroscopic techniques 'Near infrared (NIR), Fourier transform infrared (FTIR), Nuclear magnetic resonance (NMR)' for the rapid direct measurement of food quality (COST 901)

To provide rapid, instrumental food quality measurement techniques to satisfy consumer/industrial needs within the European Community.

- (a) Signal interpretation: to interpret, define, process and quantify, instrumental signals in order to understand and justify signal/quality relationships.
- (b) Mathematical treatment/interpretation of instrumental data: to modify signals and combine signal data from different instrument types, in order to relate the signal to food quality characteristics.
- (c) Instrument and experimental design: to optimize instrumental and experimental design for measurement of food quality.
- (d) Computer database: to collate and disseminate findings from signal interpretation, instrument and experimental design to produce value added information to enable effective prediction of food quality for specific food applications.

2. Relating sensory, instrumental and consumer choice studies (COST 902)

- (a) To characterize relationships between instrumental data and sensory data and between consumer choice studies and sensory data.
- (b) To review and develop functional and applied models for food choice behaviour.
- (c) To establish a database for state-of-the-art of instrumental methods as relating to sensory perception of foods.
- (d) To improve compatibility of European food industries through fast and efficient transfer of results from research to applied product development, control and assurance.
- (e) To develop approaches to sensory analysis issues which will permit application of the techniques in other foods and food constituents.

3. Predictive modelling of microbial growth and survival in foods (COST 905)

- (a) Establishment of databases on predictive microbiological research by individual groups.
- (b) To ensure the maximum compatibility and effectiveness of the systems developed.
- (c) To develop (an) integrated large database(s) transfer to Member States and COST countries and ensure its/their effective use for the benefit of a safe and stable food supply.

4. Prevention and control of potentially pathogenic micro-organisms in poultry and poultry meat processing (COST 906)

- (a) Prevention of infection of live birds (including game birds) with potentially pathogenic micro-organisms including *Salmonella*, *Campylobacter*, *Listeria* and *Staphylococcus aureus*.
- (b) Prevention of contamination of poultry meat and poultry meat products.
- (c) Application of methods for end-product decontamination and protection.
- (d) Development of sampling protocols.
- (e) Development and application of microbiological detection methods.

5. Food safety and quality based on the application of combined processes and hazard analysis critical control point (HACCP) (COST 907)

Cooperation between scientists and industrialists to achieve a systematic and unified approach to the application of combined methods for food preservation and implementation of hazard analysis/risk assessment systems by:

- (a) the application of systems to cover quality as well as safety considerations;
- (b) the application of systems to cover all major sectors of food and drink processing, distribution retailing and catering industries;
- (c) the application of systems to classical and newly developed food products with emphasis on those preserved by multiple parameters;
- (d) acquisition of data suitable for modelling and/or inclusion in hazard analysis/risk assessments;
- (e) the practical application and evaluation of systems for safety and quality improvement in the food and drink and allied industries.

6. *In vitro* toxicological studies and real-time analysis of residues in food (COST 908)

- (a) To develop chromatographic/mass spectrometric methods for trace analysis such that real-time monitoring for a variety of food contaminants at the required specificity and sensitivity becomes possible.
- (b) To develop and validate a set of *in vitro* test systems for screening of the biological and toxicological properties of these contaminants.
- (c) To integrate the above developments to provide robust, versatile monitoring systems for the food industry.
- (d) To harmonize test methodologies for food safety and quality evaluation procedures at the European level.

7. Improvement of food safety and quality through the use of interactive and competitive bindings of food lectins on bacterial adhesins in the gut (COST 909)

To find specific plant lectins and/or polysaccharides which, as natural dietary supplements, will abolish or minimize the harmful bacterial colonisation of the small intestine and other parts of the gastro-intestinal tract by studies on:

- (a) Effects of plant lectins from the seeds of kidney and soya bean on bacterial adhesins of *E-coli in vitro* with various human cell lines in cell cultures;
- (b) effects of plant lectins on bacterial binding and on the morphology and function of the rat small intestine *in vivo*;
- (c) the blockage of the binding of bacterial adhesins to the gut wall with selected plant lectins or saccharides both *in vitro* and *in vivo*.

8. Measurement of micronutrient absorption and status (COST 910)

To assess critically priorities for the status of micronutrients in the COST countries and to develop and validate methods which allow more accurate and sensitive measurements of intake, absorption and status of these micronutrients in man.

- (a) To improve the precision and sensitivity of stable isotope methods for measuring micronutrient absorption and status.
- (b) Development of instrumental and biospecific methods for quantifying micronutrients in food, feed components and in the diet.
- (c) Development of biospecific, chromatographic and spectrometric methods for the assessment of micronutrient status.
- (d) Identify functional indicators (e.g. growth rates, immune response, behavioural and physical performance) of variations in micronutrient intake and status.

9. Physiological implication of the consumption of resistant starch in man (COST 911)

- (a) Problem of measurement and characterization of various forms of resistant starch (RS) in various foods and raw materials.
- (b) Content of RS in present Western diets.
- (c) Variability and dependency of the molecular structure of RS on the source of starch, processing conditions, amylose/amylopectin ratio.
- (d) Physicochemical and physiological similarities and differences between RS and fermentable dietary fibre.
- (e) RS from various sources and their effects on human physiology: blood cholesterol, lipoproteins, gastrointestinal function (anti-constipation, gas formation, diarrhoea) absorption of other nutrients, risk of colon cancer, arteriosclerosis, diabetes and energy content.
- (f) If RS appears beneficial for health, how can the consumption be raised by production of foods with increased RS content?
- (g) How should foods containing RS be labelled to guide the consumer?

10. Improvement of the quality and compatibility of food consumption and food composition data in Europe (COST 912)

Assessment of data on food intake and formulation of guidelines to ensure the construction of compatible food compositional databases for use with food consumption surveys. Provide adequate information on food availability, expenditure by households and individuals on food and what people actually eat.

The action will provide:

- (a) an overview of results already obtained;
- (b) a series of recommendations for collection and use of food balance sheets and for the construction of a food compositional database of food balance sheets;
- (c) a series of recommendations for improvement, harmonization and use of household budget surveys and for the construction of a food compositional database of household budget surveys;
- (d) a series of recommendations for the implementation of individual dietary surveys and for the construction of a food compositional database for use with individual dietary studies, both at a national and regional level;
- (e) a series of studies in which the recommendations will be tested with a limited number of surveys.

11. Information flow and food technology, food safety and healthy eating to small and medium-sized enterprises (SMEs) and consumers (Flair-Flow project) (COST 913)

Explore/investigate existing and new national routes and procedures in Community and COST third States for the dissemination of information on food technology, food safety and 'healthy' eating:

- (a) to achieve effective dissemination flow with consequent benefits to industry, SMEs, consumers and policy makers;
- (b) to study/analyse/assess/recommend different methods and effectiveness of alternative ways of dissemination — i.e. results of the Flair programme, other COST actions (Category B) and other R&D projects to be used for planning future programmes;
- (c) to ensure dissemination via national existing networks of databases and national/international workshops, food industry newsletters, consumer bulletins, etc.

ANNEX B

FINANCING RULES

1. These provisions lay down the financial rules referred to in Article 2 of the Agreement.
2. Annually, or whenever the Community programme is revised so as to involve an increase in the amount estimated as necessary for its implementation, the Commission shall send to the participating non-Member States a call for funds corresponding to its contribution to the costs under the Agreement.

In particular, at the beginning of each year, the Commission shall send to each participating non-Member State a call for funds corresponding to the number of, and the amount involved in, concerted action projects in which it participates and to its share of the annual coordination costs under the Agreement, calculated in proportion to the amounts laid down in Article 2 of the Agreement.

This contribution shall be expressed both in ECU and the currency of the participating non-Member State concerned, the composition of the ecu being defined in Council Regulation (EEC) No 3180/78 ⁽¹⁾, as amended by Regulation (EEC) No 1971/89 ⁽²⁾. The value of the ecu shall be determined on the date of the call of funds.

The total contributions shall cover the travel and subsistence costs of the delegates, in addition to the coordination costs proper.

Each participating non-Member State shall pay its annual contribution to the coordination costs under the Agreement at the beginning of each year, and by 31 March at the latest. Any delay in the payment of the annual contribution shall give rise to the payment of interest by the participating non-Member State concerned at a rate equal to the highest discount rate obtained in the Member States of the Community on the due date. The rate shall be increased by 0,25 of a percentage point for each month of delay. The increased rate shall be applied to the entire period of delay. However, such interest shall be chargeable only if payment is effected more than three months after the issue of a call for funds by the Commission.

3. The funds paid by participating non-Member States shall be credited to the concerted action projects in which they participate as budget receipts allocated to a heading in the statement of the revenue of the general budget of the European Communities (Commission Section).
4. The financial plan for the coordination costs of the 11 concerted projects referred to in Article 2 of the Agreement is appended hereto.
5. The Financial Regulation in force applicable to the general budget of the European Communities shall apply to the management of the appropriations.
6. At the end of the programme, a statement of appropriations for each concerted action project shall be prepared and transmitted to the participating non-Member States for information.

⁽¹⁾ OJ No L 379, 30. 12. 1978, p. 1.

⁽²⁾ OJ No L 189, 4. 7. 1989, p. 1.

*Financial appendix***FLAIR: CONCERTED ACTION PROJECT COST 901****Yearly financial contributions (ECU) of the Community and of each participating non-Member State**

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	137 500	137 500	137 500	137 500	550 000
Total:	137 500	137 500	137 500	137 500	550 000
2. Contributions from participating non-Member States	(n × 11 500)	(n × 11 500)	(n × 11 500)	(n × 11 500)	(n × 46 000)
New total:	137 500 + (n × 11 500)	137 500 + (n × 11 500)	137 500 + (n × 11 500)	137 500 + (n × 11 500)	550 000 + (n × 46 000)

n = number of participating non-Member States.

COST 901: spectroscopic techniques for the rapid direct measurement of food quality.

FLAIR: CONCERTED ACTION PROJECT COST 902**Yearly financial contributions (ECU) of the Community and of each participating non-Member State**

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	182 500	182 500	182 500	182 500	730 000
Total:	182 500	182 500	182 500	182 500	730 000
2. Contributions from participating non-Member States	(n × 15 250)	(n × 15 250)	(n × 15 250)	(n × 15 250)	(n × 61 000)
New total:	182 500 + (n × 15 250)	182 500 + (n × 15 250)	182 500 + (n × 15 250)	182 500 + (n × 15 250)	730 000 + (n × 61 000)

n = number of participating non-Member States.

COST 902: sensory instrumental and consumer choice studies.

FLAIR: CONCERTED ACTION PROJECTS COST 905 AND COST 906

Yearly financial contributions (ECU) of the Community and of each participating non-Member State for each of the two abovementioned projects

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	81 250	81 250	81 250	81 250	325 000
Total:	81 250	81 250	81 250	81 250	325 000
2. Contributions from participating non-Member States	(n × 6 750)	(n × 6 750)	(n × 6 750)	(n × 6 750)	(n × 27 000)
New total:	81 250 + (n × 6 750)	81 250 + (n × 6 750)	81 250 + (n × 6 750)	81 250 + (n × 6 750)	325 000 + (n × 27 000)

n = number of participating non-Member States.

COST 905: predictive modelling of microbial growth and survival in foods.

COST 906: prevention and control of potentially pathogenic micro-organisms in poultry food processing.

FLAIR: CONCERTED ACTION PROJECTS COST 909

Yearly financial contributions (ECU) of the Community and of each participating non-Member State

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	55 000	55 000	55 000	55 000	220 000
Total:	55 000	55 000	55 000	55 000	220 000
2. Contributions from participating non-Member States	(n × 4 625)	(n × 4 625)	(n × 4 625)	(n × 4 625)	(n × 18 500)
New total:	55 000 + (n × 4 625)	55 000 + (n × 4 625)	55 000 + (n × 4 625)	55 000 + (n × 4 625)	220 000 + (n × 18 500)

n = number of participating non-Member States.

COST 909: the use of food lectins to improve food safety and quality.

FLAIR: CONCERTED ACTION PROJECTS COST 907, 908, 910, 911, 912 AND 913

Yearly financial contributions (ECU) of the Community and of each participating non-Member State for each of the six abovementioned projects

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	125 000	125 000	125 000	125 000	500 000
Total:	125 000	125 000	125 000	125 000	500 000
2. Contributions from participating non-Member States	(n × 10 375)	(n × 10 375)	(n × 10 375)	(n × 10 375)	(n × 41 500)
New total:	125 000 + (n × 10 375)	125 000 + (n × 10 375)	125 000 + (n × 10 375)	125 000 + (n × 10 375)	500 000 + (n × 41 500)

n = number of participating non-Member States.

COST 907: food safety and quality based on the application of combined processes — hazard analysis critical control point (HACCP).

COST 908: *in vitro* toxicological studies and real-time analysis of residues in food.

COST 910: measurements of micronutrient absorption and status.

COST 911: physiological implications of the consumption of resistant starch in man.

COST 912: improvement of the quality and compatibility of food consumption and food composition data in Europe.

COST 913: information flow on food technology, food safety and healthy eating to SMEs and consumers (Flair-Flow project).