COMMISSION OF THE EUROPEAN COMMUNITIES

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Fifth Periodic Report on the Social and Economic Situation and Development of the Regions of the Community

(presented by the Commission)

Introduction

The Fifth Periodic Report on the social and economic situation and development of the regions in the Community updates the information contained in preceding reports and provides further analysis on matters relating to regional problems and policy.

Part A of the report covers the main regional trends and differences over the last decade or so in regard to output, productivity, employment and unemployment. Also included are the results of a major reexamination of demographic trends in the regions which focuses on the prospective changes in population and labour force for the year 2000.

Part B examines some of the factors underlying the disparities between regions. The analysis builds on that undertaken in previous reports, for example, in regard to infrastructure where a new statistical database on national and regional endowments is examined. A chapter is also devoted to the role of research and technological development in the regions, broadening the analysis presented in the preceding report. Entirely new elements include a consideration of the trends in foreign direct investment flows (and the relative attractiveness of regions to new investors) and differences in the accessibility of regions (including how this can be expected to change as a result of improvements in transport).

Part C of the report describes the situation in the Community's problem regions which were eligible for assistance under Community regional policies for the period 1989-93. The report also provides a first oppor-

tunity to consider the next generation of regional policies effective from 1994 where there is both continuity with the past as well as important innovations. This part of the report also examines Member States' own regional policies and the changes which have taken place over the last decade or so.

Part D of the report covers other Community policies in the field of economic and monetary integration and external policy (enlargement). The latter covers regional aspects of the last enlargement (the situation and prospects of the new German Länder), the next enlargement (the regions of Austria, Sweden, Finland and Norway) as well as examining the regional situation of the countries in the East undergoing extensive economic reform (Poland, the Czech Republic, Slovakia and Hungary).

The report reflects a combination of own research and studies carried out by external experts which are referenced in the text.

Legal basis

The periodic reports are prepared in accordance with Article 8 of Council Regulation (EEC) N°4254/88 (as amended) on the reform of the European Regional Development Fund.

The report was adopted by the Commission after consulting the Advisory Committee on the Development and Conversion of Regions which expressed a favourable opinion on its contents.

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Regional trends in the recession

The economic situation confronting the regions of the Community in 1993/94 could scarcely be more different from that which prevailed when the Commission produced the previous Periodic Report at the end of 1990. Then, economic growth was averaging 3-4% per annum, jobs were being created at a record rate and unemployment was falling steadily even in the face of an expanding labour force. Now, the Community's economy is at the end of a relatively deep recession – output seems to have fallen slightly in 1993 for the first time since 1975 – and unemployment has risen to 11%, slightly above the level a decade earlier when it was at its highest in the Community's history.

Whatever the explanation of the Community's economic difficulties, and although signs of improvement are visible, they have not provided the ideal circumstances for a reduction in interregional disparities, as pointed out in previous Periodic Reports.

More detailed analysis of the trends at regional level reveal a mixed picture. In terms of their capacity to generate income (defined in terms of Gross Domestic Product (GDP) and expressed per head of population), there is evidence of a general narrowing of disparities across the regions as a whole. Up to 1991—the latest year for which a complete data set exists—statistical measures which take into consideration the

situation of all regions point to a slow but steady reduction in disparities in output per head in general. Even so, the gap between the richest and poorest regions remains considerable. For example, in 1991, the top 10 regions had an average income per head some 3½ times greater than the bottom 10. With the new German Länder included the difference is $4\frac{1}{2}$ times.

The figures also suggest that border regions in the Member States tend to be poorer than the rest of the country. This is not a uniform tendency, and especially in Belgium the difference in their income per head is small.

With regard to unemployment rates, disparities which narrowed at the end of 1980s widened again in 1992 and 1993. Unemployment in 1993 in the 10 worst-affected regions averaged 25.3%, some 7 times higher than the 10 least-affected regions where the rate averaged 3.6%. The regions with the highest rates of unemployment – in Spain, Southern Italy, Ireland and Northern Ireland – are often those where working-age population and labour force are growing the fastest.

While it was expected in the last Periodic Report that labour supply growth would slow down, this now seems by no means certain. In part this is because of the possible persistence of the higher levels of immigration into some parts of the Community which have been a feature of recent years. More importantly, it is because there are as yet no signs that the

upward trend in female activity rates is slowing down especially in those parts of the Community where they are relatively low. In general, demographic factors cannot be counted on to solve the Community's unemployment problems, especially at regional level, although falling numbers of young people in certain areas should help to reduce levels of youth unemployment.

The unemployment problems also reflect the failure to create jobs at the rate required to offset the long-term decline in agricultural employment – a process which has yet to run its full course in most regions – and the job losses caused by the restructuring of industry.

An examination of selected sectors within industry shows widely different experiences. In textiles and clothing, which is strongly represented in the weaker regions of the Community, both output and employment are under threat. In automobiles and aeronautics, rationalisation and the reorganisation of production threaten employment although the longer term trend in output is upward. Both activities have been hard-hit by the global recession and the job losses have contributed to rising unemployment in some of the Community's central regions, although rates seldom approach those in the Community's worst-affected regions in the South and Ireland.

Also considered in the report is the defence sector, an amalgam of industrial and service activities brought together by their shared dependence on public defence budgets which are under threat in virtually all Member States. The outcome for the regions in which production is located is uncertain. Community producers are not entirely dependent on domestic markets but the restructuring of output towards non-military uses seems to offer the best longterm policy. At the same time, the run-down or closure of military installations - often located in remote and rural areas - will also affect the regions to varying degrees depending on the extent of local linkages while the effect on unemployment of a reduction in military personnel will tend to be more widely spread.

Factors behind the disparities

The disparities between the regions reflect their different underlying circumstances: a combination of historical patterns of development and the capacity to adapt to the rapidly changing world of the late twentieth century.

Uneven patterns of development, historically, have resulted in widely different endowments in infrastructures (transport, energy, telecommunications and the environment) and in human capital (the knowledge and skills accumulated in the workforce) which are basic conditions for efficient production. Disparities in incomes per head are strongly associated both with poor levels of infrastructure provision and lower levels of qualification of the labour force. Compared to the rest of the Community, the regions of Greece, Spain, Ireland and Portugal tend to have fewer roads, fewer motorways (and higher roadaccident rates), fewer and more outdated rail lines, fewer telephone lines, poorer access to the major energy networks and are less likely to be connected to waste and water supply systems. The differences remain stark even after standardisation for population and land size.

New Commission figures throw these disparities into sharp relief. For example, the provision of motorways in Ireland and Greece is less than 10% of the Community average. In Portugal there is an average of only 27 telephone lines per 100 inhabitants - less than half the density in most Northern Member States. In Portugal and Greece, only 10% of the population is connected to a waste water treatment facility (a particular difficulty given the importance of tourism in these areas) whereas the figure is over 80% in most Northern Member States. There are often wide differences in the levels of qualification of the workforce, although the situation is changing rapidly. The weight of the past remains important and whereas in the Community as a whole, for example, less than one in five adults had not completed an education beyond primary level, in Greece the figure is one in two adults and, in Portugal, three in every four adults. This is one factor in the explanation of relatively low rates of female participation in these areas.

The knowledge and skills accumulated in the workforce are critical for the competitiveness and adaptability of regional economic structures, a feature which is closely linked to research and technological development activity (RTD). Adjusted for the size of their workforce, Greece and Portugal have only 20-25% of employment in RTD compared with the more advanced Member States. This is only one aspect of the handicap suffered by the weaker Member States and regions. Others include a comparative absence of private sector involvement, and the absence of a financial environment attuned to the risks of innovatory activities. Nevertheless, the evidence suggests that a major investment programme in research facilities in the Community's weaker regions is not the most direct or cost-effective solution since new technology can be acquired externally. What is more critical is the capacity to absorb and exploit new technology which is often lacking and which therefore implies a need to establish appropriate systems for technological transfer. A key difficulty in the weaker regions, however, is a lack of receptiveness to RTD: a failure of businesses both to recognise the importance of RTD and to establish a business ethos based on the continuous introduction of new products and processes. This suggests a role for the transfer of appropriately qualified personnel from stronger to weaker regions, demonstration projects and other measures which will help persuade firms of the relevance of RTD to their business prospects. This is especially relevant to small and medium-sized enterprises which are often a key source of innovations.

Many of the handicaps affecting the weaker regions can be alleviated through new investment. There is encouraging evidence that the weakest Member States – with the support of the Community's Structural Funds – are investing more heavily in infrastructure than the rest of the Community. In the four poorest Member States, real investment in transport more than doubled between 1989 and 1993 (much more on roads than on rail) while in Spain and Portugal annual investment in telecommunications trebled – albeit from a very low base – in the five years up to 1991. Since the latter investments em-

body the latest technology, it has enabled the weaker regions to achieve relatively high rates of access to the digital services which are essential data transmission systems.

Investment in transport, energy and telecommunications is vital to overcoming natural, geographical disadvantages often suffered by the Community's peripheral regions and islands. Geographical peripherality, however, is not the same as economic peripherality, a fact which should become even clearer with the enlargement of the Community to include distant but often relatively prosperous Nordic regions. Currently planned investment in passenger transport networks is an important step towards reducing the economic effects of geographical peripherality. Analysis of the effects of these improvements suggests that the main benefits are likely to accrue to many regions in Greece, Ireland and Southern and Western parts of the Iberian Peninsula, reducing the time it takes to travel to Europe's main economic centres. It is therefore of critical importance that these projects are carried out.

Improvements in telecommunication networks will also increase the accessibility of peripheral areas although they are not the substitute for transport that is sometimes thought. On the contrary, contacts established by telephone — and along the information highways of the future—are likely to lead to increased demand for passenger and freight traffic. Transport and telecommunications networks are, therefore, essentially complementary.

In relation to energy infrastructures, improvements in terms of the inter-connection and inter-operability of energy networks, and regional access to these networks, will help to improve regional development prospects.

The evidence shows that new investors are acutely aware of infrastructure and human resource endowments when taking their decisions about where to locate, placing both features at the top of their list of requirements. Modern firms tend to seek a combination of favourable features rather than being attracted by any single factor — which differ from activity to activity — when deciding where to invest.

One important factor which has favoured Community regions as a whole as a location for new investment has been the creation of the Single Market. This has led to a massive (gross) inflow of foreign direct investment (FDI) into the Community from third countries estimated at nearly 120 billion ECU between 1986 and 1991. When combined with the flows between Member States - some 150 billion ECU between 1986 and 1991 - FDI represents a significant source of potential investment for the Community's weaker regions and, except in the case of Greece, has outstripped the transfers from the Structural Funds. All of the weaker Member States are net beneficiaries of those FDI flows as are Belgium/Luxembourg and the UK. In the weaker Member States, the flows from their Community partners are the most important whereas the UK is a major recipient of FDI from third countries.

The Community's problem regions and regional policies

It was against a background of wide regional disparities, and the potential impact of the competitive forces unleashed by the Single Market, that the Community introduced the reform of the Structural Funds in 1988. Three types of problem region were defined in terms of the Objectives of policy action: Objective 1 (regions where development was lagging behind), Objective 2 (regions in industrial decline), and Objective 5b (rural problem areas). Defined in this way, in 1989, 140 million people in the Community lived in problem regions – half of them living in the weakest (Objective 1) regions – and in 1990, 16 million people of the former GDR were added (under special provisions).

The performance of these regions over time has been mixed. On the positive side, many Objective 1 regions have been converging towards the more prosperous parts of the Community, although there are wide variations from region to region. The performance of Ireland, Spain and Portugal has been most

encouraging. Here, annual economic growth has averaged $\frac{3}{4}\%$ to $\frac{13}{4}\%$ above the rate for the Community as a whole since the mid-1980s. The situation in Greece as well as in Southern Italy and Northern Ireland on the other hand, is considerably less encouraging and the economic performance of these regions seems to be deteriorating relative to the rest of the Community.

Catching up remains a long-term challenge and the gaps remain wide even with a growth differential on the scale achieved over recent years by Spain, Ireland and Portugal. In 1993, GDP per head was some 22-24% below the Community average in Spain and Ireland and 40% below in Portugal.

Many of the Objective 1 regions which have shown improvement in terms of GDP have achieved this primarily through increases in productivity. The effect on employment and unemployment has been less significant. Because their labour force has grown, unemployment in Objective 1 regions as a whole has increased significantly since the mid-1980s. In 1993, one in six of the labour force was out of work, 50% above the Community average.

Employment in the Objective 1 regions is still disproportionately concentrated in traditional activities. Whereas these regions account for around 16% of total employment in the Community, they account for nearly 50% of employment in agriculture. In some regions the share of agricultural employment is still as high as 40% compared to a Community average of under 7%. The corollary is that service employment is often 10 percentage points or more below the Community average. Experience suggests that agricultural employment will decrease while many of the new jobs will be in services. The new opportunities may therefore tend to be of particular benefit to women many of whom are likely to be new entrants to the labour market. As a result, the effect on unemployment might well be small.

The labour market situation is particularly important in Objective 2 regions since in these areas a reduction of unemployment is the principal aim of Community policies. Here, developments appear to have been favourable with unemployment falling by nearly 3 percentage points between 1986 and 1993 while in the rest of the Community it remained virtually unchanged. This appears to reflect high rates of job creation in Objective 2 areas, up by 13% between 1986 and 1993, nearly double the rate of increase in the Community as a whole.

Employment increased in Objective 5b areas at the same rate as in the Community as a whole. The result was a fall in unemployment rates of 1 percentage point between 1986 and 1993, which may reflect some decline in the labour force in rural areas, perhaps due partly to outward migration of population of working age.

While falling short of a full evaluation of assisted regions, the trends in income per head, employment and unemployment are important points of reference for the Community's new structural policies beginning this year (1994). This new phase of regional policies will need to address a number of specific problems, such as the poor economic performance of Greece, Corsica and Sardegna as well as the general problem of persistently high unemployment in the Spanish Objective 1 regions, Southern Italy, Ireland and Northern Ireland. The latter areas represent the most acute aspect of the Community's general failure to create jobs, as compared with the US and Japan, discussed in the Commission's White Paper Growth, Competitiveness and Employment.

The Community's assisted regions enter the new programming period with considerably increased resources compared to the previous phase, 1989-1993. These resources will be concentrated on the four poorest Member States which will receive 70% of the available funds (including the Cohesion Fund) compared to 63.5% (under all three regional objectives) in the previous period.

Total population coverage under the Structural Funds has increased from 43% to just under 52% of the Community total, although half of the increase is due to the inclusion of the new Länder. The increase in coverage is also a response to the regional effects of the general economic deterioration described above, as well as to a number of specific factors, such as the reform of the Common Agricultural Policy and

increased international competition following the conclusion of the Uruguay Round of the GATT.

The additional resources are accompanied by a strengthening of procedures designed to improve the efficiency of regional development programmes coupled with a simplification of the decision-making process. By the end of the decade the Community's regional policies are likely to finance around 5% of investment in Objective 1 regions which could rise to between 7 and 13% in the four poorest Member States, beneficiaries of the new Cohesion Fund. Used to finance new infrastructures (such as the trans-European networks referred to above) and additional productive investment, these resources can be expected to accelerate the process of transformation and modernisation of the Community's weakest regions which the programmes implemented since 1989 under the previous planning period have contributed to.

The new generation of regional development programmes will also be complemented by Community Initiatives which are designed to reinforce the actions contained in the programmes as well as to introduce fresh innovatory measures. The new phase will maintain a degree of continuity with the past with a combination of geographical initiatives (eg INTERREG for action in border areas, including energy networks, REGIS for areas of extreme remoteness, LEADER for rural development) and sectorally-inspired initiatives (to promote diversification in areas dependent on older industries such as coal (RECHAR), steel (RESIDER), textiles (RETEX) as well as defence (KONVER)). New departures include URBAN (actions in cities in crisis), PESCA (diversification in fisheries areas), ADAPT (to promote actions in anticipation of changing systems of production) and an initiative for small and medium-sized enterprise development.

The full effects of the Community's new generation of policies, especially where they concern new infrastructure and improvements in labour force skills, will only emerge over the longer term. However, Community policies in these areas are unlikely to be enough. Other conditions need to be satisfied before some regions are able to reduce the gap with the rest.

Member States' own policies to promote development in their regions have an important role to play. Here, the changes have been far-reaching over the past decade with many Northern Member States withdrawing from large-scale automatic support for new business investment in favour of selective assistance to smaller enterprises. Urban problems and rural development problems also appear to be attracting greater support.

These changes to national regional policies largely concern incentives to business and are not, therefore, directly comparable with Community regional policies which also focus on infrastructure especially in Objective 1 regions. Nevertheless, the reductions in expenditure which have tended to accompany the adoption of a more selective approach in Northern parts of the Community will have to be compatible with the need to conform with the additionality conditions under the revised Structural Funds.

Deepening and widening in the 1990s

Over the rest of the decade, the Community will take further steps towards integration. Stage 2 of the process leading to economic and monetary union (EMU) has already been reached while the final stage, a single currency, will help regional development insofar as it reduces transaction costs and eliminates exchange rate risk. At the same time, Member States will lose certain fiscal and monetary policy options as well as the ability to adjust the exchange rate. In a single currency system, Member States will have to adopt policies which avoid macroeconomic imbalances but this will also create the conditions for faster growth and help the weaker Member States, in particular, in their efforts to promote real convergence. On economic grounds, the delayed entry of the weaker Member States into a single currency area would therefore be undesirable.

EMU places additional importance on structural policies as a means of maintaining regional compe-

titiveness. The need to accommodate structural policies to the stricter fiscal and monetary disciplines of EMU is being recognised in the implementation of the revised Structural Funds regulations by a positive response to request for higher rates of Community intervention within the limits laid down. There has also been an extension of eligible areas of expenditure to include education and health. This will ease the pressure on national budgets but it remains of paramount importance that any reductions in public expenditure necessary to meet the macroeconomic convergence criteria agreed in the Maastricht Treaty be accompanied by a restructuring of expenditure to maintain investment and improve the competitiveness of the weaker regions. In this way, nominal and real convergence can be mutually compatible objectives.

The movement towards EMU, and the increased importance accorded to Community structural policies, are manifestations of closer integration and greater sharing of decision-making agreed by the Community's governments when they signed the Maastricht Treaty in December 1991. These developments, towards a deepening of the Community, have been accompanied by a process of widening, or enlargement which has taken place at irregular intervals since 1973.

The regions of the ex-GDR have now been part of the Community for nearly 4 years. This has been a period of profound restructuring for the East German society and its regions. Output and employment have fallen markedly (by one-half and 40%, respectively) and regional unemployment rates have reached 13-15%. At the same time, a massive programme to reshape and modernise the economy has begun with investment rising to 50% of GDP compared to an average of 20% in the Community as a whole. This has contributed to substantial improvement in productivity although the new Länder remain heavily dependent on public transfers from West Germany, equivalent to 4.5% of West German GDP in 1993.

In addition, as new Objective 1 regions, the new Länder will receive 13.6 billion ECU (at 1994 prices, excluding Community Initiatives) from the Structural Funds over the period 1994-99. The challenge is

to help produce competitive businesses and regional economies capable of generating the output and new employment which will allow standards to converge towards those of the rest of the Community.

At the beginning of 1994 accession agreements were concluded with the governments of four countries of the European Free Trade Association (EFTA): Sweden, Norway, Finland and Austria. These countries are already well integrated into the Single Market under the EEA agreement.

Unlike previous enlargements of the Community the EFTA countries will not in general contribute to a widening of regional disparities between Member States. Their average level of GDP per head is almost the same as that in the Community while unemployment rates have historically been much lower, though they have increased significantly during the present recession. They will, accordingly, impose relatively little additional burden on the budget for the Structural Funds which will rise by 5.9 billion ECU (1995 prices) or 4.5% as compared with an increase in the Community's population of 7.4% (and a rise in land area of 50%). Finland, however, represents something of an exception. Here, there has been a large fall in output and regional unemployment rates have reached 20%, largely as a result of a severe reduction in exports to the ex-Soviet Union, with which Finland had extensive trading links. It will be the only new Member State of the four to be a net recipient from the Community's budget.

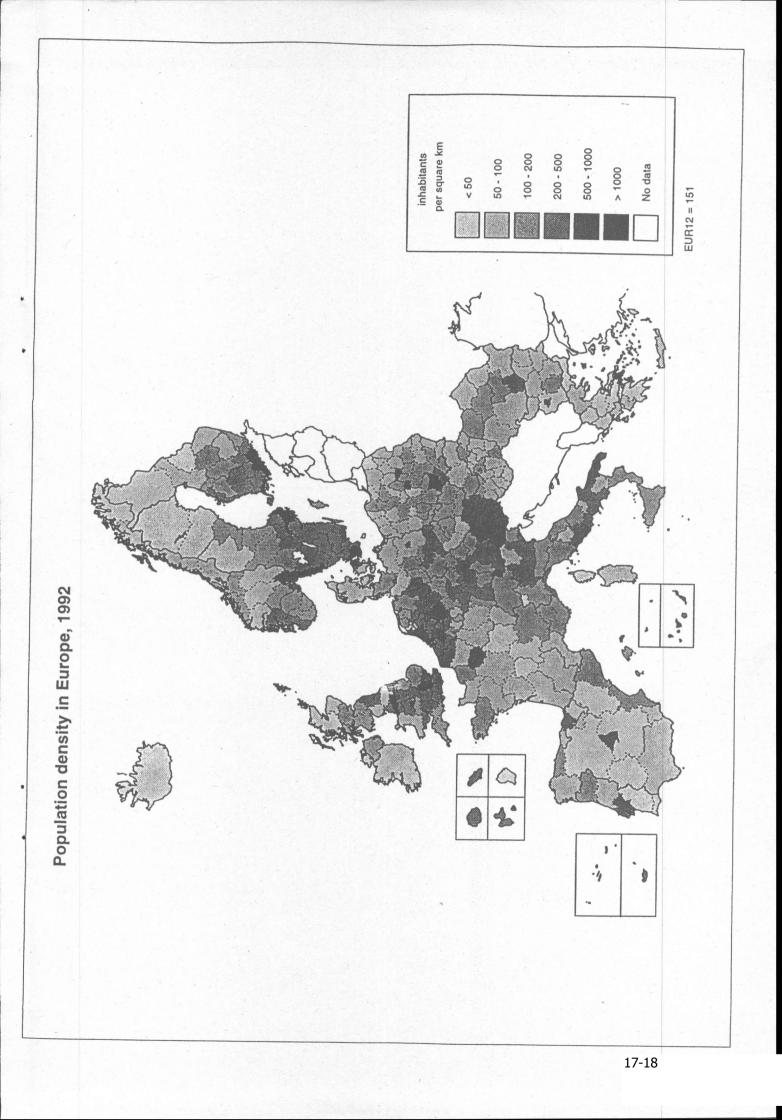
The regions of the four countries share many of the problems of other parts of the Community. There are differences in the underlying causes, however, and the recognition of this was instrumental in the agreement to the creation of a new Objective 6 under the Structural Funds to accommodate the particular difficulties in the sparsely populated, climatically extreme regions of Northern Scandinavia. Total population coverage under Objective 6 will be 1.9 million (half of one percent of the total of the enlarged Community or between 5 and 17% of national population in the three countries concerned), with a budget of 1.1 billion ECU for the period 1995-99. The only region meeting the criteria for Objective 1 is in Austria (Burgenland on the Eastern border with

Hungary with 3.5% of national population). The other regions of the four countries will also be considered by the Commission for assistance under Objectives 2 and 5b on a comparable basis to the exercise undertaken for the present Community in 1993/94.

Enlargement to include the four EFTA countries will create an entirely new and extensive set of border regions with a new set of neighbours in the countries of Central and Eastern Europe.

The Visegrad countries (Poland, Hungary, the Czech Republic and Slovakia) have undergone dramatic economic transformation since 1989. Poland and Hungary have formally applied for membership of the Community. Severe recession, caused partly by the break-up of old trading relations, and economic restructuring have resulted in massive falls in output and high unemployment in most parts (the Czech Republic is the main exception). The regional impact has been extremely uneven. In general, economic conditions tend to deteriorate - in terms of unemployment, number of private firms, investment flows and quality and density of infrastructure - with distance from Western Europe, especially its capital cities. An East-West and urban-rural divide has been strengthened. Certain of the urban areas have also attracted most of the inward foreign investment.

More general fears that the new opportunities created in Central and Eastern European countries would divert investment away from the Community, and especially its weaker Member States, appear so far to be unfounded. Moreover, any diversion of investment is likely to be more than offset by the increased trading and commercial opportunities for Community businesses generated by a successful reform in the East. Trade, however, is a two-way process and Central and Eastern European countries are already offering strong competition to Community producers in certain sensitive sectors such as steel, textiles and agricultural products though on a comparatively small scale so far. Overall, however, adjustments entailed by this competition are unlikely to rival those already demanded both by international trade with Japanese and Asian producers and by the advent of the Single Market itself, and, from a long-term perspective, are equally inescapable if further economic progress is to be achieved.



Section A Main regional trends

Population and labour force to the end of the century

Trends in output in the regions

Employment and unemployment trends and differences in the regions Employment Unemployment The situation and prospects of selected sectors

Chapter 1 Population and labour force to the end of the century

Recent evidence points to the likelihood of a more rapid increase in the Community's population than expected in the Fourth Periodic Report¹. Immigration is a significant part of the explanation although, in addition, people are living longer while the extremely low birth rates which now prevail may be starting gradually to rise again. Labour force in many regions can be expected to increase as a result of inward migration and if the trend towards higher female participation continues.

The last ten years

There were a number of important demographic changes in the Community over the last ten years:

- the total population (including the former East German Länder) increased by 0.3% a year from 337 million to 347 million people;
- the proportion of young people aged 0-14 in total population fell by 2 percentage points, from 20% to 18%, while the proportion of older people aged 65 and over increased by 2 percentage points from 13% to 15%;
- the total Community labour force rose significantly from 143 million to 157 million people, almost 1%

- a year, as a result of increasing participation among women and inward migration;
- the proportion of the labour force aged 15-24 declined from 20% to 16% as a result of falling birth-rates some two decades earlier and increasing numbers remaining in education;
- the proportion of total labour force aged 50-64 declined from 21% to 19% because of earlier retirement among men.

The extent to which such trends will persist into the next century in different countries and regions is important for economic prospects and potential labour market pressures.

Previous forecasts

Previous studies undertaken in the 1980s suggested that the population of the Community would tend to stagnate during the 1990s. Such an outcome now seems to lie at the low end of expectations and the most recent evidence points to the possibility of population growth in the 1990s at a rate approaching that of the 1980s. There are three main reasons why population growth may continue.

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Major de		oour force growth (%)		n EUR12

	1985-1990	1990-1995		1995-2000		2000-2020	
		Low	High	Low	High	Low	High
5 30 20 30	Average	annual	populatio	n growth			
Total	0.3	0.3	0.6	0.1	0.5	-0.2	0.5
of which							
persons aged 0-14	-1.2	-0.4	0.3	-0.5	0.8	-1.0	0.2
persons aged 15-64	0.5	0.2	0.4	0.1	0.3	-0.2	0.2
persons aged 65+	1.8	1.5	1.7	1.1	1.5	0.9	1.6
	Average	annual la	abour for	e growth	i e		
Total	1.1	0.3	0.9	0	1.1	-0.4	1.0
of which							
men	0.5	-0.1	0.4	-0.2	0.5	-0.5	0.5
women	1.9	1.0	1.5	0.4	2.0	-0.3	1.6

Table 2
Major demographic and labour force trends in EUR12
Absolute growth (million)

1985-1990	1990-1995		1995-2000		2000-2020	
	Low	High	Low	High	Low	High
To	tal popul	ation grov	wth			
5.0	5.1	9.5	2.1	9.7	-13.3	33.1
2.9	2.5	4.5	0.9	5.9	-18.3	18.1
2.2	2.6	4.9	1.3	3.8	5.0	15.0
Tot	al laboui	force gro	wth			
7.9	2.6	6.8	0.4	9.0	-12.8	32.8
5.2	3.3	4.7	0.9	2.6	-11.2	3.8
-1.3	-2.1	-1.2	-1.8	0.4	-3.3	6.3
3.9	1.4	3.3	1.2	6.0	1.7	22.8
	5.0 2.9 2.2 Total 7.9 5.2 -1.3	Total popul 5.0 5.1 2.9 2.5 2.2 2.6 Total labour 7.9 2.6 5.2 3.3 -1.3 -2.1	Low High Total population grov 5.0 5.1 9.5 2.9 2.5 4.5 2.2 2.6 4.9 Total labour force grov 7.9 2.6 6.8 5.2 3.3 4.7 -1.3 -2.1 -1.2	Low High Low Total population growth 5.0 5.1 9.5 2.1 2.9 2.5 4.5 0.9 2.2 2.6 4.9 1.3 Total labour force growth 7.9 2.6 6.8 0.4 5.2 3.3 4.7 0.9 -1.3 -2.1 -1.2 -1.8	Low High Low High Total population growth 5.0 5.1 9.5 2.1 9.7 2.9 2.5 4.5 0.9 5.9 2.2 2.6 4.9 1.3 3.8 Total labour force growth 7.9 2.6 6.8 0.4 9.0 5.2 3.3 4.7 0.9 2.6 -1.3 -2.1 -1.2 -1.8 0.4	Low High Low High Low Total population growth 5.0 5.1 9.5 2.1 9.7 -13.3 2.9 2.5 4.5 0.9 5.9 -18.3 2.2 2.6 4.9 1.3 3.8 5.0 Total labour force growth 7.9 2.6 6.8 0.4 9.0 -12.8 5.2 3.3 4.7 0.9 2.6 -11.2 -1.3 -2.1 -1.2 -1.8 0.4 -3.3

First, and most importantly, there has been much higher inward migration than was foreseen. Over the period 1985 to 1992, there was a net inflow of well over 5 million people (around 4 million more than anticipated in the Fourth Periodic Report). Secondly, contrary to prior assumptions, life expectancy is continuing to increase. Thirdly, previous expectations for the birth rate in the 1990s seem to have been too cautious and the decline in fertility rates in the South of the Community now seems to be coming to an end, while in some Northern countries (eg in Denmark and the Netherlands) women aged 30 and over are having more children than was foreseen.

The underestimate of population seems likely to apply especially to the four largest Member States and to Germany, in particular, which has experienced much higher immigration than was expected.

For the labour force also, growth could be somewhat faster than previously projected, largely because of the potential increase in the participation of women and immigration.

Projections of Community population to the year 2000

In view of the high degree of uncertainty surrounding future population developments, the approach adopted was to construct scenarios which represent informed hypotheses on future changes in the key demographic variables: fertility, mortality and migration. These scenarios set the expected upper and lower limits for population change over the coming years.

By the year 2000, they foresee a Community population of between 351 and 363 million people as against 344 million in 1990 and, therefore, average growth of between 0.2% and 0.5% a year – compared to 0.3% a year in the 1980s (Tables 1 and 2).

A low scenario

The key feature of the low scenario are:

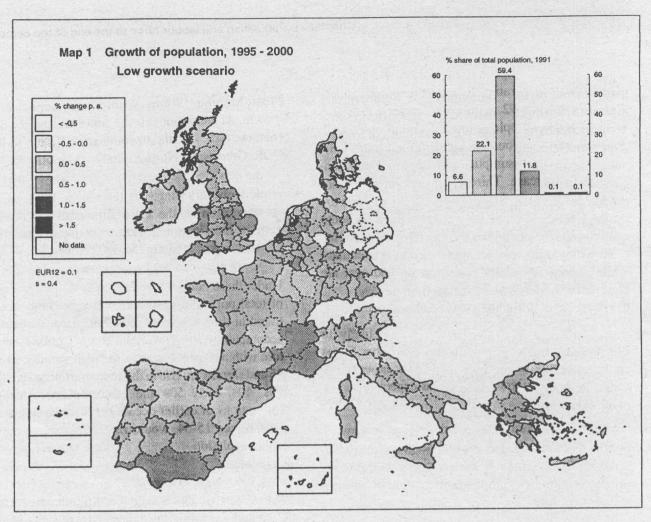
- the persistence of relatively low fertility rates;
- sharply declining, but still positive, net inward migration to the Community from 1 million in 1990 to 250,000 per year from 1994 onwards.

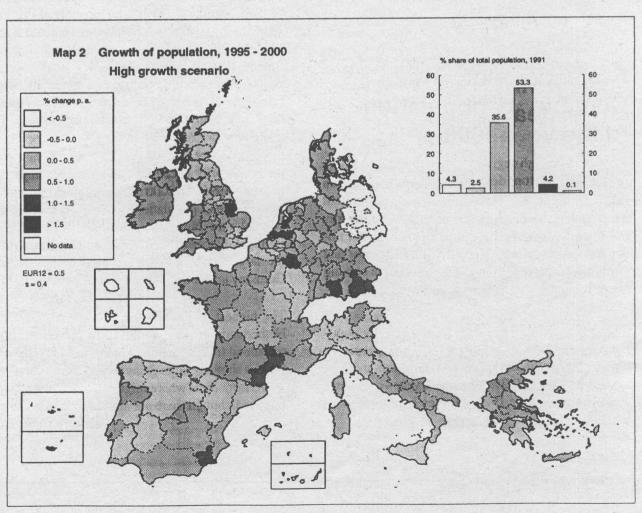
Under these conditions there would be slow growth of total population over the 1990s, largely concentrated in the first half of the decade. This would be accompanied by changes in the demographic structure with a sharp fall in the number of people under 25 and significant rise in the number of people in their 30s, 40s, early 50s and early 70s ('baby-boom' generations of earlier decades). Working-age population, aged 15-64, would rise at a rate in line with total population.

The effects of this would be different across the Community, with the highest growth rates in the Netherlands (0.5% a year) and Luxembourg (0.4% a year). In most other countries, there would be little change and a decline in Germany and Italy. In Ireland, the last half of the decade would also see declining population because of a continuing fall in fertility rates to a level below the so-called replacement rate of 2.05 children for every woman, and continuing high outward migration.

At the regional level, the differences are more pronounced partly because of interregional migration. Between 1995 and 2000 these are likely to contribute to a decline of population in a number of regions in central and Northern France, Northern Italy, Portugal, Northern Spain and parts of the UK, with the largest fall, of almost 1% a year, in Eastern Germany and some parts of Greece (Map 1).

The highest growth would be in Flevoland in the Netherlands – a region which was only recently reclaimed from the sea – of around 3% a year. Other regions showing large gains tend to be along national borders or coasts where migration from elsewhere is expected, though there are also many in some of the





poorer parts of the Community – in Southern and Eastern Spain and Southern Italy – as well as in some of the richer parts – in the West and South of France, Southern Germany and the Benelux countries.

In terms of overall population change, there therefore seems to be no simple divide between North and South.

On the other hand, the projected increase in the population in the age group 15-64 (around 4 million) in the 1990s, would be concentrated in the South of the Community and Ireland (as well as in Flevoland). This would continue to be the case in the second half of the decade. By contrast, in this period, a fall is projected in Germany, especially on the Western border and in the former GDR. Other regions experiencing a fall in working-age population would be concentrated in some of the most prosperous, urbanised parts of the Community – the South-East of England, Ile de France, Brussels and North and Central Italy.

A high scenario

Recent trends in population in the Community indicate a potential for faster growth. What would happen if the current evidence on fertility is indicative of a recovery? What if inward migration remains high? The effects of such trends are explored in the high scenario which assumes:

- a gradual rise in fertility rates
- high levels of inward migration into the Community of 750,000 a year, less than the 1 million experienced in 1990 (but 500,000 more per year than in the low scenario).

Under this scenario, Community population would increase by 19 million over the 1990s, giving a total of 363 million in the year 2000. The previously anticipated slowdown in population growth would not occur and there would be an expansion at a somewhat faster rate than the 1980s.

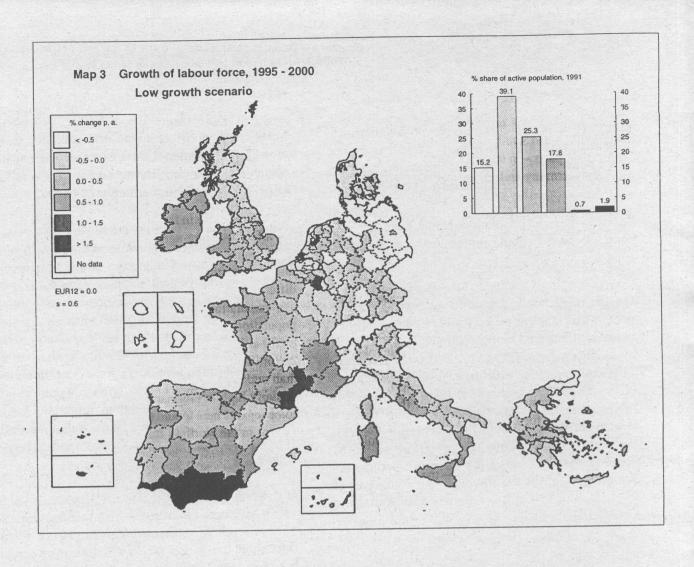
Most Member States would experience some growth. At the regional level, however, there would continue to be decline in some areas (in the former GDR, Greece and Northern Italy – Map 2).

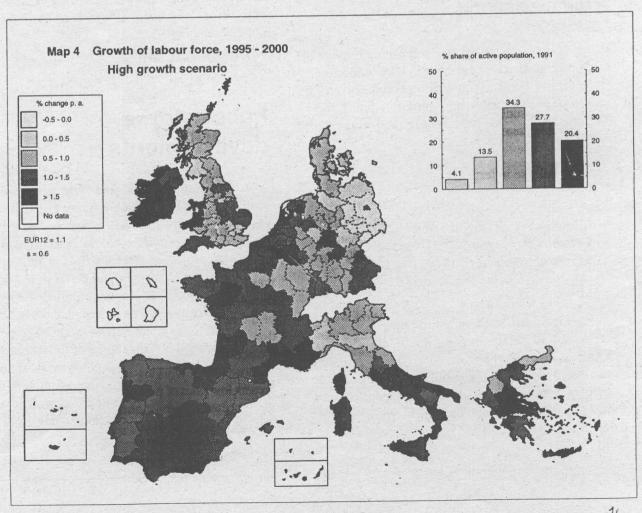
While a recovery in fertility rates in the 1990s would not affect working-age population until 15-20 years later, higher inward migration could increase the numbers in the present decade. Nevertheless, the difference between the two scenarios for working-age population is not so great as those for total population. Overall, working-age population would increase by 7.5 million, or 0.3% a year, to reach 239 million in the year 2000, some 3 million more than under the low scenario. Growth would be particularly high in Germany due to migration, though some regions here would still face a decline, as would regions in the North of Italy, Greece and South-East England.

It is worth noting that the actual data for the early 1990s have been closer to the high scenario because of high levels of migration. This might not persist throughout the decade which will depend on a number of economic and social factors both inside and outside the Community as well as on Member States policies on entry.

Labour force developments

As for population, 'high' and 'low' scenarios have been generated for the labour force. These are based on past trends in participation rates by sex and age. For the low labour force scenario, in addition to a low population projection, recent trends in activity rates (up in the case of women and down in the case of men) are projected to continue during the present decade gradually to come to an end at the beginning of the next century. Although working-age population represents the main source of the labour force, the actual size of the latter depends on participation of those above working-age who continue to work. Present low rates of participation among older people are expected to persist and a limited degree of con-





vergence between Member States and regions is assumed.

In the high scenario, average participation rates for women are assumed to rise continuously (to approach male rates by the year 2020) and for men to increase slightly overall. Activity rates for women in parts of the Community where they are low are also assumed to converge to some extent towards rates in areas where they are high (see Map 5 for details of regional differences in activity rates for women in 1990). Further assumptions, of secondary importance, are that the potential economic pressure imposed by an ageing population is offset by increasing participation among older people, effectively reversing past trends, and, that young people combine work and training to a greater extent than at present and so add slightly to the labour force. These assumptions are applied to the high population scenario described above.

By the year 2000, under the alternative assumptions, a Community labour force of between 160 million and 173 million is projected as against 157 million in 1990, implying growth of between 0.2% and 1% a year, the upper figure being much the same as the rate of increase over the 1980s.

A low scenario

Although female participation rates, measured here in relation to population of 15 and over, are projected to show a modest increase (from 42.4% to 44.1%), male participation rates are projected to decline (from 68% to 66.4%). This would imply growth in the female labour force of some 0.5% a year over the decade, and 0.4% a year over the second half, as compared with growth of the total labour force of 0.2% a year over the decade and virtually no change over the second half. As a result, the share of women in the labour force would rise from 40% in 1990 to 41% in 1995 and 42% in the year 2000.

At the same time, the average age of the labour force would rise slightly as the share of 15-24 year-olds fell from 29 million in 1990 to 24 million in 1995 and to 21 million in the year 2000. This decline, however,

would be more than offset by the growth in the numbers of people of prime working-age, 25-49. Such a shift in composition can be seen as a positive development insofar as the average worker would be more experienced and qualified as compared with the past.

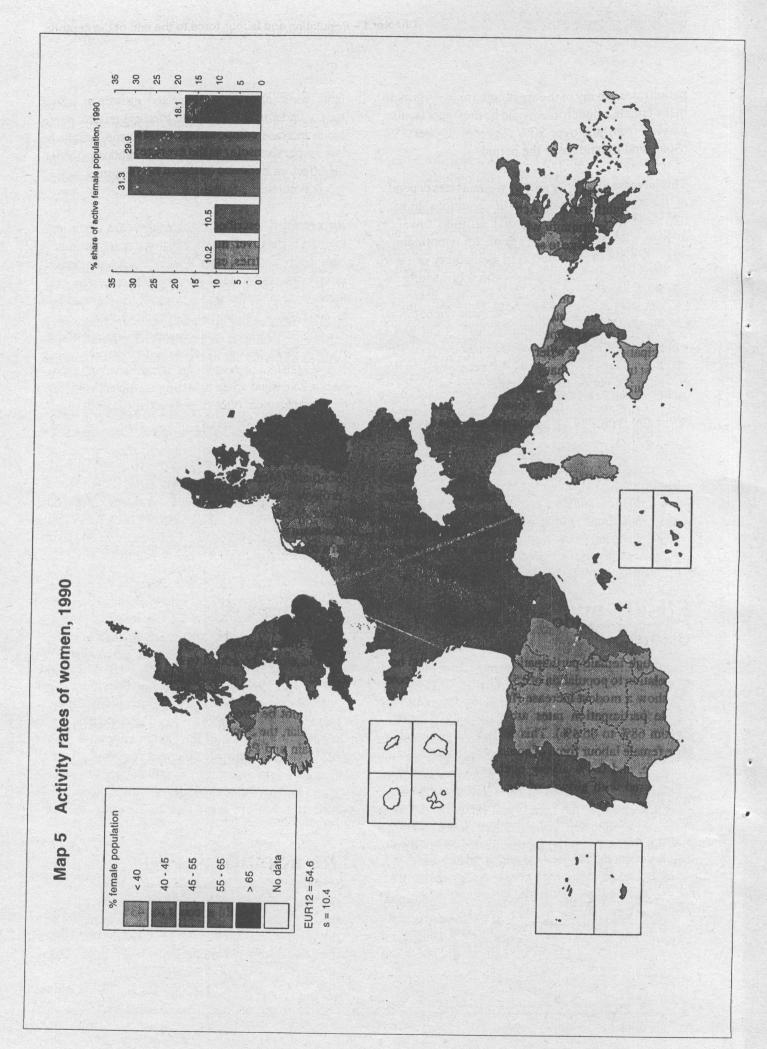
The changes described above would differ across the Community. Over the decade, the labour force in Southern countries, especially Spain and Portugal, as well as in Ireland, the Netherlands and France would grow, while in the seven other Member States, it would remain largely unchanged. In these seven countries, labour force would in fact decline from the middle of the decade onwards or stagnate in the cases of Greece and the UK.

Even in Greece and the UK, however, many regions would experience a fall in the labour force—the South and West of the Greek mainland, for example, and the South-East and North of England and Scotland (Map 3). Particularly large reductions are projected under this scenario to occur in the East German Länder and the North-West of Italy, while the main areas of growth are Southern Spain, Southern Italy and parts of the South of France.

A high scenario

Under the high scenario, by the year 2000, 16 million people would be added to the labour force as compared with 1990, only slightly less than the present numbers unemployed. The additional labour force would not be evenly distributed geographically. In particular, the South of the Community – the whole of Spain and Portugal, Southern Italy and much of Greece would experience significant growth in their workforce over the remainder of the 1990s, as would Ireland, much of France and the Benelux countries (Map 4).

This growth largely reflects the assumption of convergence in participation rates of women. Overall, the female labour force would increase by 18% over the 1990s and would account for 43% of the total in the year 2000 as against 40% in 1990. In the parts of the Community with traditionally low female partici-



pation rates – many of the areas noted above – growth in the female labour force would be most spectacular, varying from just over 20% (Greece) to over 35% (Spain and Ireland) over the period.

This increase in activity among women rates depends on the fulfilment of a number of conditions, in particular, changes in traditional attitude towards women working, development of job opportunities in the service sector, increased availability of parttime employment and flexible working arrangements and the provision of child-care facilities. There appears to have been some moves in these directions in most Member States in the second half of the 1980s when female activity rates increased especially rapidly, though the 1990s may not necessarily be the same kind of period of high employment growth.

While the projected growth in female activity rates is particularly high in the South of the Community and in Ireland, even in these areas the rate of increase is no greater than over the recent past. By the year 2000, rates of participation here would still be below the Community average and around 15 percentage points below the peak levels in Denmark.

Effects on regional unemployment

The potential effects on unemployment in different parts of the Community of the above labour force scenarios are difficult to assess. Because they are only concerned with labour supply, they leave out of account the demand for labour which is even harder to predict. Moreover, it can have a major bearing on participation. If the Community continues to be affected by high and generally rising rates of unemployment, the activity rate assumptions under the low scenario are possibly the more plausible, since recorded rates of participation tend to reflect labour demand and if this remains depressed, it could discourage people from entering the labour market. The potentially large numbers of women who would like to work are likely to remain frustrated by lack of jobs and would consequently not necessarily appear in the unemployment figures. On the

other hand, part of the projected growth in labour supply under the high growth scenario reflects population increases and the people concerned might be less responsive to labour market conditions (though the effect on inward migration of a persistent lack of job opportunities is highly uncertain).

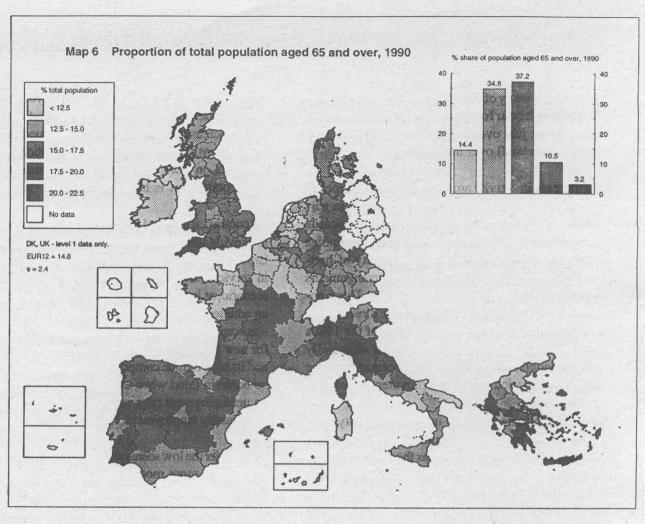
By contrast, if demand for labour grows this would tend to provide the conditions for rising activity rates, perhaps especially for women if the new opportunities are in services, and so increase labour supply. The high scenario, as indicated above, suggests that there may be an additional 13 million people, most of them women —as compared with the low growth scenario—'waiting' for new opportunities to arise. This reserve of labour and its high female component are important factors to be borne in mind when assessing the potential effects on unemployment rates of new initiatives to stimulate Community employment.

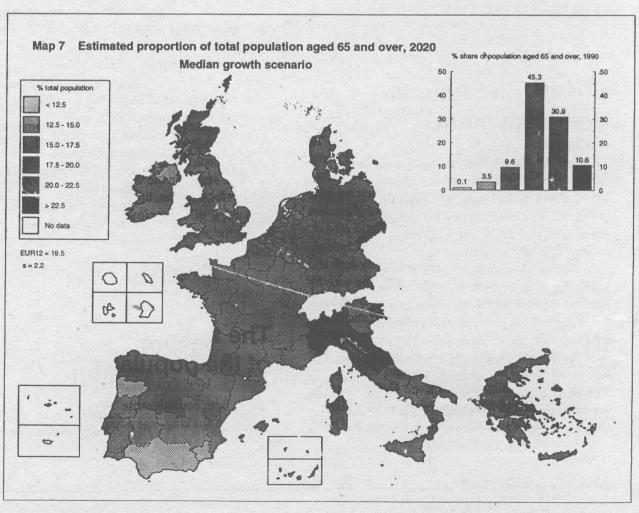
Even under the low scenario, growth in the labour force, though at a more moderate pace, is projected so that neither scenario offers much support for predicitions that demographic factors would resolve the Community's unemployment problems, though there may be some alleviation of youth unemployment.

The above analysis also makes clear that the potential additions to the labour force under the high scenario are unevenly distributed across the Community. A large proportion are located in high unemployment regions. For example, of the 79 regions in the Community with above average rates of unemployment, 52, or 66% of the total, could have faster than average rates of growth in labour supply in the second half of the 1990s. For the worst affected areas, this means that there is the risk of high rates of unemployment on a permanent basis unless the rate of job creation can be pushed to historically high levels.

The ageing of the population

There are considerable uncertainties about the change in working- age population in the Community





over the longer-term, and a fortiori about the change in the size of the labour force. Over the period 2000 to 2020, working-age population could increase by 11 million if the assumptions underlying the high growth scenario are realised. Alternatively, under the low growth scenario, it is projected to fall by 10 million. Under either scenario, what happens to the labour force will also depend on changes in participation rates, which are equally difficult to predict.

There is less doubt that the ageing of the population, which has been a feature of recent years, will continue. By the year 2010 or so, in almost all Member States, working-age population is likely to comprise more people over 40 than under 40, though if the rising participation of women continues, this does not necessarily mean that the labour force will also age in the same way.

After 2010, the ageing effect is likely to more pronounced as the so-called baby-boom generation born in the immediate post-war period passes the age of 65. By 2020, in most parts of the Community, the proportion of people aged 65 or over is projected to be around 20% or more, as compared with an average of 15% at present and 10% in a number of regions (Map 6). The ageing effect will be particularly marked in regions where the birth rate has slowed significantly over recent years. In the North of Italy and Spain, in Germany and large parts of France and the Benelux countries, the proportion of people aged 55 or over could be around 25% (Map 7). By contrast, in Northern Ireland and the South of Spain, the proportion could still be around 15% or less.

Moreover the average age of those of 65 and over is also set to increase as more people live to an old age. Whereas at present, around a quarter of the those of 65 and over are over 80, by 2020, this proportion

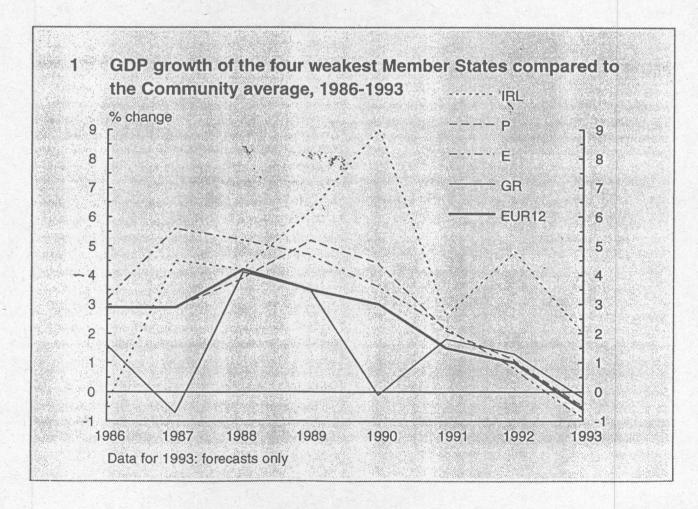
could have increased to a third. Many regions, therefore, will be confronted not only with the problem of supporting more people over the age of retirement but also with that of providing health care and other facilities for growing numbers of very old people.

The new scenarios on population and labour force are derived from:
Eurostat (1991), Two Long-term Population Scenarios for the European Community
Eurostat/NEI (1994, forthcoming), Two Long-term Regional Population Scenarios for the European Union.
Study co-financed by DG XVI of the European Commission.
Eurostat/Ifo (1994, forthcoming), Two Long-term Labour Force Scenarios for the European Union.
Eurostat/NEI (1994, forthcoming), Two Long-term Regional Labour Force Scenarios for the European Union.
Study co-financed by DG XVI of the European Commission.

Chapter 2 Trends in output in the regions

After a prolonged period of slow growth in the first half of the 1980s, the Community economy picked up significantly in the second half of the decade. Growth at the Community level is an important precondition for narrowing regional disparities in output and income (as shown in previous Periodic Reports).

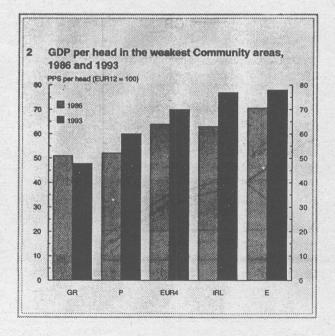
Over the five-year period 1985-1990, real output in the Community grew at an annual average rate of $3^{1/4}\%$ compared to $1^{1/2}\%$ over the previous five years. This was followed, however, by a cyclical downturn which began in the UK in the second half of 1990 and gradually spread to other Member States at the same



time as a more general slowdown in the world economy. The boost to economic activity resulting from German unification and the substantial expenditure in the former East Germany initially allowed the Community to escape the full effects of the global slowdown during 1991 and the economy continued to grow ($1^{1}/_{2}\%$ a year). Since mid-1992, however, growth rates have declined significantly and the Community's economy contracted by around $1^{1}/_{2}\%$ in 1993 although the beginnings of a recovery are evident in 1994.

Trends and differences in the Member States and their regions¹

These general trends were accompanied by considerable variations in the performance of Member States and regions. At Member State level, the net effect of the differences in performance over the past decade can be summarised in terms of a period of slight widening in disparities in GDP, in per capita terms, between 1980 to 1984 followed by a steady narrowing (real convergence).



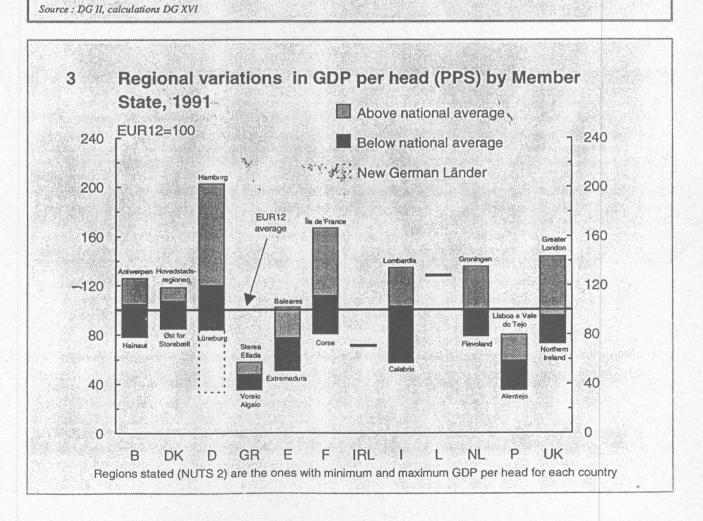
Of particular interest is the performance of the four weakest Member States – Greece, Spain, Ireland and Portugal – relative to the Community average. At the time of the third enlargement in 1986 which brought Spain and Portugal into the Community, the four weakest Member States had an average GDP per head of less than two-thirds (64%) of the Community average. Since then average real growth in these countries has been half a percentage point above average which permitted a slow but steady process of convergence vis-à-vis the rest of the Community. By 1993, average GDP per head in the four countries reached some 70% of the Community average, an increase over 7 years of 6 percentage points (Graph 2 and Table 3).

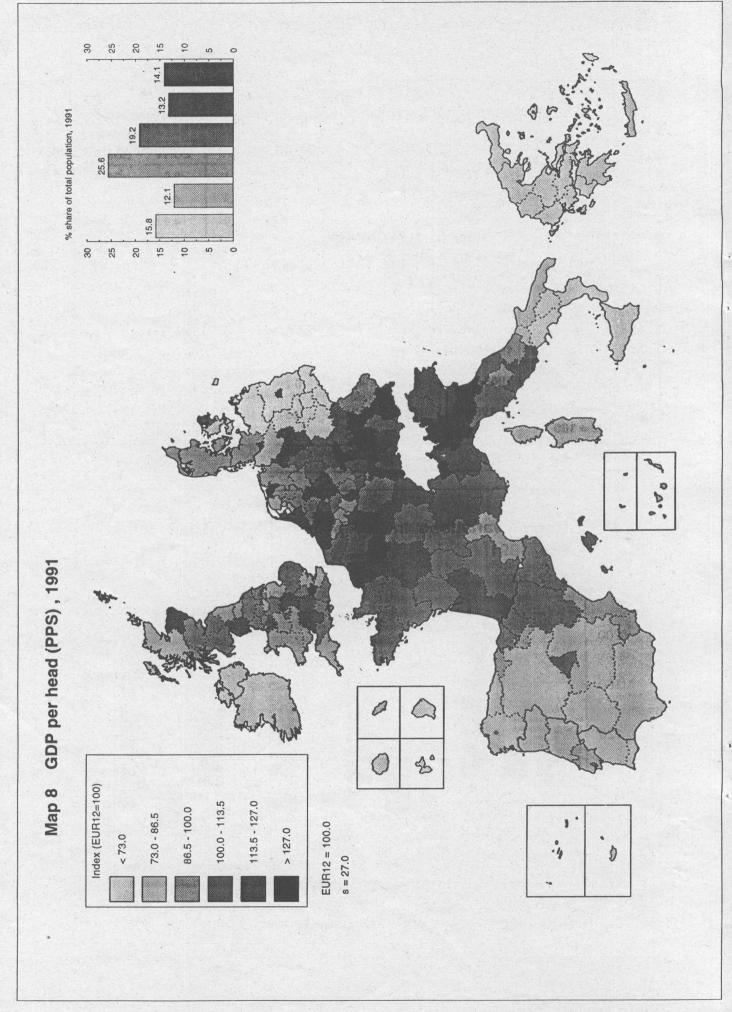
Within the group of four countries, however, there was some variation. The strongest performance was recorded by the Irish economy (with an increase in GDP per head relative to the Community average of 15 percentage points since 1986). A number of factors combine to explain the improving fortunes of the Irish economy. First, Irish macroeconomic policy changed after 1987 to reduce the budget deficit and the accumulating public sector debt and to encourage wage moderation. The success of these policies appears to have provided an element of stability encouraging a recovery in investment by the private sector. Secondly, the ongoing process of attracting major foreign companies seems to have resulted in the establishment of a modern industrial base which began to export strongly at the end of the 1980s under relatively favourable exchange rate conditions. Thirdly, there was a significant loss of population through emigration at the end of the 1980s and this contributed to a raising of GDP expressed in per capita terms. Fourthly, throughout the 1980s and especially after 1988, Ireland has benefited from increasing transfers from the Structural Funds in support of extensive programmes of investment in physical and human capital (see Chapter 8).

Relatively high rates of economic growth were also achieved by Spain and Portugal. For these countries, GDP per head increased by between 5 and 8 percentage points, respectively, in relation to the Community average, between 1986 and 1993. As in Ireland, this appears to have been based on the com-

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Trends and dill	erences in GDP	and Guraleni	nead, 1986-1993

		GR	E	IRL	Р	EUR4	EUR8	EUR12
Annual growth rate	1986	1.6	3.2	-0.4	4.1	2.9	2.9	2.9
	1987	-0.5	5.6	4.5	5.3	4.7	2.6	2.9
	1988	4.4	5.2	4.2	3.9	4.9	3.3	4.3
	1989	3.5	4.7	6.2	5.2	4.7	2.9	3.5
in GDP (%)	1990	-1.1	3.6	9.0	4.4	3.4	1.4	3.0
	1991	3.3	2.2	2.6	2.1	2.3	1.0	1.5
	1992	0.9	0.8	4.8	1.1	1.1	-0.5	1.0
	1993	-0.2	-1.0	2.5	-1.2	-0.7	-0.5	-0.5
	1986-1993	1.5	3.0	4.1	3.1	2.9	2.2	2.3
Annual population growth (%)	1986-1993	0.6	0.2	0.1	-0.1	0.2	0.5	0.4
GDP per head (PPS)	1986	51	71	63	52	64	109	100
EUR12 = 100	1993	49	76	78	60	70	107	100





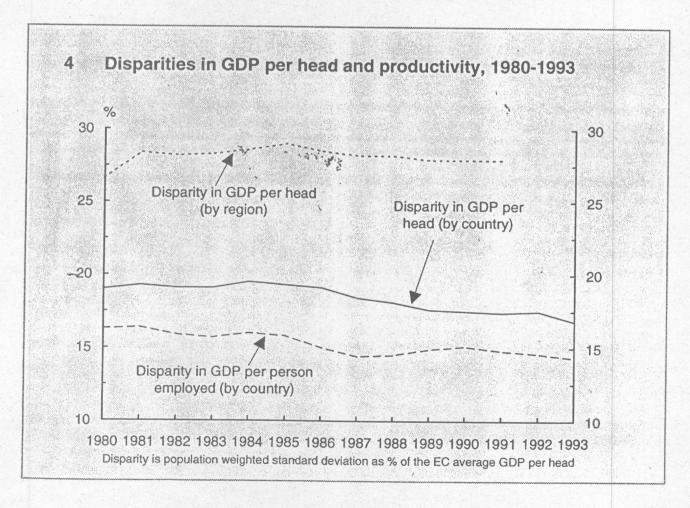
pletion of macro-stabilisation programmes in the first half of the 1980s together with a strong contribution from exports. These countries also attracted substantial direct investment from outside, especially from other parts of the Community.

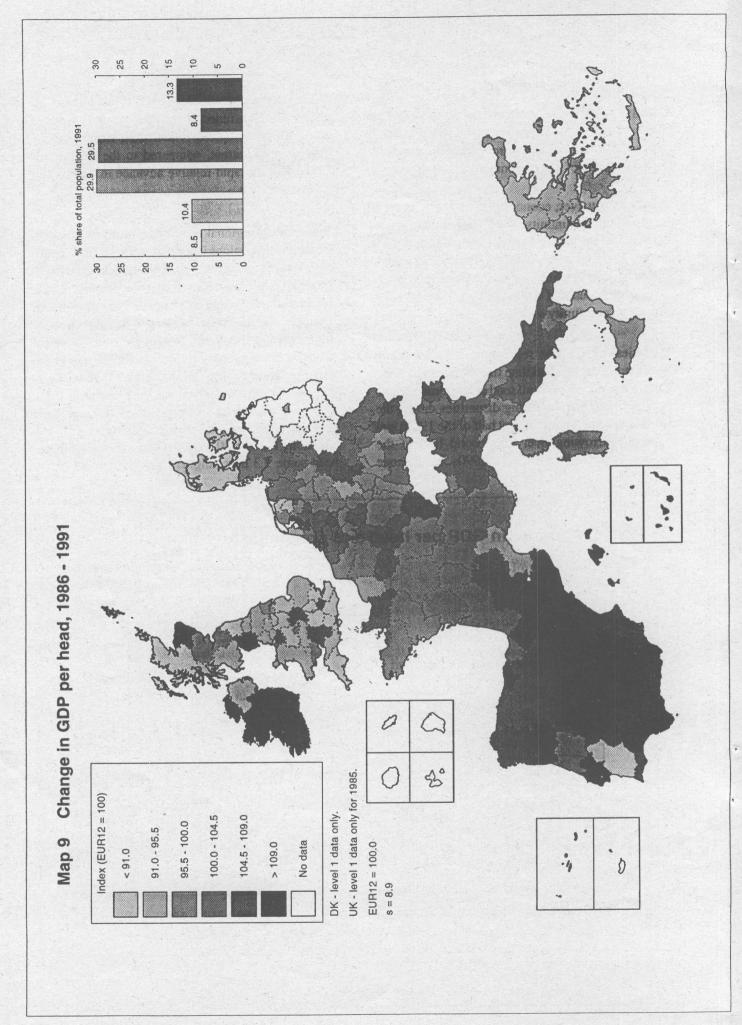
In Greece, however, economic growth fell short of the rest of the Community and GDP per head is now less than half the Community average. It is only since the turn of the decade – and the slowdown in general economic growth – that Greece has achieved a run of 3 consecutive years of economic growth somewhat above the Community average.

Disparities between the regions of the Community show a more varied trend than that between Member States (Map 9). The overall tendency seems to have been one of slightly widening disparities during the slow growth years over the first half of the 1980s and a gradual narrowing over the second half of the decade which levelled off in the 1990s. The change

in the trend in the middle of the 1980s mirrors the change in the fortunes of Ireland and most Spanish and Portuguese regions which went from marking time, or even retreat, compared to the rest of the Community to rapid relative advance in the second half of the 1980s.

This trend of regional convergence refers to all the Community's regions (defined at the NUTS 2 level) aggregated together in a single statistical measure. It is also instructive to examine the position of the regions situated at the extremes and to compare, for example, the 25 richest regions with the 25 poorest regions. Here there was no change over the 1980s, with the 25 richest regions having in 1991 an average GDP per head some 2½ times higher than the average for the 25 poorest regions, the same as in 1980. Narrowing the focus to compare the 10 regions at the two extremes suggests a slight deterioration in the situation. The top 10 regions had average GDP per head some 3.3 times higher than the bottom 10 re-





gions in 1980 but 3.6 times higher in 1991 (Annex, Table A.4). The widening gap between these two groups of regions comes both from the relatively high growth rate of the top 10 regions compared to the Community average and to the weak growth of the Greek economy whose regions (before German unification) accounted for most of the Community's bottom 10.

Disparities between the Member States in terms of a basic measure of productivity – GDP per person employed – followed a broadly similar path to that for GDP per head for most of the 1980s (Graph 5). After a period of little change in the early part of the decade there was a turning point around 1984 when productivity differences between Member States began to decline. There were, however, considerable variations around the trend reflecting the strong influence of the business cycle which impacted on Member States and regions at different times and to different degrees.

An encouraging trend was the higher than average rise throughout the period since 1984 in some of the Member States characterised by below average productivity, notably in Ireland, Portugal and the UK. The widening of disparities in productivity between 1987 and 1990 seems to have been due principally to a slowing down in the growth of GDP per person employed in Spain and UK compared to the rest of

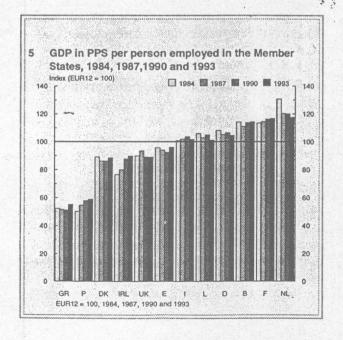
Table A.3). These Member States experienced vigorous economic growth over this period which was accompanied by a significant increase in employment towards the end of the business cycle upturn.

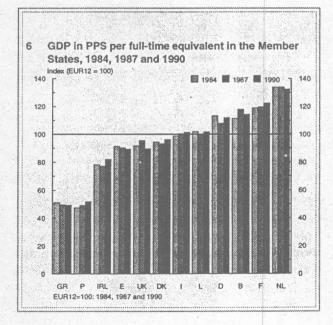
the Community (Graphs 5 and 6 and Annex,

After 1990, disparities in productivity began to narrow again reflecting the continuation of strong performances in Ireland and Portugal, and the fact that the relative decline in productivity in Spain and the UK came to a halt as a result of substantial labour shedding when economic growth began to weaken. In Greece, the low economic growth of the 1980s was associated with a failure to make progress in closing the productivity gap with the rest of the Community throughout the decade, although the most recent data indicate some improvement in 1992-93 (Annex, Table A.3).

Disparities in an enlarged Community

The historical analysis of disparities does not include the new German Länder. Meaningful comparisons for this area with the rest of the Community for the period before German unification would be difficult





and not very meaningful in any case. Estimates for 1991 indicate that average GDP per head in the unified Germany as a whole was some 14% lower than that for Western Germany alone, with GDP per head in the 5 new Länder taken together being only 35% of the Community average. The inclusion of the new Länder had the statistical effect of reducing average GDP per head by 3% in the Community in 1991.

In regional terms, average GDP per head in the new Länder in 1991 was some 5 percentage points below the average for the group of 10 weakest regions before German unification. In fact, when the new German Länder are included in the bottom 10 regions of the Community the difference between the top 10 regions and the bottom 10 widens from 3.6 times to 4.5 times. The future incorporation of the new Länder into the analysis will, therefore, widen disparities in statistical terms. As with the enlargement of the Community southwards during the 1980s, the extension to the East caused by the addition of the new Länder has added further to the heterogeneity of the Community in socio-economic terms. Disparities between East and West Germany are wider than those between the North and South of Italy but this may change if the process of catching-up in the former case which has now begun can be maintained in the coming years.

In view of the possible enlargement of the Community to include four countries (Austria, Norway, Sweden and Finland) of the European Free Trade Area (EFTA) in the course of the 1990s it is also of interest to consider their effect on GDP.

The historical data are particularly revealing. For the four EFTA countries taken together, GDP per head declined from a peak of 10 percentage points above the Community average in 1985 to a level around the Community average by 1992. For Austria, there was little change relative to the Community over this period, but for the Scandinavian countries, especially Sweden and Finland, there has been a precipitate decline in their relative growth performance (Annex, Table A.5).

With average GDP per head in the four EFTA countries relatively close to the average of the Community as at present constituted, there would be no significant change to average GDP per head in the Community after enlargement. In addition, the clustering of the GDP per head of the 4 EFTA countries around the average of the present Community means the inter-Member State disparities would be slightly reduced in statistical terms in a Community of Sixteen. This contrasts with the situation after the last enlargements where disparities widened because the countries concerned, Greece, Spain and Portugal, and the former GDR, had GDP per head well below the Community average.

At the regional level in the four EFTA countries, the available data suggest that there are important differences in economic circumstances and performance. A more complete understanding of these differences compared to the rest of the Community will have to await the full inclusion of these countries in the Community's statistical systems of regional data collection and analysis (though a preliminary analysis is presented in Chapter 12 below).

Concluding remarks

In summary, there is evidence of real economic convergence in regional economic performance over the recent past. Many of the weakest Member States and regions have been able to sustain rates of growth above the Community average over much of the period since the mid-1980s. This has been a slow and gradual process, however, and major reductions in the wide disparities between the richest and poorest regions remain a long-term challenge, as pointed out in the last Periodic Report. Within the general trend there have been Member States and regions showing significant improvement while certain others have experienced a relative decline. These latter regions, together with the regions undergoing profound structural adjustment in the former GDR, are those which present the biggest challenge to national and Community cohesion policies (see also Chapters 8 and 9).

In relation to productivity differences, recent trends have generally been encouraging and certain Member States with traditionally lower than average levels of productivity have gradually converged towards those in the rest of the Community. Productivity gains are essential to improvements in underlying competitiveness and, therefore, to the long-term health of national and regional economies. The real challenge, however, is one of ensuring that productivity gains are accompanied by output growth allowing employment to increase and unemployment to decrease. As the following chapter demonstrates this challenge has proved to be an extremely difficult one for many of the Community's Member States and regions.

In the analysis here disparities are measured in terms of Gross <u>Domestic</u> Product per head which indicates the income generated in Member States and regions by the resident producer units. An alternative measure is Gross <u>National</u> Product per head which measures the resources available after the transfer of factor incomes such as interest payments and dividends. An additional measure is the net national disposable income which includes 'unrequited' transfers from abroad. However, at regional level, data are only available for GDP per head. Net flows of factor incomes out of or into a country or region lead to differences between GDP and GNP which may be substantial in the case of smaller countries or (notionally) for regions. All data for the regions are based on GDP statistics collected by Eurostat using harmonised definitions. Employment data (for productivity estimates) are based on harmonised regional accounts sources for place of work (an alternative source of employment data is the Labour Force Survey (LFS) which is based on place of residence. LFS data do not therefore indicate the employment generated within regions by the resident producer units).

Chapter 3 Employment and unemployment trends and differences in the regions

Employment

The 1980s were a period of net job creation in the Community although this was mainly due to the growth experienced in most Member States and regions in the second half of the decade. After the recession in the early years of the decade, growth in employment resumed in 1984 some 18 months to 2 years after the beginning of recovery in output. By 1991, employment had expanded by $9^{1}/_{2}$ million, a growth of $7^{1}/_{2}\%$ over 8 years.

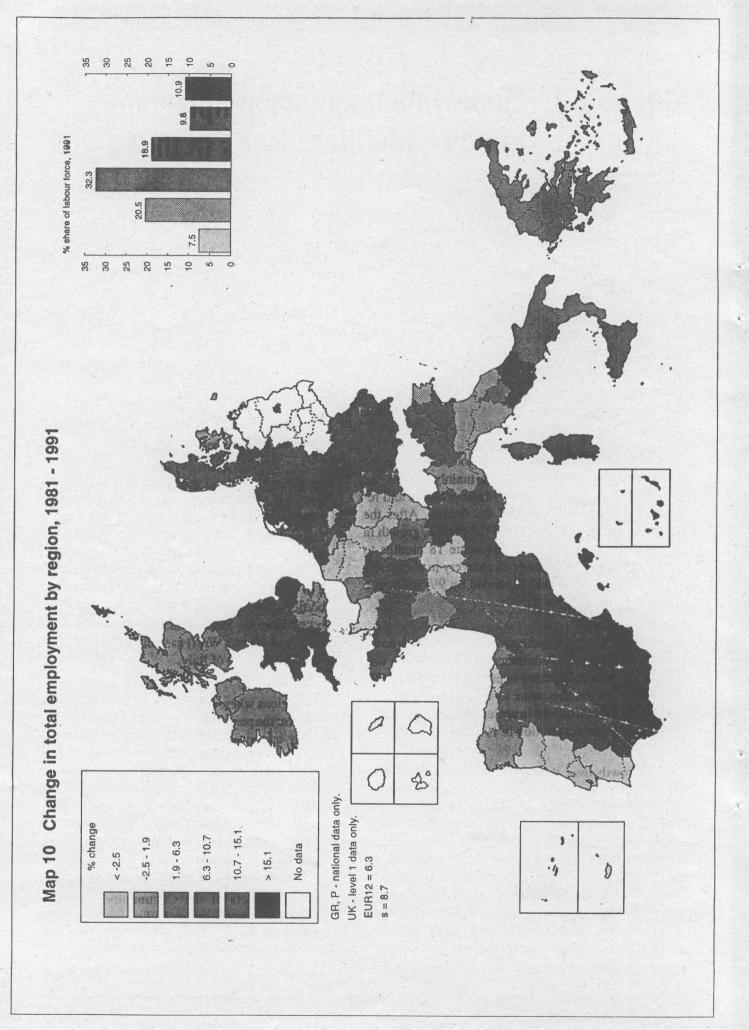
As noted in Chapter 2, there was a marked slowdown in the Community's economy from 1991 which was reflected in a contraction in employment from 1992 onwards. In the two years to 1993, the Community lost some 3 million jobs in net terms and the prospects are for further contraction in 1994.

The growth over the period 1981-1991 was most marked in Luxembourg (24%), the Netherlands and Spain (both 12%) while average or slightly above-average growth rates were experienced in Germany (West) and Italy. In the UK, the growth was slightly below average over the period. The remaining Member States, with the exceptions of Ireland and Portugal, where employment contracted between 1981 and 1991, experienced growth rates between a half and three-quarters of the Community average. In most Member States, experience was more favour-

able in the second half of the decade compared to the first half and in both Ireland and Portugal growth rates were firmly positive in the 5 years 1986-1991.

At the regional level, the pattern is mixed (Map 10), though the fastest growing regions are concentrated in only a small number of Member States: Spain, Luxembourg, UK, the Netherlands and Italy. The highest growth rates over the period were recorded in Central and Eastern regions of Spain (in the range 2 to $2^{1}/_{2}\%$ a year) and Dutch regions on the Eastern border with Germany. High employment growth also occurred in the more rural regions of the UK (East Anglia and South West) as well as Central and some Southern regions of Italy.

The regions where employment declined or failed to rise over the period were mainly old industrial and/or highly urbanised parts of the Community, though they also included some of the less developed areas. The low rate of increase in employment in France as a whole (averaging only ½% a year between 1981 and 1991) was associated with a contraction of employment in many regions such as the rural areas of Limousin and Champagne-Ardenne and the traditional industrial areas of Nord-Pas-de-Calais and Lorraine. As indicated above, in two of the less developed parts of the Community, Ireland and Portugal, employment also declined over the 10-year period as a whole (although for Portugal, data from the Labour Force Survey indicate relatively high



growth in employment). Declining employment in the regions of North Western Spain reflects the difficulties of regions with older industries compared to the Mediterranean 'sun-belt' in the South and East of the country which seems to have attracted much of the new investment.

The changes in total employment have been accompanied by changes in the sectoral composition. Throughout the second half of the 1980s there was a steady increase in service employment accompanied by falling employment in industry and agriculture. In 1990, 61% of total Community employment was in services with 32% in industry and 61/2% in agriculture. The sectoral structure differs widely across the Community. Typically, Northern Member States and regions have the highest concentration of activity in the service sector while Greece and Portugal, and to a lesser extent, Spain and Ireland, lag substantially behind. Among the Northern Member States, employment in services is relatively low in Germany where employment in the industrial sector remains particularly high.

Within Member States, in some cases differences are substantial. As would be expected, there are strong concentrations of service employment in the large urban centres and capital cities, including Athens and Madrid. At the same time, there are still many regions of the Community where the employment structure is extremely traditional, with over a quarter of total employment in agriculture in parts of Greece, Southern Spain, Portugal and Southern Italy. Here, there is the prospect of considerable restructuring in years to come, which involves both risks and opportunities. The risks derive from further decline in employment in agriculture, though the emphasis on income rather than price support under the reform of the Common Agricultural Policy should help to maintain the small family farms typical of many of the less developed areas. The opportunities mainly concern the possibility of service sector growth as a greater proportion of expenditure goes on services as income rises.

Much of the increase in employment in the second half of the 1980s, in the Northern Member States in particular, was part-time. Of the 9 million additional jobs created between 1986 and 1991, one-third were part-time of which 80% were taken by women.

Unemployment

Consistently, since the mid-1980s, the Community has not succeeded in creating sufficient jobs to prevent unemployment from rising steadily. From 1973 to 1985, unemployment in the Community increased inexorably year after year from an average of 2.6% to 10.8%. Although the economic recovery in the second half of the 1980s brought unemployment down, it still left the rate at 8.3% in 1990 when the momentum of recovery came to an end. The fall in unemployment would have been greater had there not been a steady increase in the labour force over the period. In the first 3 years of the 1990s, lower economic growth rates brought employment growth initially to a halt before causing a decline, with the result that by the end of 1993 the numbers in work had fallen by some 3 millions compared with 1991. With a continued growth in the labour force this pushed unemployment rates up to 10.9% by the end of 1993 (for the Community excluding the former East Germany and to 11% including it), back to the peak levels of the mid-1980s. In this sense, the progress of the second half of the 1980s was largely undone in the first three years of the new decade (Annex, Table A.6).

Trends and differences in the regions

The changes in unemployment rates over the Community as a whole reflect a wide variety of experience among the regions. The ideal circumstances, of course, would have been those where falling unemployment rates in the Community in general were accompanied by a more rapid fall in the worst-affected regions. In such circumstances, unemployment rate disparities would have narrowed. In reality, disparities continued to rise in the early part of the post-1985 economic upswing, beginning to narrow only after 1988 (Graph 7).

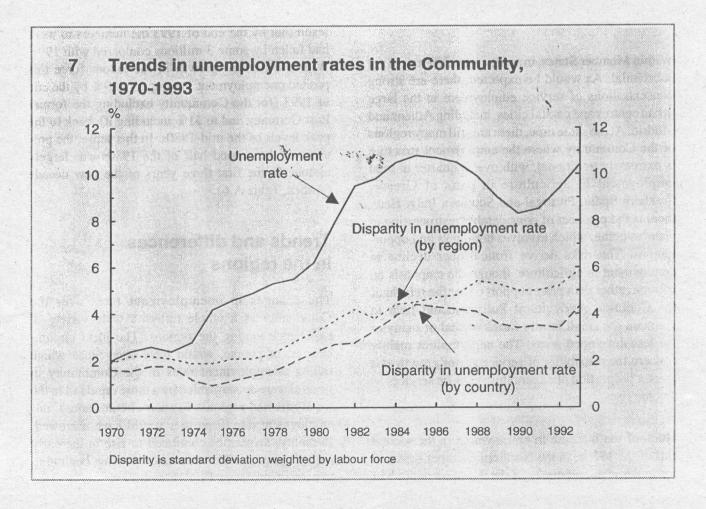
This narrowing of disparities after 1987 ended a long-term trend towards widening gaps between the regions which started in the mid-1970s. The change in the trend turned out to be short-lived, however, and disparities have widened again since 1991. In 1993, unemployment rates in the 10 worst affected regions averaged 25.3%, 7 times higher than in the 10 least affected regions where rates averaged just 3.6%. The 10 worst affected regions are located entirely in the Community's less developed areas: Spain and the South of Italy. The least affected 10 regions are for the most part in Germany (West) although one is in Greece and another in Portugal, where unemployment rates are traditionally very low (Map 11).

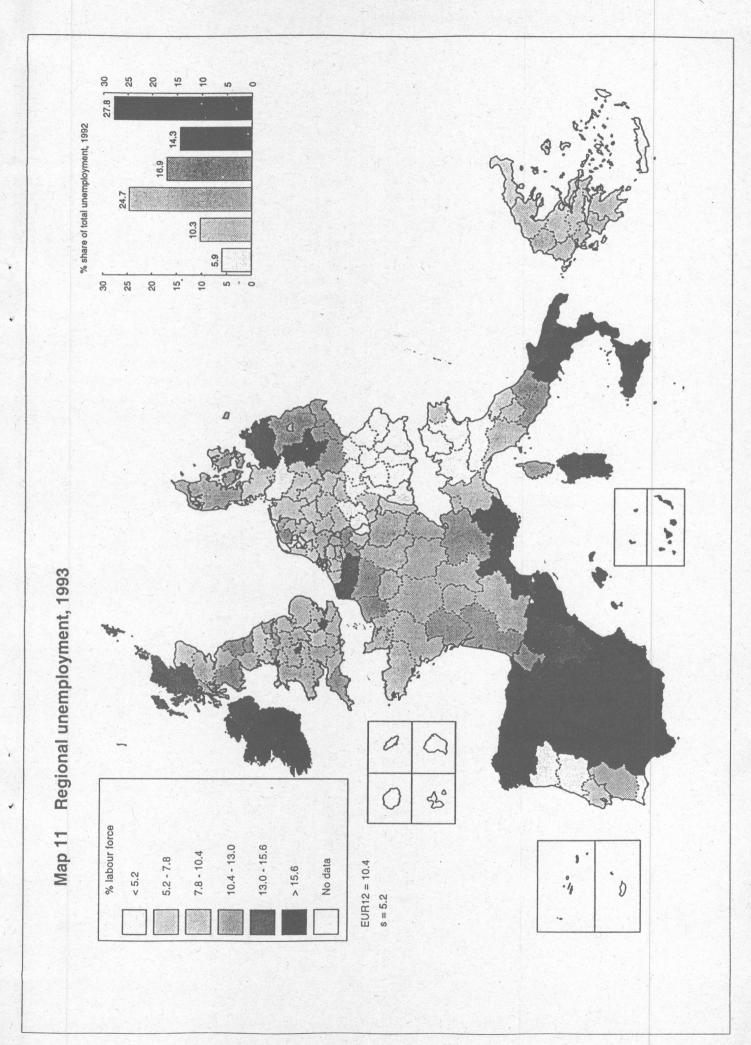
Regional variations in unemployment rates at the Community level are mirrored at the national level, though the extent of differences is, of course, less. Nevertheless the variation in rates in Spain and Italy in particular is considerable. The most affected region in Spain (Andalucia) had an unemployment rate

of close to 30% and the least affected region (Navarra) one of around 12%. In Italy, the gap between the most and the least affected region was equivalent to around 20 percentage points (Graph 8).

A narrowing of disparities normally coincides with a general fall in unemployment rates. That this was not the case in the years immediately after 1985, when unemployment rates in the Community had begun their downward trend, was due to a considerable degree to the fact that many high unemployment regions initially remained untouched by economic recovery. This was particularly so in Southern Italy where already high rates of unemployment continued to rise throughout the second half of the 1980s, while in many French regions, recovery occurred later in the decade than elsewhere.

The narrowing disparities after 1988 had much to do with a marked improvement in some of the Community's worst affected regions. This was espe-



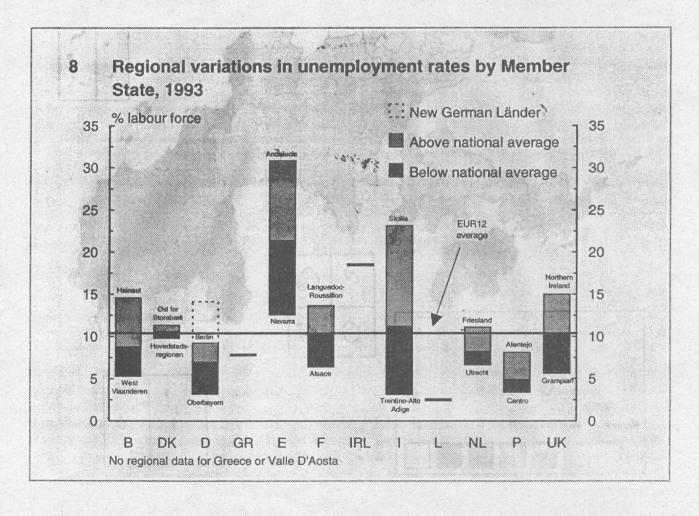


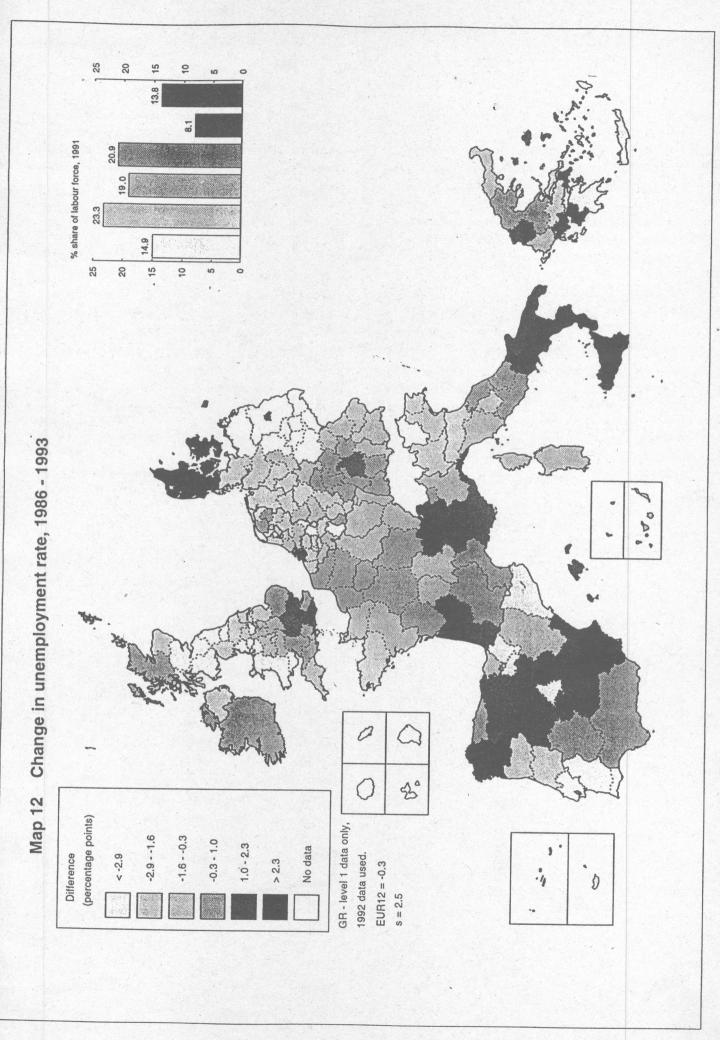
cially true of the regions in the Eastern coastal area of Spain as well as of certain regions in the UK (in central and Northern parts of England and the whole of Wales) where high national growth rates were accompanied by the creation of much new employment. The Spanish regions concerned started from a position of having some of the highest rates of unemployment in the Community – around 20% in 1985, twice the Community average – but recorded the largest reductions over the period 1985 to 1990, of around 9 or 10 percentage points. In the UK regions, unemployment rates of over 13% in 1985 had fallen by 5 or 6 percentage points by 1990.

As indicated above, the narrowing of disparities levelled off in 1991 before a widening resumed in 1992 and 1993 in line with rising unemployment in the Community as a whole. Spanish regions once again are a major part of the explanation of this change. Unemployment rates increased sharply between 1992 and 1993, to around 25-30% in the worst af-

fected regions. Regions which had been showing a marked improvement at the end of the 1980s were also affected, with unemployment rates on the East coast and the Balearic Islands increasing by 5 percentage points and more in one year. The cyclical downturn in Spain, which resulted in falling output in 1993, appears to have been particularly acutely felt in national and regional labour markets with widespread labour shedding. Fortunately, losses on an equivalent scale do not appear to have accompanied the downturn in other Member States and regions (Map 12).

The outlook for unemployment in the Community, and for reducing regional disparities, is linked to overall economic performance. The immediate prospects appear to be relatively unfavourable. For the Community as a whole, estimates suggest that economic growth needs to exceed $2\frac{1}{2}\%$ a year to keep unemployment from rising and this it has consistently failed to do in the initial years of the 1990s.





The challenge for the rest of the decade is not only to raise general rates of growth to above $2^{1}/2\%$ but to ensure that the regions of high unemployment perform better than the rest. This is a task which is made all the more difficult for some of the regions concerned by their above average growth of workingage population and labour force (see Chapter 1) and by their need to ensure that productivity growth – and underlying competitiveness – is not reduced.

There is, therefore, an important role for Community intervention through the Structural Funds to promote the investment which is necessary for more rapid growth in productivity and competitiveness in the weaker regions in order to provide a sustainable basis for increases in output and employment. Complementary measures also need to be maintained to provide the appropriate training and development of human resources to ensure that workers are equipped to adapt to economic change and to seize new opportunities as they arise.

The situation and prospects of selected sectors

There is a growing concern in many Member States about the effects of structural change and decline in industrial sectors which are important for regional economic development and prospects (see discussion on Objective 2 in chapter 9). Many sectors are concerned by this process but this chapter concentrates on the structure, geographical distribution and outlook for three industrial sectors which are often discussed in this context: automobiles, aerospace, textiles and clothing as well as the defence sector which combines production, and service activities. Specific actions at the Community level are already underway in the case of textiles and clothing and defence (see discussion of Community initiatives in chapter 9).

Estimates suggest that in the period 1981 to 1993, automobiles, textiles and clothing and aerospace

together lost some 1.3 million jobs, most of them in textiles and clothing, which is the only traditional sector as commonly understood. This sector, which has been in long-term decline in Europe in terms of both output and employment, and which is important in many of the Community's weaker regions, lost nearly 900,000 jobs between 1981 and 1993, largely as a result of the relocation of production to low-cost countries as well as the introduction of new technologies.

Automobiles and aerospace are growth industries in the Community with rising output and, until the last decade or so, rising employment. Unlike textiles and clothing, these sectors are dominated by large plants which, together with their local subcontractors, often underpin the industrial base of entire regional economies. Both sectors are subject to fierce international competition which, especially in the case of automobiles, has resulted in large gains in productivity in a short period of time with significant shedding of labour. The aerospace industry tends to be concentrated in the stronger regions of the Community while the automobile sector is somewhat more dispersed.

The final sector considered here is the defence industry which combines a variety of activities, in both industry and services united by their dependence on national defence policies. Employment in equipment manufacturers and in military installations is now under threat in view of the reduction in national defence expenditure.

Although all these sectors are characterised by declining employment, it is important to bear in mind that the employment prospects in different sectors and regions vary considerably at any given point in time and there are always some experiencing employment growth. Growth and decline are part of the normal development pattern of market economies.

Much of the growth over recent years has been in the service sector. Even so, the Community as a whole still lags substantially behind the US where services provided an estimated 23 million new jobs between 1980 and 1992, double the rise in the Community. Services account for 72% of total employment in the US compared to only 61% in the Community.

In general, the Community's poorest regions have relatively small service sectors (see chapter 8) and this may indicate scope for future growth. There appear to be favourable prospects in the financial and business services sector which presently accounts for about 8% of the total Community employment. This sector could provide sources of employment growth in many of the weaker regions where it tends to be underrepresented (although there are certain exceptions to this rule such as Ireland). The weaker regions could also expect to see an increase in employment in distribution especially in those areas where incomes per head are rising stronger (although the positive effects of an increase in demand might be at least partly offset by the effects of rationalisation and modernisation as a structure based on small retail outlets gives way to one dominated by large (often multinational) retail chains1.

In non-market services such as healthcare and education, there appears to be a lower than average level of employment in relation to population in the South of the Community. Employment in healthcare and education tends to be higher in areas with relatively high levels of GDP per head². This suggests that there may be opportunities for job creation in these sectors in the Southern regions, a process which should be helped by the opening up of these sectors to assistance under the Structural Funds in the new programming period 1994 to 1999

The automobile sector

Industry structure

The Community automobile industry covers the manufacture of private and commercial vehicles, and of the mechanical components, bodywork and electrical equipment needed to assemble automobiles. There are six major manufacturers of private cars, representing 75% of the market, and a few specialized manufacturers. For the most part these manufacturers are also present on the commercial vehicle market, where there is a similar rate of concentration, although one manufacturer accounts for 35% of the market. Although their activity is integrated to varying degrees, both upstream and down-

stream, all the automobile manufacturers use the services of a large range of specialist and non-specialist suppliers, including SMEs. In certain cases the components manufactured by these suppliers account for between 60 and 70% of the final cost of a vehicle.

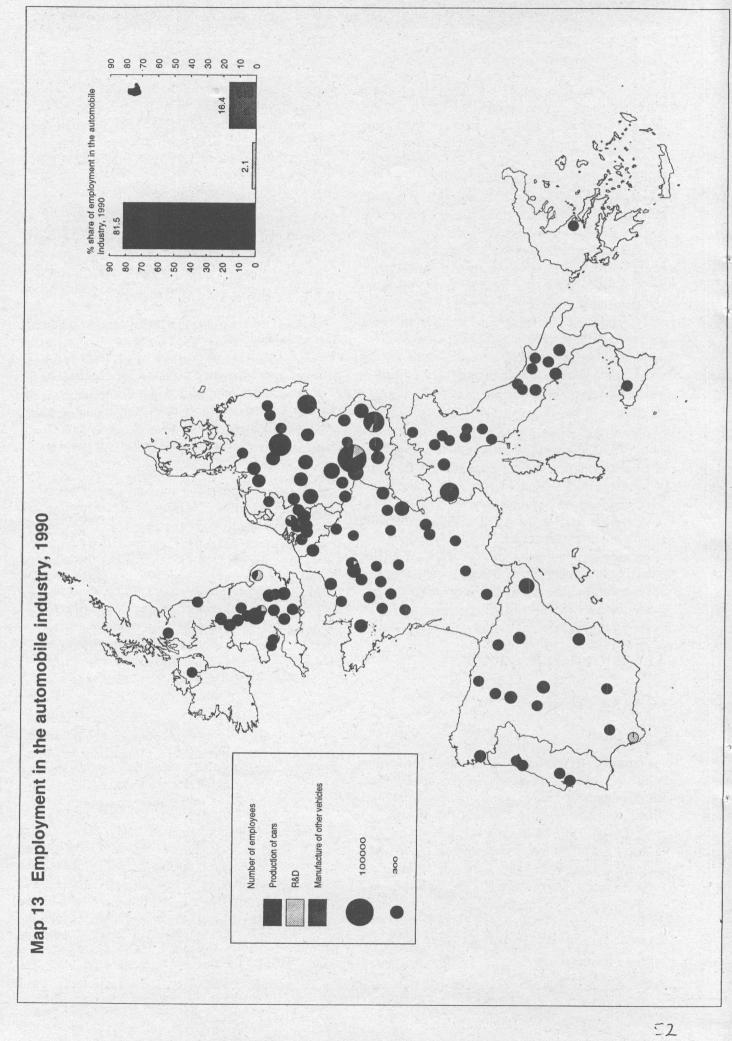
With record sales of automobiles in 1992, in the region of 12.6 million units, the Community market is the biggest automobile market in the world. It is also the biggest producer, and in the same year manufactured some 12.7 million vehicles. Over the period 1981-1991, employment in the automobile sector declined by some 9%. The losses accelerated during the current recession and a further 10% of jobs in the sector disappeared in the period 1991-1993 (Annex, Table A.7). In 1993 the Community automobile industry employed some 1.71 million people, one million of these jobs being with automobile manufacturing jobs³.

Rates of vehicle ownership still vary significantly from one country to another; in the case of private cars Germany, France and Italy are major markets, with between 400 and 450 cars per 1000 inhabitants, while Greece, Ireland and Portugal have between 160 and 200 cars for the same number of people, with Spain coming midway between these two extremes. Commercial vehicle ownership in the Community shows similar variations.

Spatial structure

Germany is by far the biggest automobile producer in the Community. In terms of employment Germany (excluding the new Länder) accounted for 44% of the Community total in 1993, followed by France (19%), the UK (13%), Italy (10%) and Spain (8%).

Major clusters of automobile plants are in Southern and Central Germany, the UK Midlands, and on either side of the border between Belgium and the Netherlands (Map 13). In France, the major plants are overwhelmingly in the northern part of the country often in close proximity to Paris. In Italy, the major employment is in the city of Turin, although



there are important installations in the South of the country.

Away from these centres, there are many large installations which often form an important part of the industrial base of many of the weaker regions in the South of the Community.

Over the last few years a number of Community manufacturers have increased their capacity, often by setting up new production or assembly units in order to maintain or increase their share of an expanding market. The main beneficiaries of these units were the less favoured regions of Spain, Italy and Portugal, and the new German Länder.

In recent years similar motives have led certain Japanese manufacturers to set up new production and assembly plants, principally in the United Kingdom. The production capacity of these plants is expected to grow to about 1.2 million cars a year by 1999. On the other hand, Japanese exports to the Community are falling, from 9.2% of the market in 1991 to 8.3% in 1992.

In this connection, the opening-up of Eastern Europe has been an opportunity for a number of Community manufacturers to extend their activity to those countries, where they are investing in new assembly plant, developing distribution networks and, through joint ventures with local producers, modernizing existing plant.

Prospects

The demand for cars in Europe is showing a strong tendency to increase. However, environmental protection measures, such as a carbon tax, could slow down or even reverse this trend.

The demand for cars is extremely cyclical and the high fixed costs mean that profitability is very sensitive to demand. The sector therefore felt the full force of the recent recession, but shows every sign of reaping the full benefits of recovery. In this respect, it should be noted that an increase of the market may still be expected for the Community as a whole in the

future, going by the present rates of ownership of both private and commercial vehicles.

After a period of relative stagnation during the first half of the eighties, during the second half the Community automobile industry went through a period of intensive growth as the economy as a whole recovered. Although from 1990 onwards the economic slow-down caused sales to begin falling off on a growing number of Community markets, the very sharp increase in sales in Germany following reunification offset those losses until 1992.

Since the demand created by German reunification has now fallen off, the Community automobile industry is now feeling the full impact of the stagnation of the economy. Since the beginning of 1993, throughout the Community, with the exception of the United Kingdom, sales of new vehicles have fallen more sharply than at any time in the past ten years. Production fell by 15.8% in 1993 although recovery is expected to begin in 1994. The market for heavy commercial vehicles will develop in a similar fashion, chiefly because of an increase in transport services, an area in which road transport still offers commercial advantages.

Growing European integration is having a beneficial impact on the automobile sector. The automobile markets are still to a certain extent nationally oriented, with significant price differences from one country to the next. As the automobile market becomes European in scale, growing competition will push up efficiency and demand. On the supply side, the trend towards mergers, take-overs or joint-ventures is still in evidence in order to benefit from economies of scale. This goes hand in hand with an increasing trend towards regional division of labour, with a company tending to produce all its European engines (for example) in one or two production units.

Competition then compels automobile manufacturers to keep their costs down and refine their company strategy in order to remain competitive. In order to meet this challenge, European manufacturers are applying, more intensively since 1992, the principles of 'lean production' – integrated development and production methods – which also involves a redis-

tribution of responsibilities between manufacturers and suppliers. This rationalization and restructuring phase should basically be over by the end of 1994 and could be accompanied by a significant reduction in jobs on the manufacturing side. In view of the great age of certain production units and sub-units, and their consequently low productivity, which may make it necessary to close them down, it is estimated that job losses will be highest in certain automobile producing regions of Germany, Spain and Italy.

Given the interdependence between manufacturers and independent suppliers, the restructuring undertaken by the manufacturers could lead to a significant loss of jobs in specialized suppliers. Because of the heterogenous nature and high geographical dispersion of this sub-sector, these job losses are likely to affect, to a greater or lesser degree, a large number of regions in the Community.

Aerospace

Industry structure

The aerospace industry can be divided into civil and military sectors with some 'dual-use' activities (see below). In 1989, the military sector accounted for the larger share (55%) of total aerospace turnover, although this was down from around 70% a decade earlier. Within each sector there are a number of products: airframes, aero-engines, equipment (electronic guidance systems, undercarriages, etc.), guided weapons and space vehicles.

Production is heavily concentrated in comparatively few large firms and this trend has been reinforced over time by rationalisation and consolidation aimed at achieving economies of scale to allow the industry to compete with US companies. There are only a few European companies capable of managing the design and production of civil and military aircraft and guided weapon systems. In aeroengines, there is only one major European producer (Rolls Royce, UK) although there are other significant European producers involved in cooperative agreements with the major global players.

The role of small and medium-sized enterprises (SMEs) is therefore less significant than in the other industries. Even in the supply of equipment to the major airforce or guided weapons constructors, the market comprises some very large firms although there are niches such as in the supply of cabin furniture where SMEs predominate.

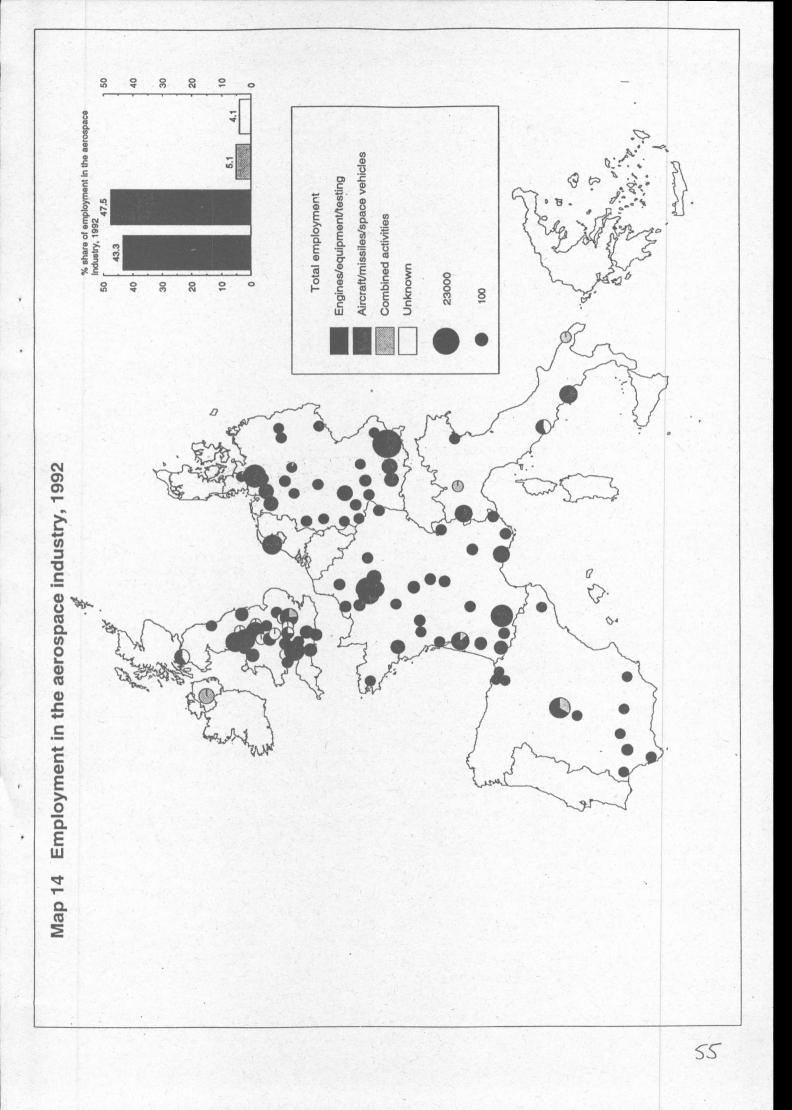
In employment terms, the aerospace industry was a growth sector until the last decade or so. Between 1981 and 1991, however, employment was virtually static in the Community as a whole. Since 1991, there has been a dramatic decrease in employment reflecting a strong cyclical downturn in civil aerospace demand and the depressing effects on military production of the reduction in national defence expenditure (see below). Between 1991 and 1993 employment declined by 12% to 372 000 employees (Annex, Table A.8).

Spatial structure

Over 90% of employment in aerospace in 1993 was in the four largest Member States. The UK had the highest share of employment accounting for 37% of the total. The major clusters of aerospace employment⁴ are in England (32% of Community employment), the Paris area (12%), Hamburg and the Netherlands (10%) and South-West France and Bavaria (8%) (Map 14). In Italy, production is located mainly in the centre and North of the country. The industry is virtually absent from the weakest regions of the Community with the notable exception of Spain, where there is a small but significant aerospace industry employing up to 17,000 workers (depending on data source5), concentrated in the Madrid region and Andalucia. There are also important installations in Naples (I) and Northern Ireland (UK). The enlargement of the Community in 1995 will add a further significant aerospace company, Saab of Sweden.

Prospects

A recent report for the European Commission concludes that for the future 'the sure prediction is that the EC aerospace industry overall will not be much larger in employment terms' 6.



Reduced defence expenditure in the Community will act as a brake on the future expansion of military aerospace products in domestic markets, while a reduction in squadron size is also tending to reduce the significant after-sales servicing market. Production will, however, be at least partly sustained by sales to third countries. Community military aerospace producers export proportionately more than US firms. In the future, however, competition is likely to become more intense as US firms seek to compensate for falling domestic demand. The defence industry in the former Soviet Union is also likely to offer low-cost competition to Community producers in third markets. At the same time, notable cooperative ventures are still being undertaken in the Community, such as the Tornado programme (involving BAe, Alenia and Dasa) and the Eurofighter project (the same companies plus CASA of Spain). Missile production is being carried out by a consortium of Aérospatiale, BAe and Dasa.

The Eurofighter 2000 programme, however, has been delayed (the maiden flight, originally scheduled for 1991, is now planned for Spring 1994) and the orders reduced from the planned 765 to 600. National shares of the workload are in principle proportional to orders although uncertainty persists as to what the relative size of these orders will finally be. Spain and Germany have deferred their first deliveries until 2002, so assembly of the first units in the late 1990s would be only for the UK and Italy.

Civilian demand is highly cyclical. At present, the financial position of many major airlines remains precarious and orders for European aircraft are not expected to pick up until 1995 or 1996 as the sales revenue of the major carriers begins to increase in the expected economic recovery. Much of the fortunes of the industry will depend on the Airbus Industrie partnership. Airbus originally intended to expand output to about 225 units a year by 1995, following the opening of a second assembly line in Hamburg. However, the most recent forecasts are for production levels of only 170 units in 1995, while the outturn for 1994 may be only 120 units.

Nevertheless, over the longer term, demand for civilian air transport is likely to expand. Improvements in

air traffic control systems will increase capacity on the more congested routes; Structural Funds are assisting investment in airports, especially in the less accessible parts of the Community; and increasing regulations on noise and other environmental impacts mean that many older models will need to be retired early.

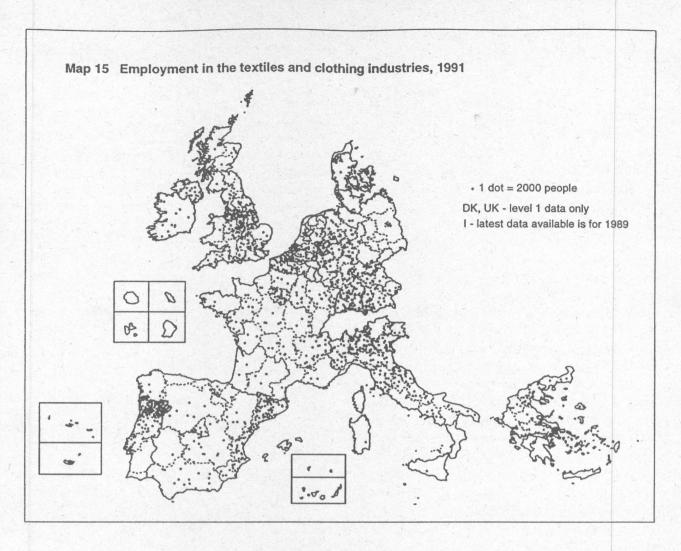
The underlying growth in demand for civilian aircraft is therefore strong, with some forecasts for longterm annual air traffic growth in the 5-10% range, causing the civil market to overtake the defence side in importance. The pressure to reduce unit costs in order to improve competitiveness and match US producers means that increased output will be achieved through higher productivity or sourcing in lower cost countries. The employment effects of expanding production are, therefore, unlikely to be positive.

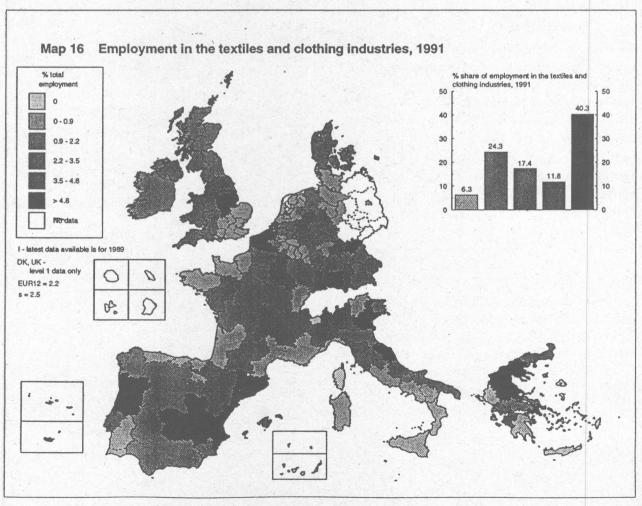
Textiles and Clothing

Structure of the industry

The textile industry is relatively heterogeneous. Differentiated according to end-use, it is made up as follows: clothing and knitwear (45% of EC fibre use), home furnishings (17%), carpets (13%), technical textiles (25%) among the largest users of which is the automobile industry discussed above. Technical textiles (filters, webbing, etc) represent the fastest growing sub-sector over recent years and demand continues to grow rapidly⁷.

Industry estimates suggest that there were nearly 77,000 textile firms in the Community in 1990, with size ranging from giant, vertically integrated multinational companies such as Coats Viyella (UK) which employed about 60,000 people to thousands of small and medium-sized enterprises and 'micro' firms employing only a few workers. Most of the small textile enterprises in the Community sell only to their home market or at most, to the markets of one or two other Member States, while the large firms sell throughout the Community and export to third countries. The largest five European firms are French (2), Italian (1) and British (2) which rank among the largest ten textile firms in the world.





The clothing and textile industries are closely linked – the clothing industry purchasing 50%, 70% and 40% respectively of the outputs of the cotton, wool and silk industries. The two industries have common features and are subject to the same trends. They both experienced periods of expansion up to the early 1970s followed by prolonged stagnation and by large and increasing loss of markets to extra-EC imports.

The majority of firms in the clothing industry are small with those employing less than 20 people accounting for an estimated 22% of total output in 1990.

Two sectors of the market need to be distinguished, that for mass produced, low-cost clothes and that for high quality products. Demand for mass produced clothes is relatively price elastic, while demand for high quality clothes is determined more by non-price considerations, although the evidence of recent years indicates that price remains an important overall determinant.

More than most products, the demand for clothes is determined by tastes and fashion, the demand for which is growing. The life-cycle for a particular garment may be very short, in some cases as short as a few weeks. Manufacturers have considerable scope for specialisation in market niches but this often requires strong links between manufacturing and distribution to enable production systems quickly to accommodate changes in consumer tastes. This explains the growth of large firms integrating both manufacturing and distribution.

In employment terms, the textile and clothing industries are in long-term decline in the Community. Between 1981 and 1991, employment declined by nearly one-quarter from 2 560 000 to 1 940 000 representing a loss of over 600,000 jobs. Estimates since 1991 suggest that decline has accelerated during the recession with the loss of a further 250,000 jobs or more in the two years 1991-1993, a fall of 13% (Annex, Table A.9).

Spatial structure

Reflecting the size of their economies, employment is highest in textiles and clothing in the four largest Member States which account between them for over 70% of the total (Maps 15 and 16). Employment in the sector is highest in Italy and the UK which together account for 40% of the Community total. The sector is also very important for Spain, Greece and Portugal which account for 20% of all employment. There are important differences in the quality of the employment especially in regard to clothing. The Community is a world leader in the production of high-fashion garments and Paris and Milan are the centres of world fashion. In the Southern Member States such as Greece and Portugal the clothing industry while very important in terms of employment, produces mainly low value-added garments.

Within Member States production tends to be concentrated in certain regions, with, in general, both the textile and the clothing industries being located in the same areas, the strong dependencies between the two resulting in structural changes affecting on both industries and so having a cumulative effect on regional activity.

There are particularly strong dependencies in many of the weakest parts of the Community (Map 16). The ten regions with the highest dependency on textiles and clothing (accounting for more than 1 in 20 jobs in the regional economy) are in Greece (4 regions), Central and Eastern Spain (3 regions) and Portugal (3 regions). At the same time, textiles and clothing are highly important in some of the stronger regions of the Community – in Vlaanderen (B), Central Italy, Southern and Central Germany, North-Eastern France, in all of which they account for at least 1 job in 30. Other major concentrations of textile and clothing employment (50,000 employees or more) are found in capital regions such as South-East of the UK and Ile de France as well as in Rhone-Alpes (F).

Prospects

The Community's regions dependent on textile and clothing are likely to have different prospects over the rest of the decade according to the segment of the

industry in which they are specialised and their capacity to adapt and innovate.

For textile products with high design and production complexity (technical textiles and high fashion fabrics), Member States can expect to maintain their competitive position. For other textile products, standard cotton fabrics, standard chemical spun yarns and so on, the shift of production to low-cost countries is likely to continue.

In general, developments and prospects are driven by the retail sector which has been subject to increasing concentration. On the positive side:

- more professional organisation of distribution has helped to emphasise the importance of timebased, rather than cost-based, competition, thus conferring an advantage in the European market to European producers;
- greater emphasis on quality clothing generally requires close communication between distributors and manufacturers;
- increased emphasis on shorter production runs militates against the labour-intensive mass production in many third countries;
- sourcing in distant markets carries more risk⁸.

On the negative side, the specialist sourcing facilities developed by large distributors enables them to undertake a more geographically wide-ranging search for the cheapest producers. For many clothing products, and in particular for large orders with long lead times, distributors will favour cheaper, if distant, suppliers.

On the policy side, the clothing and textile industry will also be affected by a phasing out of the MFA quota arrangements over the next ten years. Major preconditions specified by the Community as part of such phasing-out are likely to include the opening of markets in developing countries, action to curb dumping of surplus products on EC markets, the removal of certain state subsidies (particularly export subsidies) to the clothing industries in the more de-

veloped, low-cost exporting countries and action to curb counterfeiting of Community brands.

The clothing industry is one of the major employers in the Community. While dominated by large companies in every other sense, the bulk of the industry's firms are small to medium sized enterprises, many with fewer than 20 employees supported by outworkers who are not always captured in official employment statistics. This suggests that the impact on regional employment of the ongoing restructuring of the clothing industry is likely to be considerably higher than the official estimate.

Defence industry and military forces

Political reforms in the former Soviet Union and in all of East and Central Europe, ensuing arms control agreements and a fundamental reappraisal of defence policies are leading to defence budget cuts in the Community Member States.

Disarmament is perceived to offer a unique opportunity to cut budgetary deficits and to divert valuable resources to more 'worthwhile' objectives. In practice, however, the size of the peace dividend is limited in the short and medium term by the substantial costs of conversion and the time needed to find alternative uses for the physical and human resources no longer absorbed by defence-related activities.

Since 1987 annual defence expenditure in the Community has stabilised in real terms. In 1991, expenditure amounted to 148 billion ECU which corresponded to 2.3% of GDP and 4.7% of total government spending. France, Germany and the UK were responsible for about 70% of the EC total. The general expectation in 1992 was for real cuts in defence spending of up to 10% by 1995 and up to 25% by the year 2000. This would lead to a reduction of up to one percentage point in the share of military expenditure in relation to Community GDP by the year 2000. Expenditure cuts on such a scale would inevitably affect all types of defence expenditure albeit to different degrees.

Military personnel accounts for almost 50% of expenditure. About one fifth of the defence budgets of the EC Member States is spent on military equipment, the mainstay of the defence industrial establishment. About 5% is devoted to infrastructure (military base construction, etc), while the remaining quarter goes on operating expenses.

Armed forces plus support staff exceed 2.3 million, including professionals, conscripts and civilian personnel. Adding the 700,000 workers employed in the defence industries, more than 3 million people, or 2.4% of the Community labour force, are directly dependent on military expenditure for their employment.

The reduction of defence expenditures in relation to GDP expected by the year 2000 will probably be accompanied by reductions on a similar scale in the share of defence-related employment in the labour force. Over one million jobs in the defence industry and the armed forces could be threatened. The potential impact on a number of regions is significant.

One half of Community employment in the defence industry is concentrated in 19 regions (at NUTS level 2). These have a share of employment in defence of over 1%, twice the Community average (Annex, Table A.10). A further one third of employment is located in other regions with an above average concentration of defence activities.

Cuts in defence spending clearly make regions and localities where defence industries are concentrated vulnerable to job losses. This does not necessarily imply, however, that the difficulties encountered by such regions will be proportional to the numbers employed in these industries. Decisions taken within the Ministries of Defence on which pieces of military equipment to cut back on, have clear regional implications.

A recent Commission study⁹ identified the NUTS level 3 regions with known concentrations of defence industrial activities within the 19 'defence-dependent' regions as well as over 100 other towns and cities with plants producing equipment for the military.

The study found that it was difficult to forecast short to medium-term factory closures, since because of the controversy surrounding them decisions were often not announced until the last moment. Respondents indicated that the regional implications of defence cuts would be determined by commercial criteria and that most adjustment would take at least five years.

So far, corporate responses to the forecast cuts in defence expenditure of up to 25% by the year 2000 and reductions in export sales have been similar across Europe. While most firms are understandably pursuing a number of strategies, it seems that in general the leading firms have followed a 'dual track' course, streamlining their defence operations through concentrating on core military business whilst simultaneously seeking to diversify into related, usually high-technology, civil markets.

In general French and Italian contractors are seeking to maintain their position in the defence market, while German and British firms have to some degree adjusted already. There is some evidence that German companies are following a more offensive strategy by moving into related civil markets. UK companies by contrast are pursuing a more defensive strategy involving lay-offs, closures and sales of plant and equipment.

So far as military bases are concerned, these are distributed across more regions than defence industry plants. In 31 regions (at NUTS level 2) the share of military personnel in employment is over twice the Community average of almost 2%. These regions are located in different parts of the Community and house just over one third of all armed forces (excluding the new German Länder). A further 300 military bases are located outside these regions.

In only a small number of Community regions is the share of employment in both the defence industry and armed forces twice the Community average.

The impact of plant and base closures will differ between regions, with some isolated local areas being more adversely affected by defence cuts than those which are located in larger and less defencedependent regions. Those resulting from defence

Initially, there will be a need for a wide range of

Table 4 Eligibility of defence-dependent regions (NUTS 3) for assistance under the regional objectives of the Structural Funds

	Defence-industry dependent		Military-base dependent	
	Number of regions	%	Number of regions	%
Eligible	5	9	39	34
Unknown/possibly eligible ¹	23	42	17	15
Not eligible	27	49	59	51
Total	55	100	115	100

Defence-industrial plant or military base is located in a NUTS level 3 region which is partially eligible Source: EAG (1992)

industry cuts are likely to be greater and less diffuse than those resulting from reductions in armed forces and may, in exceptional cases, cause a doubling in the number of job losses.

Policy responses need to be adapted to the special characteristics of the industry and region affected. Serious problems of adjustment are likely to occur where defence industry cutbacks are in areas where other industries are already in decline and where older workers with traditional skills are affected or where a high proportion of the local workforce is employed in defence. Much of the industrial infrastructure in such areas is likely to be highly specialised and may pose serious environmental problems of site decontamination. There are very few examples in the Community of complete industrial conversion from defence to civil applications, although many companies are pursuing strategies of diversification. Much of the labour force involved is not likely to be readily re-employed without retrain-

The impact of military base closures, particularly if they occur in comparatively small communities or rural areas, can do great damage to the local economic fabric. Often tourism, agriculture or fishing provide the only alternative means of employment. Strategies for the diversification of the local economy should include the commercialisation of the land and buildings abandoned by the military.

policy measures directed to environmental improvement, site decontamination and clearance, and a reskilling of the work-force. This, in turn, implies a need for local coordination, given the relative isolation of many defence establishments and the need for any Community response to be built on local and regional initiatives.

Such a response is complicated by the fact that the majority of areas with defence industry plants and military bases have until recently not been eligible for Community support under the regional objectives of the Structural Funds (Table 4). Jobs in the defence sector have traditionally been secure and little affected by structural change.

² European Commission (1992), Employment in Europe.

These figures and the regional map are based on a survey of aerospace plants undertaken for the European

Commission by Cambridge Econometrics in 1993/94.

The VISA database of the European Commission estimates employment in aerospace (NACE code 364) at 5,600 in Spain in 1993. The survey undertaken for this report yields a figure of 17,000 in Spain of which 9,000 were in one company: CASA, a partner in Airbus Industrie. No such differences between sources exist for other Member States.

6 Hayward K (1993), The Aerospace Industry. Future of Industry Paper Series, Volume 14. Study financed by the FAST

programme of the European Commission.

For a more detailed discussion of the industry structure see European Commission (1993), Panorama of EC Industry,

and, ERECO (1993), Europe in 1997: Economic Analysis and Forecasts.

This is starkly illustrated by the process whereby some distributors compute an additional cost percentage to cover risks which vary from 9% for EC countries to 20% for South-East Asia and as high as 30% for countries such as Pakistan, China, India and Bangladesh. Additional costs such as transportation, which are negligible when sourcing takes place within the Community, were estimated to account for 7% and 11% of the cost in near non-EC and faraway suppliers respectively (Institut Français de la mode (IFM), quoted in European Commission (1993) ibid.).

Economists Advisory Group Ltd, Centre for Defence Economics (1992), The economic and social impact of reductions in defence spending and military forces on the regions of the Community, Regional Development Studies, Volume 5.

European Commission (1993), Market Services and European Integration. European Economy No 3.

These data relate to direct employment in the automobile industry as defined by General industrial classification of economic activities in the European Communities under NACE code 35. They do not include indirect jobs with non-specialist suppliers, part of whose production goes to the automobile industry, such as rubber producers (two thirds of production), steel and steel-processing (one third of production), glass, textiles etc.

Section B Regional competitiveness: factors underlying regional disparities

Infrastructure and human resource endowments

New inward investment and the regions

The role of research and technological development in the regions

Peripherality reconsidered

Chapter 4 Infrastructure and human resource endowments

Differences in infrastructure and human capital are widely recognised as contributing significantly to variations in regional competitiveness. The economically stronger and more prosperous regions of the Community are generally more richly endowed with both, while the lagging regions typically have serious deficiencies.

In a Community which is gradually moving towards closer union, such wide differences are less and less acceptable. This is recognised in the Maastricht Treaty, which lists among the central aims the promotion of harmonious and balanced development and the strengthening of economic and social cohesion. In achieving these aims, the Treaty specifically recognises the role of trans-European networks in the fields of transport, energy and telecommunications infrastructures in enabling regions to reap the full benefits from the Single Market and in linking island, landlocked and peripheral regions to the central regions of the Community. The creation of greater equality of opportunity for all European citizens and firms, wherever they are located, requires progress towards reducing the gap in infrastructure and human capital endowments.

This is why a major proportion of the Community's aid to lagging regions has been concentrated on trying to achieve this. Under the 1989-1993 Community Support Frameworks for Objective 1 regions, the Structural Funds devoted some 16 bil-

lion ECU to investment in basic infrastructure and well over 10 billion ECU to investment in human capital (at 1994 prices), or some 35% and 22%, respectively, of total expenditure. In addition, the European Investment Bank provided nearly 10 billion ECU in loan finance for investment in basic infrastructure in these regions in the period 1989-1991.

This chapter examines the 'development gap' between the lagging regions and the rest of the Community in terms of the major disparities which persist in regard to endowments in basic infrastructure and human capital

Regional differences in infrastructure

Infrastructure is composed of four main elements: transport and energy networks, telecommunication links and environmental facilities (i.e. waste treatment and water supply). In this chapter, new information on transport, telecommunications and environmental infrastructures is considered. Energy infrastructures are also important for regional development. Extending and improving energy networks and improving access in the weaker regions are es-

sential to promoting productive activities. The availability of high-quality electricity or natural gas supplies enables businesses in all sectors of the regional economy to optimise their choice of equipment. Energy diversification helps to improve competitiveness. Such issues have been examined in a recent report by the Commission¹ and are not therefore explored further in this chapter.

To compare the regional endowments in infrastructures raises important conceptual and methodological issues, which need to be briefly considered before the data can be properly interpreted.

The role of infrastructure in the development process

Despite the clear association between the level of infrastructure and regional development, the nature of the causal link is still the subject of intense debate². Some of the more central regions of the Community, for example, despite very high levels of infrastructure provision, arguably face constraints on future development because of deficiencies in relation to needs in certain areas, such as transport where the existing network may be unable to cope with increased volumes of traffic.

The present interest of economists and planners in infrastructure concerns two main issues:

- first, the cost which tends to fall on the public sector which is constrained because of financial difficulties; this has led to growing interest in ways of introducing private sector finance, which, inter alia, requires improved information on needs to facilitate investment appraisal;
- secondly, the indirect as well as direct contribution of infrastructure to enhancing regional economic performance, which is related to its 'public good' aspect, in the sense that once provided it is available to all at zero or low cost, expenditure on infrastructure can therefore improve the productivity of private businesses and increase profitability. The overall rate of return on such investment can accordingly be much higher than

it appears. The historically low levels of infrastructure investment (including replacement) have arguably constrained the rate of productivity and employment growth in some Member States.

Defining appropriate indicators

Making regional comparisons of infrastructure raises the problem, first, of identifying an appropriate – and concise – set of indicators reflecting the scale and, more especially, the quality of the endowment of each type of infrastructure. Secondly, there is a need for simplification and ability to aggregate indicators in order to produce indices of endowment. Thirdly, infrastructure provision needs to be related to other factors, such as the structure of economic activity. Finally, there is a need to take account of links between infrastructure networks both within and between regions.

The simplest measure of infrastructure is either the physical scale of provision – eg the length of roads per square kilometre or in relation to population – which indicates the potential intensity of use. The proportion of population with access to particular facilities, such as public water supply, may also be relevant. For most types of infrastructure, indicators reflecting quality should also be included. For the rail network, for example, the extent of electrification and the number of separate tracks, which affect both the speed of service and the capacity of the network, can be taken as indicators of quality.

To facilitate interregional comparisons of total endowments, there is an obvious attraction in attempting to combine individual measures to produce a single composite indicator. While several aggregation methods are possible, none is wholly satisfactory. Subjective judgement about the choice of measures to be included and the relative weights to be attached to each are inevitably invoked. Moreover, changes in composite indicators tend to be difficult to interpret, while they provide little or no indication about whether provision responds to the specific needs of a region.

The type of infrastructure provision in a given region will have typically developed to suit existing needs, but may constrain new kinds of development. Regions with poor endowments of particular facilities, however, may have other advantages which more than outweigh the deficiency. Regions with poor road or rail networks may have a superior environment, lower labour costs, and so on. While improved infrastructure may be a desirable part of regional development, it may be neither necessary nor sufficient per se to generate that development.

One of the basic factors in a region's economic development lies in trade with other regions. Connections to markets and sources of supply (not just the movement of goods but also the transfer of information) may be of critical importance. This is true both at the interregional level, where deficiencies are not revealed by a region by region assessment in cases where the completion of trans-European networks is vital to the competitiveness of regions taken as a whole and at the intra-regional level, where the links to any trans-European network are important. For many peripheral and lagging regions, a key problem is the deficiency of the internal network rather than the inter-regional links, which is not always revealed by any regional indicator, since this will not take account of how well different parts of the network are connected - eg whether branch lines are well connected to trunk routes.

In summary, while the measurement of infrastructure endowment is important to understanding regional differences, any indicator must be interpreted with caution.

Regional infrastructural endowments in transport

A good transport system is generally recognised as a prerequisite for national or regional economic development. Transport systems have all of the inherent features of infrastructure. They are large, indivisible, immobile and are used by a wide variety of producers and consumers. In modern economies, based on trade, they are also a necessity without a viable

substitute, though substitution is possible between different modes of transport.

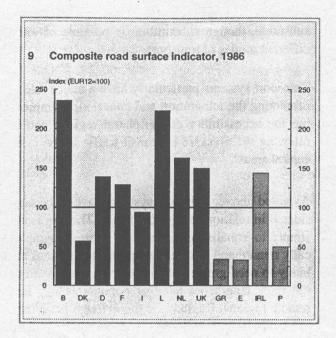
Transport systems particularly have a major role in promoting the integration and cohesion, in improving the accessibility of peripheral regions and in relieving the pressure of transit traffic in the more central areas³.

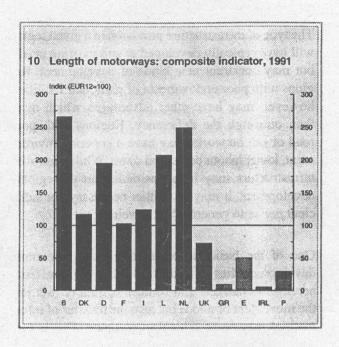
As noted above, transport systems have to be considered in relation to regional needs. The aim is not simply to equalise endowments. More geographically remote and less densely populated regions are likely to need greater provision in terms of road or rail track length per head of population than less remote regions. Regions on the extreme periphery, especially islands, will tend to require relatively more port and airport facilities and typically will not be able to use inter-regional infrastructure for intraregional needs4. In the most congested central regions of Europe, the combination of transit and regional traffic may also necessitate a higher than average level of provision relative to both area and population. The difficulty is to determine the degree of under-provision of infrastructure in the light of these sources of variation.

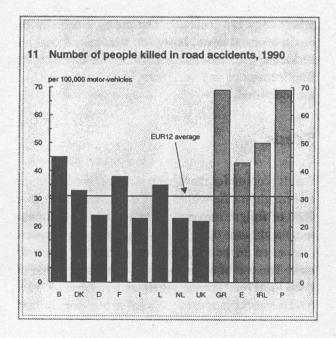
Transport systems are different from other types of infrastructure in that significant benefits are also likely to accrue to those not resident in the region where they are located⁵. The costs, especially the environmental costs, however, tend to fall on local residents. This makes for difficulty in assessing the implications of any variations in endowment which are identified.

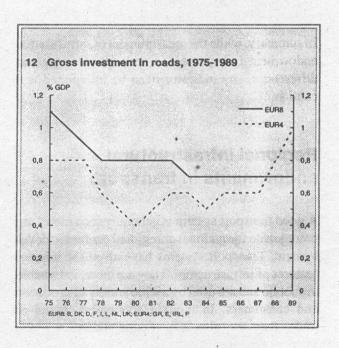
Roads

Roads account for the largest share of both passenger and freight traffic within the Community. More than 70% of freight movements (measured in kilometre tons) and more than 90% of passenger movements (measured in passenger kilometres) are made by road. The use of other forms of transport depend on good local road communications for access. A good road networks is, therefore, vital to a region for both inter- and intra-regional traffic.









In terms of basic indicators, the weakest regions tend to lag behind the EC average. The total road surface per square kilometre in Greece and Spain is only 23% of the Community average and in Portugal only 42%, as against over 300% of the average in Belgium and over 200% in the Netherlands and Luxembourg. Location is clearly a factor here, since peripheral regions have less need of roads for transit traffic, as is density of population. In relation to population, there is a little less variation, road surface per inhabitant being around 50% of the Community average in Spain, Greece and Portugal and around 150% in Belgium. Ireland illustrates the difference between the two measures, with twice the road surface in relation to population than the Community average but only 75% if related to land area.

At the regional level, the lowest level of road provision per square kilometre is found in the remote regions of Greece (Anatoliki Makedonia, Thraki and Kentriki Makedonia), Spain (Extremadura and Castilla-La Mancha) and Portugal (Alentejo). In the latter two countries, this principally reflects sparse population, since all these regions have above average provision in per capita terms. The Greek regions, however, come out low on this measure as well (Annex, Table A11).

There is some tendency for the metropolitan regions to have the lowest provision per head. In Lisboa, in Portugal, the road network is less than a third of the national average per head and in the Athens region of Greece (Attiki) less than half the national average per head.

To facilitate comparison, a composite indicator giving equal weighting to land area and population has been constructed. This confirms the poor endowment of Greece, Spain and Portugal (Graph 9).

As the road surface reflects not only the length of roads, but also their width (number of lanes), it already involves some allowance for road quality. Motorways are a further indicator of quality. The index combining the per square kilometre and per head figures is highest for the Benelux countries (more than double the Community average) and Germany and generally well below the average for

the peripheral countries – only 5% of the average for Ireland and 9% for Greece (Graph 10).

At Community level, there is no harmonised measure of the quality of service provided by road networks (eg in terms of the average travel speed) or the scale of congestion at peak times (eg in terms of the variability of travel time). The only data from which quality differences may be inferred relate to road safety, as measured by the number of people killed in road accidents. Although this indicator needs to be interpreted with extreme caution, the figures seem to suggest very poor roads in Portugal and Greece, with 69 people killed per 100,000 vehicles as against a Community average of 30 (Graph 11).

The extent and quality of road infrastructure at any point in time is the result of a cumulative investment effort over a long period. The figures for investment in roads help to explain the gap between the four weakest Member States and the rest of the Community: For most of the period 1975 to 1989, the road investment relative to GDP in Greece, Spain, Ireland and Portugal was significantly below the level in the rest of the Community. Only in the last two years of the period was the figure for these countries above the average elsewhere (Graph 12 and Annex, Table A.12). (More recent information suggests that investment remained above 1% of GDP during the early 1990s).

Rail

The variation in provision of railways is less than for roads, although the differences between Member States and regions remain significant and the spatial pattern of variation is similar to that for roads.

In most of the more developed Member States the density of rail lines per square kilometre is above the Community average, whereas the four poorest countries have a relatively low density. As for roads, the per capita figures are somewhat different. Ireland is again well provided, Belgium, the Netherlands and the UK less well so, reflecting the greater prevalence of double-track lines (Annex, Table A.13).

In terms of the composite index, Germany, France and Belgium have the most developed rail networks, Greece the least (Graph 13).

At the regional level, in Spain regions with poor roads (notably Andalucia and Murcia), also have poor rail networks, which is also true of the metropolitan areas of Greece and Portugal. On the other hand, a number of Spanish regions have very high levels of rail provision, especially relative to roads, as is the case in many Southern Italian regions. This suggests that although national levels of provision do not vary greatly, there is more substantial variation between regions within the peripheral Member States.

Three indicators of rail quality are available – the proportion of lines which is electrified, the proportion which is double track and the proportion equipped with automatic block signals.

The degree of electrification depends not only on the finance available for modernisation, but also on such factors as the availability of electricity at competitive prices and the nature and density of traffic carried. There are substantial variations in this indicator between both developed and less developed countries. In the UK and Denmark, a below average proportion of lines are electrified (29% and 11% as against a Community average of 41%) while Belgium, the

Composite rail indicator, 1990 Index (FUR12=100) 200 200 180 180 160 160 140 140 120 120 100 100 60 40 20 I L NL

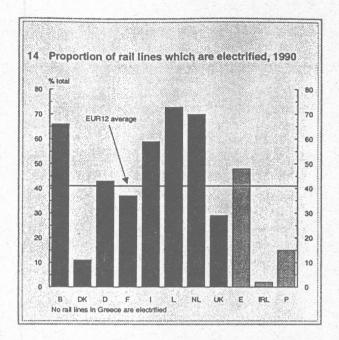
Netherlands and Italy all have figures well above the average. For Spain, the figures is also above average, though the extent of electrification in the weaker Spanish regions is below average as it is in Portugal, Ireland and Greece – in the latter two substantially so (Graph 14).

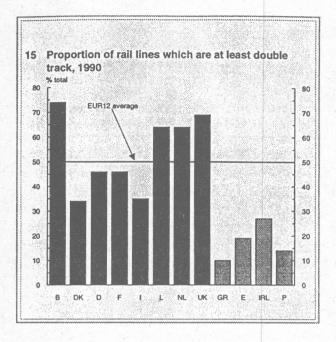
The proportion of lines which are double track is also much lower in the less developed Member States than in the rest of the Community (though this may reflect differences in the level of demand and density of service) (Graph 15).

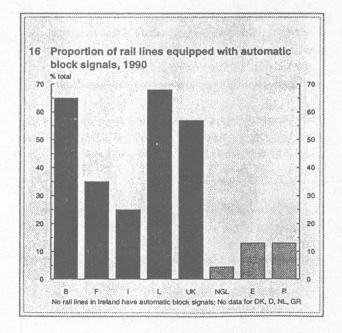
The proportion of tracks equipped with automatic block signalling, which increases speed and capacity, is similarly high in more developed countries – in Belgium, Luxembourg and the UK, it is well over 50% – and low in the less developed – in Spain and Portugal, it is only around 10%, in the new German Länder and East Berlin less than 5% and in Ireland, zero (Graph 16).

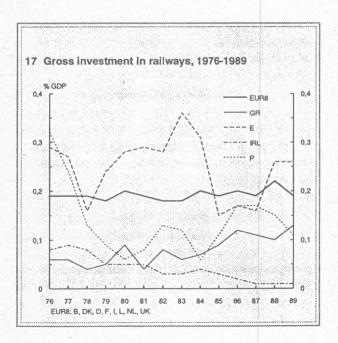
During the second half of the 1970s and in the 1980s, investment in rail infrastructure in the Community remained stable at around 0.2% of GDP (Graph 17 and Annex, Table A.14). Of the four poorest Member States, only Spain had a higher figure (an average of 0.25% of GDP a year). Investment levels in Greece and in Ireland remained very low throughout the period at, respectively, 0.08% and 0.04% of GDP.

These three indicators suggest that rail infrastructure in the four poorest Member States is not only less extensive, but also of poorer quality than in the more developed parts of the Community. At the same time, traffic is also lower. Train-kilometres per kilometre of rail line are only half as high as in the rest of the Community, passenger-kilometres per kilometre of rail line are less than 60% as high and the volume of freight per kilometre of line is less than 40% as high (Table 5). This low level of use may be one of the reasons why these countries have given lower priority to the modernisation of their rail networks than to investment in roads during the 1980s, though equally lack of investment may also be a reason why traffic is low and declining. In the four countries taken together, rail passenger traffic declined by 1% between 1986 and 1991 as compared with an increase









	Intensity of u	Table 5 se of rail infrastructur	e
	Train-km per km of rail line million	Passengkm per km of rail line million	Tonne-km per km of rail line million
	1990	1991	1991
EUR12	18.9	1.87	1.42
EUR8	20.6	2.03	1.59
EUR4	10.9	1.16	0.63

of 7% in the rest of the Community and freight traffic fell by over 5% as against a rise of 3% elsewhere.

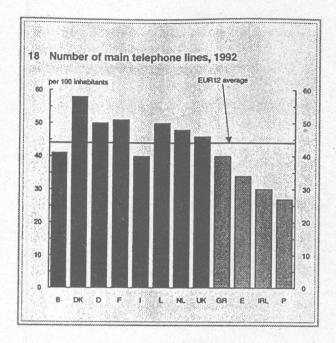
As noted above, the lower level of infrastructure provision may in some cases reflect the lower level of transport demand in the lagging regions. However, there are clear indications that the demand for transport services is rising far more rapidly in many of the lagging regions than in the rest of the Community. Between 1987 and 1992, freight traffic increased by 25% on the Iberian peninsula – more than twice the average increase in the Northern Member States⁶. Such a rapid expansion of traffic is likely to result in increasing congestion, particularly in the more urbanised regions.

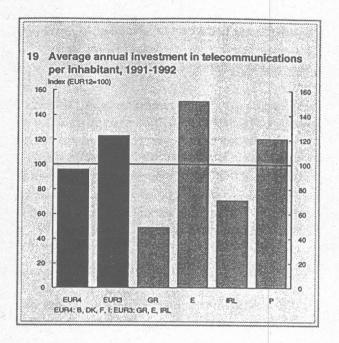
To prevent deficiencies in transport infrastructure imposing serious constraints on economic development, the least prosperous Member States and regions will need to increase investment to a level significantly above that in the more developed areas. This seems to have been happening in recent years. Between 1984 and 1988, the four poorest Member States devoted around 1% of their GDP to investment in transport, slightly more than the more prosperous Member States. Between 1989 and 1993, investment seems to have more than doubled in each country, except Ireland, where there is little sign of any increase. Further increases in investment appear to be planned. Between 1994 and 1999, the four countries together are projected to undertake expenditure of around 2% of GDP, at least twice as high as the Community average, which should enable them to make some progress towards reducing disparities in transport relative to the rest of the Community.

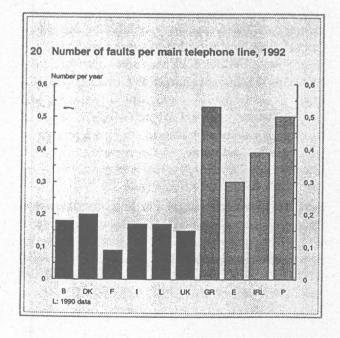
Telecommunications⁷

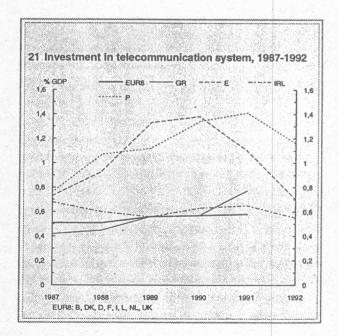
Telecommunications are important, both in providing key support to regional economic development and as a complement to other infrastructure. Telecommunications are often seen as a modern substitute for transport links, since they obviate the need for face-to-face contacts, enable large volumes of information to be sent more rapidly and cheaply. However, telecommunications can also create an increased demand for transport, establishing contacts which tend to lead to a greater need to travel and convey freight. Telecommunications and transport systems can therefore be expected to develop in parallel rather than as alternative.

Telecommunications can also be seen as a prerequisite for the growth of modern industries and services, which require efficient telephone, fax and data transmission systems. The precise relationship between investment in telecommunications and regional development is, however, like that of most infrastructure, not easy to establish. Improved telecommunications can have both centralising and decentralising effects. On the one hand, they make it easier for firms to service branches and clients outside a region from central points and hence can serve to inhibit development. On the other hand, they make









it possible for firms to take advantage of lower costs and other benefits in peripheral regions whilst maintaining good links with core regions.

The quality of the telecommunications system depends both on the infrastructure itself and on the services provided. For basic telephone services, the number of lines per head is a reasonable indicator, while the quality of service can be measured by connection to a digital exchange, which provide access to networks which are an essential part of modern data transmission systems.

Despite rapid growth in telephone networks, major variations between Member States and regions remain. Although the number of main telephone lines in Portugal, for example, increased by over 75% between 1987 and 1992, it still had the lowest density of any Member State at 27 lines per 100 inhabitants, much less than in Denmark (58), France (51) and Luxembourg (50). In Ireland (30), Spain (34) and Greece (40) network density was also below the Community average of 44 lines per 100 inhabitants (Graph 18 and Annex, Table A.15).

Greater variation exists in some countries at the regional level. Germany is the most notable example, the new German Länder have the lowest density of lines in the Community at 13 per 100 inhabitants in 1992 (see Chapter 11). In Portugal there is considerable variation between Acores (18) and Alentejo (19) and Algarve (34) and Lisboa e vale do Tejo (35), while in the Mezzogiorno, the density (32) is less than 75% of that for Italy as a whole and in Greece, substantial differences exist between Attiki (51) and more peripheral regions like Anatoliki Makedonia and Traki (28) or Ipeiros (29).

Connection to digital networks reflects recent levels of investment. High connection levels are found in France (79% of subscribers connected to digital exchanges), where investment has been considerable compared to Denmark, Luxembourg and the Netherlands which have around the same number of lines per 100 inhabitants. In Ireland and Portugal, the rapid growth of the telephone system in recent years has enabled new technology to be introduced earlier than in many much more developed countries (in

Portugal, for example, the digitalisation rate increased from zero in 1988 to 50% in 1992), while in the UK, a major investment programme led to an equally dramatic growth in digital connections (from under 2% in 1987 to 55% in 1992).

To be effective, a telephone network needs to be reliable. The number of faults per line each year is, therefore, an important measure of the quality of service (Graph 20). In the more developed Member States fault rates are generally below 20% (0.20 faults per line annually) while in the four weakest Member States, rates vary from 30% in Spain to 50% or more in Greece and Portugal. This is despite intensive modernisation, which halved fault rates over the period 1987 to 1992.

From the available regional data, there appear to be no great difference between North and South in Italy, but substantial differences in Greece, with the highest fault rate being in the Attiki region (0.71), because of the old and congested network in Athens.

During the period 1987 to 1991, investment in telecommunications in the Community averaged between 0.5% and 0.6% of GDP, though in the four poorest Member States taken together it was significantly higher at just over 1% of GDP (Graph 21 and Annex, Table A.16). In per capita terms, investment in these four countries was some 30% grater than in the rest of the Community (excluding Germany), though there was considerable variation between the four (Graph 19). The high expenditure in these countries was due almost entirely to a trebling of investment in Spain and Portugal, which reached a peak level of around 1.4% of GDP and which, in per capita terms, far exceeded levels in the more prosperous parts of the Community. In Greece also, investment increased significantly between 1987 and 1991, albeit from a very low base (from 0.4% of GDP to 0.8%), though investment per head remained very low (just over 50% of the Community average in 1991-1992). In Ireland, investment was also relatively low in relation to population and, relative to GDP, was just above that in the more developed Member States between 1987 and 1991, which may be due to the fact that the Irish network was already

	Table 6 Main telecommunication indicators (1987-1992)					
	Number of lines per 100 inhabitants		% of subscribers connected to digital exchanges			
	1987	1992	1987	1992		
GR	33	40	. 0	8		
E	25	34	4	33		
IRL	21	30	49	63		
P	16	27	0	50		
GR, E, IRL, P	25	34	5	32		
B, F, UK	40	48	26	66		

significantly digitised by the mid-1980s (with a rate of 46% in 1988).

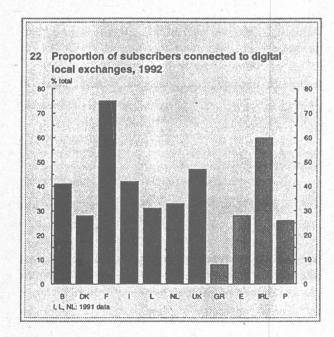
The exceptionally high levels of investment in recent years enabled Spain and Portugal to bring the standard of their telecommunications networks more in line with that in the more developed Member States, despite the latter stepping up efforts to expand and modernise their systems too (Table 6). Between 1987 and 1992, the number of main lines in Spain increased from 62% of the average for Belgium, France and the UK (the only ones of the more developed countries for which data are available) to 71%, and in Portugal, where the number of lines nearly doubled over this period from 40% to 60%. In both countries there was also a considerable increase in the percentage of subscribers connected to local exchanges, while fault rate and average waiting time for new connections declined significantly.

Environmental facilities and water supply

Environmental infrastructure – considered here in terms of the capacity to supply adequate amounts of clean water and to dispose of solid and liquid wastes

generated — is both an important contribution to economic activity and a source of protection against ecological damage as development takes place. It, therefore, helps to ensure that regional growth can be sustained. For example, inadequate facilities for the treatment of urban waste water can significantly reduce income and jobs.

The main environmental problems which have implications for infrastructure investment in weaker regions concern the management of urban waste water and the disposal of domestic, industrial and



toxic waste. Problems of environmental damage, however, are widespread throughout the Community. In certain cases, for example, contaminated land or urban dereliction, the problems tend to be greater in developed areas now in industrial decline than in less developed regions.

In considering regional endowments of environmental infrastructure, the approach adopted is not one of examining the extent to which the weaker regions are less developed than the stronger, but one of comparing the current situation with the standards identified in the various Community Directives relating to the environment. This, in effect, combines quality and quantity indicators.

Community Directives set environmental standards and the dates by which these must be met. The supply of water, the quality of which is governed by Directives, requires major investment to ensure adequate provision for households and businesses without undue impact on the natural environment. Air quality and control of emissions are also governed by Directives but are not considered here because they do not involve major public infrastructure investment and because the costs of meeting standards fall largely on the private sector.

The physical requirement for new environmental infrastructure is difficult to estimate. Continuing changes in environmental policy and standards, uncertainty over future economic growth and changes in technology complicate the picture, while there is a lack of comprehensive data on existing facilities—a problem not confined to Europe. Here the aim is to indicate the broad scale of Community differences in endowment between regions.

Waste water

The capability of regions to treat their waste water varies widely. In West Germany, in 1988, the ratio of waste water treatment capacity to waste water production was 105%, while in Ireland the figure was one-third and in Greece only 11%. The Ministry of the Environment in Italy recently reported that a number of the treatment plants in the Mezzogiorno

were not in operation, often because they were not connected to the sewer or power system⁸.

To be treated, waste water has to be collected, which requires in turn a major investment in infrastructure. In 1991, only 53% of the population in Spain was connected to waste water treatment facilities, while in Ireland the figure was 44% and 31% in Portugal. These proportions compare with 68% (France) and 98% (Denmark).

Untreated waste water is generally discharged into rivers and eventually the sea. The quality of bathing waters therefore give an indication of the effectiveness of waste water treatment system. In Denmark, where 92% of the population is connected to waste water treatment facilities, 96% of beaches met the standard set in the Bathing Water Directive. In Spain, 90% of beaches reached the standard, but in Andalucia this figure fell to 81%, while in Sicily the figure was only 78% and in East Germany as low as 68%. The UK figure is also comparatively low at 76%.

Solid waste

Municipal solid waste can be disposed of by incinerating, composting, recycling or landfill. Landfill is the most common and least expensive method, but in order to ensure that landfill sites meet environmental standards – so that, for example, contaminated water does not leach into the water table – they need to be controlled. In Portugal, 62% of municipal solid waste was disposed of in uncontrolled sites in 1989 and this rises to 93% in the Algarve¹⁰. In the poorest regions of Spain 38% of waste was disposed of in such sites in 1990 and 71% in Castilla La Mancha¹¹, in Italy an estimated 70% of the waste generated in the Mezzogiorno is disposed of in unauthorised sites¹².

The disposal of industrial and toxic waste is a major problem in all Member States and there is a lack of agreement on the methods to be used. Even in the less developed regions, the amounts of toxic and hazardous waste being produced have reached significant levels. Greece, for example, generated approximately 450,000 tonnes a year¹³ but has no treatment or disposal facilities, and it is estimated that Portugal

Table 7 Average annual investment required for environmental infrastructure

	Urban waste water MECU	Municipal solid waste MECU	Industrial/ hazardous waste MECU	Water supply MECU	Total MECU
Greece	240	35	2	95	372
Ireland	95	20	7	30	152
Italy	208	15	14	288	525
Portugal	113	35	14	149	311
Spain	458	19	10	372	859
Total	1.114	124	47	934	2.219

Greece: The Cost of Compliance with Environmental Directives in Greece, BCS 1992;

Ireland: The Environment and Regional Development in Ireland, Jonathan Blackwell and Associates, 1992;

Italy : Environmental Investment Needs in the Lagging Regions, ERL España Industrial Hazardous Waste based on Valutazione delle iniziative intraprese nel campo delle risorse idriche e dell'ambiente nell'ambito del QCS 1989-1993 per l'Italia, ERL London;

Portugal: Regional Environmental Development Study in Portugal, SEIA (Industrial Hazardous waste data from ERL España);

Spain: Environmental Investment Needs in the Lagging Regions, ERL España; Figures for water supply from Water Supply Infrastructure needs in the Lagging Regions, Ecotec Research and Consulting Ltd

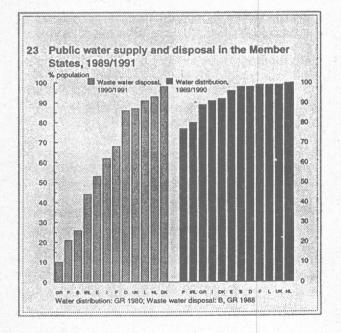
produced over 1 million tonnes of hazardous waste in 1987, 82% of which was disposed of to uncontrolled landfill¹⁴.

system can be high – as much as 34% in Spain and 30% in the Mezzogiorno in 1987¹⁵.

Water supply

Proper management of the environment requires that the process of supplying water does not interfere with the ecosystem. Water is needed for both industry and households. The poorer regions, where agriculture is a major water user, face problems of shortages, seasonal fluctuations in both supply and demand and potential contamination. There are permanent supply problems – 'water stress' – in the South and South-West of Spain, Attiki (GR) and Abruzzi and Sardegna (I). Shortages are particularly acute in Communidad Valenciana and Murcia (E). In Ireland, only 80% of the population was connected to the public distribution network in 1990 and 65% in the Norte region of Portugal in 1990 as against 99% in France and the UK in 1989 (Graph 23).

Even where the public distribution system is relatively extensive, the amount of water lost from the



Investment requirements

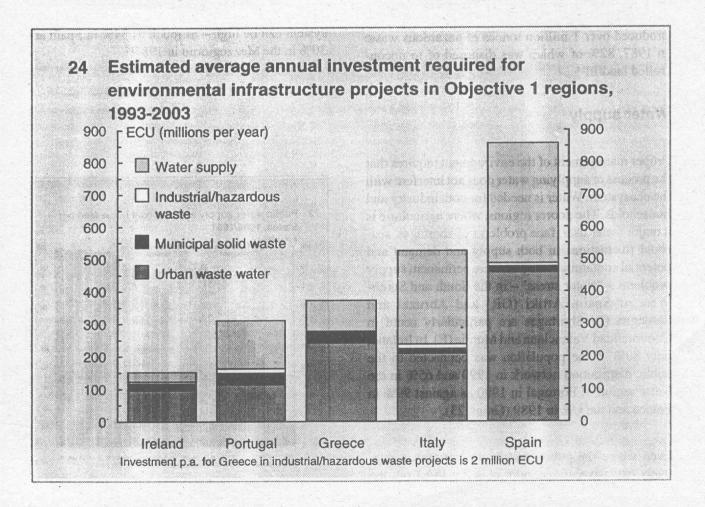
If measuring the scale of the initial problem is difficult, assessing the costs of meeting environmental standards is even more so.

It is estimated that investment of over 900 million ECU a year will be needed in waste water management in the four poorest countries of the Community plus Italy over the next ten years to comply with the drinking water Directive (80/778) and to achieve a 95% connection rate (Table 7). These figures, however, do not include the renewal of existing but inadequate facilities nor operating costs, which together could double the required expenditure.

In the case of urban waste water, investment is required for the provision and renewal of sewers and treatment facilities. The Urban Waste Water Directive (91/271) sets out precise standards to be

achieved by all waste water discharges and a time schedule with final completion by 31 December 2005, by which date all treatment facilities required by the Directive must be installed. Investment alone, however, is not enough to ensure that standards are met. There are many examples of new plants lying idle or functioning inadequately because of the costs of maintenance, a lack of trained employees or organisational problems.

As GDP grows, so does the quantity of waste generated. The composition of the waste also changes, with the proportion of organic matter decreasing. The provision of recycling and incineration facilities (which must themselves respect air pollution standards) is costly. Landfill is likely to continue to be the most important form of disposal for the foreseeable future, but as well as investment in the provision of sites, there must also be effective monitoring of these and a charging system which reflects the true costs,



provides an incentive for waste minimisation and/or recycling and deters illegal disposal.

The generation of toxic and hazardous wastes per head is lower in the less developed than in the more industrialised regions, but is increasing as industry develops. Lack of law enforcement, local opposition to the location of facilities and other political problems are important in restricting investment.

Investment in water supply tends to be directed towards three aims: collection, purification and distribution. Important problems to be addressed include the possible deterioration of ground water quality from pollution and guaranteeing a continuous supply of water, particularly to Southern parts of Italy and Spain and to Attiki in Greece.

Planned investment will make considerable progress towards improving waste water and solid waste treatment and water supply in the weaker regions in the coming years (Graph 24). Total expenditure in these areas will double between 1989-93 and 1994-99.

The expected changes will be dramatic as illustrated in the case of Portugal. Secondary level treatment of waste water should rise from 20% to 90% over the next 6 years while the proportion of municipal waste disposed of under controlled conditions is expected to rise from 40% in 1990 to 98% in 1999.

Investment in infrastructure can have a significant effect on the economy of a region, both directly and indirectly. The installation of new facilities generates employment both during the construction period and when in operation. One estimate is that 26,000 job years in construction, contracting and the supply of equipment were created as a consequence of projects financed by the Structural Funds and by Member States on environmental projects in 1993¹⁶.

Regional differences in human capital endowments

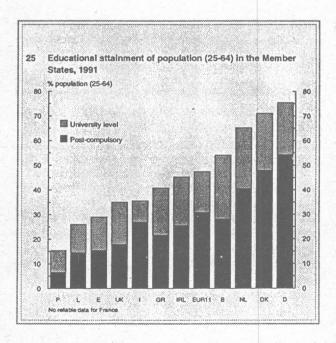
The competitiveness of the Community and regions depends not only on physical infrastructures endowments but, to an increasing extent, on those of human resources. Effective educational and training systems can therefore be important in strengthening comparative advantage. Despite the efforts made over recent years, however, disparities are still very wide.

Adjusting educational and training systems to profound structural changes is a priority for the whole Community. The need is to respond to technological advances which make existing skills redundant and to demographic trends which are reducing the number of people entering the labour market.

Disparities in educational levels

The educational level (or attainment) of the workingage population is a fundamental indicator of the availability of human capital.

In the four poorest Member States, a large proportion of the adult population (aged between 25 to 64 years)



has not undertaken a secondary education – 77% in Portugal, 64% in Spain, 53% in Greece and 33% in Ireland as against a Community average of 17%¹⁷. In most of the more developed countries, the figure is virtually zero (Graph 25).

Furthermore, there are wide regional disparities in the least favoured Member States. For example, in Portugal, the proportion of the population of working age without secondary education varies from 69% (Lisbon and the Tejo valley) to 85% (Madeira) and in Greece from 38% (Attiki) to 71% (Eastern Macedonia). Those living in towns or cities are generally better educated than those living in rural areas reflecting the relative ineffectiveness of existing educational systems.

Patterns are more varied in regard to post-compulsory secondary education (Graph 26). While it is the case that the poorer regions of the Community have a lower proportion of population who have attained

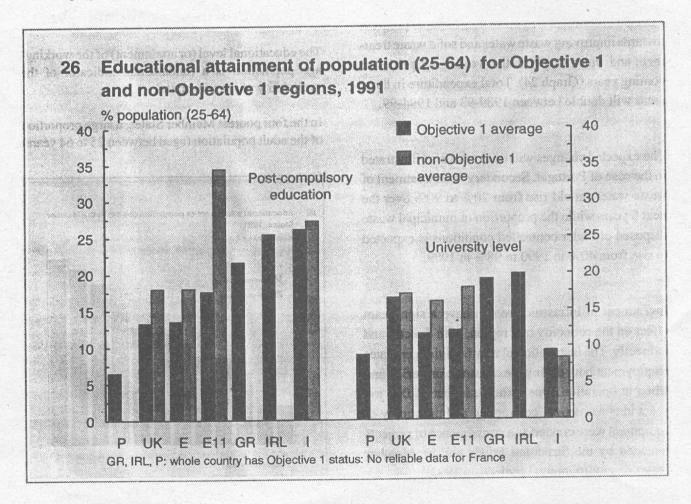
this level compared to the Community average, this also applies to certain more prosperous Member States, notably the UK and Luxembourg.

Disparities in participation rates

Basic education and initial training is essential to improving the quality of the future workforce in Member States. It gives young people a better chance of finding their first job and is essential preparation for further education and training.

In all Member States, virtually the whole of the population aged up to 15 years is now undergoing (compulsory) education. Over time, this will progressively erode the wide disparities in educational attainment described in the previous section.

The number of young people taking post compulsory educational/training courses has increased consider-



ably throughout the Community in recent years. There has been substantial progress in the least developed regions of the Community. Nevertheless, marked differences still exist in the proportion of young people of 15 to 19 remaining in education, particularly between the less developed countries and the rest of the Community. In the more developed countries, over 75% of 15 to 19 year olds were in secondary or higher education in 1989-90, except in Luxembourg (72%) and the UK (59%)). In the poorest Member States, the figure was around 60% or less except in Ireland (69%).

There are also important differences in the case of the 20 to 24 age group. In the Netherlands, 29% of this group and in Denmark and Germany (excluding the new Länder) 27% were still in education, while the figure for Greece and Portugal was 17% and for Ireland only 15%. There were, however, notable exceptions. Among the more developed countries, the UK had a figure of 15% and among the less developed countries Spain one of 25%.

Closer examination of the data for young people in the 15 to 19 age group shows that the high figures in the most developed regions are the result of high levels of technical and vocational training. On the other hand, in the least developed regions, in general, academic forms of education predominate. These same regions are often those most affected by unemployment among the under 25s.

To reduce present disparities, it is not sufficient simply to increase the capacity of education and training-systems in the less developed areas. Although important, enrolment rates give no indication of the quality of the content of courses or the educational methods used. The repeat and drop-out rates provide some insight in to these aspects. Countries with low enrolment rates also have high repeat and drop-out rates. In Spain, for example, the repeat and drop-out rates in secondary education increased from 12% in 1988 to 22% in 1992 and rates are also high in Italy (19%) and Greece (9.5% in general secondary education and 24.5% in technical and vocational training)¹⁸.

Disparities in continuous education and training

Data on continuous education and training are difficult to collect and interpret. Existing sources such as surveys of the Labour Force Survey indicate the broad scale of disparities within the Community, the proportion of 15 to 24-year-olds in employment and receiving training, for example, varying from 33% in Germany to less than 2% in Greece and Portugal in 1991.

In general, the most highly educated and those working in large companies seem to have more chance of receiving further training, which implies problems for the least favoured regions with their more poorly educated workforces employed mainly in small and medium-sized enterprises. The fact that training is most needed in those regions where there is least provision calls for measures to increase the opportunities available, through, for example, better links between initial and continuous education and training systems.

Vickerman W, Analysing the regional impacts of new transport infrastructure: a framework, in Cuadrado Rouro J, Nijkamp J and Salva P (eds) Regional Development, Economic Restructuring and Emerging Networks, forthcoming. Biehl D and others (1986), The Contribution of Infrastructure to Regional Development, 2 Volumes, Office for Official Publications of the European Communities, Luxembourg. Biehl D (1991), The role of infrastructure in regional development, in Vickerman W (ed), Infrastructure and Regional Development, European Research in Regional Science vol 1, Pion Ltd, London.

European Commission (1990), The European High-Speed Train Network and European Commission (1993)
Trans-European Networks: Towards a Master Plan for the Road Network and Road Traffic, 1993. The ERDF has contributed nearly 7.5 billion ECU in the weakest regions over the period 1989-93, with some 3.5 billion ECU for sections of Community interest. However, this is small in comparison to the estimated 1000 to 1500 billion ECU needed to complete the trans-European transport networks over the period 1990-2010 (COM(92) 231 final, 11 June 1992).

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For evidence on this see ACT Consultants (1992), IRPUD and ME&P, The Regional Impact of the Channel Tunnel throughout the Community, DGXVI, European Commission.

⁶ European Conference of Ministers of Transport (1994), Trends in the transport sector 1970-1992.

All data in this section are drawn from a study carried out for the Commission by Ewbank Preece Ltd (1994), Analysis of statistical indicators of telecommunications in the less favoured regions.

Valutazione delle iniziative intraprese nel campo delle risorse idriche e dell'ambiente nell'ambito del Quadro Comunitario del Sostegno 1989-1993 per l'Italia. ERL, London 1993.

9 Indicators Ecotec, Beaches meeting the Bathing Water Directive (76/160).

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15 Ecotec Indicators for Spain and calculations by the Ministero dell'Ambiente for Italy

16 Ecotec (1993), Sustainability, Employment and Growth: the Employment Impact of Environmental Policies.

The data on educational attainment are drawn from the Labour Force Survey which classifies different levels according to the International Standard Classification of Education (ISCED). For definitions, see European Commission (1993), Employment in Europe, p. 102.

Ecotec (1993), Evaluation of Structural Funds Interventions in the Field of Human Resources in Objective 1 Regions. Study financed by DG V of the European Commission.

European Commission (1994), Energy and Economic and Social Cohesion. Com (93) 645 final. See also the detailed analysis of regional trends in the energy sector in University of Barcelona (1993), Energy and socioeconomic indicators in the European Community. Study financed by the European Commission.

Chapter 5 New inward investment and the regions

Mobile investment in the Community: where are the most attractive locations?

The prosperity of regions is dependent on their ability to attract and retain productive activity. The features of a region which attract economic activity tend to change over time as do the conditions required by the activities themselves. Historically, the structure of economic activity has undergone massive changes as agriculture gave way to urban manufacturing which, at least in terms of employment, has in turn diminished in importance as services have expanded. Within manufacturing and services, there have also been major structural changes as the scale of activity has expanded both in terms of the range of products produced and geographically.

The multinational firm has become the symbol of modern economic activity at the end of the twentieth century. These firms have a much greater influence on activity than their size would suggest because of the ancillary manufacturing and services which they generate as they locate in different places. Nevertheless, outside the multinational sector, small and medium-sized companies continuously make loca-

tional decisions only some of which can be ascribed to the behaviour of large firms.

The factors which determine the locational behaviour of companies have been the subject of many studies. This chapter does not attempt to review the findings, but instead focuses on the evidence of a survey of firms which were asked how different parts of the Community measured up to their locational requirements¹. It then goes on to consider the magnitude and direction of foreign direct investment flows over the period 1986-1991.

Factors affecting location decisions : a brief review

The survey covered 87 firms including 17 multinationals which had recently taken decisions on the location of their activities in the Community. The findings confirmed the importance of the classic determinants of location:

- · proximity to the market
- the quality and availability of labour
- suitable infrastructure (transport, telecommunications, etc)
- the quality of life and personal factors

- cultural affinity
- promotional policies
- the existence of other firms in similar areas of activity, or the clustering effect.

None of these are surprising, though the identification of the clustering effect has potentially important consequences for regions. The decision of where to locate of around half the companies interviewed was affected by the desire to be close to companies carrying out similar activities. This was particularly true of manufacturing companies which believed they would have more choice as regards component suppliers and specialised maintenance services in an area where similar products were being manufactured. Component suppliers also preferred to be located close to similar companies, both for supply of intermediate goods and for access to major customers.

The findings of the survey at a more general level are also revealing. First, the survey indicated that the motive underlying the decision to locate, or re-locate, is a desire to gain or retain market share. The Single Market appears to be particularly important in this respect. On the one hand, firms from outside the Community viewed investment in Europe as a means of protecting their market share. On the other, many firms inside the Community have responded to the Single Market by reorganising their activities geographically. The data reviewed below confirm the substantial growth of investment flows into the Community, as well as between Member States, in the second half of the 1980s.

Second, in 75% of cases, the firms surveyed selected the country in which to locate first and only then the region. In 25% of cases, the final choice was between regions in different countries. This means, therefore, that in most cases the attractiveness of a region was closely linked to the attractiveness of the Member State concerned, though in a significant minority of cases, the region seemed to be selected on its own merits.

Thirdly, a single factor stood out as the key influence on the decision in only a few cases. In most cases, the region selected had a particular combination of characteristics which best satisfied the criteria specified by the decision-maker.

Fourthly, direct cost factors were not always the most decisive. Firms were prepared to forego the lowest cost location in favour of other benefits, though these often had an implicit cost dimension – good quality labour, for example, affects costs as does the proximity of markets.

Perceptions on different Member States and regions

The firms surveyed were asked to explain why some countries were included in their short-lists of possible locations and others excluded. In general, the Member States most frequently included were Germany, France and the UK because of the importance of their large market. In the case of Germany and France, physical location on the European mainland was important especially when combined with the good level of infrastructural provision which was perceived. These countries were also reckoned to offer a high quality labour force, though concern was sometimes expressed about cost. For the UK, the language and culture were seen as particular advantages, especially by outside investors from the US and Japan.

The other large Member State, Italy, was short-listed much less frequently than Germany, France and the UK, largely, it would appear, because investment there was thought to involve more risk than in the other three countries. Language difficulties were also frequently cited against short-listing Italy, while some respondents viewed peripherality, the political system and low labour force quality as problems.

For the smaller Northern Member States – Denmark, Belgium, the Netherlands and Luxembourg – the absence of a large national market seems to be a major factor militating against their inclusion on company short-lists. Companies, at the time of the survey, were just beginning to view the Community as a single market. This is probably therefore a tran-

sitory matter which is likely to change as companies adapt their production and marketing to the reality of a fully operational Single Market. On the positive side, Belgium was often perceived by investors as being at the heart of the Community, due to the presence of the European Commission and the head-quarters of a number of major multinationals. The Netherlands was often included for distribution sites due to its excellent port facilities and road network as well as its accessibility to industrial areas elsewhere.

Perceptions on Greece, Spain, Ireland and Portugal

The attractiveness of locations in the weakest Member States – Spain, Greece, Ireland, Portugal – is of particular importance for cohesion. Their perception by the firms surveyed can be summarised as follows:

Spain

Spain was increasingly being included on short-lists in cases where proximity to a large population was important. A number of firms surveyed mentioned that for many products the Spanish market was expanding as the economy grew and was therefore a good sales opportunity for them.

As well as an expanding market, the main reasons given for short-listing Spain were low production costs and the generous incentives on offer.

The main reasons for not short-listing it were its distance from the core Community market which caused logistic problems and hindered close relationships with customers, language difficulties and, in the case of US and Japanese firms, the lack of cultural affinity. A few companies also referred to problems of labour quality.

Ireland

Ireland was considered more attractive than Greece or Portugal. Its key attraction was that costs were low because of low wages, low corporate taxation and generous incentives. This, together with the language, was frequently cited as the reason for locating in Ireland. From the replies, Ireland was beginning to be recognised as a centre of excellence for electronics and software and had a ready supply of skilled labour.

The main reasons for not short-listing Ireland were its peripherality and the difficulties of transporting goods to the European mainland.

Greece and Portugal

Greece and Portugal were short-listed in very few cases. Where they were, the main reasons were low production costs and the generous level of incentives offered.

The chief reasons given for not short-listing the two countries were their peripherality and the associated transport difficulties and high costs, inadequate infrastructure, low quality of labour and the lack of particular skills. Some companies expressed difficulties of 'doing business' in countries with a small industrial base and a lack of industrial tradition compared with countries such as Germany.

In some cases, specific business-related reasons, such as a lack of service facilities for machine maintenance, were also cited.

Concluding remarks

It emerged from the survey that for many companies, deciding on their location, a key issue was how to balance the advantages of being close to their main markets against the lower costs and other benefits often associated with a more distant location.

The survey implies that regions nearest to the economic centres of the Community will continue to benefit from this. Other regions might be able to counteract such an advantage through lower congestion, better quality of life, lower costs, financial incentives, and so on. This applies especially to regions which are not too distant from these centres. It seems likely, however, that headquarters of multina-

tionals and specialised financial services will continue to be located in central regions.

Through lower costs and financial incentives, the most peripheral regions have also been able to attract a substantial amount of investment in the recent past, especially in manufacturing (see below). Notable examples include parts of Scotland and Ireland (Midwest), the Lisboa and Porto regions in Portugal, several areas on the Spanish Mediterranean coast (Barcelona, Valencia, Malaga), Puglia (Bari) in Italy and the Thessaloniki region in Greece, which are all areas with fairly well developed socio-economic infrastructure.

In the future, the cost advantage of 'peripheral' regions may become smaller as further economic integration leads to the harmonisation of macro-economic conditions and upward pressures on wage levels (see chapter 11). There is, therefore, greater onus on these regions to maintain or increase their attractiveness for mobile investment through improving their accessibility and the conditions they offer for knowledge-based activities.

The survey also has important implications for regional development agencies trying to attract investment. It suggests, first, that a combination of factors tends to determine a firm's decision; secondly, that the key determinants differ from case to case; thirdly, that companies tend to choose regions where activities similar to their own already exist. Finally, firms indicated that local promotional policies and support were very important in their final choice of location.

Trends in Foreign Direct Investment²

A lagging region derives two kinds of benefit from foreign direct investment (FDI – the capital with which an enterprise finances the purchase, creation or development of subsidiaries abroad or acquire share in foreign companies):

- an injection of capital, which increases investment in its productive capacity and hence its growth rate;
- access to advantages which multinationals can bring; examples often cited are technical knowhow, the opportunity for the local workforce to learn new skills and management techniques.

These benefits will be greater where there is a spinoff to local industry as the multinational interacts with indigenous firms.

There are, however, at least two reasons why this favourable outcome may not occur. The first is that FDI in a productive activity may, because of the competitive edge of the multinational concerned, inhibit the development of local firms in that sector. Secondly, foreign firms do not always develop links with the local economy.

It is nevertheless generally accepted that a balanced development strategy which succeeds in attracting and integrating inward investment can significantly assist the convergence of lagging regions. As shown below, FDI flows are a major source of capital for these regions often outstripping receipts from the Structural Funds.

Difficulties in measurement

FDI statistics are well known for measurement difficulties. Data are usually collected at a national level only, so precluding any regional analysis. They are also often incomplete. What is defined as FDI varies from one country to another as do the systems of data collection. Figures on the outflows from one country to another, therefore, often show major differences from the figures on inflows estimated by the latter (the so-called asymmetry problem).

In consequence, the data should be treated with a great deal of caution. In particular, little can be concluded from small inter-country differences. The analysis below begins by reviewing the major global trends in FDI flows. While the main interest is in inflows into the Community it is also necessary to consider outflows since the two are often related.

FDI: The major global players

There are three major sources of foreign investment: the US, Japan and the European Community. According to European Commission statistics, in the period 1986 to 1991 inclusive, FDI undertaken by the Community, US and Japan totalled nearly 370,000 million ECU. The Community and Japan each accounted for nearly 163,000 million ECU of this. US FDI abroad therefore totalled some 48,000 million ECU over this period, less than one third the level of either the Community or Japan. The figures also indicate that outflows of investment from the Community and Japan exceeded inflows (especially in the case of the latter) while the US was a major net recipient of foreign direct investment (Graph 27).

The data, however, do not include reinvested profits, which according to the estimates could account for as much as 80% of total US FDI abroad. The Community has been a major beneficiary of US investment and by 1988 the accumulated stock was estimated at some 107,000 million ECU. Indeed, many US companies have been in Europe for so long that they are no longer considered foreign investors.

In the late 1980s, Japanese FDI abroad increased significantly, peaking at 40 billion ECU in 1989 as against 15 billion in 1986 and an average of 8 billion in 1984/85. Although Japan is a major investor in neighbouring Asian countries, the evidence also suggests that Japanese investors are increasingly targeting the Community reflecting in large measure their desire to benefit from the opportunities created by the Single Market, now effectively expanded to include six countries of the European Free Trade Association (EFTA). Japanese investment in the Community tends to be dispersed across a wide range of economic activities taking in not only manufacturing but also commercial activities such as property and financial services where joint-ventures and partnerships are common.

The increasing interest in the Community by foreign investors is reflected in the scale of flows over time though there are significant year to year fluctuations. The flow of FDI into the Community was only 7 bil-

lion ECU in 1986 but reached a peak of 33 billion in 1990 before falling back to 21 billion ECU in 1991. On the other hand, the outflow of FDI from the Community was not much different in 1990 and 1991 (19 billion and 27 billion ECU, respectively) than in 1986 (22 billion ECU). In analysing trends in FDI, flows between the Community and the rest of the world need to be distinguished from flows between Member States.

Flows between the Community and the rest of the world

Of the FDI undertaken abroad by Community countries, the major recipient is the US, accounting for 63% of the total in the period 1986-91. This largely comes from four Member States. Over this period, the UK was by far the largest investor outside the Community accounting over a third (36%) of the Community total. The three other major investors were Germany (19% of the total), France (also 19%) and the Netherlands (12%), with the remaining Member States having combined shares of only 14%.

The FDI flows into the Community from outside – some 120,000 million ECU – are of relatively diverse origin and flows from the Community to the US are not reciprocated to the same degree. The US accounted for an average of 25% of the total foreign investment into the Community between 1986 and

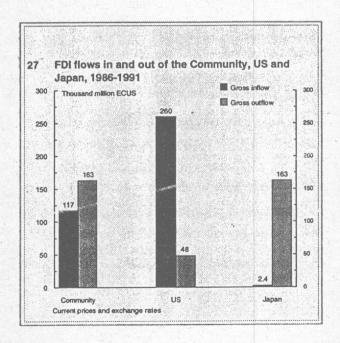


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	% total	% total	% total
	external FDI	internal FDI	GDP
B/L	6.0	14.1	3.3
DK	2.2	0.8	2.2
D	3.2	5.0	25.0
GR	0.6	0.8	1.1
E	8.8		7.6
F	12.7	15.9	20.0
IRL	3.0 5.5		0.7
1	7.6	6.6	17.8
NL	9.3	9.3	4.8
P	1.6		0.9
UK	45.0 19.6		16.5
EUR12	100.0	100.0	100.0

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	vestment, 1986-19	441
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	IN +	OUT	IN +	OUT	NET	per head of population
B/L	20216	17024	7123	5679	4636	440
DK	1197	4442	2586	2553	-3212	, -
D	7093	36011	3805	31151	-56164	- 17 - 19 - 19 - 19 - 19 - 19 - 19 - 19
GR	1121	22	652	81	1670	160
E	26991	5188	10364	3155	29012	740
F	22777	45943	14905	31823	-40054	
IRL ·	7897	1735	3565	2059	7669	2190
	9434	13372	8951	7656	-2643	• • • • • • • • • • • • • • • • • • •
NL	13303	22558	10989	20346	-18613	
Р	4835	522	1828	113	6028	610
UK	28018	12657	53017	58818	9560	170
TOTAL	142882	159474	117785	163434		

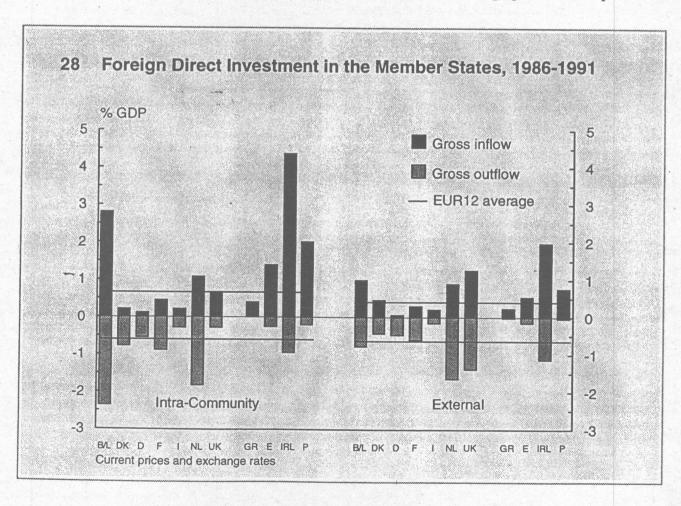
1991, the major source of FDI being the EFTA countries which provided 35% of the total, nearly three times the share of Japan (13%). FDI from the EFTA countries grew steadily up to 1990, reflecting increasing integration with the Community in the years before the formation of the EEA and the accession negotiations of Norway, Sweden, Finland and Austria.

Just as it is the major investor outside the Community, the UK is the major destination for FDI flows into the Community, accounting between 1986 and 1991 for around 45% of the total. Of the other Member States, major shares over the period went to France (13%), Spain (9%), the Netherlands (9%), Italy (8%) and Belgium/Luxembourg (6%). Absolute shares are liable, however, to be misleading and it is revealing to relate the FDI inflows from third countries into each Member State to the size of its economy (measured by GDP – Table 8). In this regard, the large economies of the Community

- France, Italy and Germany (in particular) - received shares significantly smaller than the relative size of their economies. The exception was the UK which received a share of FDI which was greater than its share of Community GDP (Graph 28). Ireland and the Benelux also attracted disproportionately large shares of FDI from outside the Community while for other countries the shares were broadly in line with those in regard to GDP.

Intra-Community Investment

Flows of investment between Member States are also significant at an estimated 150,000 million ECU between 1986 and 1991. France was the major investor accounting for some 30% of the total, with Germany close behind with 23%, only slightly more than the Benelux countries with 22%. The UK was responsible for progressively less FDI in the rest of the Community as recession set in at the end of the 1980s, its share averaging 8% over the period as a



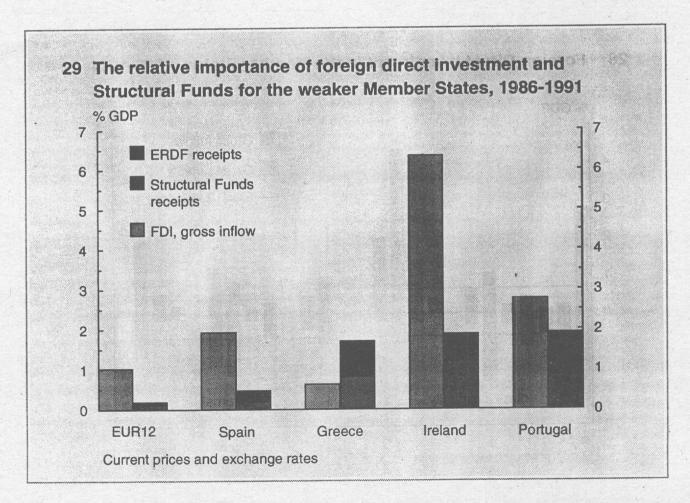
whole. On the other hand, the UK's share of FDI receipts from other Member States was maintained over the period at 20% of the total. France, the major investor, was also a major recipient of FDI with 16% of the total while Spain and Belgium/Luxembourg were also important destinations with 19% and 14%, respectively.

Again, however, it is of interest to compare the inward investment of Member States from other parts of the Community with the size of their economies. Those with disproportionately largest shares of inward investment in relation to their GDP were Ireland, Belgium/Luxembourg, Portugal and Spain over the period (Graph 28).

A final approach to the analysis of the trends is to take the net flows between Member States and their Community and non-Community partners which can be standardised for comparative purposes using population. The evidence suggests that FDI is contributing to cohesion and that the four poorest Member States are all net recipients. Net receipts expressed per head of population are highest in Ireland followed by Spain which is by far the largest net recipient in absolute terms. The UK, the fifth poorest Member State, is also a net recipient. All the other Member States are net contributors except Belgium/Luxembourg (Table 9).

FDI and the Structural Funds compared

Comparisons between transfers received from the Community Structural Funds and FDI flows are fraught with statistical difficulties and can only be regarded as broadly indicative of the relative magnitudes involved. For three of the four main recipients of Structural Funds assistance – Spain, Portugal and Ireland – inward foreign direct investment, as measured, has tended to be larger in value than Community regional aid. This is especially true of



Spain, where the former averaged around four times larger than the latter in the six years 1986 to 1991 (Graph 29). In Portugal and Ireland, the two magnitudes were more similar over the period, especially during the earlier years, though both experienced a substantial increase in inward FDI in the later years which pushes up the average for the period.

In Greece, on the other hand, transfers from the Structural Funds averaged around twice the value of inward investment over this six-year period.

The tentative conclusion which can be drawn from these comparisons is that in most cases – Spain in particular – foreign direct investment is at least as important as Community regional support as a source of capital formation in the less developed areas. The relatively strong growth experienced in the second half of the 1980s in Spain, Portugal and Ireland almost certainly owes something to such investment, though equally the fact that growth was strong is likely to have been a factor attracting foreign companies to invest in these countries.

Ireland is the major destination for both external and intra-Community foreign investment in relation to its size. This comes mainly from the US, though the UK is also important while the Community's share of total FDI received by Ireland tended to decline between 1986 and 1991. FDI has led to the establishment of a modern productive base in industries such as electronics and pharmaceutics. The capital-intensive nature of much of this investment, however, and the comparative absence of local linkages have contributed to a relatively low employment content in economic growth (see Chapter 2).

Greece has attracted relatively low levels of inward investment and what there is tends to be linked to tourism in such areas as hotels and catering, which does not create the opportunities for learning the skills relevant to high value-added industry.

Almost half of **Portuguese** inward investment comes from the UK. FDI increased considerably (virtually tripling in nominal terms in the second half of the 1980s). Textiles, banking and wholesaling feature prominently among the sectors concerned and in-

vestment has undoubtedly been attracted by cost considerations with Portugal exploiting its low wage advantage. One concern is that FDI may not have contributed sufficiently to industrial diversification and that necessary skills are not being taught. The lack of infrastructure is a hindrance, especially given the peripheral location, though the position is changing rapidly.

There have been massive increases in FDI going to Spain over the 1980s, more so than to any other Community country according to the evidence. This has mainly come from other Community countries and has principally gone into transport machinery, textiles, chemicals and metal products. There has also been substantial FDI in banking and wholesaling. The broad base of FDI in Spain has probably contributed to general efforts to raise skills, especially of management.

As already noted, the UK is the major recipient of outside investment and, as indicated in the survey on location factors above, this seems to be associated with cultural affinities and the language. The UK is, however, the major destination of FDI from non-English-speaking countries such as those in EFTA. While English is often the preferred second language, this finding may have to be treated with caution. The UK appears to have been the only large country which has succeeded in attracting significant amounts of inward investment to its peripheral, lagging regions, rather than the core, successful regions. The UK's approach may therefore be of interest to others (see chapter 10).

Foreign direct investment : manufacturing

It is of interest to consider the results of an enquiry into the nature of US and Japanese investment in new manufacturing plants in the Community's regions. As mentioned above, the advent of the single European market, provided a new impetus for firms from outside, not only to sell to, but to produce in the Community in the second half of the 1980s. US and particularly Japanese firms have expanded their operations in the EC, through portfolio as well as greenfield investments (Tables 10 and 11).

Source: BCI

	Number of plants	Number of jobs	Most important investment regions
UK	68	7100	Scotland, Wales, Midlands
France	30	2900	Ile-de-France, Bassin Parisien, Mediterranée Centre Est, Côte d'Azur
Ireland	28	2700	Dublin, Cork
Netherlands	15	1000	Brabant, Limburg, Randstad
FR of Germany	12	1400	Baden-Württemberger, Bayern, NRW
Spain	6	800	Cataluña, Valencia
Belgium	5	750	Vlaanderen
Italy	5	500	Nord Ovest, Lombardia, Nord Est
Luxembourg	5	300	
Total	174	17450	

since to invest in these countries.

	Number of plants	Number of jobs	Most important investment regions
UK	59	11400	Wales, Midlands, North, South
FR of Germany	24	3400	Nordrhein-Westfalen
France	23	3600	Bassin Parisien, Elzas, Lorraine, Ile-de-France Centre Est
Spain	11	1400	Cataluña, Valencia
Netherlands	9	450	Brabant, Limburg
Italy	8	1600	Nord Ovest, Lombardia, Nord Est
Ireland	7	600	Dublin, Cork
Belgium	5	450	Vlaanderen
Luxembourg	1	100	
Total	147	23000	

US Companies

FDI in manufacturing by US concerns was highly concentrated in two countries, the UK and Germany. France, Italy and the Netherlands followed some way behind. Compared with the 1960s and 1970s, the regional distribution of direct investments remained much the same in the 1980s.

Of particular importance is new, or greenfield, investment in the regions which is the kind highly prized by Member States because it tends to bring with it new activities, technologies, managerial skills and so on. In the period 1986 to 1989, almost two-fifths of all new US greenfield plants were located in the UK. Active regional policies (development grants and agencies) diverted much of these to development areas, particularly Scotland and Wales.

The second- and third-ranked destination countries for these investments were France (30 plants) and Ireland (28 plants). In France, there is a clear concentration in the metropolitan area and surroundings (Ile-de-France and Bassin Parisien) and in the intermediate regions in the South (Mediterranée, Rhône-Alpes, Auvergne and Côte d'Azur). International transport and telecommunication links and numerous technical and scientific centres of excellence appear to have created an attractive investment climate in these regions for US firms.

Despite Ireland being one of the smallest Community markets, its language, cultural ties, young qualified workforce, tax concessions and other incentives and the marketing efforts of the IDA (Industrial Development Authority of Ireland), have attracted many US investors.

Japanese companies

As indicated above, Japanese foreign direct investment increased considerably in the 1980s. According to a recent questionnaire, nearly a quarter of the 270 Japanese responding companies were motivated to invest in Europe (Jetro 1990) as a step towards a globalized business strategy. The second reason was to satisfy expanding demand by local production instead of exports and the third to meet the needs of European consumers. For all of these reasons, the participation of Japanese manufacturers in European business began to accelerate in the latter half of the 1980s and there were 529 companies in operation or planning to operate in Europe in 1990.

The UK (133 firms), France (95 firms) and Germany (89 firms) are the three main European countries where Japanese manufacturers tend to locate. Up to the mid-1960s, there were only 28 Japanese manufacturing companies in the UK, less than in France (35 firms) and Germany (36 firms). After 1985, Japanese manufacturing investment in the UK increased rapidly in a wide range of sectors, the number of firms exceeding the number in Germany in 1986 and the number in France in 1988. The Japanese are also very active in investing in Southern Europe, with Spain (55 companies) being by far the most important destination and the largest investment being in chemicals, engineering, electronics and vehicles.

Over the period 1986 to 1989, 147 Japanese firms located in Europe, 59 in the UK. As well as going to the South East of England, Japanese firms like US companies have located in large numbers in peripheral regions in Wales and the North. In France also, Japanese firms show a similar locational pattern to their US counterparts, except more have gone to the North-East (Alsace and Lorraine) than to the Southern sunbelt.

In Germany, Nordrhein-Westfalen is the most important location for Japanese companies, their presence there dating back to the immediate post-war period. In the 1960s and 1970s a Japanese centre was created in Düsseldorf which acted as a magnet attracting further Japanese investment.

Concluding remarks

The Member States of the Community have been heavily involved in foreign direct investment, both as investors inside Europe and in the rest of the world and as recipients of inflows from Japan, the US and the EFTA countries. This has almost certainly brought major benefits to national and regional economies, though the scale and nature of the effect differs from case to case, according to the quality of

the employment created and the extent of local linkages established³.

One Member State, the UK, has attracted a disproportionately large share of inward investment into the Community from outside. Cultural factors in general, and the English language in particular, appear to have been important underlying reasons, though, as noted, the UK is also the major destination for investment from non-English speaking countries alike.

The evidence also suggests that originators of FDI are also recipients, large-scale outflows from Member States such as France and the Benelux countries being matched to a major extent by inflows. Countries such as Spain, Ireland and Portugal, however, receive much more FDI than they invest abroad. The large amount of FDI going to Spain from both the Community and outside confirms that it is increasingly seen as a favourable location for new activity. There are encouraging signs for the weaker Member States that efforts to attract FDI to their regions can pay off (see Chapter 10).

Finally, any residual fears about the implications of foreign companies investing in the Community, which at present seem to be focused on Japanese firms, need to be tempered by the thought that there used to be similar concern about US multinationals in earlier periods. With the passage of time, these in many cases have ceased to be regarded as foreign producers and are seen as integral, and essential, to the national and regional economies in which they are located.

Netherlands Economic Institute and Ernst and Young (1993), New location factors for mobile investment in Europe. Regional Development Studies No. 6. Study financed by DG XVI of the European Commission.

The data for the analysis of FDI flows are taken from

(i) European Commission (1994), Direct Investment in the Community, 1984-91 Eurostat Theme 6, Series D.
(ii) European Commission (1991), Foreign Direct Investment in the Peripheral Member States.

³ See Greenaway, D. (1993) Trade and Foreign Direct Investment in The European Community as a World Trade Partner, European Economy N° 52, DG II of the European Commission.

Chapter 6 The role of research and technological development in the regions

Many of the causes of disparities in economic development can be traced to disparities in productivity and competitiveness. Although not the only factors, Research and Technological Development (RTD) and, more generally, the capacity to innovate and upgrade, particularly in products and processes, are vital components of regional competitiveness. This might lead, in turn, to a raising of regional output through increased interregional and international trade. New or improved products and processes, lower costs, greater flexibility of production, higher quality and quicker market response, are all ways in which RTD can confer a comparative advantage on particular regions.

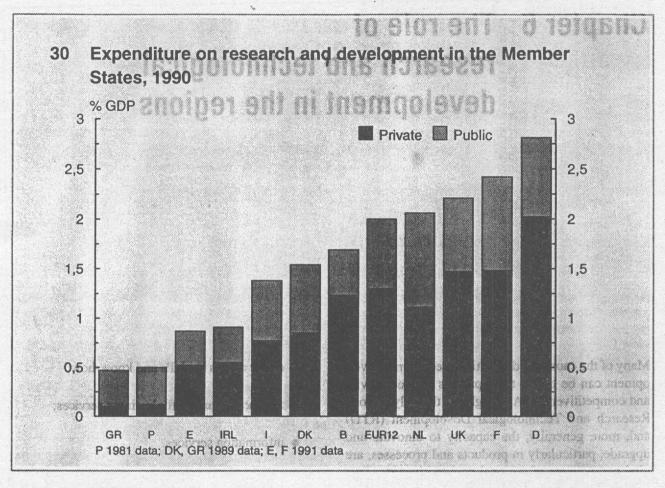
The fact that most factors which favour RTD and innovation (defined here as the necessary steps – organisational, managerial, commercial and financial as well as technical – required to introduce a new or improved product or process onto the market) are virtually defining characteristics of the Community's core regions serves to underline their importance in the Community's effort to increase social and economic cohesion. These factors include:

- well developed communications networks;
- good scientific infrastructure;

- easier access to skills and know-how;
- advanced markets for business services:
- information services.

From a regional development perspective, RTD and innovation are important insofar as they increase the capacity of producers to consolidate and diversify and thereby guide them to maintain or increase their competitiveness in a continually changing international market. Since innovation has become a continuous process requiring the rapid introduction of each new advance, the economic success of a region depends to a large extent on the possibilities available for securing access to innovation and technological developments on an ongoing basis. Success depends also on how much of indigenous effort can be turned into new products and processes.

The problem for weaker regions is therefore twofold: to generate and develop their own indigenous RTD activities and to adapt technological developments which take place elsewhere to a specific regional context. The traditional approach of many regions has been to seek to attract outside leading technology enterprises with well-established links in the RTD area. Recent studies have shown that, on average, foreign-owned companies in Spain¹ and Ireland²



have a higher propensity to conduct research activities than native firms.

Such a strategy is unlikely to be sufficient, however, for the wider incorporation of new technologies into the productive base. For the weaker regions, the productive base often consists largely of small and medium-sized firms, usually working in traditional sectors and lacking an outward-looking perspective. In many cases, highly qualified people are in short supply and ancillary services are inadequate – such as traditional banking practices which inhibit innovation. In such regions, therefore, further investment in RTD, or its extended application, is a wider issue than it might initially appear.

In less favoured regions, the wider incorporation of new technologies into the productive base depends not only on the availability, quality and degree of integration of technology supply with local demand, but also, and most importantly, on the business environment, including entrepreneurial culture and degree of cooperation among regional socio-economic actors – that is, on the existence of an environment which fosters the rapid diffusion of innovations throughout the local economy.

Differences in RTD: an overview

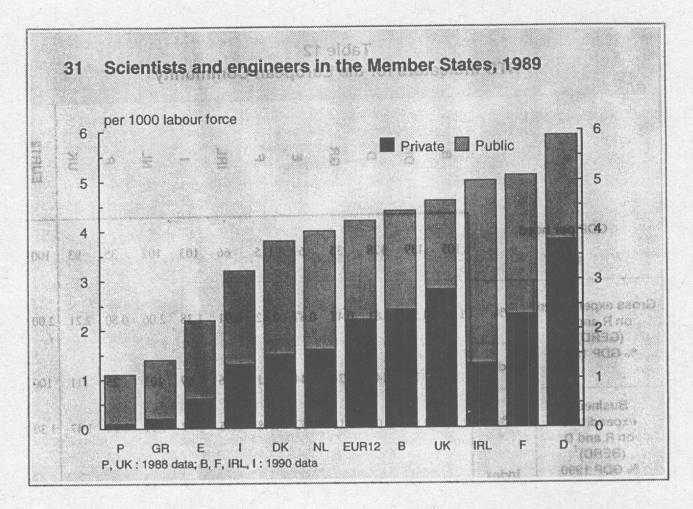
Measures of the 'technology gap' between Member States suggest that it is considerably wider than the gap in income per head discussed in Chapter 1.

A standard measure of the level of RTD activity is gross expenditure on R&D (GERD) expressed in relation to GDP (Table 12). The Community's four weakest Member States in this respect – Greece, Ireland, Spain and Portugal – have levels which are

RTD indic	the state of the s	able 12	n Community
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GDP per he 1990 Index	ad	105	139	128	35	69	115	66	103	102	35	93	100
Gross expenditure on R and D (GERD) ¹	%	1.69	1.54	2.81	0.47	0.87	2.42	0.91	1.38	2.06	0.50	2.21	2.00
% GDP 1990	index	85	77	141	24	44	121	46	69	103	25	111	100
Business expenditure % on R and D (BERD) ¹		1.23	0.85	2.02	0.10	0.52	1.48	0.55	0.77	1.11	0.12	1.47	1.30
% GDP 1990	index	95	65	155	8	40	114	42	59	85	9	113	100
Share of BERD in GERD (% GERD) ¹ 1990		73	57	72	22	60	61	61	56	56	25	67	65
Govn. RTD financing (% total budg 1988		1.40	2.28	4.11	0.60	2.19	6.91	0.98	1.85	2.50	0.98	2.83	3.24
Total RTD scientists and engineers per 1000 labour force 1989 ²		4.4	3.8	5.9	1.4	2.2	5.1	5.0	3.2	4.0	1.1	4.6	4.2
Private RTD scientists an engineers per 1 labour force 19	d 000	2.4	1.5	3.8	0.2	0.6	2.3	1.3	1.3	1.6	0.1	2.8	2.2

1 P 1988; DK, GR 1989; E, F, I 1991 2 P, UK 1988; B, F, IRL, I 1990 Source: Eurostat CEC (1992), OECD 1992, DGXII (derivation from OECD data 1992)



less than half the Community average – at just over 2% of GDP (Graph 30). Despite doubling their RTD expenditure relative to GDP during the 1980s, Greece and Portugal have levels which are still a third of the Community average.

In Portugal and Greece, more than two-thirds of GERD is carried out by the public sector – much the same proportion of expenditure which is undertaken by the private sector in more advanced countries. Indeed, in these two countries, the public sector proportion tended to increase during the 1980s. On the other hand, in both Spain and Ireland the share of GERD in the private sector increased steadily during the last decade, and by 1992 the public-private split had almost reached the Community average. From a regional development perspective, this deeper involvement of private firms in RTD in the weaker regions is a promising sign of modernisation.

So far as RTD manpower is concerned, Greece and Portugal have only between a fifth and a quarter of RTD personnel per 1000 employed (on a full-time equivalent basis) than the more advanced Member States (Graph 31). For example, Denmark with a labour force of nearly 3 million has more RTD personnel than Portugal and Greece together with a combined labour force of nearly 9 million. In Spain, moreover, the proportion of scientists and engineers in the labour force was only around 50% of the Community average (Map 17).

While the gap between countries remains large, it has tended to narrow over time. RTD employment in Ireland rose steadily during the 1980s, particularly in the business sector. In Spain, the rate of increase was one of the highest in the Community over this period, at some 9% a year, with the average rise in the business sector approaching 16%³.

47.2 1 50 40 30 50 10 % share of total R&D personnel, 1989 32.4 50 40 30 20 10 2.00 B 8 R & D personnel, 1989 0 25° D - data at level 1 only. % labour force 0.00 - 0.25 0.25 - 0.50 0.50 - 0.75 0.75 - 1.00 DK, IRL, NL, UK national data only. No data > 1.00 9 Map 17

Since RTD activities can be characterised as intangible long-term investment carrying a high risk, there is more difficulty in finding sources of finance outside the more developed regions. In 1989, for example, the total risk capital available in Portugal and Ireland was less than a quarter of that available in the Netherlands. In Spain, there were less funds than in Belgium which has under a quarter the number of people⁴.

The net result is one of substantial trade deficits in technology and a high degree of dependence of the weaker countries on the stronger. Spain is a classic example with exports less than 20% of imports and a technology deficit which doubled between its accession into the Community in 1986 and 1990, when it reached a peak of nearly 1,400 Million ECU, three times that of France, Italy or Belgium, the biggest component being technical assistance. In Greece and Portugal, foreign patent applications were nearly 38 times domestic applications, as compared with,

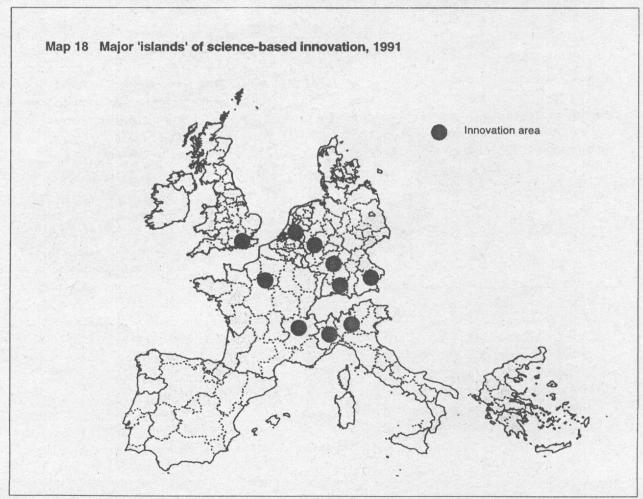
for example, Italy, France or Germany, where the figure was under 5 times⁵.

In strictly economic terms, the lack of basic scientific research in the weaker regions is less worrying than the deficiency in applied research, or innovation, directed at the effective incorporation of technology into the production process.

In these regions, there is also a problem of lack of finance for innovation, which is associated with a financial environment offering little access to venture capital and other forms of finance for innovation.

Islands of innovation

Recent Studies⁶ have examined the geographical patterns of RTD activity in the Community. The most striking finding is that laboratories and enterprises



which are involved in RTD projects are highly concentrated in comparatively few 'Islands of Innovation'. These islands are relatively small, mostly urban areas, with a dense network of enterprises and research laboratories interacting in the development of new products and processes of production (Map 18).

A limited number of such islands in the Community stand out from the rest: Greater London, Rotterdam/Amsterdam, Ile de France, the Ruhr area, Frankfurt, Stuttgart, Munich, Lyon/Grenoble, Turin and Milan.

Up to three quarters of all public research contracts, including those funded by the Community, are estimated to be concentrated in these few places. They also tend to work closely together as part of a highly exclusive network. The large majority of science-based innovative activities in the Community, therefore, involves laboratories and enterprises located in this innovative core. By contrast, laboratories and enterprises located in peripheral regions of the Community only participate in 5-8% of networks.

An additional aspect of geographical diversity concerns the type of agency engaged in these networks of cooperation. The further the distance from the central Islands of Innovation, the more partners tend to be laboratories rather than enterprises and the smaller and more specialised the projects become.

Finally, RTD activities in the Community's weakest Member States are often concentrated in a few regions, normally around capital cities. In Spain, only around a quarter of the national RTD effort, measured in terms of both GERD and RTD personnel, takes place in the weakest regions which account for 60% of the population. In Greece, Athens dominates RTD, accounting for nearly 60% of government expenditure and possibly for as much as 70% of private expenditure. In Portugal, nearly 90% of public sector RTD is carried out in Lisbon and the Tagus Valley, which also accounts for nearly 50% of business RTD. In Ireland, at the end of the 1980s. nearly two-thirds of national GERD and almost half of industrial RTD was concentrated in the Eastern region. In Italy, only 3% of industrial research undertaken by the private sector takes place in the South⁷ and, in 1989, barely 9% of public sector research.

Even though this concentration is, to a large extent, a result of a natural process of scarce RTD resources tending to become located in a few places to gain the benefit of economies of scale and externalities and even though it is closely in line with the territorial distribution of industries and the stronger universities, it is still necessary to ensure that results and know-how are transferred to enterprises in weaker regions.

Structural factors underlying disparities

Small firms are often regarded as a major source of innovation. At the same time, their capacity to innovate has limits and they tend not to possess the resources required to respond to rapid technological change in increasingly global markets and the development of new products of ever higher quality which it invokes. The problems are more serious for firms in the weaker regions. According to some, the main difficulty facing small businesses here is not so much their size but their isolation.

Small businesses in the less developed regions are also having to contend with increasing competition. In part, this originates from producers in less developed countries which are gradually gaining markets which were formerly the preserve (sometimes because of protection) of firms in the more developed countries. Equally, there are competitive pressures from front-line countries such as Japan, which set the standards in terms of rapidly changing patterns of innovation and short life spans of products.

Small businesses in the weaker regions have difficulty in competing with producers in developing countries in terms of wage costs. On the other hand, in attempting to move into higher technology areas they must match the demanding pace of product and process innovation set by firms in the more pros-

RTD and the Structural Funds

The main objective of the Community regional policies is to reduce regional disparities in the Community through the creation of the necessary conditions for sustained economic development in weaker regions. Given that this is dependent, to a large extent, on the ability of regional economies to apply technology, foster innovation and convert research efforts into something of value in the market, support for RTD is an area of strategic importance for the Structural Funds.

The Structural Funds have so far tried to promote regional capabilities in the field of science and technology, normally through the strengthening of RTD infrastructures (for example, in Portugal, CSF funding has contributed to the creation of over 50 new RTD facilities and to the improvement and strengthening of nearly 100 existing facilities) and measures aimed at making use of untapped talent and increasing the rate of innovation and technology take-up by firms. The design and management of these RTD-related actions is assigned principally to national and regional authorities, with the role of the Commission limited to establishing broad guidelines, advice and technical assistance as appropriate.

Nonetheless, the Structural Funds contribution to RTD in weaker regions has been substantial, qualitatively as well as quantitatively, especially since the 1988 reform. In qualitative terms, structural action has helped raise awareness among public administrations of the strategic importance of technological development for regional productivity, facilitated participation in the RTD Framework Programme through strengthening infrastructure and promoted university-industry links and greater private involvement in RTD activities.

In quantitative terms, the Structural Funds contributed over 3.5 billion ECU to RTD-related ac-

tions, including support for telecommunications, during the period 1989-1993 (Table 13) through programmes such as Ciencia in Portugal, the Science and Technology Plan for Greece, the Scientific Infrastructure Programme for Spain, the Science and Technology sub-programme within the Irish Industrial Development Operational Programme and the RTD National Programme for Italy (Ricerca e Sviluppo Tecnologico). Moreover a number of RTD-related Community Initiatives were launched during this period - in particular, STRIDE (400 MECU), aimed at strengthening the research, technological and innovatory capacity of assisted regions, while PRISMA, ENVIREG, EUROFORM, VALOREN and TELEMATIQUE all had a strong regional innovatory component.

On average, Objective 2 regions have used structural assistance for RTD about three times as much as Objective 1 regions (9% of the total support in the first case, 3% in the second) largely because of their more developed industrial structure and the greater availability of RTD facilities. In absolute terms, expenditure is highest in Objective 1 regions in view of the way that assistance is concentrated on these areas. The Community contribution, including the Framework Programme, to GERD is now around a fifth in the case of Ireland and a third in the case of Portugal.

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Development programmes include a major effort to tackle the skills problem through training. The Ciencia Programme in Portugal has, for example, established 2,212 scholarships for researcher training at Masters and Ph.D levels, while the PEDIP Programme, focused on industry needs, has supported 754 training projects. It is estimated that these two initiatives in total will raise the number of trained scientists and engineers by over 60% from the 1988 level.

Table 13 Estimates of Structural Funds assistance for RTD ¹ in the CSFs (%	
Estimates of Structural Funds assistance for DTD1 in the CSEs (9)	
Estimates of Structural Funds essistance for BTD1 in the CSEs (9)	
Estimates of Structural Funds assistance for DTD in the CSEs (9)	
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-ctimated at Structural Lunda accidence for DTD! in the CCEs /0/	
	41 133

	Objective 1	Objective 2
Belgium		13.3
Denmark		12.8
Germany		14.1
Greece	1.0	
Spain	2.0	9.7
France	1.1	10.7
Ireland	4.0	
Italy	4.9	20.9
Luxembourg	-	0.0
Netherlands	_	7.9
Portugal	2.4	
UK	2.1	5.3
EUR12	2.7	9.3

These measures cover a wide spectrum of RTD and innovation related actions such as information, Science Parks, infrastructure, Universities, training programmes, construction of new RTD centres, laboratory equipment, technology transfer centres, research/industry links, demonstration projects.

Source: European Commission

perous regions of the Community as well as in the US and Japan.

In adopting a modernisation strategy in weaker regions based on innovation and the incorporation of new technology, as opposed to a strategy of comparative advantage based on specialising in low wage production, regional planners have to address not only a supply problem (the lack of RTD capacity and mechanisms for diffusing technology) but also – and probably most importantly in the first place – a problem of demand.

This problem is one of *receptivity*. The lack of receptivity is reflected in the fact that SMEs in weaker regions fail to generate a demand for the output of RTD in the form of new products and processes. In many cases, there is an absence of the most basic information to indicate the need to innovate in order to compete in the global market in both dynamic and traditional sectors, so that such firms are not able

successfully to identify and express their demand for RTD and innovation services. In some cases, there is insufficient recognition of the need to strengthen specialised business services to be able to compete in new markets. In effect, the demand-side problem is an additional challenge for the weaker regions.

Improving the demand side is an area where public policy has not always been as helpful as it might have been. Those responsible often tend to impose standard policy prescriptions on innovative problems instead of adopting an approach based on partnership between the private and public sectors and on establishing administrative structures flexible enough to respond to a region's true economic problems.

Regional innovation strategy needs to involve the various local actors, especially in the private sector, in the definition of policy priorities and the implementation of measures for promoting innovation.

It is also important to note, however, that a narrowly defined local approach is to be avoided since it may undermine the possibility of weaker regions benefiting from synergies with other policies and actors at the national and European level. This is particularly true of technology, which is, by definition, an international process not constrained by national borders and one of the driving forces behind the ever increasing internationalisation of the economy.

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⁶ FAST (May 1992), Archipelago Europe – Islands of innovation, Ulrich Hilpert; Prospective Dossier N°1: Science, Technology and Social and Economic Cohesion in the Community.

⁸ Morgan K and Cooke P (1991), The intelligent region: industrial and institutional innovation in Emilia Romagna, Regional Industrial Research Report No 7, University of Cardiff.

Chapter 7 Peripherality reconsidered

The notion of peripherality is often used to explain why certain regions consistently fail to catch up with developments in other more centrally located regions. It seems that natural resilience, which allows regions to deal with adverse developments, is much greater in central regions. There, both private business and public authorities appear to have more connections and contacts with counterparts elsewhere, and this appears to facilitate adaptation to structural change. This chapter examines the notion of peripherality, first, from the perspective of the nation-state, and secondly, from that of the Community in the light of the extensions in transport and communication networks in prospect.

From the point of view of the Member State, border and coastal areas can be considered peripheral. Border areas suffer from peripherality because the neighbouring country has different social, economic, legal and political systems. This tends to limit the economic and administrative linkages which are normally established between adjacent areas. This is the case both for the internal border regions of the Community and to an even greater extent for its external border regions. Moreover national borders often follow the course of rivers, mountain ranges or other geographical barriers, which further restrict cross-border interaction and co-operation. Coastal regions can be considered as border regions separated from their neighbours by the sea. The Community's border and coastal regions are described below, focusing on what they have in common as well as their great diversity.

While border regions are often some distance from national centres of political and economic power, a number of them are centrally located from a Community standpoint. The Community's central, as opposed to peripheral, regions are identified below in terms of the accessibility of major European centres of economic activity to business travellers based there. The potential effect of planned improvements in the Community road, rail and air networks in reducing the time required to reach these economic centres is then examined.

Coastal and border areas

The Community's coastline stretches for more than 60,000 km. Areas around the coast gain some important benefits from their location, being generally regarded as pleasant places to live, which can attract firms to locate there. Tourism, for instance, tends to be especially well-developed in coastal regions. The fishing industry also plays an important role in most coastal regions, even after the anticipated reduction of overcapacity. Businesses in other areas of activity can be attracted by seaports and the access to world markets which they afford, as well as by transport links to inland areas which are normally very good in respect of the larger ports. These benefits, however, do not accrue equally to all regions. The time it takes to travel by road to the nearest major seaport differs considerably between regions. Coastal areas

which are some way from large ports can in many cases be counted among the Community's most peripheral regions. In general, however, coastal regions are favoured by their location and reasonably well integrated into the European transport network.

The land borders of the Community Member States stretch for almost 10,000 kilometres in total. About a half of these are between Member States, the other half with third countries (Table 14). 16% of the Community population lives in what can be defined as border areas, which account for 22% of the Community's land mass. Of the 184 Community border regions (excluding those in the new German Länder now undergoing administrative reforms) defined at the NUTS 3 level, 122 have borders with other Member States, 58 with neighbouring countries in Central and Eastern Europe.

From a historical perspective, the geographical features defining natural borders tend to be important determinants of the economic performance of border regions. While rivers facilitate access to cities and towns located on their banks, mountain ranges make international trade and cooperation difficult and may retard development on both sides of the border. Similarly, political borders are artificial barriers in some ways closing off regions from their natural hinterland and obstructing social and economic development (Graph 32 which indicates that average GDP per head tends to be less in border regions than in other parts of the country concerned).

There is a marked difference between Spanish, Portuguese, Irish, Greek and Danish border regions and those elsewhere. They are very sparsely populated (with population densities in the range 30-60 inhabitants per square kilometre compared to a Community average of 153), accounting for 47% of the land mass of Community border regions but only 20% of their population. The Danish border regions, for example, have a maximum population density of 64 inhabitants per square kilometre (Table 15) as opposed to an average of 105 inhabitants per square

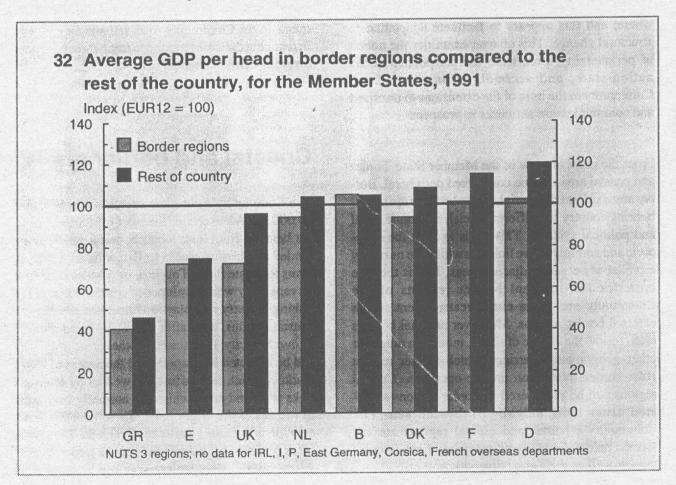


			Table 14 The Community's borders 1992													
			Belgium	Denmark	Germany	Greece	Spain	France	Ireland	Italy	Luxembourg	Netherlands	Portugal	UK	Sum of Member States	EUR12 borders ³
Coast	lines	82	120	6442	3109	11449	5758	5262	6054	6482	0	1062	1459	16816	64013	
	Total	netre	1199	64	3357	1073	1731	2534	427	1713	298	946	1094	427	14863	9955
Land Internal External	Internal	Kilometres	1199	64	1257	0	1670	1999	427	433	298	946	1094	427	9814	4907
		0	0	2100	1073	60	535	0	1280	0	0	0	0	5048	5048	
Coast	lines	-	0	10	5	18	9	8	9	10	0	2	2	26	100	
	Total	% EC total	8	0	23	7	12	17	3	12	2	6	7	3	100	
Land borders	Internal	% EC	12	1	13	0	17	20	4	4	3	10	11	4	100	
	External		0	0	42	21	1	11	0	25	0	0	0	0	100	
Border regions NUTS ¹	No. o		24	1	68	14	12	22	3	14	1	14	10	1	184	
	Area km ²	ı	19019	3930	57554	37498	132282	115511	12156	47872	2586	14408	50300	14120	507236	
	Populat 1000		5031	251	9878	2359	5738	12637	407	7390	381	5136	2068	1589	52865	

All regions of level NUTS 3 directly at a land border and seven regions (Delfzijl, Emden, Aurich, Karlsruhe-Stadtkreis, Karlsruhe-Landkreis, Thessaloniki, Kavala) in a comparable situation near a land border (Official Journal of the EC No 215/10). Data only for West Germany.

Automatic measures made on a 1:1,000,000 scale

Source: Eurostat, calculations DG XVI

kilometre for all border regions. Not by chance, the densely populated border regions are located in the centre of the Community, while those which are sparsely populated are at the periphery.

Differences in economic prosperity between neighbouring Member States are not always reflected in the relative levels of GDP per head in regions on either side of the border. Dutch and Belgian border regions have higher levels of GDP per head than neighbouring regions in Germany, in contrast to the situation at the national level (Graph 33). Along the French-Spanish border, the Spanish regions have much the same level of per capita income as their counterparts, despite average GDP per head in Spain being only two-thirds that in France.

Double counting of borders between Member States has been eliminated

	Ke	ey ir	ndio	cato			le 1 and		rde	r re	gio	ns						
		Belgium	Denmark	Germany (Unified)	Germany (West)	Greece	Spain	France	Ireland ²	Italy	Luxembourg	Netherlands	Portugal	¥	All border regions	EUR12	Internal border reg.	External border red
% country area		62.3	9.1	22.7	23.1	28.4	26.2	21.2	17.6	15.9	100.0	35.1	54.7	5.8			_	-
1990	% all border regions	3.6	0.7	15.3	10.8	7.1	24.9	21.8	2.3	9.0	0.5	2.7	9.5	2.7	100.0		74.8	25
	% EUR12	0.8	0.2	3.4	2.4	1.6	5.6	4.9	0.5	2.0	0.1	0.6	2.1	0.6	22.4	100.0	16.8	4
Population ¹ 1990	% country area	50.5	4,9	16.3	15.6	23.1	14.7	22.3	11.6	12.8	100.0	34.4	21.0	2.8	_		_	
	% all border regions	9.0	0.4	23.1	17.7	4.2	10.3	22.6	0.7	13.2	0.7	9.2	3.7	2.8	100.0		74.5	25
	% EUR12	1.5	0.1	3.7	2.9	0.7	1.7	3.7	0.1	2.1	0.1	1.5	0.6	0.5	16.3	100.0	12.1	4
Population 19 (hab/	90	265	64	159	172	63	43	109	33	154	147	356	41	113	105	153	105	10
GDP pe Av. 89 (EUR12	90/91	110	100	-	106	47	74	106	<u>L</u>	137	132	97	52	78	99.8	100	99.9	99.
Unemploy Av. 91/ (% labou	92/93	7.5	8.4	<u>-</u>	3.9	. —	16.8	8.9	17.4	6.4	1.6	7.2	3.4	16.3	8.1	9.4	8.9	4.
Border region under Obje Structural I	pop. eligible ectives of	41	23	40	35	100	90	53	100	43	43	43	100	100	58		<u> </u>	_

Population 1989

Source: Eurostat, calculations DG XVI

The sometimes important differences in GDP per head and other socio-economic characteristics between regions on either side of a border largely reflect variations in the development potential of the regions concerned. However, in many cases they also reflect decades of artificial separation and the difficulties which such regions encounter if the people living there wish to cooperate. Regions with different

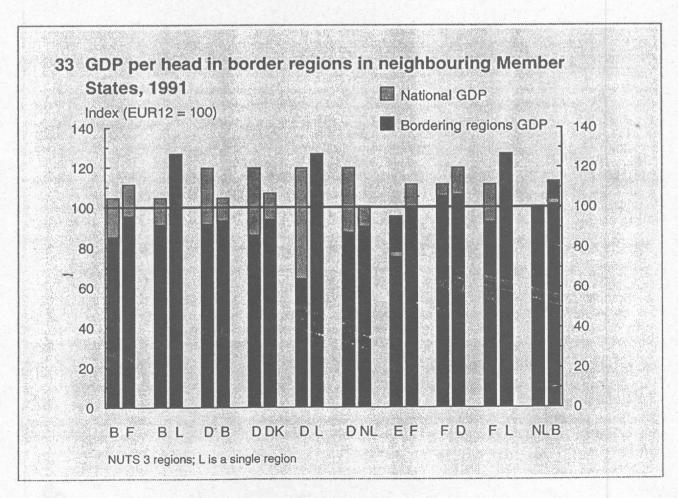
economic characteristics would normally seek to identify cooperative measures which are complementary: eg a rural area might be developed for weekend recreation increasing the attractiveness of a metropolitan area across the border as a location for industrial investment. Regions with similar economic characteristics, on the other hand, would usually tend to develop their common strengths.

Border regions and the Structural Funds

Differences in economic performance of border regions explain the varying degree to which they are eligible for support from the Community Structural Funds. Under the new programme established for the period 1994 to 1999, out of the 184 NUTS level III border regions, 40 are eligible for support under Objective 1 criteria, 27 under Objective 2, 60 under Objective 5b, 13 under two Objectives (2 and 5b or 2 and 1) while 45 are not entitled to any regional support at all (map 19). In comparison with the period 1989-1993, the number of eligible regions has increased from 109 to 140, mostly under Objective 5b. Total population coverage has risen by over onesixth (16%) in border areas, slightly more than in the rest of the Community. The share of border regions in total eligible population in the Community under the three regional Objectives of the Structural Funds

has increased from 17.8% to 18.1% (which compares with the 16% of Community population for which they account). All the regions on the Northern Ireland-Irish and Spanish-Portuguese borders are classified as Objective 1 as well as regions along the Community's external border in Northern Greece and Eastern Germany. In other parts of the Community, the population covered by either Objective 2 or 5b or both is around 40% (Table 15). Overall, 55% of the population living in border areas are eligible for regional support from the Structural Funds (58% if the new German Länder are included), as compared with 52% in the Community as a whole.

On German unification, borders between East and West Germany ceased to exist while the Community acquired a new set of border regions. East German regions of approximately 24,000 km² with 3 million inhabitants now need to explore how to re-establish and extend relations with neighbouring areas in Poland and the Czech Republic under market condi-



tions. Efforts in this direction are currently being hindered by differences in the rate of progress towards the establishment of a market economy and in the cost of production (creating additional pressures for structural adjustment) and wage levels (attracting workers to the new Länder, tending to exacerbate the already serious problem of unemployment and contributing to the growth of the black economy), as well as by the inadequate cross-border transport and other links. Similar problems are also evident along the Northern borders of Greece and the Italian border with Slovenia.

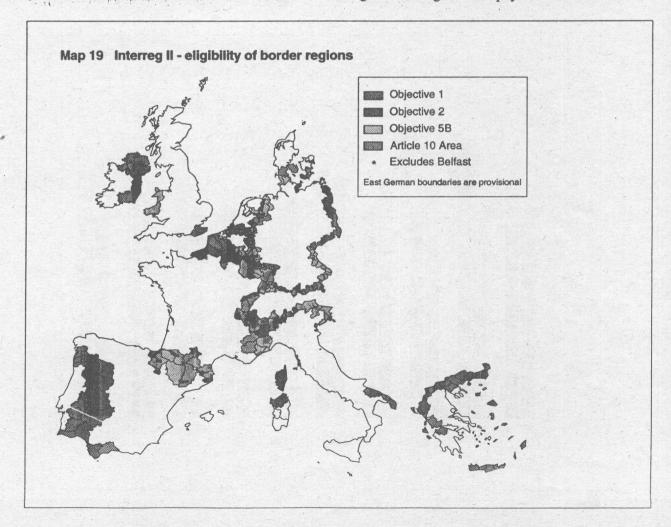
Further enlargement of the Community to include Austria, Finland, Norway and Sweden would make the Community a direct neighbour of Russia, Hungary and the Slovak Republic and lengthen the Community land borders by 81% and its coast lines by 68% (Annex, Table A.17). The land area of Community border regions would increase by 130% – as against an overall increase of 48% in total

Community land-space – though the population living in these would expand by only 16% as compared with a 7% increase in total Community population.

Large parts of these four countries can be classified as coastal and/or border areas, most of them relatively prosperous and located on the periphery of the Community – a combination which is not very common in the Community as it is at present.

Passenger transport networks and regional accessibility

In the Third Periodic Report (1987), regions were classified as central, intermediate or peripheral according to an average of their physical distance to all



Map 20 Mean time (hours) 4.5 - 5.0 4.0 - 4.5 < 4.0 > 6.0 Economic centre 5.5 - 6.0 5.0 - 5.5 Average travel time to 194 economic centres, 1991 15 20 25 10 % share of total population, 1990 14.5 15 20 25 10

other regions, weighted by GDP. This was a first attempt to give operational content to the notion of peripherality. This section aims to refine and extend this analysis by measuring the accessibility of 194 major economic centres in the Community, the EFTA countries and Central Europe for business travellers from over a thousand Community NUTS 3 regions. The indicator of peripherality estimated is the average time required to travel to each of these major centres by road, rail or air¹.

The simple distinction between central (Western Germany, the Netherlands, Belgium and Luxembourg) and peripheral (Ireland, Greece, Spain and Portugal) Member States and regions is much less evident if NUTS level 3 regions are examined and if air travel is taken into account.

Business travellers from the large agglomerations in the heart of Europe, like Brussels, Paris, London, the Rhine-Ruhr and Rhine-Main areas, Stuttgart, Munich and Milan, can on average travel in the least time to business destinations across Europe (Map 20). More peripherally located larger centres with international airports, like Glasgow, Copenhagen, Berlin, Athens, Rome and Madrid, however, are also relatively well-connected when air travel is taken into account. The integration of such cities into the European air transport network is crucial for their further development, facilitating longdistance travel and networking and providing world market access to local producers of high value/low weight goods, though for other products, transport costs will continue to distance them from central Community markets. However, such costs also offer some protection to local firms against competition from producers located in other regions.

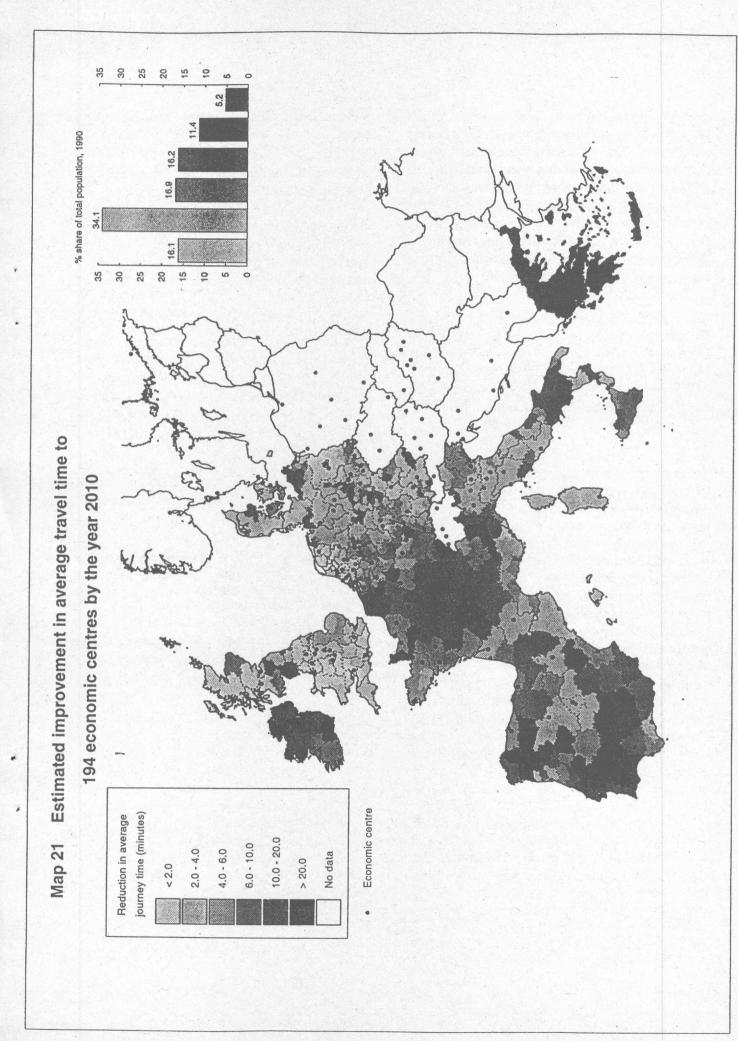
Apart from the major capitals, all of the Community's Southern and Western fringes as well as nearly all of its islands are still disadvantaged in terms of access to the 194 economic centres identified. In these often sparsely populated regions the economic returns on major investment in transport infrastructure are often insufficient to justify the expenditure required, whether private or public. Nevertheless, a minimum degree of access is required in

order to sustain economic activity in such peripheral areas.

The average time required to travel to the 194 economic centres is also relatively high, however, for a small number of regions which are geographically close to the Community's centre. These areas, such as Mecklenburg-Vorpommern in Germany and the Southern interior of France, are economically weak and often sparsely populated with under-developed transport links.

With the further extension of international transport networks being a priority of Community policy and being supported by both the European Regional Development Fund and the Cohesion Fund, an evaluation of the joint effect of current plans on travel times and regional accessibility is of interest2. In general, the estimated reduction in average travel time to the 194 centres from the implementation of the expansion plans for road, rail and air transport networks is greater for peripheral regions than central ones (Map 21). There are likely to be significant gains in Greece, Ireland, the Southern and Western regions of the Iberian peninsula, Mecklenburg-Vorpommern and Nord Pas-de-Calais. There are also likely to be widespread gains in other parts of France, Belgium and Luxembourg, but much fewer in the other central countries. Overall, the plans appear to reduce the degree of peripherality of outlying regions and therefore open up new markets to producers located there.

Ease of access to nearby markets is also important, as indicated by the total population of the NUTS level 3 regions which can be visited on a single-day business trip (implying a three-hour limit on one-way travel time Map 22). Contrary to the previous indicator, on this measure of market access the largest gains from the present plans are likely to accrue to the densely populated, central regions and their surrounding areas, primarily from the extension of the high-speed rail network — as well as the Channel Tunnel — to connect the major metropolitan areas in the South-East of England, Northern France, Belgium, the Netherlands, the Franco-German border region, the Southern Rhône valley and Piemonte in Italy.



There are, however, some exceptions. A number of regions in the Spanish North-East and South-West, in Central Italy and in Northern Greece, as well as Mecklenburg-Vorpommern, which are among the most sparsely populated and peripheral regions in the Community, are expected to enjoy a considerable increase in accessible population, the proposed extensions of the road network and new air links bringing major population centres (in the above cases, Madrid, Athens and Berlin) within reach.

On the other hand, it remains the case that the centrality or peripherality of a region's location can be improved but not fundamentally changed through investment in transport. In the less densely populated parts of Europe, the increases in easily accessible population from such investment will always tend to be relatively small as compared with the more populous central regions.

An alternative option for peripheral areas is to accelerate the rate of adoption by local enterprises of new techniques of information processing and telecommunications. In many cases, such techniques (in the form of telefax, teleconferencing, telematics, cellular mobile radio and telephone networks) may serve as a partial substitute for personal contact. As compared with investment in traditional transport infrastructure, therefore, the further extension and modernisation of the Community telecommunication network might be a more cost-efficient way of linking peripheral areas with the Community's centres of economic activity (see chapter 4 on telecommunications infrastructure endowments in the regions).

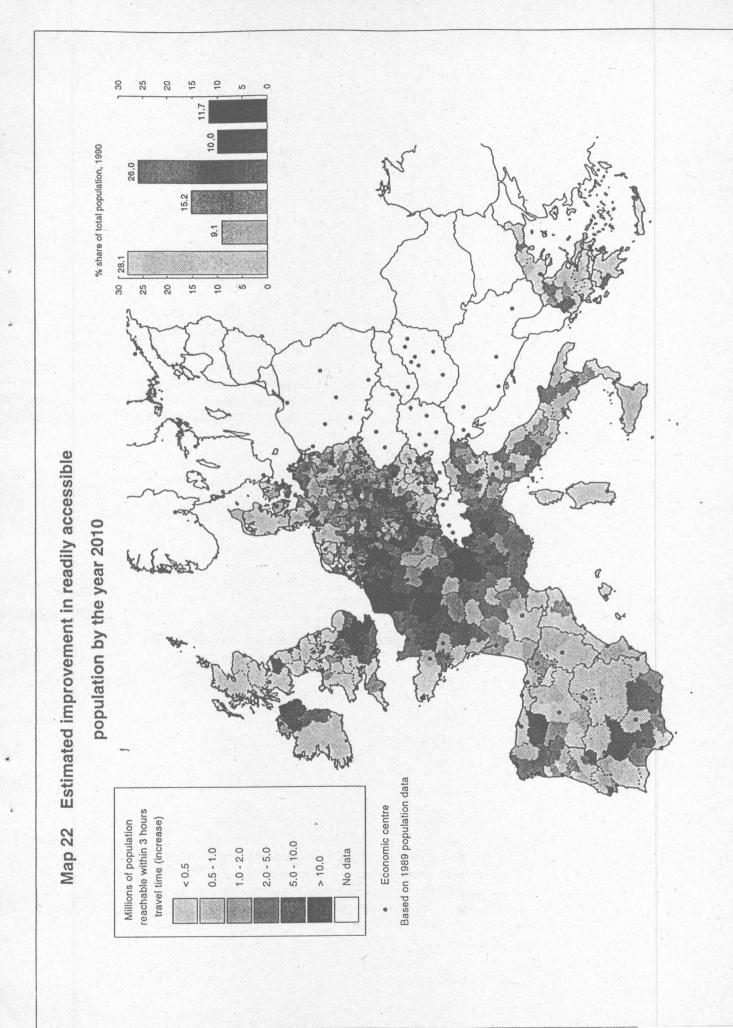
Market access is dependent not only on the quality of the transport infrastructure linking supply and demand, but equally on the institutional structures which guide international trade relations. The completion of the Single Market, by abolishing border formalities, has in a practical sense increased the accessibility of border regions for trading partners from abroad. The foundation of the European Economic area has tended to reduce the peripherality

of, for instance, the Danish regions and the Alpine areas of Germany and Italy by facilitating trade with the EFTA countries. Reforms in Central and Eastern Europe are generating trade between East and West, potentially benefiting the regions on the Community's Eastern borders.

Improvements in the international transport and telecommunication networks, institutional reforms leading towards European integration and industrial change in general open up growth opportunities for enterprises, no matter where they are located in the Community territory. In the competitive struggle to take advantage of these opportunities, the likely winners will be those firms which are best able to expand their customer base across Europe while maintaining a flexible and cost-efficient production structure. The latter often implies a regional division of labour and a decentralisation of business locations. All of these developments lead to increased requirements for direct personal contacts between business operators at the various locations, which can only be achieved through their full integration into the international passenger transport and telecommunication networks. Consequently, the attractiveness of a region as a business location is increasingly determined by the connections provided by these networks to main centres of economic activity in Europe and beyond.

¹ BfLR (1992), Accessibility and Peripherality of Community Regions: The Role of Highways, Long Distance Railway and Airport Networks. Study financed by the European Commission.

² The plans concerned are those which were under consideration by the Commission services in 1992.



Section C The regional policies and problem areas of the Community

Regions assisted by the Community 1989-1993

Community regional policies 1994-1999

Regional policies in Member States: recent trends

Chapter 8 Regions assisted by the Community 1989-1993

The reform of the Structural Funds, which was agreed in 1988 and implemented from 1989¹, was an important watershed for regional policies at the Community level. It introduced a genuine Community vision of regional problems, whereas previously policy had essentially taken the form of intervention in support of the regional policies pursued by each Member State individually. The aim of this chapter is to examine the economic performance of these regions.

In order to have a fuller appreciation of the main developments in them, the analysis begins in the mid-1980s, somewhat before the reforms were implemented. The chapter is not therefore an evaluation of the effects of the reforms (see Annual Reports on the Implementation of the Reform of the Structural Funds for this) although it provides some indications of what has happened since 1988.

The definition of problem regions under the reform was based on a typological approach. Three types of problem region were defined which the Community adopted as 'objectives' of policy under the Structural Funds. The first of these objectives, Objective 1, aimed to promote development and structural adjustment in regions which were lagging behind, defined as those with GDP per head below 75% of the Community average. Changes in GDP per head in this group of regions compared to the rest of the Community is, therefore, a key indicator of progress.

To obtain a more complete picture, developments in these regions in respect of other related aspects is also examined below:

- the record on unemployment and job creation which is essential to alleviate the serious excess supplies of labour and lack of employment opportunities often associated with low GDP per head;
- trends in productivity which are important in relation to improving competitiveness and, therefore, the potential for growth.

The second objective, Objective 2, aimed to promote the conversion of areas affected by industrial decline. The key defining characteristic of these areas is their relatively high unemployment rate which is used in the present analysis as the main indicator of developments. The third objective, Objective 5b, is aimed at rural areas affected by problems of structural adjustment linked to the decline of agriculture. All of the main indicators are relevant for assessing progress in these regions.

Developments in the Community's weaker regions 1986-1993 : Objectives 2 and 5b

The performance of the Objective 2 and 5b regions in respect of the indicators discussed above is considered below in comparison with the rest of the Community. Developments in the Community's weakest regions (Objective 1) are then examined in more detail to assess the main differences emerging between them (Table 16).

Analysis of Objective 2 and 5b regions is hampered by data problems. Statistics for small eligible areas (often below NUTS level 3) are not available on a harmonised basis. The analysis, therefore, has to rely on estimates which are more valid for certain series, such as unemployment rates, than others, such as GDP and employment.

The data indicate that experience as regards unemployment in the Community's weaker regions has varied significantly in the period since 1986 (Table 16). As indicated in chapter 3, the latter half of the 1980s was a period of economic recovery. Unemployment in the Community as a whole fell by 2 percentage points from 10.7% in 1986 to 8.5% in 1991 before increasing to 10.4% in 1993.

In respect of unemployment, Objective 2 regions as a whole outperformed other parts of the Community assisted and unassisted areas alike. Unemployment rates in the Objective 2 regions were 4 percentage points lower in 1991 (10.8%) than in 1986 (14.7%). This fall was partly reversed over the following two years although the rise in unemployment was not as great as for the Community as a whole. As a result the difference between the average unemployment rate in Objective 2 regions and that in the Community as a whole narrowed from 4.6 percentage points in 1986 to only 1.7 percentage points in 1993.

This is a particularly encouraging outcome given that a reduction in unemployment disparities is the principal aim of Objective 2 assistance. Part of the explanation for this is probably related to labour supply developments. Most Objective 2 regions are highly urbanised and therefore often among those where demographic changes and population ageing have reduced the number of new entrants to the labour market. At the same time, job losses in traditional industries—coal, steel, engineering—have tended to affect men in middle and older age groups, a significant proportion of whom have withdrawn completely from the labour market.

The impact of falling labour supply should probably not be exaggerated, however. Tentative estimates of employment change suggest that the Objective 2 regions had a faster rate of net job creation than the rest of the Community. Over the period 1986 to 1993 the average rate of increase was approximately double the Community average (Table 16).

The Objective 5b regions generally have relatively lower rates of unemployment, a traditional feature of rural areas outside the Community's least-developed regions. From an average rate of 8.3% in 1986, unemployment in the Objective 5b regions fell to only 6.1% in 1991 increasing again to 7.3% in 1993. Although reducing unemployment is not an explicit aim under Objective 5b, the apparent relative improvement is encouraging. This is underlined by the tentative evidence on employment change - which is likely to be more directly related to the process of structural diversification in rural areas - where the figures suggest gradual net job creation at a rate equivalent to the Community average (Table 16). This evidence also suggests that the falling unemployment in rural areas cannot be attributed to ongoing rural depopulation.

In the Objective 2 regions, trends in GDP per head over the five-year period were generally slightly downward. This might suggest that economic restructuring led to an increase in the share of total employment in sectors with relatively low productivity in Community terms – such as certain services. In Objective 5b regions, there was little change over the period, GDP per head remaining at around 80% of the Community average.

Table 16 Demographic and economic indicators in regions assisted by the Community, 1989-1993

Regions	Employment (1986=100)	Uner	mploymen	t rate		GDP per h (EUR1	nead (PPS) 2=100))
	1993	1986	1991	1993	1986	1989	1990	1991
Objective 1	109	15.4	14.3	16.7	61	63	63	64
Objective 2 ¹	113	14.7	10.8	12.1	96 ²	95	95	94
Objective 5b	107	8.3	6.1	7.3	84	82	82	83
Other regions	106	8.4	6.4	8.0	117	117	117	116
EUR12 ³	107	10.7	8.5	10.4	100	100	100	100

Figures for Objective 2 and 5b regions cover all NUTS 3 regions where at least 50% of population is eligible for Community assistance.

EUR12 excludes East German Länder.

The figure is for 1987.

Source: Eurostat, calculations DG XVI

Developments in Objective 1 regions

In the Objective 1 regions the indicators present a mixed picture. These regions include virtually all the areas of highest unemployment in the Community. In 1986, the average unemployment rate in the former was 15.4%, half as high again as the Community average and double the rate in Objective 5b areas. Since then, there has been little improvement, the rate declining to 13.9% in 1990, before increasing to 16.7% in 1993, above the level in 1986. Although the evidence on changes in employment in the Objective 1 regions is more encouraging, rates of increase do not seem to have reached those of the Objective 2 areas. Part of the high and persistent unemployment is due to labour supply growth, as noted in Chapter 1, and for the medium-term at least, reducing unemployment is likely to represent something of a moving target as new entrants, especially women, come into the labour market in significant numbers.

Although the structure of employment in Objective 1 regions is changing, there are still significant numbers employed in agriculture. In 1990, the average

share of agricultural employment in the Community was 6.6% whereas in the Objective 1 regions it was nearly 3 times higher at 17.7%. This means that while the Objective 1 regions as a whole accounted in 1990 for 1 job in 6 in the Community, in agriculture they accounted for nearly 1 in 2 (Annex, Table A.18).

Labour market developments reflect a combination of cyclical and structural changes affecting the Community's regions in general. These changes tend to be accompanied by changes in regional productivity and hence in levels of economic output, or GDP.

As noted above, it is the change in GDP, measured in per capita terms, which is the central indicator of progress in the Community's Objective 1 regions. On average, these regions taken as a group marginally increased their GDP per head from 61% of the EC average in 1986 to 64% in 1991. This small increase is illustrative of the challenge involved in bringing about real convergence in the Community. A substantial narrowing of disparities can be expected only over the long term.

The main trends and differences emerging within the group of Objective 1 regions are the subject of the following sections.

Employment creation and unemployment

More detailed analysis of the labour market developments for individual Objective 1 regions since 1986 suggests that they can be divided into three main sub-groups. The first consists of Ceuta Y Melilla, Canarias, Murcia, Comunicad Valenciana and Andalucia which experienced a rapid rise in employment levels. These coastal regions in Southern and Eastern Spain, had employment in 1991 some 15% and more above that in 1986. They, therefore, appear to have benefited more than other Spanish Objective 1 regions in the Iberian interior and on the Atlantic coast in the North-West from joining the Community in 1986. In effect, they seem to be part of a larger group of Spanish regions including Cataluña and Madrid which represent nodal points on the road and rail networks linking the peninsula with France and the rest of the Community. Cataluña, which is largely covered by Objective 2 of the Structural Funds, for example, experienced a rise in employment of over 20% between 1986 and 1991, the highest amongst the Spanish provinces.

The second sub-group is more geographically diverse and comprises regions where employment increased by more than the Community average but by less than in the first group of regions. The regions in this second group are located in the Spanish interior (Extremadura, Castilla – Leon and Castilla – La Mancha) and also include the Western Mediterranean islands of Sardegna and Corse. Rates of net job creation in these areas varied from over 7% in Corse and Castilla-La Mancha to 12-13% in the other regions in the Spanish interior.

The third sub-group is the largest and most geographically diverse taking in, on the one hand, the Mediterranean regions of southern Italy and Greece and, on the other, the Atlantic coastal regions from Portugal and Spain (Galicia and Asturias) in the South to Ireland and Northern Ireland in the North. Typical rates of net job creation in these regions were around 5% over the five-year period, although employment remained virtually unchanged in Greece. Calabria in Italy was the only region to record a fall in employment.

The structure of employment is relatively similar across the Objective 1 regions. The share of employment in agriculture in many cases is over 20% and is around 40% in parts of Portugal. In only a few regions – parts of Spain and Northern Portugal – is the share of employment in industry above the Community average. In all but a few regions the share of employment in services is below the Community average of 61% and is as low as 50% or less in many parts of Greece, certain Spanish regions and Portugal. Tourism sustains high shares of service employment in some regions such as Canarias and Andalucia in Spain, or, a combination of tourism and the public sector.

The performance of Objective 1 regions in terms of unemployment over the same period 1986-91, generally mirrors that of employment described above (Annex, Table A.19). As indicated in chapter 3, however, the relationship between the change in employment in a given region and changes in unemployment rates is often a complex one. For example, when new jobs are created some of the new employment may be taken up by commuters – often the case in city regions – or by new entrants to the labour market. As noted above, many Objective 1 regions had faster than average rates of increase in labour supply, as a result of higher birth rates in the past, coupled with the increasing participation of women.

For the regions where employment grew by most the effect on unemployment was as expected. In the regions of Southern and Eastern Spain, the ccrollary of rapidly rising employment between 1986 and 1991 was a substantial fall – of five percentage points or more – in unemployment rates.

In the Spanish interior, the fall in unemployment rates were almost as great. In the Western Mediterranean islands, however, with lower rates of employment growth than the regions in the South of Spain but still slightly above the Community average, the fall in unemployment was correspondingly more modest at around 2 to 2.5 percentage points.

For the remaining regions the picture is more mixed. On the one hand, there were regions where the fall in unemployment was relatively high, such as in Portugal and Ireland (5 and 4 percentage points respectively). On the other, many regions in the Italian Adriatic and Southern Italy experienced significant rises in unemployment which suggests relatively high growth in the labour supply. Greece also saw a slight increase in unemployment between 1986 and 1991. In the Spanish Atlantic regions, modest rates of employment increase were reflected in a comparatively small fall in the unemployment rate, of 1 to 2 percentage points, over the period.

The preceding analysis focused on the period 1986-1991 for which regional employment data are available. In 1991, the Community entered a period of recession with the first firm signs of recovery emerging in 1994. The most recent data, for unemployment rates only, suggest that the depth of the recession has differed substantially from Member State to Member State and region to region. The figures up to 1993 show a fairly general increase in unemployment across the Objective 1 regions. The rise has been particularly marked in Spain, with regions in the South and East of the country which had previously shown the largest reduction in rates being among the worst affected. In the Italian regions, unemployment, which at most had fallen only slightly during the economic recovery, began once again to rise at a faster rate than the national average, while in Ireland, rates of unemployment by the end of 1993 were heading back towards 20%. Elsewhere, increases in unemployment have been the general rule, though the extent has been more modest.

The French overseas departments (Guadeloupe, Guyane, Martinique and Réunion) are not included in the above analysis because of data problems. The available evidence suggests that in these areas of extreme geographical peripherality in relation to the rest of the Community, job creation was relatively rapid but insufficient to offset the even more rapid rises in working-age population. In fact, rates of population growth in the French overseas depart-

ments were well above those in other Objective 1 regions. With labour demand failing to keep pace, unemployment rates reached higher levels than in most of continental France.

Productivity and GDP growth

Other things being equal, rising employment accompanies growing GDP. Job creation is both a reflection of and a contributory factor to growth in output. The extent to which the two go together depends on developments in output per worker or productivity. Growth in productivity is important for regions since it tends to mean that efficiency in production is improving which helps to control unit costs and to maintain or improve competitiveness. The challenge is to achieve increases in all three variables simultaneously: output, productivity and employment. It is essentially this challenge which is addressed in the Commission White Paper Growth, competitiveness and employment.

In terms of GDP per head, there were marked variations in experience among Objective 1 regions in the period 1986 to 1991 (Annex, Table A.20). The regions in the South and East of Spain grew fastest together with Castilla-La Mancha in the Spanish interior, Ireland and Portugal. All of these regions converged strongly towards the Community average, by between 6 and 9 percentage points. Of particular encouragement is the fact that they were among the poorest parts of the Community at the start of the period with GDP per head equal to or less than 60% of the Community average.

The Spanish Atlantic regions, Castilla Léon and the Italian Adriatic regions converged more gradually towards the Community average GDP per head, by 1 to 3 percentage points over the period.

The remaining regions all showed a divergence away from the Community average. This was particularly true of Northern Ireland, where GDP per head fell by 7 percentage points over the period to 72% of the Community average. In other regions, the decline was more modest, at around 1-3 percentage points.

These changes in GDP per head were associated with markedly different variations in productivity growth (Annex, Table A.21). Ireland and Portugal experienced a rapid convergence of GDP per head mainly as a result of dramatically rising productivity over the period relative to the Community average. As discussed in Chapter 1, productivity growth was particularly pronounced in the large foreign-owned industrial sector in Ireland. The national accounts data also suggest that productivity rose at a similar rate in Portugal, though the rate of increase falls significantly if the LFS employment data are used instead. In some Southern Spanish regions there were significant improvements in productivity notably in Castilla-La Mancha and Extremadura. In other regions, however, productivity declined (eg Murcia, Ceuta Y Melilla) or increased more slowly (eg Canarias) which would be consistent with rising employment in services linked to the growth of tourism.

In Northern Ireland, Corse and Sardegna, productivity fell substantially relative to the Community average with no change in Greece. This is a worrying development when combined with the fact that in all of these regions, GDP per head has been falling further behind the Community average. It may reflect the emergence of a vicious circle of declining productivity and declining competitiveness resulting in declining GDP and further decrease in productivity. In Greece, economic progress seems to have been held back by macroeconomic problems including difficulties in regard to inflation and public sector deficits which have acted as a brake on new private investment.

Northern Ireland, the region with the biggest fall in relative productivity, is not typical of Objective 1 regions and shares many of the characteristics of industrial areas in severe decline. The region was once a world centre in shipbuilding and linen textiles. Today the economy is highly dependent on public sector employment, though the industrial sector has undergone extensive modernisation with the development of many highly productive enterprises.

Studies suggest that the problems often lie in the small business sector with many parts having low productivity.

Concluding remarks

In summary, it is possible to conclude that the weaker regions have made some progress towards converging in real terms with the rest of the Community. There are encouraging signs that this may have accelerated after the reform of the Structural Funds in 1989. But the process has generally been slow and regions have been affected to differing extents.

The evidence strengthens the impression that structural change is a slow process, especially perhaps with regard to the Community's most backward regions. For individual Objective 1 regions, however, the evidence also suggests that substantial progress is possible even over a period as short as five years.

The experience of Objective 1 regions has been mixed in the period since 1986. Some undoubtedly have made progress including many which were among the weakest at the start of the period. Others have managed only to maintain their relative economic position. Of particular concern are the minority of Objective 1 regions which seem to have fallen back in key respects compared to the rest of the Community in spite of the efforts of recent years. For such regions economic development policies may not be sufficient and there are undoubtedly other constraints of a social, political or institutional nature holding back the growth of their prosperity. In other words, national and Community regional policies may need to be complemented by reforms which are more broadly based in order to hasten the process of regional economic convergence and cohesion.

The Community's policies for the coming period are the subject of the next chapter.

In 1993/94, new lists of assisted regions were designated. The problem regions discussed in this chapter are those of the period 1989-93. In view of their long-term restructuring problems the vast majority of these regions were re-proposed by their national authorities and are retained on the new lists.

Chapter 9 Community regional policies 1994-1999

Financial resources

The Community's regional (and other) policies over the rest of the decade are being formulated and implemented in the context of moves towards greater integration. In December 1991, the Community's governments signed the Maastricht Treaty, which sought to broaden and deepen the range of issues subject to shared decision-making. Of particular significance for regional policy, the new Treaty recognised the need for increased solidarity and cohesion within the Community as a basic condition for further economic and social progress.

It is the role of the Commission to translate the ambitions of the Maastricht Treaty into concrete proposals for action over the 1990s. Faced with the ongoing challenges of the Single Market and the new challenges posed by economic and monetary unification, including the adoption of a single currency by the end of the decade, the Commission's mediumterm budgetary proposals covering the period 1993 to 19991 - the Delors II package2 - called for another significant increase in structural expenditure to promote economic and social cohesion. This was generally accepted by Member States, even though the Maastricht Treaty had not yet been ratified. In consequence, the funds devoted to structural policies will increase by 41% from over 21 billion ECU in 1993 to 30 billion ECU in 1999, including the new

Cohesion Fund created to provide additional aid to the poorest Member States Spain, Greece, Ireland and Portugal with a GDP per head of less than 90% of the Community average. Structural Funds in 1999 will, therefore, be three times their real value in 1989.

The increasing importance attached to structural policies in the Community is reflected in their increased share of the Budget. In 1993, the last year of the old programming period, expenditure in structural measures accounted for 31% of the total as against 51% for agriculture. By 1999, the figure will have risen to 36%, while the share of spending on agriculture will have declined to 46% (Table 17).

Of the 141.471 billion ECU (at 1992 prices) available for the period 1994 to 1999, 96.346 billion ECU – 74% of the total – was allocated by the Council to Objective 1 regions (those where development is lagging behind). 11% went to Objectives 3 and 4, while the rest was divided fairly evenly between the other Objectives³ (Table 18).

The original recommendations in the Delors II package were based on four key principles underlying the 1988 reform—concentration, programming, partnership and additionality. These principles were discussed in the previous Periodic Report and in the Commission's mid-term review of the Structural Funds⁴. The principle of concentration of assistance on the worst-affected areas is key to the analysis of

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	199	3	199	6	199	9
	bn ECUs	%	bn ECUs	%	bn ECUs	%
Agriculture	35.2	50.9	36.4	48.4	38.4	45.7
Structural Actions	21.3	30.8	25.0	33.2	30.0	35.7
* Cohesion Fund	1.5	2.2	2.3	3.1	2.6	3.1
* Structural Funds	19.8	28.6	22.7	30.2	27.4	32.6
Internal Policies	3.9	5.6	4.5	6.0	5.1	6.1
External Action	4.0	5.8	4.6	6.1	5.6	6.7
Other	4.8	6.9	4.8	6.4	5.0	5.9
Total commitments .	69.2	100	75.2	100	84.1	100
Total payment appropriations	65.9		71.3		80.1	
Total payment appropriations as % Community GNP	1.2		1.2		1.3	

Total commitments relate to the legal obligation undertaken by the Community even if the total payment appropriations are not undertaken in the period indicated.

Source: European Commission

Table 18	
Table 10	
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The Structural Funds, 1994-96/99	
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Single I all and in a by Objective /9/ of total by Momber St	atal
financial allocations by Objective (% of total by Member Sta	ale

	s available CSFs	В	DK	D	GR	E	F	IRL	1	L	NL	Р	UK	EUR12
Objective 1	1994-1999	45	-	73	100	87	19	100	78	-	8	100	26	74
Objective 2	1994-1996	10	9	4	_	4	16	_	4	9	16	-	23	6
Objective 3 an	d 41994-1999	29	45	10	_	6	28	-	9	31	59	-	37	11
Objective 5a	1994-1999	12	39	6	-	1	17	-	4	52	9	-	5	4
Objective 5b	1994-1999	5	8	7	-	2	20	-	5	8	8	-	9	- 5
Total		100	100	100	100	100	100	100	100	100	100	100	100	100
Total Member State as % of EUR12		1.3	0.5	14.8	11.1	24.1	9	4.5	15	0.1	1.5	11	7.2	100

Source : DG XVI

REGIONS ELIGIBLE FOR THE STRUCTURAL FUNDS Objective 5b 1994-96/99 01

the impact of the funds and is discussed in more detail below in the light of the new decisions on the Structural Funds, 1994-1999 (modifications to the other principles, which concern effective implementation of development programmes, were also introduced). The regulations governing the use of the Structural Funds for the new programming period introduced a number of changes with the aim of improving their effectiveness, as follows:

- the integration of action in the fisheries sector and in fishing dependent areas into structural policies;
- the creation of a new Objective 4 designed to facilitate the adaptation of workers to industrial change and changes in systems of production;
- a broadening of measures in Objective 1 regions to include education and health;
- a simplification of decision-making procedures;
- the involvement of the social partners in decision-making;
- a strengthening of procedures to verify additionality;
- greater emphasis on evaluation, appraisal and a more precise formulation of quantitative intermediate objectives;
- indicative allocation by Member States for all the Structural Funds decided by the Commission.

Concentration

In order to be most effective in reducing disparities, the limited resources available for regional policy need to be concentrated on the worst-affected areas.

The evidence suggests that there has been a greater concentration of Community support in the sense that a higher share of resources are going to Objective 1 areas. Between 1989 and 1993, the proportion of funds going to these regions rose from 62% to 65% and by 1999, it will increase to 73% (including the Cohesion Fund). The four poorest Member States received 50% of the funds in 1992 as against 42% in

1988. With the Cohesion Fund, this share will rise to 54% by 1999. For these four, total Community structural expenditure under Objective 1 in 1999 will be twice the level in 1992 in real terms. Other Objective 1 regions will also receive a rising share of resources, from 19% to just under 23% over this period. Expenditure on other Objectives will therefore decline in relative terms (though it will rise in absolute terms).

In terms of the population covered, the proportion for the Community as a whole for all regional Objectives, has risen from 43% in 1989 to 1993 to 52% in 1994-96/9. Except for Greece, Ireland and Portugal, where all the population was already covered, coverage has increased in all Member States (Table 19) but half of this increase relates to the addition of the new Länder. Spain and the UK have experienced the smallest rise – 1-2% points – while in the other countries, apart from Luxembourg, the increases range from 7 percentage points (Belgium) to 20 (Germany). Denmark and Luxembourg are now the only Member States with no regions eligible under Objective 1 (Map 23).

The decisions which led to the increased coverage were taken against an economic background which had deteriorated significantly since 1988/89. Economic growth rates declined markedly at the beginning of the 1990s in most member States and unemployment rose sharply. The need for coordinated action to revitalise the Community's economy was recognised at the Edinburgh summit at the end of 1992, which agreed a package of infrastructure measures to stimulate economic activity, and a year later the Commission presented further proposals in the White Paper Growth, competitiveness and employment⁵.

Against this background, regional policy was also seen to have a role in stimulating the growth of weaker regions. The general perception was that the number of regions suffering from lagging development or structural decline – as opposed to temporary cyclical problems – was increasing.

In determining eligibility under Objective 1, the regulations adopted by the Council maintained the central criterion that these should be NUTS 2 regions

Table 19
Share of Member States' population
covered by the regional Objectives of the Structural Funds (%)

	Obje	ctive 1	Obje	ctive 2	Objec	tive 5b	Т	otal
	1989	1994	1990	1994	1989	1994	1989	1994
Belgium	0.0	12.8	22.1	14.2	2.7	4.5	24.8	31.5
Denmark	0.0	0.0	4.9	8.5	2.1	6.8	7.0	15.3
Germany	0.0	20.6	12.4	8.8	7.4	9.7	18.8	39.2
Greece	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0
Spain	57.7	59.7	22.2	20.4	2.5	4.4	82.6	84.5
France	2.7	4.4	18.3	25.1	9.7	16.7	30.2	46.2
Ireland	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0
Italy	36.4	36.7	6.6	11.0	5.0	8.3	47.8	56.0
Luxembourg	0.0	0.0	38.0	34.6	0.8	7.9	38.8	42.4
Netherlands	0.0	1.5	9.9	17.4	3.0	5.4	12.9	24.2
Portugal	100.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0
UK	2.8	5.9	35.5	30.9	2.6	4.9	40.4	41.7
EUR12	21.7	26.6	16.8	16.8	5.0	8.2	43.0	51.6
Population in millions	70.0	91.9	54.2	58.2	16.1	28.5	140.3	178.6

France includes DOM

Germany, France and the UK include the regions added in 1990 under the RECHAR Community initiative

Italy includes Abruzzi for 1994-1996 (2.2% of Italian population). All of the increase in population coverage between 1989 and 1994 is due to the fact that population growth rates in the Italian Objective I regions exceeded the national average.

Source: DG VI and XVI

with a level of GDP per head (in PPS) of less than 75% of the Community average. At the same time, however, it applied the criterion more flexibly, so widening the scope for regions to be included under Objective 1.

When the first list of Objective 1 regions was established in 1988, this flexibility was used to allow the inclusion of Northern Ireland and Corsica. In 1993, the Council included some 8 regions or areas not strictly fulfilling the GDP per head condition (Northern Ireland, Corsica, Abruzzi and Molise, the new areas of Hainaut in Belgium, part of Nord-Pas de Calais, the Highlands and Islands Enterprise Board Area and Merseyside). Other new additions to the

list, with GDP per head below 75% of the Community average were the five new German Länder and East-Berlin, Cantabria in Spain and Flevoland in the Netherlands.

Since no region has been taken off the list – though Abruzzi will be on 1 January 1997 – the result is that the population covered under Objective 1 has increased from 70 million to 92 million or from 21.7% of the Community total to 26.6% (this will decline to 26.2% when Abruzzi, the most prosperous of the Objective 1 regions, loses its status in 1997).

The new Objective 1 regions in Belgium, France and the UK added a new dimension to the defining char-

acteristics of Objective 1 regions. These are not areas of lagging development in the traditional sense but regions where the decline from relative prosperity based on industrial activity has been particularly acute.

East Berlin and the new German Länder with 16.4million inhabitants also present a new type of regional problem – one of transition from a centrally planned to a market economy, a process without recent historical precedent (see Chapter 11). These were granted a total of 3 billion ECU (1991 prices) by the Council⁶ to assist economic and social reform between 1991 and 1993, bridging the gap before the start of the 1994-99 programming period. Although statistics on GDP on standard definitions did not exist for the relevant period, there was no question in 1993 that the new Länder qualified for Objective 1 assistance. The result is that over 20% of the population of Germany now lives in Objective 1 areas.

In Belgium, almost 13% of the population lives in Hainaut, which has become an Objective 1 region, while the first Objective 1 region in the Netherlands, Flevoland, accounts for under 2% of national population. There was also an increase in the proportion of the population of Spain, France and the UK living in Objective 1 regions.

In summary, though the population coverage of Objective 1 regions has risen and the geographical concentration of assistance has declined, this is mainly due to German unification and the extension of aid to the former East Germany. Of the 21.9 million additional people covered, 16.4 million – 75% – live in East Germany.

As regards Objective 2 assistance, the proportion of population covered remains at 16.8% as before 1994, though the numbers have increased from 54 million (in 1990) to 58 million in 1994-1996. In general, the average size of eligible area has declined while their number has increased. Many of the areas included on the new list⁷ were proposed by national governments in anticipation of a permanent shake-out of labour in key sectors caused by the current recession. Areas with population of over 20 million were included on the Objective 2 list under the declining sectors pro-

visions. Four areas – Hainaut (part), Cantabria, Nord (part) and Merseyside – which used to qualify for support under Objective 2 now fall under Objective 1. Eligibility for Objective 2 status will last for three years, in the first instance, and will be reviewed in 1996.

Objective 5b regions have been defined for the full six-year period on the grounds that structural changes in rural areas tends to be relatively slow. In addition to the general economic pressures discussed earlier, rural areas in the Community face new challenges from the reform of the Community agricultural policy as well as from the effects of the GATT Uruguay Round. Accordingly, the population covered under Objective 5b has been increased from 5% of Community population in 1989 to more than 8% in 1994. Though the increase is relatively uniform across the Community, there are large rises in the proportion of the population covered in Luxembourg and Denmark⁸.

The macroeconomic weight of Community regional policies

Community regional expenditure influences the development of Member States and regions in two principal ways:

- through the co-financing of investment in physical and human capital raising their productive capacity;
- through income transfers which allow imports to be increased without a worsening of the balance of payments.

The investment effect of Community regional policies can be illustrated by the ratio of ERDF expenditure – the principal vehicle for physical investment under the Structural Funds – to total gross fixed capital formation (GFCF) in the economies concerned. In 1989, the ERDF financed 0.4% of

Table 20 Commitment of the ERDF and the other Structural Funds in Objective 1 regions

Objective 1 regions in		OF comm		s as a p	ercentaç GDP	ge of	and C	Funds Fund tage	
	1989	1993	1999	1989	1993	1999	1989	1993	1999
Greece	7.3	11.0	12.6	1.4	1.9	2.2	2.5	3.3	4.0
Spain ¹	2.6	4.0	6.6	0.7	0.9	1.5	1.0	1.5	2.3
Ireland	5.2	9.3	7.8	0.9	1.5	1.2	2.1	3.1	2.7
Portugal	5.3	7.0	8.0	1.4	1.8	2.1	2.7	3.3	3.8
EUR4 (of which Cohesion Fund)	3.9	6.0	7.8	0.9	1.3	1.7	1.6	2.3 (0.4)	2.9 (0.6)
New German Länder ²	n.a.	(0.9)	1.8	n.a.	(0.4)	0.8	n.a.	(0.8)	1.7
Italy ³	1.7	3.6	4.0	0.4	0.7	0.8	0.6	1.1	1.2
Other Community Member States ⁴	2.0	3.3	2.5	0.4	0.6	0.5	1.0	1.4	1.1
All objective 1 regions	3.0	5.0	4.7	0.7	1.1	1.2	1.2	1.8	2.1
EUR12	0.4	0.6	0.9	0.1	0.1	0.2	0.1	0.2	0.3

Estimates by DG XVI

Increase in GFCF 1994-1999 : 2,5% pa Increase in GDP 1994-1999 : 2,5% pa

1999 figures include Cantabria

² Figures in brackets refer to amounts provided under EEC Reg. 3575/90

1999 figures exclude Abruzzi

For 1989 and 1993, Northern Ireland in the UK and Corsica in France; for 1999, including also Hainaut; the 'Arrondissements' of Douai, Valenciennes and Avesnes; Flevoland; Merseyside and the Highlands & Islands Enterprise Area.

Source: Eurostat, DG II, calculations DG XVI

GFCF in the Community and 3% of that in Objective 1 regions. In the four poorest Member States, it financed 4% and in other Objective 1 regions, around 2% (Table 20).

By 1993, the figure for all Objective 1 regions had risen to 5% and that for the four poorest Member States to 6%. By 1999, the Community's contribution to investment will rise further in real terms, though the share of GFCF will depend on what happens to the latter in the meantime. If GFCF were to grow by 2.5% a year, the average for the Community over the 1980s, the ERDF would still finance 5% of investment in (the now enlarged group

of) Objective 1 regions but nearly 8% in the four poorest Member States.

The effect of regional expenditure on the ability to import can be assessed by relating the amount involved to the GDP of the area concerned. In 1989, Structural Funds' support to the Objective 1 regions as a whole was 1.2% of their GDP and in the four poorest countries, 1.6% of GDP. By 1993, these figures had risen to 1.8% and 2.3% respectively.

By the end of the current programming period in 1999, if GDP grows at 2.5% a year, the average for the Community in the 1980s, the Structural Funds

will represent 2.1% of GDP in Objective 1 regions and 2.9% of GDP in the four poorest Member States.

To have a lasting effect on productive capacity, these funds need to be used to increase physical and human capital. Moreover, the scale of the effect depends on counterpart financing from the Member States concerned, which is why the additionality principle is considered to be important and why it has been strengthened under the revised regulations, especially in relation to the provision, in the regional plan, of adequate financial information on the extent of national expenditure on development-related expenditure.

Community initiatives

The total funds available for Community initiatives in the period 1994 to 1999 amount to 13.45 billion ECU in 1994 prices. Initiatives will focus on seven broad themes: cross-border and transnational cooperation, rural development, the most peripheral regions, employment and the development of skills, the management of industrial change, urban areas and fishing (Table A.22 in the Annex shows the full list of initiatives). There is, in addition, a reserve of 1.6 billion ECUs for allocation at a later stage.

Several of the initiatives reflect a desire for continuity. This is true of INTERREG, the largest one which is mainly for cooperation across internal borders but which is intended to cover cooperation on external and certain coastal borders to a greater extent than previously. This is linked with measures to promote energy networks formerly undertaken under REGEN. There are also follow-ups, with increased finance, for LEADER which is for rural development and REGIS which is for ultra-peripheral regions.

In addition, it is proposed to continue initiatives assisting regions hit by the decline of the coal, steel, textile and defence industries – RECHAR, RESIDER, RETEX and KONVER – up to the end of 1997 and a specific initiative for the Portuguese textile industry has been added. A new initiative,

ADAPT, financed from the Social Fund, has been introduced to help workers threatened with unemployment because of industrial change and to help enterprises improve their competitiveness.

Another initiative directed at small and mediumsized enterprises is also intended to ease adaptation to industrial change. This will incorporate some of the successful features of the existing PRISMA, STRIDE and TELEMATIQUE initiatives, as well as reflecting the thinking in the White Paper, and will be focused mainly on Objective 1 regions.

The Employment Initiative will incorporate elements of the existing NOW programme, for women, and HORIZON, for the disabled, but will be widened to cover other disadvantaged groups such as the long-term unemployed, while YOUTHSTART will aim to provide a guarantee of training and employment for the under 20s throughout the Community.

The new initiatives for urban problems and PESCA for fishing dependent areas complete the list.

The Structural Funds and the regions of the candidate countries

The negotiations over the accession of the four EFTA countries have also included the issue of Structural Fund assistance. The allocation of Objective 1 assistance has been agreed and a new category of aid, Objective 6, has been created.

Only Austria has a region which qualifies for Objective 1 assistance, Burgenland with a population of 269,000, 3% of the total population of Austria. According to the latest assessment, the financial aid fixed for the period 1995 to 1999 as a whole will be 184 million ECU, which represents an amount per inhabitant of slightly less than in present Objective 1 regions (outside Cohesion Fund countries) (Table 21).

Table 21
The Structural Funds and the new Member States: 1995-1999

	Austria	Norway	Sweden	Finland	EUR8 (excl. GR, E, IRL, P)
Population	7699	4241	8559	4998	283365
Objectives 1 and 6 population ('000)	269	587	450	837	45036
Objectives 1 and 6 as % of national population	3,50%	13,80%	5,25%	16,70%	15,90%
Structural Funds 1995-99 (1995 prices MECU)	1623	1137	1420	1704	67247
of which:					
Objectives 1 and 6	184	384	230	511	32247*
Other Objectives	1439	769	1190	1193	35000
Structural Funds per head (ECU)	211	268	166	341	237

estimate of Structural Funds outside Obj. 1 regions

Source: DG XVI

A new Objective 6 has been established for regions - defined at NUTS level II - with outstandingly low population density (below 8 inhabitants per square kilometre). Regions eligible for this will be in the three Scandinavian countries. Objective 6 will be similar in kind to Objective 1 and will be subject to revisions in 1999 at the same time as the Structural Fund regulations are reviewed. Until then aid will be regulated through a protocol in the Treaty of Accession. The regions which are eligible, which are also identified in the protocol, cover a population of 1.874 million and will receive a total of 1.109 million ECU (at 1995 prices) over the period 1995 to 1999 as a whole - equivalent to 592 ECU per person (an average of 118 ECU a year) which is 17% lower than the average for Objective 1 regions in the rest of the Community (outside Cohesion Fund countries).

After negotiation, the position of each country under Objective 6 is as follows:

• in Sweden 450,000 people, or 5.3% of the population, will live in regions eligible for assistance (mainly in three northern counties). They will

receive a sum averaging around 101 ECU per person a year over the period 1995 to 1999;

- in Finland, 837,000 people, 16.7% of the population, live in eligible regions, mainly in Lapland and other areas bordering Russia. The sum involved has been fixed at the equivalent of 122 ECU per person per year over the period 1995 to 1999;
- in Norway, some 587,000 people, 13.8% of the population, are likely to live in eligible regions and to receive an average of 125 ECU per person per year over the period 1995 to 1999.

So far as other objectives of the Structural Funds are concerned, the Commission has indicated, without giving a precise figure, that the population covered by Objective 5b is likely to be significant and larger than the population under Objective 2. Objective 5a is also likely to be important.

Because of relatively low rates of unemployment in the candidate countries, with the exception of Finland, the population covered by Objective 2 assistance will probably be minimal in Norway and Austria and well below the Community average in Sweden. In Finland, as a result of high unemployment since 1990, the population covered by Objective 2 might be relatively high.

Although neither the eligible areas nor the global coverage of population has yet been established (this remains to be done before the 1st January 1995 which is the envisaged date of accession), the total amount of finance available for Objectives 2, 3, 4, 5a and 5b has been agreed. Including Community initiatives, the Budget for 1995 to 1999 has been fixed at 4.6 billion ECU.

The total available for the four candidate countries from the Structural Funds amounts to 5,884 million ECU (at 1995 prices), which represents an additional expenditure of 4.5% in relation to an expansion of 7.4% in the Community's population. The average assistance per person under all the Objectives combined is slightly below the average for the existing 8 Member States excluding the four Cohesion countries.

The budgetary period 1993-1999 differs from the programming period for regional actions which for Objectives 1 and 5b runs from 1994 to 1999, and for two 3-year periods, 1994-1996 and 1997-1999, for Objective 2.

European Commission: The means to match our ambitions. COM(92) 2000.

Including innovative and transitional actions.

⁴ European Commission (1992), Community Structural policies: Assessment and Outlook, COM (92) 84

⁵ European Commission (1993), Growth, competitiveness and employment Com (93) 700 final

Regulation (EEC) No 3575/90 of the Council at its meeting of 4 December 1990

The list is published in the Official Journal, L81 of 24 March 1994.

⁸ The list is published in the Official Journal, L96 of 14 April 1994.

Chapter 10 Regional policies in Member States: recent trends¹

The past five years have been a period of considerable uncertainty and upheaval in the regional policies of Member States. Major geo-political developments, economic fluctuations and almost continuous structural change have combined to create a difficult environment for regional policy. These changes are reflected in Northern Member States in a decline in large scale, automatic support to business in favour of a more selective approach with more emphasis than in the past on developing the business environment (assistance to producer services) and small enterprises. In Southern Member States and Ireland. expenditure on regional incentives has increased and is now among the highest in the Community in relation to GDP. These countries have maintained relatively extensive geographical coverage in their regional incentive schemes whereas in Northern Member States such coverage has been reduced. This has tended to reduce differences in expenditure on regional incentives across the Community when expressed per head of population. The major exception is Italy where expenditure per head remains substantially ahead of the rest of the Community.

Definitions of regional policy

Since the promotion of productive investment is the major means of stimulating regional development in all Member States, the focus is on regional incentives and, to a lesser extent, on the provision of infrastruc-

ture to aid business expansion. Where major infrastructure investment is concerned (transport, telecommunications and energy networks) Member States tend not to distinguish systematically between that of a general nature and that undertaken specifically to promote regional development. For this reason, regional policy conducted at Community level, which has a strong emphasis on infrastructure, is difficult to compare directly with that of the Member States.

The analysis below is divided into three sections. The first reviews recent changes in the objectives, priorities and context of regional policy in Member States, including the importance accorded to regional incentives to business and to business-related infrastructure. The second examines changes in the design of regional incentives as regards their form, value, spatial coverage and the targets of assistance. The final section considers trends in expenditure on regional incentives since 1980, focusing, in particular, on developments during the late 1980s.

The objectives and context for regional policy

The major feature of national regional policy over the past decade has been the reformulation of policy objectives (see Box, for a summary of the major changes in policy in each of the Member States). During the 1980s, regional policy became less oriented towards redistributing income and employment and more towards encouraging structural change to achieve greater diversification and raise the overall potential for economic growth.

In recent years, policy makers have had to contend with several different kinds of structural adjustment. The primary concern, particularly in Northern Member States, has continued to be regions dependent on traditional industries. Problems of structural adjustment, however, have affected a much wider range of regions throughout the Community, especially those containing single activity towns or cities dependent on industries such as defence, which has experienced plant closure or conversion of production to non-military goods, or fishing or agricultural communities affected by over-capacity and quota restrictions.

The emphasis on promoting structural adjustment of regions reflects the influence of macro-economic developments and geo-political changes. Economic crises during the 1970s and early 1980s, associated with widespread unemployment and accompanied by structural change affecting all regions, reduced the importance of regional policy on the political agenda in several Member States. Budgetary restrictions and changes in attitude towards subsidy-based intervention led to lower expenditure and a more selective approach to regional development in many countries.

The recovery from the recession of the early 1980s was followed by strong economic growth throughout the Community, but unemployment in many regions remained high, including certain urban/industrial agglomerations. (In the UK, the social, economic and environmental problems of inner city areas prompted a growing range of urban policy measures which

gradually supplanted regional policy in terms of political priority and expenditure.) The spatial concentration of growth also brought problems for some developed regions: over-heating and congestion encouraged renewed interest in measures to decentralise economic activity from cities such as Paris, Athens and London.

Other aspects of structural adjustment are attributable to geopolitical developments. Preparations for the Single Market, with the potential for enhanced cross-border cooperation and competition, promoted greater concern with the competitiveness and productivity of industries and firms. The impact of political and economic transformation in Eastern Europe has had greatest impact in Germany where unification has required major restructuring programmes in virtually all economic sectors of the new German Länder, including a massive increase and reorientation of regional policy resources. Elsewhere in the Community, the lowering of East-West tension is apparent in the closure or rationalisation of military bases and cutbacks in production and employment in defence industries.

Against this background, regional policy has focused increasingly on assisting the restructuring of regional production systems. Although regional financial incentives are still the main instrument for the promotion of new productive investment in the regions, policy makers are moving away from their former reliance on subsidies for investment and employment, and measures are being oriented more towards improving competitiveness and the regional business environment through business-related infrastructure development (notably in the Netherlands), technology transfer and consultancy services, especially for marketing and exports. The nature of business-related infrastructure provision is also changing: the traditional provision of industrial estates, factories and local services is being supplanted by the creation of enterprise and incubator units, technology and science parks and telematic centres. This broader approach to the promotion of productive activity in problem regions is also reflected in the administration of regional policy which is becoming more integrated with other areas of policy (eg urban/regional policy coordination in the UK) and is

the subject of more coordination between central and regional government (as in Belgium and Spain).

The reorientation of policy is, however, being undertaken within a context of tightening budgetary constraints and varying degrees of political commitment to regional policy. In addition, the monitoring of aids under Community competition policy - in the interests of creating a 'level playing field' - has focused on both the extent (coverage of assisted areas) and intensity (rates of assistance) of regional policy. This is particularly so in the Northern Member States. In Denmark, almost all conventional regional incentives were abandoned in 1991 in favour of a new national system for the promotion of business development; in the Netherlands, regional assistance has been confined to the North of the country (although there are some other areas with temporary designation); and in Germany, both the level of expenditure and the extent of assisted areas have been reduced substantially in the former West Germany - though assistance has been increased massively in the new Eastern Länder.

By contrast, Member States in the South have generally maintained or increased expenditure on regional policy in recent years, aided by support from the Structural Funds, especially to Objective 1 regions, and more liberal conditions under competition policy. Nevertheless, they too have not been immune from cutbacks, at least as regards the promotion of productive investment. Besides Italy, where political change has led to the temporary suspension of regional agencies and programmes, in both Spain and Portugal reductions in national expenditure on aid is expected to occur over the next few years. As indicated in Chapter 11, however, it is important for the weaker Member States and regions that overall regional expenditure is maintained so that, with the increased resources available under the Structural Funds for the period 1994-99, a firm foundation is laid for catching up.

The design of regional incentives

The shift in national regional policy objectives to focus more on structural adjustment, with increasingly limited resources in many Member States, is evident in the design of incentives to attract new productive activity. A common theme in the composition of incentive packages, their administration, spatial coverage, the conditions for eligibility and the rates of support is a more selective approach to promoting indigenous regional development.

Over the past decade, both the number and form of regional incentives used by Member States have become more limited. The diversity of incentives, common in most Community countries during the 1970s, is disappearing (particularly as regards fiscal concessions and interest-related subsidies), and most incentive packages are now heavily grant-based. The diversity which remains tends to be greatest in the less developed countries: Greece, Italy, Ireland and Portugal typically have more numerous and varied incentives, including labour-related subsidies, than other Member States.

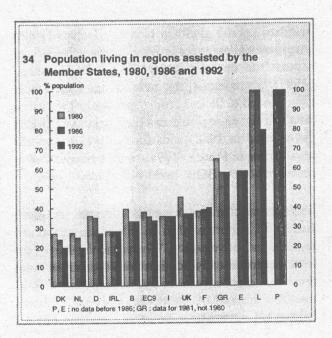
Many of the incentives which have been abolished in recent years were major, high value, automatic schemes. Examples include WIR regional allowances in the Netherlands (terminated in 1983), regional development grants in Great Britain and standard capital grants in Northern Ireland (1988), investment allowances in West Germany (1989) and almost the entire package of Danish measures (1991). By contrast, the new schemes introduced have tended to be less costly, indirect or focused on small firms, eg regional enterprise grants in Britain (introduced in 1988), aids for decentralisation and small firms in France (1991) and the business environment policy 'BOB' in the Netherlands (1992).

The demise of major automatic schemes has given rise to an important shift in the administration of regional incentive policy. Whereas at the start of the 1980s automatically-administered incentives were prevalent, especially in the larger Community countries, by the end of the decade only in Italy was large-scale automatic support still the basis of re-

gional incentives. Elsewhere, most support now has a significant discretionary component. An additional administrative trend, as noted above, has been the development of a more decentralised approach in many Member States, particularly in respect of support for smaller projects and firms.

Associated with these administrative developments, the eligibility conditions for regional incentives now involve greater selectivity and more discretion so as to increase the cost-effectiveness of assistance. In a number of countries, assistance has come to be limited to those sectors where it is considered effective, excluding sectors with over-capacity. In other countries like Belgium and Portugal, eligibility conditions take more account of the industrial characteristics of projects. The emphasis on promoting the business environment is reflected in the extension of eligible activities to include certain producer services with a greater focus on high-tech, innovation and consultancy.

Incentives have also increasingly been focused on new firms or projects as opposed to existing ones, especially in Germany, Ireland and the Netherlands. Start-up projects qualify for more generous awards and are subject to less restrictive eligibility conditions than extensions, while projects involving rationalisation and reorganisation rarely receive assistance.



At the same time, the spatial coverage of assisted areas has become more restricted and more focused on problem regions in Northern Member States. Over the period 1980 to 1992 in Belgium, Denmark, (West) Germany, the Netherlands and the UK, the average population in designated problem regions has fallen from just over 35% of the total to around 27% (Graph 34 and Table 22). Apart from Denmark, where although there are designated problem regions they have not received assistance so far, the most notable reductions have occurred in the Netherlands (a decline of two-fifths), the UK (one-fifth) and Germany (one-third).

By contrast, in Southern Europe and Ireland – much of which are designated as Objective 1 regions – there has been no reduction in spatial coverage since 1985. In Greece, Portugal and Spain, there has been virtually no change in areas eligible for assistance since their accession to the Community, while in Ireland the only change has been a temporary extension to assisted areas between 1989 and 1991. Nevertheless, within assisted areas, Southern Member States are targeting regional aid more precisely through graduating rates of support. In Italy, different rates have been introduced in different parts of the Mezzogiorno and in Spain, six different maximum rates of support apply according to the development status of the area.

In general, the overall maximum rates of award of regional support on offer in the Member States have not changed markedly, being determined primarily by Community aid ceilings. However, there has been a number of changes to the rates of support for specific incentive schemes reflecting the greater selectivity noted above. In Northern Member States, the changes were mostly in a downward direction and in favour of start-up projects. In the Netherlands, the maximum rates of support under the IPR were reduced from 25% to 20% (15% for subsequent extensions), in the former West Germany, the maximum preferential rate was reduced from 25% to 18% and in Ireland, the maximum rate for extensions was reduced in two stages from 60% or 45% (depending on location) to 15%. By contrast, in Southern Member States, rates of support generally increased... In Italy, rates were raised in the mid-1980s and in both Portugal and Spain, new regional incentive sys-

		Regiona	al Incen	Table tive Exր		re indica	itors				
	in as	lation cov ssisted reg ional pop	gions	o in as	RIE per he f populati ssisted re U 1990 pr	on gions	RIE (% national GDP)				
	1980	1986	1992	1980	1985	1990	1980	1985	1990		
Belgium	39.50	33.10	33.10	38.15	49.67	44.71	0.13	0.14	0.11		
Denmark	27.00	24.00	19.90	9.82	10.62	5.40	0.02	0.02	0.01		
France	38.20	39.00	40.00	16.85	11.73	7.57	0.05	0.04	0.02		
Germany	36.00	35.00	27.00	30.07	28.38	33.15	0.08	0.07	0.07		
Greece ¹	65.0	58.00	58.00	7.13	36.28	52.47	0.07	0.35	0.49		
Ireland	28.00	28.00	28.00	117.00	57.46	58.14	1.66	0.75	0.63		
Italy	35.60	35.60	35.60	185.19	238.72	404.63	0.60	0.72	1.04		
Luxembourg	100.00	100.00	79.70	63.97	23.72	70.91	0.51	0.17	0.41		
Netherlands	27.40	25.00	19.90	58.45	42.10	33.09	0.13	0.08	0.05		
Portugal	_	100.00	100.00	-	-	27.35	_	_	0.38		
Spain	_	58.60	58.60	_	_	31.93	_	-1	0.19		
UK	49.50	36.80	36.80	70.61	62.27	36.92	0.30	0.20	0.10		
EUR9	37.90	35.50	33.40	_	_		-	_	_		

¹ For Greece the figure for population coverage under 1980 is for 1981; the figures for RIE under 1980 are for 1982 and under 1990 are for 1988 Source: EPRC (1993)

39.10

tems introduced after their entry into the Community involved higher ceiling on support.

41.00

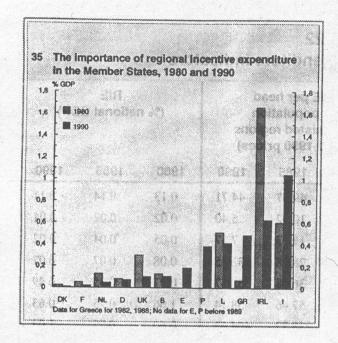
EUR12

Expenditure on regional incentive policies

The differences in policy trends across the Community are reflected in the changes in expenditure which have occurred over the past decade. In most Northern Member States, spending on regional incentives declined markedly in the course of the 1980s (Graph 35). This is especially true of Denmark, the Netherlands and the UK where the fall was more than 50%. However, in Belgium and – to

a lesser extent – Luxembourg, there was no clear tendency either up or down, while in Germany a tendency for expenditure to fall in the first half of the 1980s was reversed as spending on investment allowances increased dramatically in the second half prior to their withdrawal in 1989. With their abolition and the withdrawal of special depreciation allowances (for the former Border Area) in 1994, the regional aid expenditure in West Germany will be 30% lower than in 1991. On the other hand, in the new East German Länder, regional expenditure is rising rapidly. The total regional budget for the new Länder was DM 11.4 billion in 1992, over ten times more than in the West of the country.

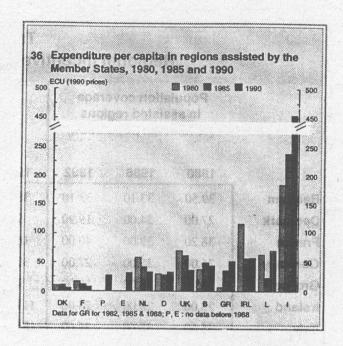
While the underlying expenditure trend in most Northern Community countries is clearly downwards, in Southern Member States regional incentive



spending has increased significantly since the mid-1980s. Current budgetary pressures, however, suggest that growth is unlikely to continue in the 1990s.

Member States can be divided into four groups in terms of expenditure on regional aid. At the bottom come Denmark and France, with expenditure of under 0.02% of GDP in 1990. The second group comprises, in ascending order, the Netherlands, Germany, the UK and Belgium with expenditure of 0.05-0.1% of GDP and with the Netherlands rapidly declining towards the bottom group. The third group consists of Luxembourg plus four countries where all or most areas are Objective 1 regions - Spain, Portugal, Greece and Ireland - with expenditure of 0.4-0.6% of GDP. (Spending in Spain, in fact, was lower than this in 1990 but within the range in 1989.) Finally, in Italy, expenditure in 1990 amounted to just over 1% of GDP, reflecting significant social security concessions and a marked increase in spending in 1990 (in previous years, expenditure generally being around 0.7% of GDP - still more than elsewhere in the Community).

Because, however, countries with a low level of expenditure tend to confine the coverage of policy to relatively few and narrowly defined assisted areas,



differences between countries in terms of expenditure per head of assisted population tend to be much less marked. Thus, with the exception of Denmark and France at one extreme and Italy at the other, in all countries spending in 1990 was between 27 and 70 ECU per head of the population of assisted regions, with Luxembourg, Ireland and Greece close to the top of this range and Spain and Portugal and the other countries close to the bottom (Graph 36).

These figures indicate that the intensity of regional aid to business in the Northern Member States has declined relative to that in Southern Member States.

This chapter is based on a short study: European Policy Research Centre (1993), The regional policies of the Member States: a review of recent trends, study financed by DG XVI of the European Commission.

Major policy changes in the Member States

The key changes in regional incentive policy since 1980 in each Member State are as follows:

Belgium

- 1980: Administration and funding of regional policy devolved to Flanders and Wallonia.
- 1982: New Development Zones reviewable every 3 years announced; the population in problem regions reduced from 39.5% to 36.3%.
- 1983: Population in problem regions reduced further to 34.7%.
- 1985: Review of Development Zones: reduced population in problem regions to 33.1%.
- 1988: The two regional governments made responsible for industrial policy.
- 1992: New directives introduced in Wallonia which, interalia, abolished interest subsidies.

Denmark

- 1982: Population of General Development Regions reduced from 27% (and 31% in the late 1970s) to 25% (and to 24% in 1984).
- 1985: Soft loans to companies and a number of minor incentives withdrawn. Maximum grant increased from 25% to 35% in the Special Development Regions.
- 1987: New problem region map drawn with population in problem regions reduced to 20% by 1990.
- 1988: Support made more selective, with focus on projects with fundamental development impact.
- 1991: Conventional regional development grants, loans and authorities abandoned in favour of new national business development system.
- 1992: New problem region map agreed for the period 1992 to 1996, covering 20% of the population.

France

- 1982: Regional incentive system simplified, regional policy grants (PAT) and regional employment grants (PRE) replacing five different measures. Decentralisation subsidy abolished. Incentive administration decentralised more. Designated areas reduced from three grades to two
- 1987: Regional component of the PAT abolished. Scheme changed from semi-automatic grant to being discretionary aimed at influencing location decisions.
- 1988: Special depreciation allowances on the construction of new buildings abolished.
- 1990: With Commission agreement a number of areas designated as permanent problem regions instead of receiving assistance under exceptional provisions.
- 1991: Aid to decentralisation (from the Ile-de-France region) and a new regional incentive for smaller projects in rural areas (the AIIZR) introduced.

Germany

- 1981: Assisted areas to be reduced from 36% of the population to 30% by 1993. Special investment grants for high-grade jobs introduced.
- 1982: Special Steel Location Programme introduced (1982-85).

- 1984: Under Commission pressure, areas with 1.4% of population de-designated. Bremen designated as a special area because of shipbuilding problems(1984-87) and Gelsenkirchen designated because of other structural problems.
- 1985 : Measures introduced to encourage service-related activities, innovation and R & D, with emphasis on infrastructure.
- 1988: Aid ceilings reduced. Special programme for mining regions introduced (1988-91). Abolition of investment allowances in 1989 announced, but with an increased budget for investment grants.
- 1990: Regional policy assigned a leading role in measures to assist the development of Eastern Germany.
- 1991: Designation of the Zonal Border Area withdrawn, though certain measures continued until 1994. Assisted population in the Western Länder reduced to 27% with maximum aid of 18% (as against 23% in the East).
- 1992: Regional budget for the new Länder set at ten times that in the West. Special programmes introduced for areas affected by coal mine closures.

Greece

- 1981: Investment grants, interest rate subsidies, increased depreciation allowances and tax allowances introduced to bring policy into line with rest of Community.
- 1982: More emphasis given to expenditure, less to fiscal concessions. A new assisted areas map introduced and administration made more decentralised.
- 1990: Emphasis shifted from expenditure to fiscal measures.

 Regional incentives reduced, with support channelled more through infrastructure spending via the Community Structural Funds.

Ireland

- 1981: Export sales relief withdrawn (largely in response to Commission pressure) and replaced by a 10% rate of corporation tax for manufacturing industry. New measures introduced for the service sector, particularly international services.
- 1982: Applications under the IDA modernisation and reequipment grants scheme suspended and the scheme subsequently abolished.
- 1986: Selectivity increased. Reduced emphasis on job creation *per se* and more on maximising added value to the Irish economy.
- 1987: Support made more target-oriented/performance-related.
- 1988: Support for fixed investment reduced.
- 1989: Entire country made eligible for Community support.
 Population of Designated Areas increased temporarily
 (1989-1991) 28% to 34%.
- 1991: Ceiling on aid for extensions of projects reduced from 25% to 15%. More emphasis placed on repayable forms of support.

Italy

- 1986: New legislation for the Mezzogiorno introduced. Eligibility for aid extended. Three-year rolling programmes implemented. Mezzogiorno divided into three grades of area and discrimination in rate of support introduced. Rates of maximum support increased.
- 1988: Under Commission pressure, certain parts of the North Mezzogiorno de-designated as from 1990 and others from 1992.
- 1990: Discrimination on rates of support increased.
- 1992: "Special intervention" for the Mezzogiorno abolished as from 1993.

Luxembourg

- 1986: Discrimination in rates of support between different parts of the country introduced. More services made eligible for support.
- 1991: Area eligible for support reduced to cover 80% of the population.

The Netherlands

- 1981: SIR levy withdrawn, reducing the aid differential between designated IPR (investment premium) areas and the rest of the country.
- 1982: Population in IPR Areas increased from 27.4% to 28.7%.
- 1983: First step to decentralise IPR administration. The itemrelated WIR regional allowance withdrawn, partly in response to Commission pressure. Under Commission pressure, population in IPR Areas reduced from 28.7% to under 25% by 1985.
- 1986: Reductions in aid to project extensions awards. IPR budgets decentralised to the provinces. Minor adjustments made to designated areas.
- 1988: Population in IPR Areas reduced from almost 25% to 20%. Maximum rate of aid reduced from 35% to 25% for start-up projects and to 15% for extensions.
- 1991: IPR Areas limited to the North of the country (some 10% of the population) from 1993. IPR rates reduced to 20% for start-up projects. BOB (business environment policy) approved, aimed at facilitating economic development by removing infrastructure bottlenecks.

Portugal

- 1986: New regional incentive system introduced to bring incentives in Portugal more into line with other Community countries, with capital grants, employment premiums and support for innovation. Aid set at a maximum of 33% of eligible expenditure.
- 1988: SIBR grants introduced covering up to 65% of eligible expenditure. SIPE introduced to improve the business environment by providing support for 'softer' or intangible investments. SIFIT introduced to support tourism. 70% of aid budget provided by the Community Structural Funds.
- 1989: Amendments made to the SIBR to ensure its consistency with new industrial incentive system (SINPEDIP) introduced under the PEDIP (specific industrial development programme for Portugal) to support innovation

- and modernisation. Financial support for the PEDIP from Community Budget additional to Structural Fund support.
- 1990: Increased emphasis placed on industrial characteristics of project proposals.

Spain

- 1986: New regional incentive legislation introduced defining regional incentives and specifying eligible types of problem region.
- 1987: The new zones eligible for regional assistance specified and the maximum rates of support for each grade of zone stipulated, ranging from 20% to 50% (75% in Zones of Industrial Decline).
- 1991: Zones of Industrial Decline incorporated into the more general Zones of Economic Promotion.

UK

- 1980: Population in Assisted Areas reduced from almost 44% to 26% by 1982. Regional development grants withdrawn from Intermediate Areas and the rate of grant in Development Areas cut from 20% to 15%.
- 1982 : Population in Assisted Areas increased to 27.5%. Industrial Development Board established in Northern Ireland.
- 1984: Population in Development Areas reduced to 15% though overall Assisted Area coverage increased from 27.5% to 35%. Regional Development Grants made automatic and rate of award cut to 15%. OSIS (office and Service Industry Scheme) incorporated into regional selective assistance, though eligibility for grants extended to specified business services. Expenditure reduced significantly.
- 1985: The value and industry coverage of the standard capital grant in Northern Ireland reduced significantly.
- 1988: The British Regional Development Grant and Northern Ireland standard capital grant abolished. New regional enterprise grants introduced in Britain for small firms. Selective assistance made the main source of regional aid. A national consultancy scheme (the Enterprise Initiative) introduced favouring problem regions.
- 1990: Industrial development support in Northern Ireland focused less on capital projects and more on marketing, product design and development with a view to improving international competitiveness.
- 1992: Size limit for the innovation component of the regional enterprise grant increased from 25 to 50 employees and grants extended to Intermediate Areas.

Section D Deepening and widening and the regions of the Community

Current issues and problems
Prospects for the regions under EMU
The previous enlargement: the situation of, and prospects for, the new German Länder

Regional structures and problems in neighbouring countries
The EFTA countries
The Visegrad countries

Chapter 11 Current issues and problems

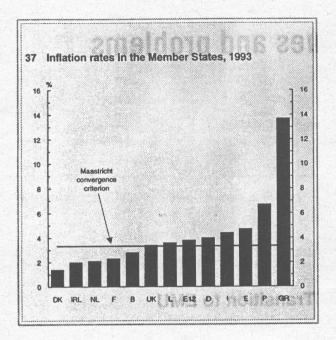
Prospects for the regions under EMU

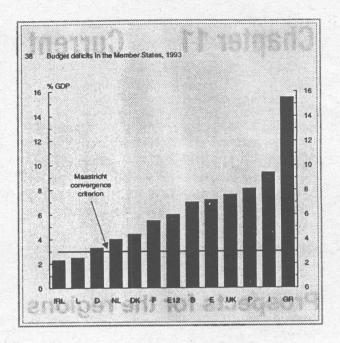
The achievement of Economic and Monetary Union in the Community promises enhanced prospects for the developed and the less favoured regions alike. The reduction of transaction costs and the elimination of exchange rate risk may promote regional specialisation and intra-Community trade in goods and services. The weaker regions can benefit from this specialisation by exploiting more fully their comparative advantage. Furthermore, a general expansion of trade is likely to be beneficial for economic growth which provides in turn favourable conditions for lagging regions to catch up. Finally, increased capital mobility encouraged by fixed exchange rates and the tendency towards quasi-uniform inflation rates will tend to equalise interest rates for any given level of risk, which should favour the less developed regions where capital is often relatively scarce and capital costs, therefore, relatively high.

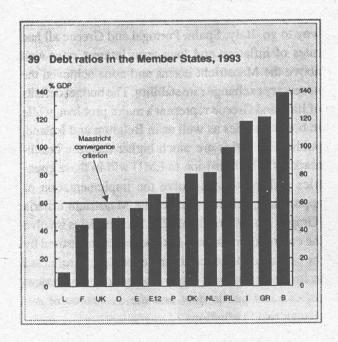
While yielding potential benefits, the increased integration of the Community under EMU is, however, not without costs or risks for the lagging regions. These arise both from the macroeconomic adjustments required in the run-up to EMU and from the additional constraints imposed on Member States by full membership of EMU which could adversely affect economic and social cohesion. Both aspects are examined in more detail below.

Transition to EMU

The final transition to EMU requires Member States to meet strict nominal convergence criteria regarding inflation and public finances, as well as to maintain exchange rate stability. These criteria are specified in the Maastricht Treaty. They are interlinked and the need for progress in meeting all criteria in a majority, at least, of Member States was underlined by events in 1992 and 1993 which, as discussed below, led to a series of crises in the Exchange Rate Mechanism (ERM). In fact, very few Member States fulfilled these criteria in 1992 or 1993. With the exception of Ireland, the countries with the highest concentration of Objective 1 regions in particular still have some way to go. Italy, Spain, Portugal and Greece all had rates of inflation and long-term interest rates well above the Maastricht norms and none achieved the necessary exchange rate stability. The budget deficits of italy and Greece represent a major problem, while in both countries as well as in Belgium and Ireland, public debt ratios are much higher than the benchmark set. The transition to EMU will in these countries and in others involve the implementation of appropriate policies to meet the Maastricht criteria (Graphs 37 - 40 and Table 23). Such policies involve the control of inflation - both actual (as measured by. the consumer price index) and expected (as reflected in long-term interest rates) - a reduction in budget deficits and public debt and the avoidance of exchange rate fluctuations.







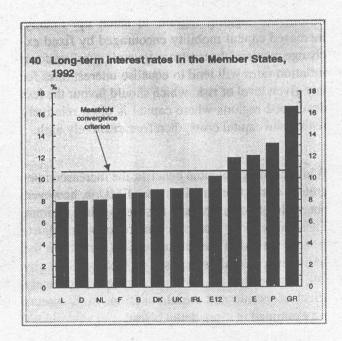


Table 23
The Maastricht convergence criteria, 1993

	Inflation	Public F	inance	Interest	Exchange	Total
	rate	Budget deficit ¹	Debt ratio ²	rate ³ 1992	rate4	score
Belgium	2.8	7.0	138.4	8.7	Yes	3
Denmark	1.4	4.4	90.6	9.0	Yes	. 3
Germany	3.4	4.2	48.9	8.0	Yes	3
Greece	13.7	15.5	121.2	16.6	No	0
Spain	4.7	7.2	55.9	12.1	No	1
France	2.3	5.5	44.1	8.6	Yes	4
Ireland	2.0	2.3	99.0	9.1	No	3
Italy	4.4	9.4	118.1	11.9	No -	0
Luxembourg	3.6	2.5	10.0	7.9	Yes	4
Netherlands	2.1	4.0	81.4	8.0	Yes	3
Portugal	6.7	8.1	66.4	13.2	No	0
UK	3.4	7.6	48.8	9.1	No	2
EUR12 average	3.8	6.0	65.9	10.2		
Convergence criteria	3.3	3.0	60.0	10.7		

General government deficit as a percentage of GDP

General government debt as a percentage of GDP

3 Long-term interest rates in 1992

Currency stability criterion: the national currency has not devalued in the past two years and has remained within the normal

2.25% fluctuation margins of the exchange rate mechanism

Source: Abraham and Van Rompuy (1993), updated DG XVI

Experience during 1992 and 1993 demonstrated the degree to which the Maastricht criteria are interlinked. The persistence of differences in inflation rates, budgetary imbalances and the situation in the real economy produced a series of crises in the ERM. This culminated in the withdrawal of two currencies from the system, realignments of other currencies and a substantial widening of fluctuation margins to plus or minus 15%. This experience demonstrated the very real difficulties faced by some Member States in adjusting to the Maastricht criteria without damaging economic performance.

In order to maintain a fixed exchange rate, it is not sufficient for price inflation in each Member State to remain in line with the average of the others. As experience has demonstrated, it has to be reduced to the level prevailing in the countries with the lowest inflation rates. Italy, Spain, Portugal and Greece will each have to adopt a policy to curb inflation in the run-up to EMU, which can be a painful process, since it implies tighter control on domestic production costs and, in particular, the cost of labour. This cannot easily be achieved where annual rises in prices and wages are institutionalised and where labour organisations are asked to moderate wage demands in anticipation of lower inflation. Where

wages rise but prices are restrained, there would be a squeeze on domestic profit margins and a temporary or possibly more permanent contraction of domestic production and employment. This could be avoided if productivity increased more rapidly to reduce unit labour costs.

Tentative estimates of the effects of reducing the 1992 inflation rate to the EC inflation convergence criterion for EMU suggest that the average unemployment rate would increase, at least in the mediumterm, by 4 percentage points in Greece, by 2 percentage points in Portugal and by 1 percentage point in Spain and Italy¹.

In addition to the implementation of anti-inflationary policy, Greece, Italy and, to lesser extent, Portugal and Spain, will have to endeavour to reduce budget deficits to the 3% Maastricht level. On the basis of 1993 figures, the required reduction in the budget deficit would be over 10 percentage points of GDP in Greece and 7 percentage points of GDP in Italy. For Portugal and Spain, the effort required is more modest (respectively around 2 and 1 percentage points of GDP).

The benefits of a significant improvement in the fiscal position of Greece and Italy and further consolidation in Portugal and Spain are important insofar as they contribute to alleviating the 'crowding out' effect of interest payments on growth-enhancing public and private investment. The combined effect of fiscal restraint and exchange rate stabilisation should result in lower levels of nominal and real interest rates. This should help to create a more favourable climate for domestic and foreign investment. Finally, fiscal restraint is also likely to reduce the balance of payment deficits of the four countries concerned to levels compatible with sustainable capital inflows and transfers from other countries.

However, the positive effects of sustained fiscal constraint have to be balanced against its potential costs, which in some degree will depend on the way it is achieved. If it is attained by a mixture of tax increases and public expenditure cuts, it may entail short-term deflationary effects, especially in countries such as Greece and Italy, where the scale of measures re-

quired to achieve the Maastricht targets is substantial. This would delay the catching-up process in these countries and their regions in both the short and medium-term.

Given the need for real convergence and the strengthening of cohesion in the long-term, it is essential that the required fiscal consolidation is pursued selectively in a manner which does not jeopardise the competitive position and, therefore, the growth prospects of these countries concerned. The Fourth Periodic Report identified the key determinants of the competitiveness of lagging regions as the cost of credit—especially for small and medium-sized firms—income and corporate tax rates, the supply of qualified manpower and the availability and quality of basic infrastructure. Every effort should be made to avoid fiscal consolidation reducing development-related public expenditure in the lagging regions or increasing the costs facing local businesses.

In this context, the recent decline in the share of public gross fixed capital formation in GDP in some of the weaker Member States suggests there is some cause for concern. Whilst for the Community as a whole, the share was the same in 1992 as in 1985, a substantial reduction is apparent for Ireland and Greece and to a lesser extent Italy (Table 24). This is a worrying development, even for Ireland despite the rate of economic growth being relatively high in recent years while public capital formation has been cut back. Over the longer term, such reductions are likely to depress the rate of economic growth.

In view of the need to sustain efforts towards real convergence, the necessary cut in the real growth of total government expenditure should be accompanied by a restructuring of expenditure which avoids cuts in capital formation in lagging regions. The same holds for public expenditure on education and training. Only if the least developed Member States and regions step up their investment in basic infrastructure and human capital can they hope to sustain significantly higher growth rates over the longer term.

To summarise, the necessary budgetary restraint agreed at Maastricht should be pursued in a way

Government	gross fixed capital for	ole 24 mation in the weak	er Member State
	%	GDP	% change
	1985	1992	1985-1992
Greece	4.4	3.6	-0.8
Ireland	4.0	2.4	-1.6
Italy	3.7	3.1	-0.6
Portugal	2.5	4.0	1.5
Spain	3.7	5.1	1.4
EUR12	2.8	2.8	0.0

which minimises the burden on the lagging regions. The required reduction in the growth of public expenditure should be accompanied by a restructuring of expenditure and taxes as appropriate, in favour of the elements which foster the competitiveness of the weakest regions. A balanced restructuring of public expenditure will, in addition, complement the Community's efforts under the increased Structural Funds and enhance the growth prospects of lagging regions. At the same time, any strengthening of the investment effort in absolute and relative terms will ease the burden of meeting inflation targets to the extent that productivity is increased and unit costs reduced.

The benefits of such an approach are likely to emerge over the medium-term as the Irish experience shows to some degree. Sound macroeconomic policies and fiscal consolidation will tend to lead to lower costs and higher post-tax rates of return on private capital. These will in turn give rise to better investment opportunities if at the same time infrastructure and labour force skills in lagging regions are strengthened and upgraded.

Adjustment mechanisms under EMU

A full-fledged EMU, and the imposition of fixed exchange rates in particular, will impose additional

constraints on the regions which could have an important effect on economic and social cohesion.

Exchange rate flexibility is important in that, in principle, it enables a country, through devaluation, to offset a loss in international competitiveness in a relatively painless manner. As such it facilitates short-term adjustment to general, or country-specific economic shocks which reduce regional growth and raise unemployment.

The nature of the shocks to which regions are exposed greatly affects the balance of benefits and costs of economic and monetary integration. Most analysts agree that the cost of removing the exchange rate as an instrument of stabilisation is lower the more similar is the economic structure of the countries joining the monetary union. Countries or regions whose structure differs substantially from the norm are more vulnerable in the vent of a shock. The evidence available suggests that this is certainly the case for some of the least developed Member States like Greece and Portugal. The removal of the possibility of exchange rate adjustment, therefore, represents a more important loss to them than to the stronger countries.

The question remains as to how a Member State or region can adjust to adverse shocks under EMU. In the US, workers losing their jobs in one State often move to another in search of work. Labour mobility

does not occur to the same degree in the Community, where interregional and international migration is comparatively limited within the Community. Nor is a massive labour outflow necessarily beneficial for a depressed region especially if it takes the form of an exodus of more skilled and better educated workers.

Variations in labour costs represent a second potential adjustment mechanism though for these to occur wages and labour costs need to respond to employment conditions. Evidence relating regional and national wages to unemployment suggests that a 10% increase in the unemployment rate will tend to reduce wages by 0.5% to 1.5%¹. Unfortunately, there is no way of judging whether a reduction in labour costs of this scale is sufficient to offset the employment effects of economic shocks. Rigid labour contracts and national systems of wage determination tend to impede regional wage adjustment in the Southern Member States.

A third regional adjustment mechanism comes from the action of automatic fiscal stabilisers which operate to reduce the tax-take from, and increase the public expenditure transfers to, hard-pressed regions as economic activity declines. Estimates suggest that the US fiscal system offsets in this way about 20-33% of any decline in regional income relative to the national average. Most Community countries are characterised by an even higher degree of regional stabilisation because tax rates and the level of unemployment benefit tend to be higher than in the US.

This mechanism is, however, much more effective within Community countries than between them because there is no central mechanism which plays the role of the Federal Budget.

The need for Community intervention

In summary, EMU is not without risks for some of the weaker Member States and regions. In particular, some of the weakest countries need to make major adjustments to meet the nominal convergence criteria laid down in the Maastricht Treaty. Anti-inflation policies, fiscal consolidation and the loss of the exchange rates as an instrument of adjustment could adversely affect the economic performance of a number of Member States.

At the Edinburgh Summit meeting at the end of 1992, Member States agreed to increase resources to support economic and social cohesion in the context of EMU. The expansion in the Structural Funds and the creation of the Cohesion Fund should make it easier for weaker countries to achieve the budget targets specified in the Maastricht Treaty whilst maintaining the relatively high levels of development-related public expenditure required to reduce the deficiency in their infrastructure and human capital and modernise their economies (see Chapter 9).

In the longer term, Member States which have traditionally relied on periodic devaluation to maintain national and regional competitiveness and whose capacity to absorb adverse economic shocks is relatively limited give potential cause for concern. Relatively low labour mobility and lack of wage flexibility tend to inhibit adjustment in these economies. The Structural and Cohesion Funds' support for measures aimed at improving underlying competitiveness and increasing diversification should help to reduce dependency on exchange rates and vulnerability to shocks. At the same time, the Funds could focus more on strengthening the regional capacity for adjustment, stimulating processes of adaptation in the labour markets of less developed regions and increasing action to create new jobs.

The challenges faced by these regions in the transition and final stage of EMU represent an important additional justification for the agreed enhancement to resources for structural action in order to promote lasting improvements in their underlying competitiveness. Community efforts cannot, however, replace behavioural changes and government policy, as the example of German unification demonstrates.

The previous enlargement: the situation of, and prospects for, the new German Länder

Since unification in 1990, a clear picture has emerged of the effort required in the new German Länder to turn them from a centrally-planned into a social market economy. The transformation encompasses a rapid introduction of wide-ranging changes in the legal, social and financial framework, including the administration of regions, as well as in external commercial and political relations. It also requires changes in the structure of economic activity and employment, in the tax system, in pricing, in the management of enterprises and in property rights as well as modernisation of the infrastructure. Just as importantly, environmental improvements need to be made to comply with more advanced Community standards.

These challenges face each of the five new Länder as well as East Berlin, but vary in nature and scale according to regional circumstances. Substantial efforts have been made over the 3 years since unification but the process of reform and restructuring has proved more difficult and more protracted than many had initially foreseen.

Population

The population of the new German Länder is declining, whereas in the rest of Germany and the Community, it is rising, if only at a low rate (Annex, Table A.23). Only in a few regions of Greece and Italy, is there a more rapid decline. Except for short periods of growth at the end of the 1960s and 1980s, population in the former East Germany has been in continuous decline since 1950, as a result of outward migration accompanied in the 1970s by low birth rates. In the past few years, the decline has accelerated and between 1989 and 1992 the new Länder lost more than 5% of their population, when the annual rate of decline was six times more than between 1950 and 1980. Net outward migration of

more than a million between 1989 and mid-1992 was the most important factor, though there was also a dramatic fall in birth rates. Births per thousand of population fell from 13 in 1990 to an average of under 8 in 1992 and to 5 in mid-1993, lower than in any other part of the Community (the lowest figure in other regions being 6 per thousand in Liguria in Italy). This led to a natural decline of 100 thousand a year in 1991 and 1992 - or 0.6% of East German population. The decline was particularly marked in already sparsely populated rural areas (especially in Mecklenburg-Vorpommern and Northern Brandenburg), small and medium-sized industrial towns and inner-city areas, while growth has occurred in suburban areas of larger towns, where economic performance has been stronger and unemployment lower. Declining job opportunities in the West and rising wages in East Germany, combined with some inward migration, have reduced the rate of net outward migration. For the reduction to continue, however, depends on improvements in economic and labour market conditions and specifically more job creation.

Economy

Output and employment in the new Länder have fallen dramatically since unification. With the former Czechoslovakia, the GDR was generally recognised



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Area	Gross fixed capital formation (% GDP)			Gross fixed capital formation per person employed (1000 ECUs)			Domestic demand/GDP (% GDP)			GDP per head in new Länder (% GDP in other area)
	1991	1992	1993	1991	1992	1993	1991	1992	1993	1991
New Länder	48.2	49.5	50.5	5.9	9.0	11.7	194.8	184.7	177.1	
Old Länder	21.4	21.2	20	9.4	10.0	10.1	93.6	93.0	92.1	28.7
Germany	23.2	23.4	22.7	8.7	9.8	10.4	100.1	100.1	99.6	33.4
EUR12	20.3	19.8	19.6	7.8	8.0	8.2	98.6	98.1	98.2	34.1
EUR12+ ¹	20.8	20.4	20.3	7.7	7.8	8.3	99.9	100.0	100.0	35.1

EUR12+ includes the new German Länder
Source: Eurostat, national statistics, calculations DG XVI

as the most advanced part of the COMECON area. GDP per head was estimated to have been around two-thirds of the Community average in 1988. By 1991, the level had fallen to a third of the average. Since then, however, it has recovered to a level of nearly half the Community average. Preliminary estimates suggest a level of GDP per head of some 43% of the Community average in 1992 and 49% in 1993. This was accompanied by a fall in employment implying an even bigger increase in labour productivity. At the same time, average wages increased by nearly 35% in 1992 and 12% in 1993.

Underlying the recent growth in output there was a significant rise in investment, of 24% and 16% in 1992 and 1993, respectively, in the form mainly of an increase in construction (36% and 24%), though the rise in investment in new capital equipment (11% and 8%) was also significant. This pushed up the share of gross investment in GDP to nearly 50% in 1992 and 1993, much higher than in the rest of the Community (20%) (Table 25). Investment has been largely concentrated in services, the share in industry declining from around 33% to under 30% between 1991 and 1993. (Economic surveys suggest that such high rates of investment growth are unlikely to be

maintained in 1994 especially in manufacturing, where even lower investment than in 1993 is expected.)

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The restructuring of the East German economy has led to significant imbalances in trade between the two parts of Germany, with East Germany being very dependent on financial transfers from the rest of the country. This is reflected in the fact that domestic spending in East Germany exceeded internally generated real income by around 80% in 1992 and 1993 subsidised mainly by transfer payments (of the order of 100 billion ECU) from West Germany.

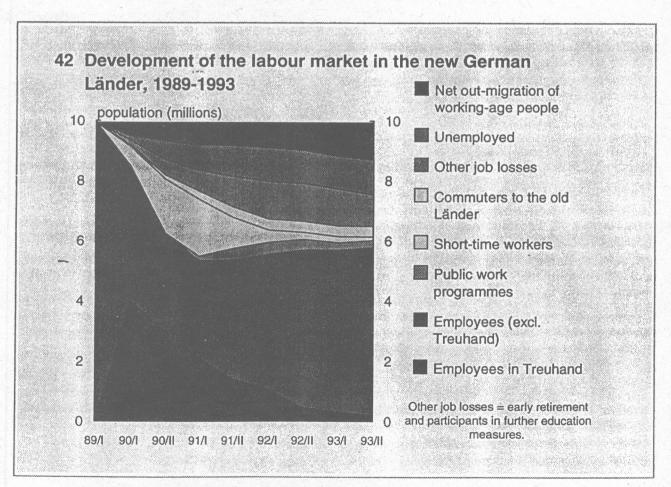
The instability of the East German economy is especially evident in the performance of manufacturing, the output of which fell in 1992 and in 1993 was only two-thirds the level in the second half of 1990. The structure of industry has changed extensively since unification. In particular, mechanical engineering has declined in importance while strong demand for food combined with the boom in construction have increased the importance of related industries. This has also influenced the pattern of privatisation which has progressed most in these sectors, while small and

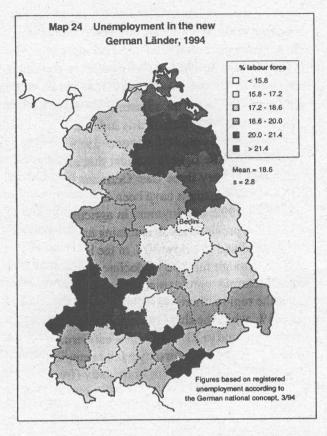
medium-sized firms in these industries have performed better since privatisation.

The privatisation of companies is intended to be completed by the end of 1994, though the task is becoming increasingly difficult. Among the enterprises remaining with the State Trust Agency are large-scale producers in chemicals and mechanical and electrical engineering in which there are likely to be further job losses. These industries are concentrated in such regions as Halle, Magdeburg, Dessau, Cottbus and Chemnitz and it is here that the process of restructuring and the need to revitalise industrial centres will be particularly acute over the coming years. Privatisation has produced no net revenue for the government budget - on the contrary, the State Trust Agency will probably show a large deficit of nearly 140 billion ECU or more at the end of the privatisation process.

Employment

The decline in employment has been widespread, affecting all five new Länder as well as East Berlin. The extent of the adjustment and restructuring process is perhaps most clearly indicated in the rapid fall in employment between 1989 and 1992 (Graph 42). The figures suggest that since unification one in every three East Germans has lost their job. Sectoral changes have been extensive. Between 1989 and 1992, employment in agriculture fell to a third of its previous level; in mining and manufacturing, it declined to below 30% of the level in 1989. In 1993, although the rate of decline in both total and manufacturing employment slowed down throughout the region, there was still an overall fall of just over 3%, while the share of employment in manufacturing declined to 20% (35% in West Germany). This decline was accompanied by a fall in employment in research and development in industry (from 80,000 in 1990 to 20,000 in 1992). At the same time, the





number of self-employed increased (from around 200,000 in 1989 to 560,000 in 1992), reflecting the growth in services, though by not nearly enough to compensate for losses in other sectors.

Unemployment

Job losses led to registered unemployment increasing to around 15% in both 1992 and 1993, well above the average rate in Germany and the Community (Graph 43). On Community Labour Force Survey estimates, the unemployment rate on ILO definitions was 13% in April 1993, 3 percentage points above the Community average. Without the many direct labour market measures (short-time working, public works and further education programmes) unemployment might well have exceeded 30%. Including early retirement and commuting to the West, the deficiency in jobs amounted to some 38% of the labour force in 1992.

Women have been more seriously affected by unemployment than men, their share of employment falling from 49% to 43% between 1989 and 1992 and their share of unemployment exceeding 60%. In January 1994, registered unemployment was 23% for women as against 13% for men. Activity rates among women have remained well above the Community average (at 77% in 1992 as against a rate of 58% for West German women).

Long-term unemployment has also emerged as a problem. 27% of those registered as unemployed in May 1992 had been out of work for more than a year and by November 1992, this had risen to 46%. Short-time working, further training and public work programmes as well as commuting to the West to work are indicative of the extreme pressure on the East German labour market, and for some time the rate of job creation is unlikely to be sufficient to prevent long-term unemployment from continuing to rise.

Although all East German Länder show similar trends in unemployment, there are signs of a growing disparity among them. The difference between the NUTS level 3 regions with the lowest and highest unemployment rate widened from 5 percentage points in 1991 to 17 percentage points at the end of 1993. The capital cities of the new Länder - Dresden, Berlin, Potsdam, Magdeburg and Erfurt - as well as a number of other larger urban areas have profited from job creation in public and private services and have relatively low levels of unemployment. The highest levels of unemployment are in rural regions, especially Mecklenburg-Vorpommern and in singleindustry regions where factories have been closed - for example, Erzgebirge (textiles and mechanical engineering), the Northern region of Thüringen (mining, textiles and light industry), the Southern region of Sachsen-Anhalt and parts of the Oberlausitz (Sachsen)(Map 24). The situation is especially difficult in the Eastern parts of Mecklenburg-Vorpommern and Sachsen (bordering Poland) as well as in some central areas of East Germany where the opportunities of commuting to the West, to Western parts of Berlin or to the capital cities of the new Länder are non-existent. These areas also registered high rates of outward migration.

Infrastructure

As noted in the Fourth Periodic Report, the problems of an inadequate and decaying infrastructure in the former GDR are acute. Recent estimates suggest that to bring the East German infrastructure up to Western standards will cost:

- for residential accommodation, 225-300 billion ECU;
- for cleaning up the environment, 100-250 billion ECU;
- for transport infrastructure, 100-250 billion ECU;
- for telecommunications, 30-50 billion ECU.

These figures, however, apply to average Community standards which vary widely between countries and regions. The state of East German infrastructure is no worse in many respects to that in some of the Community's weaker regions. The main exception is telecommunications which because of years of neglect are far inferior to anywhere in the Community. Here, improvements have already been made. In 1991, the number of connections per inhabitant were a third of the number in the rest of Germany as against a fifth in 1989. By 1995, the plan is for this difference to be eliminated completely. Nevertheless, the general catching-up period for infrastructure in other areas will vary from 10 to 20 years in most cases.

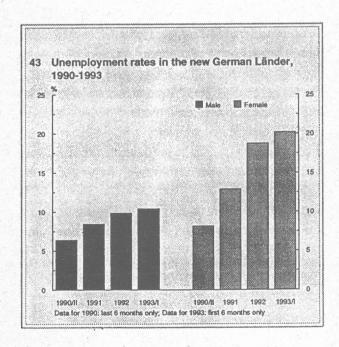
Prospects

The new German Länder face the basic challenge of finding their niche in a more competitive European market. Because of trade liberalisation, they have to compete not only with the more advanced regions in the West but also with the less developed regions in Central and Eastern Europe. The former have particular advantages, better infrastructure and higher productivity in particular, though they also have high wages and high land prices. The latter have much lower labour costs, though other conditions of pro-

duction, such as labour force skills, organisational structure or the low quality of infrastructure, which are a legacy of central planning systems, are similar to East Germany. The Czech Republic, in particular, seems to have been successfully adapting its economy, exploiting its specific advantages and attracting foreign investment.

For East Germany to adapt to Western standards in the face of wages and labour costs increasing ahead of productivity and a declining industrial base is proving to be extremely difficult. An urgent task remains, therefore, to diminish the deficiencies of infrastructure, labour productivity, capital stock and technology. Particular attention needs to be given to small and medium-sized enterprises and to producer services which are likely to be the main sources of job creation. These sectors also hold the key to reducing the concentration of production in certain regions in single sectors of activity which are not competitive.

At the same time, the restructuring of regional economies needs to be based more on specific endowments, indigenous potential and the experience of the local workforce. Advantages include skilled labour, the high proportion of qualified personnel in research and development, experience of Eastern European markets, the central European location and cities rich in cultural history and tradition. They also include



land space in urban areas, mineral resources for the building industry, an agricultural sector which is potentially productive and a high level of social infrastructure. Exploiting these advantages depends on striking a balance between higher labour productivity and increased wages and standards of living. This needs to be supported by extensive modifications to the regulatory framework in line with local conditions.

The convergence to Western levels of labour productivity and infrastructure will inevitably be a longterm process. As in certain other regions of the Community, the risk is that nominal wages and labour costs will converge more rapidly than productivity. This will tend to slow down the process of real convergence by preventing the desirable growth of employment and giving rise to high unemployment despite massive support measures. The absence of self-sustaining growth based on indigenous potential could give rise to a situation of permanently high transfers of resources only to maintain disappointingly low levels of economic activity. This has been the case in Italy for a long time. As a result, financial difficulties have multiplied and the growth of the national economy has been held back.

In sum, to arrest the process of deindustrialisation and to reconstruct the economy requires improving the competitiveness of existing enterprises, support for the creation of new firms and better use of the skills of the labour force. To this end, the high level of public and private transfers, in general, and investment, in particular, must be efficiently used to ensure that the economy becomes more productive as the only sustainable basis for the creation of new jobs and the promotion of economic convergence and successful integration into the national and Community framework.

F. Abraham and P. Van Rompuy, The regional policy implications of Economic and Monetary Union, study financed by DG XVI of the European Commission, 1993

Chapter 12 Regional structures and problems in neighbouring countries

The countries belonging to the European Free Trade Area (EFTA) have formally concluded new arrangements with the Community in the form of the formation of the European Economic Area (EEA). Switzerland, however, has decided against joining the EEA. This chapter examines the socio-economic situation in the regions of the 4 EFTA countries which have completed negotiations leading to full membership of the Community – Austria, Finland, Norway and Sweden.

For the former centrally-planned countries of Central and Eastern Europe, the Europe Agreements concluded with the Community provide for closer cooperation on a wide range of matters (including trade liberalisation in their favour and consultation on regional policy issues, as described below). These Agreements tend to be seen as a step towards full membership of the Community, especially in the four countries — Poland, Hungary and the Czech and Slovak Republics — examined later in the chapter.

The EFTA countries

For purposes of analysis, the three Scandinavian countries – Sweden, Finland and Norway – can be

grouped together, while Austria is somewhat different geographically and economically.

Demography

The population of the EFTA countries totals 25 million or just over 7% of the present Community. In general, the demographic situation and prospects for the four EFTA countries are similar to many parts of the Community. The differences are largely a matter of timing and the Nordic countries, in particular, experienced falling fertility and a consequent ageing of the population somewhat in advance of most of the Community. There is therefore an older age structure of population in the four EFTA countries, especially in Sweden and Norway. There are signs, however, of a recovery in fertility rates in these countries and, combined with recent trends towards increasing migration, population growth could begin to accelerate gently.

The recovery in fertility rates will only impact on the population of working age and the labour force at the beginning of the next century. With the exception of Austria, activity rates, especially for women, are already close to those of Denmark – the highest in the Community – and further significant increases are therefore improbable. Consequently, numbers in

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Indicator	Period	Unit	Highest region	Lowest region	Average region	Highest region	Lowest region	Average region	Highest region	Lowest region	Average region	Highest region	Lowest region	Average region
Population	1990	1000 inhab	1515	269	770	1248	25	263	460	74.	249	1636	57	357
Population change	1980-90	%	7.9	-1.5	2	10.3	-2.9	4.4	12.4	-5.4	3.8	9.1	-2.7	2.8
Area		1000 ha	1917	41	837	9894	155	1780	4864	45	1905	9891	294	1712
Density	1990	inhab/km²	3651	49	92	120	2	15	1013	2	13	252	3	21
GDP per head	1990-92	PPS (EUR12=100)	153	67	107	131	73	95	210	75	103	128	81	103
Unemployment rate	1991-93	%	5.1	2.5	3.9	15.1	3.1	12	6.8	3.9	5.7	7.2	3.6	4.7
Agr. empl./Total empl.	1989	%	15	0.4	7.6	21.3	1.9	8.7	18.1	0.1	6.7	11.6	0.5	3.3
Ind. empl./Total empl.	1990	%	45.4	26.1	34	40.3	16	29.3	32.2	15.6	24	36.2	18.7	27.6
ind. employment change	1980-90	%	0.4	-2.6	-1	2.5	-1.7	-0.6	0.6	-4.9	-1.4	2.3	-0.4	0.8

Länder are comparable to NUTS 2; others comparable to NUTS 3 Source: Eurostat, calculations DG XVI

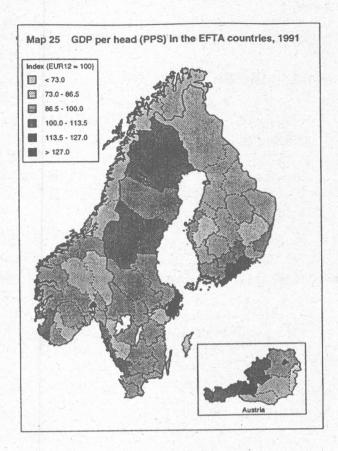
the labour force in the EFTA countries – some 12.8 million – are unlikely to change much during the rest of this century but could rise in the next.

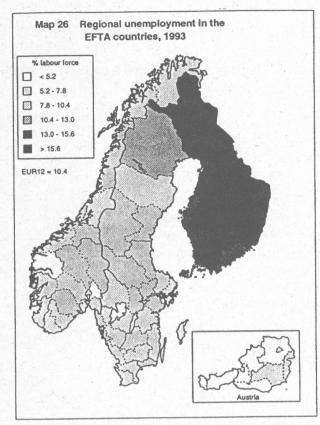
The three Nordic countries together cover an area of over 1.1 million square kilometres and have a total population of 18 million, equivalent to half the area of the Community but with only 5% of the population (Table 26).

The very low average population density – 16 people per square kilometre as against 145 in the EC – conceals wide differences (Map 0). South of a hori-

zontal line north of the cities of Bergen and Oslo in Norway), Uppsala in Sweden and Tampere in Finland, there is 25% of the land-mass and 70% of the population. North of the line, there is a vast area of small settlements typically dependent on basic economic activities. 20% of the land-mass lies North of the Arctic circle. Climatic extremes are a particular feature with long winters and low temperatures.

Austria, one-fifth of the size of Sweden, has a similar population and is the most densely populated of the EFTA countries, though sparsely populated by





Community standards. Like Norway and Sweden, substantial parts are mountainous.

The Nordic countries cover large areas and tend to be a long distance from the major European markets. For example, in Norway the distance from Oslo to the North Cape is 1,700 km, which is more than the distance from Oslo to Rome. Austria is both smaller and considerably closer to the major European markets.

Economy

Natural resources are a key aspect of the Nordic economies whereas Austrian prosperity is based on trade in manufactures and tourism. Forests cover a large part of Sweden and Finland while Norway has large reserves of offshore oil and gas. Other resources include metals, large stocks of fish off the coast in the case of Norway and access to hydroelectric power.

Until recently, the four countries had slightly higher levels of income per head than the present Community despite their distance from the main centres of economic activity in Western Europe (Map 25). With the exception of Austria there has been a relatively sharp fall in GDP per head since the mid-1980s and Sweden and Finland are now below the Community average.

In the 1980s, the Austrian economy grew slightly faster than the Community, but the Scandinavian countries have all experienced a decline in GDP per head relative to the Community. In the case of Finland, the economy has been severely affected by the collapse of trade with the former Soviet Union and its GDP per head fell to 86% of the Community average in 1993.

As in the Community, GDP per head in the four EFTA countries is highest in the capital cities and surrounding areas. In the Nordic countries there is a general North-South divide between poor and rich regions, though the gap is relatively narrow despite the harsh climatic conditions of the North, partly because of the scale of public sector employment and transfers. In Austria, there is no simple

geographical division, the Western regions which are at the other end of the country from Vienna being

As in the Community, many border areas in the EFTA countries experience disadvantages, especially the Eastern regions of Finland which border Russia and Austriaregions which border Hungary, Slovenia, the Czech Republic and Slovakia.

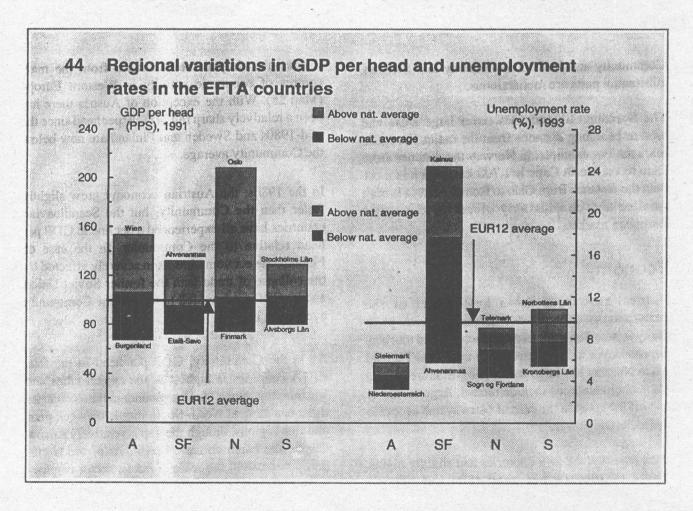
Similar to the Community, over 60% of employment in the Nordic countries is in services. Agricultural activity is limited largely due to the climate and terrain. The growing season at the latitude of Oslo, Stockholm and Turku is on average 30-40 days shorter than in Denmark and at the latitude of Oulu and Narvik 60-70 days shorter. Yields per hectare are significantly lower than in the non-Mediterranean parts of the Community – for barley, rye, oats and potatoes 20-30% lower, for sugar 17% lower and for wheat 49% lower. Other primary activities, forestry and fishing in Norway in particular, are important

and provide a major source of income and employment in some of the **more** isolated areas.

Compared to the Community, the share of employment in industry is small in Norway and large in Austria and about the same in Finland and Sweden. In the Nordic countries, industry is concentrated in the processing of natural resources, though Sweden has a more diversified manufacturing base than the others.

Longer-term structural developments have been similar to those in the Community, with a general shift of employment out of agriculture and industry into services.

So far as the spatial distribution of economic activity is concerned, in the Nordic countries, primary activities are important for the Northern and Central regions, industry for the South and services both for capital regions and the most peripheral parts of the



North – in the latter, largely public sector services. In Austria, the Alpine areas in the West are major centres of tourism and modern industry, while more traditional industry is concentrated in the North and East.

Unemployment

In all four EFTA countries, unemployment has been much lower historically than in the Community. In 1990, average unemployment rates were only around a third of the average for the Community, varying from 5% in Norway to just 1.5% in Sweden, this despite rates of labour force participation being significantly higher than the average for the Community.

Since 1990, however, Nordic countries have experienced substantial increases in unemployment. In Finland, recession has been particularly severe because of its dependence on trade with the former Soviet Union. In 1993, unemployment reached 7.7% in Sweden, 6.9% in Norway, 17.6% in Finland while in Austria it was lower at 4.5%.

Unemployment traditionally has been higher – about three times higher – in the Northern regions of Nordic than in the South (Map 26). In the central areas, unemployment rates have been somewhat lower but still double those in the South. In Austria, unemployment is linked to the decline of traditional industries affecting many urban centres including Vienna (Graph 44).

The incidence of unemployment in the Nordic countries has changed during the present recession, the prosperous industrial parts of the South being more severely affected than the North.

Unemployment in the EFTA countries is no longer that much lower than in the Community. Indeed in Finland, rates are similar to those in the Communitys worst-affected regions. It remains to be seen, however, to what extent recent developments are structural as opposed to cyclical in nature.

Administrative structure

The Nordic counties have a three-tier administrative system consisting of central government, counties and municipalities. As in some Community countries (eg Ireland and Denmark), Scandinavian counties have limited autonomy from central government, the head of administration being appointed by central government. There are elected regional County Councils, which are responsible within the framework of national policy for areas such as education (secondary schools), social services, health care, land management, business promotion and, in some cases, even regional planning.

In comparison with the Community, the counties appear to be numerous and small in terms of population (24 in Sweden, 19 in Norway and 12 in Finland), though they are large in terms of land area. This is reflected in low population density giving rise to a tendency to group settlements together in order to provide services cost-effectively. In 1952, the number of municipalities were reduced in Sweden from 2,600 to 284, though still their average population is small at only around 30,000 inhabitants.

In Finland, territorial administration was reformed in 1992. 12 counties were maintained as bodies to carry out central government policies, 19 regions were created in addition, grouping together municipalities with new responsibility for regional policy and spatial planning. At a lower level there are 88 joint intermunicipal boards, to undertake spatial planning at the local level. The role of counties is likely to diminish further in the future as more of their functions are transferred to the intermunicipal boards.

Austria, as a Federal State, has a different administrative structure which is very similar to that of Germany, with 9 Länder created after the First World War, each with its own Parliament and government. The powers of the Länder are, however, not so extensive as those in Germany. They account for only 27% of government expenditure. For administrative purposes the country is divided into 84 Landbezirke plus 15 urban authorities while at the local level there are 2350 municipalities. The Federal, Länder and local governments are all involved in regional policy, their activities being coordinated by the Austrian Conference on Regional Planning (ÖROK).

Regional policy

There are certain differences in regional policy in the Nordic countries as compared with the Community. Policy is focussed to a lesser extent on reducing disparities by promoting the growth of output and employment in the weaker regions. Given the difficuit natural living and working conditions, the low population densities and long distances in northern parts of these countries, the emphasis has been on maintaining population, employment and incomes in remote areas. This has resulted in a system of longterm transfers to these areas. Since transport and communication networks are already relatively well developed, regional policy is mainly orientated towards business support and public services, rather than infrastructure. The main measures in operation are investment and development grants, loans and guarantees and employment and transport subsidies - in many cases regionally differentiated to cover part of the cost of conveying goods into and out of less favoured regions.

Regional policy objectives in Austria are more varied than in the Nordic countries and have tended to change as the economy has developed and the international context has altered. They included a landuse and spatial planning dimension. The present aims

- spatial planning and protection of the environment, mainly in the Alpine regions;
- transfrontier cooperation in border regions, especially those where agriculture and declining industries are important;
- reorientation of international transport networks, especially rail, towards Central and Eastern European countries.

The Visegrad countries

Economic Trends

Since 1989, the four 'Visegrad' countries – Poland, Hungary, the Czech Republic and Slovakia – have undergone dramatic economic transformation. The abandonment of central planning and the progressive re-orientation of production was initially accompanied by massive falls in output, though these were much smaller in size in 1992 and there were clear signs of improvement in 1993. Inflation rates, which rose sharply – to over 600% in Poland in 1990 – have also fallen to more manageable levels.

As a result of privatisation programmes, virtually complete for small firms, the private sector is making a growing contribution to both output and employment – in Poland, for 45% of the former and over 50% of the latter at the end of 1992. Cumulative foreign direct investment in the region has grown from less than US\$500 million in 1989 to more than US\$11 billion by the end of 1992, US\$4 billion of this in Hungary, where the number of joint ventures grew from 1,300 to over 9,000 between 1989 and 1991. New financial institutions and other business services have been established, providing important support for the privatisation and restructuring programmes.

The adverse consequences are most apparent in rapidly rising unemployment, from negligible levels in 1989 to between 12% and 14% in the first half of 1993 in Poland, Hungary and Slovakia. Prices have risen, while real wages have fallen, and access to housing, health and education has become more unequal between social groups.

Regional Disparities

The regional impact of the restructuring processes varies greatly across the region. In the first place, there is a pronounced difference between the 'core' areas – the capital cities of Warsaw, Prague, Bratislava, Budapest and the other major cities (Poznan, Wroclaw, Krakow, Gdansk, Veszprem, Kosice, Brno) – and other parts. The position of such

Table 27 Demographic and economic indicators in the Visegrad countries and the Community

		Poland	Hungary	Czech republic	Slovak	EUR12	EUR4 (GR, E, IRL, P)
	Total ('000s) 1992	38250	10340	10320	5310	345400	62700
	Density 1992	122	111	131	108	146	78
Total Population	% change 1989-92	0.7	-0.4	-0.5	0.6	1.0	0.4
	% 0-14 1991	29.5	19.4	21.0	24.9	18.1	19.6
	% over 60 1991	13.0	19.2	12.7	10.3		18.9
Active Population	(%) 1992	41.5	43.8	52.6	49.3	44.8	44.3
Active ropulation	('000s) 1991	15861	4527	5421	2618	146300	25400
Unemployment	% rate 1992	13.6	10.1	2.6	10.4	9.4	13.9
Onemployment	% change 1990-92	122.8	443.8	259.9	592.5	13.5	12.9
	Agriculture	29.5	15.4	11.6	13.9	6.1	13.8
Employment % total 1991	Industry	25.4	31,1	37.3	33.1	31.5	31.3
	Services	23.8	26.1	27.3	28.4	62.4	54.9
	Agriculture	-6.5	na	-7.5	-12.5	-5.0	-5.9
Employment change 1989-1991 (% point)	Industry	-2.9	na	-3.7	2.6	-0.6	0.0
	Services	0.5	na	41.0	41.2	0.8	1.8

Total population figures for EUR12, EUR4 and Poland are for 1991.

For the Czech and Slovak republics, the figure given for percent aged over 60 is for those over 65 and for Poland,

the figure given is for those over 59 for women and over 64 for men.

Figures for employment by sector omit certain miscellaneously defined activities Source: EPRC (1993)

centres as the predominant concentrations of economic, social, cultural, political, administrative and intellectual activity and was furthered by the centralist policies under Communist regimes but is likely to continue under market conditions. This is reflected in the patterns of inter-regional migration, privatisation and foreign investment.

Secondly, there is a growing disparity between Western and Eastern regions, with higher levels of economic development and growth in the former. Generally, economic conditions tend to deteriorate — in terms of unemployment, high dependence on agriculture, number of private firms, foreign investment, the quality and density of infrastructure — with distance from Western Europe.

Demography

Population growth in the region has slowed down in recent years. Between 1989 and 1992, the total population of the four countries increased by only 0.1% a year, compared with an average of 0.4% a year over the period 1980 to 1989 (Table 27).

According to official figures, migration amounted to under 1% in Poland and Slovakia, for example. However, unreported, illegal migration seems to have been important, especially from the former Yugoslavia and Romania and from African and Asian countries using the Visegrad countries as a transit route to Western Europe.

At the regional level, there are major differences in demographic trends:

- natural increases in population are still significant in rural and underdeveloped areas (eg North-East Poland, Eastern Slovakia), which have a higher proportion of young people and larger minority groups;
- birth rates tend to be constant or falling in capital cities and other urban and industrial areas, though these are partly offset by inward migration.

Employment and unemployment

Employment in the Visegrad countries in 1992 totalled 26.2 million. The scale of the fall in employment over the period 1989-1992 has diverged between the four countries, ranging from 9% in the Czech Republic to 16% in Hungary. In all the Visegrad countries, labour markets are being restructured as economic reforms are implemented. The most important features are:

- a widespread decline in employment, which has been particularly severe in regions where production is concentrated in a single activity;
- a significant reduction in employment in energy, mining, heavy industry and defence (eg Upper Silesia and Slovakia) (Map 28);
- a major fall in agricultural employment in regions around capital cities and other major urban areas. There has been little change in traditional rural areas (eg Eastern Poland), but this masks significant underemployment, with a lot of young people staying on farms as they have no other choice (Map 29);
- growth of employment in services, which has occurred in all regions, notably in capital cities and other urban centres (Map 30);
- a shift in employment from the public to the private sector, particularly in urban areas and in sectors such as construction and distribution, reflecting privatisation and the growth in selfemployment, on the one hand, and the closure or rationalisation of state enterprises, on the other.

The effects are reflected in unemployment rates ranging, in the first half of 1993, from 4% in the Czech Republic to 14% in Poland. Average rates of unemployment conceal extremely wide regional variations ranging from 24% in North-West Poland (Koszalinkie) to 0.3% in Prague. The major concentrations of unemployment (of 16% or more) are in the North and East of Hungary (Nograd, Borsod-

Abauj-Zemplen, Szatbolcs-Szatmar-Bereg) and North Poland (Koszalin, Olsztyn, Slupsk and Suwalki)(Map 27). The main features of regional unemployment are:

- rates tend to be lower in the West, in areas bordering West European countries than in the East, though this is less so in Poland than in the other three countries;
- capital cities and other major urban centres also tend to have low unemployment reflecting their economic structure and infrastructure and concentrations of private business and foreign investment;
- agricultural regions have in many cases been more affected by economic restructuring labour shedding and tend to have higher unemployment because of the greater problems of job creation in these areas.
- unemployment is set to increase in many industrial regions since privatisation and restructuring of large industrial enterprises are still to take place raising the prospect of large-scale job losses in areas such as Upper Silesia in Poland and North-Central Slovakia.

Economy

At present no official data exist for GDP per head at the regional level in any of the Visegrad countries. Unofficial estimates indicate that virtually all regions experienced a significant decline in GDP over the period T989 to 1992 resulting from the collapse of state enterprises in all major economic sectors, though less so in the capital cities, larger urban areas and regions close to Western Europe. Per capita income levels are highest in cities such as Budapest, Prague, Warsaw, Lodz, Wroclaw, Katowice and Gdansk and lowest in the Eastern parts of all countries.

As noted earlier, the small enterprise privatisation process – covering small retail shops, restaurants, workshops and so on – is virtually complete in the

four countries. The large privatisation programmes, by contrast, are still in their early stages, in some cases delayed by administrative problems, disputes over property rights and shortages of domestic capital. This is not always the case, however; in Poland, for example, Parliament has accepted the General Privatisation Plan (and created National Investment Funds, to be managed by firms on a tender basis).

There is a clear correlation between the rate of new firm creation and the economic base of regions, the former being much higher in the capital cities; under both the small-scale and large-scale privatisation programmes the large urban areas have disproportionate concentrations of new enterprises and entrepreneurs in relation to population. These areas have the benefit of well-developed infrastructure, a relatively diversified industrial structure, good international links, access to financial and intellectual skills and support services. By contrast, Eastern regions tend to suffer from under-development.

Foreign investment has been rising in all four Visegrad countries, although data on the number and capital value of joint ventures are often contradictory. By mid-1993, Hungary had been the recipient of foreign investment worth around \$5.3 billion, while the former Czechoslovakia received \$2.2 billion between 1990 and 1992, half in 1992 alone. In Poland, foreign investment at the end of 1992 amounted to over \$1.3 billion, with a further \$5,2 billion planned in respect of activities already established.

The main recipient sectors of foreign investment are automobiles and transport, finance and insurance, and import-export services. The main source of investment are Germany, Austria and Italy, though France, the UK and the USA are also important.

As with privatisation, the regional distribution of foreign investment is related to the level of economic development, the capital cities being the major locations.

At the end of 1991, Prague accounted for 49% of all firms with foreign capital participation in Czechoslovakia and Budapest for 56% in Hungary.

In Poland, where there are other major cities in addition to the capital, Warsaw accounted for 37% of such firms, other favoured centres being Lodz, Katowice, Wroclaw and Poznan.

Regions close to the border with Western Europe, which are also usually more developed, tend to have a greater concentration of foreign companies than others. In Hungary, foreign investment is concentrated, as well as in Budapest, in the Lake Balaton area, the Western border with Austria and along the Danube, whereas there is relatively little in the North-Eastern regions (eg Borsod-Abauj-Zemplen and Szatbolcs-Szatmar-Bereg). In the Czech Republic, the South Moravian region on the Austrian border has the highest number of joint ventures after Prague, while in Slovakia, most investment is in Bratislava and the Western regions bordering Austria, and in Poland in the regions bordering Germany (eg Zielona Gora).

Regional problems

All regions in the four countries have been affected by economic restructuring, the impact being positive and balanced in 'innovative' and 'adaptive' regions but negative in 'crisis' regions where mechanisms of restructuring are either absent or poorly functioning.

Those regions which are highly urbanised and industrialised, especially those with a diversified industrial structure and well-developed infrastructure, appear less vulnerable to the costs and difficulties of economic transformation. Privatisation has proceeded more rapidly, new enterprises established more easily and foreign investment attracted more readily. The adaptation of regions to new economic conditions appears to depend critically on:

- economic structure, including the skills of the workforce, the quality of fixed assets and the degree of diversification;
- the level of development, including the number and types of employment opportunities and such factors as the extent of 'entrepreneurship';

 geographic peripherality and infrastructure, including proximity to larger urban centres, transport networks such as international airports and sources of capital and innovation.

The 'crisis' and problem regions suffer from a number of overlapping difficulties:

- declining heavy industry, such as coal and iron ore mining, steel production and armaments, giving rise to high unemployment and limited opportunities for diversification (eg Kladno, Ostrava, Pribram and Vsetin in the Czech Republic, Katowice, Lodz and Walbrzych in Poland, Baranya and Northern Nograd in Hungary and most regions in Slovakia);
- agricultural underdevelopment (eg Szabolcs-Szatmar-Bereg, Borsod-Abauj-Zemplen in Hungary and Suwalki, Ciechanow and Ostroleka in Poland);
- underdeveloped infrastructure (eg Szabolcs-Szatmar-Bereg in Hungary, North-East Poland and Eastern Slovakia);
- peripherality and an Eastern location (eg Zamosc, Przemysl and Krosno in Poland, Eastern Slovakia and Hadju-Bihar and Szabolcs-Szatmar-Bereg in Hungary);
- environmental degradation (eg the coal basin of North-West Bohemia in the Czech Republic and Upper Silesia and the Legnica copper mining area in Poland);
- demographic pressures, such as an ageing population (eg Suwalki in Poland and Borsod-Abauj-Zemplen in Hungary), or the presence of minority ethnic groups (eg gypsies and Slovaks in Hungary and the Czech Republic and Hungarians in Slovakia);
- lack of a major urban centre which could act as a growth pole (eg South-East Hungary).

Direct investment in, and trade with, Central and Eastern Europe²

In 1990-91, in the immediate aftermath of the collapse of Communism and the initiation of economic and political reform programmes in Central Europe, some observers expressed the expectation that Hungary, Poland and Czechoslovakia would attract large volumes of foreign direct investment. Moreover, assuming that Bulgaria, Romania and the (then still integral) USSR and Yugoslavia were able to embark on successful reform programmes, they would on this view also be attractive to foreign investors - in particular, the USSR with its largescale oil and gas reserves and other natural resources. Indeed, there was discussion at the time that these countries could be sufficiently attractive to large corporate investors to divert substantial amounts of foreign direct investment (FDI) flows from other countries. This is not very surprising if one compares the population of all of Western Europe (380 million) with that of Eastern Europe plus the successor states to the former USSR (410 million).

Three years after the initiation of the reforms, the expectation of large FDI flows into the eastern countries has not up to now been fulfilled. Due to the serious difficulties that these countries have encountered in establishing a reasonably well functioning market economy by introducing a new commercial and legal infrastructure, obstacles to Western companies doing business in Central and Eastern Europe have been much more numerous than expected. The sharp declines in output, and the difficulties in (re-)creating macro-economic stability and growth (let alone undertaking large scale privatisation programmes), suggest that the costs and the economic and political risks associated with investing in the Central and Eastern Europe are much higher than was initially perceived.

It does not seem likely that the financing needs of the countries of Central and Eastern Europe and the former Soviet Union will within the next decade be a drain on world savings. Ultimately, the very substantial investments needed to consolidate economic and social reform in Eastern Europe will have to be financed by increased savings in both East and West.

In geographical terms, it does not appear likely that the Eastern countries are competitors for FDI inflows with countries on Europes Western periphery like Ireland, Spain and Portugal, assuming that much of the FDI is to build up capacity to serve local or proximate markets. Other lagging regions like Greece and southern Italy are geographically closer at least to the Balkan countries but the prospects for foreign investment in Bulgaria, Rumania and the former Yugoslavia are even worse than those in Central Europe.

In the 1980s, the main investing countries in the Communitys lagging regions were the UK, France and the Netherlands together with the US and Japan, whereas a recent survey of 144 from the top 500 companies in the world identified firms from Germany and EFTA nations, i.e. countries which are geographically closest to Eastern Europe, as well as Benelux as major investors in the East. The corporations based in the US and Japan have so far shown relatively little interest in investing in the countries of Central and Eastern Europe (including the former Soviet Union).

The total foreign direct investment flowing into these countries (almost \$10 billion up to October 1991) is considerably less than that received by Spain in 1990 alone (\$14 billion). One explanation is the very small size of individual projects: the average capital committed to joint ventures (the primary method of direct investment in the region) is \$330,000. Until 1991, Hungary was the only country in Central Europe that had attracted foreign investment on any noticeable scale. Of the \$2 billion cumulative inflow, over one half was committed in 1991. The largest capital commitments were in telecommunications and chemicals.

There seems to be little reason to fear that developments in Eastern Europe will lead to lower investment inflows to the economically less developed regions of the Community. Only 15% of the firms surveyed said that commitments to Eastern Europe

were diverting investment from other areas, while most companies would invest in both regions. This suggests that FDI encouraged by the continuation of economic and political reform in Eastern Europe would act in the first place as a boost to world growth and not lead to a displacement of economic activity from regions like the Mediterranean or the Atlantic coast.

In the longer term, there is likely to be an expansion of FDI in Central and Eastern Europe, provided that the reforms undertaken lead to the establishment of a satisfactory commercial and legal framework within which national and foreign investors feel comfortable to operate.

Such an outcome would in fact benefit the Community as a whole: investment and economic growth in the East would stimulate exports and sales by EC enterprises. A recent Commission study aims to assess these benefits with the help of two alternative scenarios for prospective economic developments in the countries of Central and Eastern Europe, which broadly represent the range of plausible outcomes.

In the optimistic scenario, Eastern Europe would experience rapid growth from the mid-1990s onwards, with the achievement of macroeconomic stability and economic reforms leading to improved supply and the successful transformation of existing productive capacity, in an international environment characterised by a general absence of trading restrictions. The pessimistic scenario is one in which the reforms fail.

The 'successful reform' case generates a very substantial increase in trade with the Community. In 1991, trade flows (exports and imports) between the EC and the countries of Central and Eastern Europe and the former Soviet Union accounted for 67 billion ECU or 7% of EC trade (excluding trade flows between Community Member States). Within a time-frame of twenty years, these countries could expect a six-fold increase in their trade flows with the Community and at least a doubling of their share in EC trade. This would imply that by the year 2010

imports and exports each would reach values of around 200 billion ECU per year (at 1991 prices).

In the absence of any restrictions on trade, there would be a very substantial positive EC balance on manufactured goods with these countries, perhaps as high as 70 billion ECU by 2010. Nevertheless, EC market penetration by manufacturers from the Eastern European countries should be expected to increase: the share of their exports in EC manufactured imports would almost triple to more than 15% in 2010. The counterpart to the Community surplus in manufactured products would be substantial deficits in energy trade (with the former Soviet Union) and, more significantly in policy terms, in agricultural trade.

The pessimistic scenario generates little in the way of direct economic impact through trade, which could be expected to increase by less than 50% between 1991 and 2010 (i.e. less than 2% annually). Exports of Central and Eastern Europe would remain heavily concentrated in a few 'sensitive' industries: clothing, metal manufacturing, chemicals, timber and furniture.

The 'successful reform' case should lead to a new international division of labour characterised by a progressive diversification of Eastern Europes exports to the EC. New trade patterns should tend to mitigate problems for particular Community regions or sectors in adjusting to increased imports from across the Communitys eastern borders.

In this scenario there is clearly scope for considerable growth in intra-industry as well as inter-industry trade. The studys projections for the year 2010 include large EC trade surpluses in motor vehicles and other transport, in mechanical and electrical engineering, chemicals and textiles. A number of case studies in the Communitys lagging regions confirmed that a prosperous Central and Eastern Europe could provide a strong market for lagging regions exports of clothing and textiles as well as of machine tools, automobiles etc. Conversely, the threat of low price competition and dumping is much greater in the pessimistic scenario.

The projected changes in trade in the various industrial sectors were allocated to the EC regions with the help of a gravity model of interregional trade. The reduction of tariff and non-tariff trade barriers as well as the removal of a number of other economic and political impediments to trade was modelled by a substantial reduction in the 'distance' separating the Community regions from their trading partners in Central and Eastern Europe and the former Soviet Union.

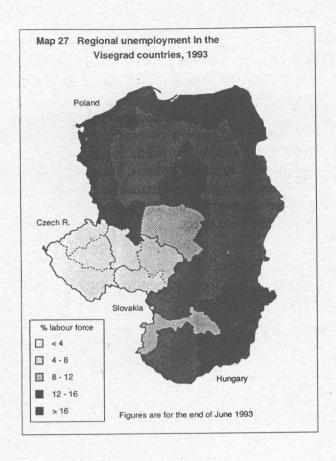
The expected impact on the Communitys lagging regions differs quite substantially from one country to another. The case studies confirmed the good economic prospects for Greece if reform in Central and Eastern Europe succeeds; the small positive net effects on Spanish and Portuguese industry; and the minimal effects on Ireland and Northern Ireland. The evidence on Southern Italy was inconclusive, where the modelling results presented a much more optimistic picture than the case study.

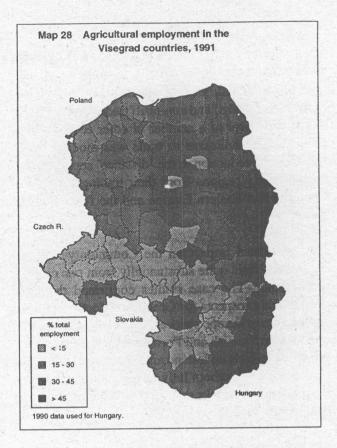
The regional policy response to the potential changes in the economies of Central and Eastern Europe should therefore start from the perspective that these changes are not creating new problems for the regions. They are in a few cases exacerbating existing problems but, in most cases, not by nearly as much as the advent of the Single European Market nor by as much as the challenge from the Japanese and other Asian economies. The main extra problem possibly arising from Eastern exports seems to be in the steel industry and perhaps other metal manufactures or chemicals. In the longer term, the main problem is likely to be over agricultural trade, if the countries of Eastern Europe manage to develop and successfully exploit their potential in this sector.

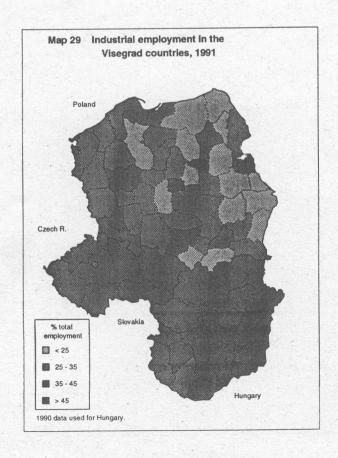
Both the modelling analysis and the case studies show sizeable potential benefits to the EC lagging regions from successful economic reform in Central and Eastern Europe. The main danger is a failure of the reform process. (EC trade restrictions on 'sensitive' products and the use of anti-dumping actions to restrict exports from the East over the next few years would contribute to such failure.) There could then be potentially serious implications for the financial burden on the EC public sector of aid programmes benefiting the Eastern countries, which, in turn, might well reduce the public funds available for Community structural policies. Threats to the level of future EC regional assistance flows was a much greater concern for the lagging regions than any East-West trade effect.

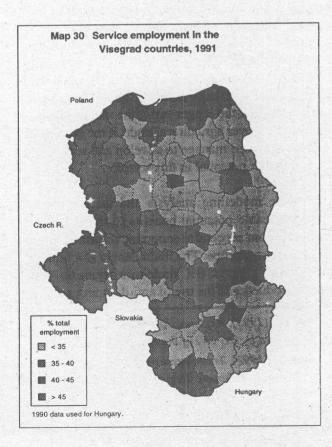
EPRC (1993), Regional Socio-economic Development in Poland, Hungary, the Czech Republic and Slovakia. Study financed by DG XVI of the European Commission.

NERA (1992), Trade and Foreign Investment in the Community's regions: the impact of economic reform in Central and Eastern Europe. Regional Development Studies N°7. Study financed by DG XVI of the European Commission.









Statistical annex

- A.1 Correspondence between NUTS levels and national administrative divisions in the Community
- A.2 Area and population of the regions of the Community
- A.3 GDP per person employed in the Member States (PPS), 1984-1993
- A.4 Disparities in GDP per head (PPS) in EUR12, 1980-1990
- A.5 GDP per head in the Member States and the EFTA countries, 1980-1991
- A.6 Unemployment rates in EUR12, 1983-1993
- A.7 Employment in the automobile industry
- A.8 Employment in the aerospace industry
- A.9 Employment in textiles and clothing
- A.10 Defence-dependent NUTS 2 regions
- A.11 Road transport infrastructure
- A.12 Gross investment in road transport infrastructure
- A.13 Rail transport infrastructure, 1990
- A.14 Gross investment in rail transport infrastructure
- A.15 Telecommunication infrastructure, 1992
- A.16 Investment in telecommunication infrastructure
- A.17 Borders of EFTA countries, 1993
- A.18 Employment in Objective 1 regions, 1990
- A.19 Unemployment rates in Objective 1 regions, 1986-1993
- A.20 GDP per head (PPS) in Objective 1 regions, 1986-1991
- A.21 Employment change and productivity, 1986-1991
- A.22 Community initiatives, 1994-1999
- A.23 New German Länder: demographic and economic indicators
- A.24 Sectoral changes in the new German Länder
- A.25 Regions, GDP ranking
- A.26 Regions, Unemployment ranking
- A.27 Regions, socio-economic indicators

Definition, level and size of regions

- 1. The Nomenclature of territorial units for statistics (NUTS) was established by the Statistical Office of the European Communities in cooperation with the Commission's other departments, so as to provide a single, uniform breakdown of territorial units for the production of Community regional statistics.
- 2. Various systems of territorial division are possible:
 - (i) normative regions (administrative boundaries).
 - (ii) analytical regions:
 - (a) functional (aggregations of complementary zones).
 - (b) homogeneous (aggregations of zones with similar characteristics).

For practical reasons to do with data availability and the implementation of regional policies, the NUTS nomenclature is based primarily on the institutional divisions currently in force in the Member States.

The NUTS lists of regional limits is of a general character: it thus excludes territorial units serving specific purposes. It employs a three-level hierarchical classification of regions for each Member State (NUTS 1 - NUTS 2 - NUTS 3).

The NUTS nomenclature subdivides each Member State into a whole number of level 1 regions, each of which is in turn subdivided into a whole number of level 2 regions, which are themselves subdivided into a whole number of level 3 regions.

3. The present NUTS nomenclature subdivides the territory of the European Community into 71 regions at level 1, 183 at level 2 and 1044 at level 3 (see Table A1).

Despite the aim of ensuring that regions of comparable size all appear at the same NUTS level, each level still contains regions which differ greatly in terms of area, population, economic weight or administrative powers.

Table A.1 Correspondence between NUTS levels and national administrative divisions in the Community

	NUTS 1		NUTS 2		NUTS 3	
В	Régions	3	Provinces	9	Arondissements	43
DK ¹		_ 1		1	Amter	15
D	Länder	16	Regierungsbezirke	40	Kreise	543
GR	Groups of development regions ²	4	Development regions	13	Nomoi	51
E	Agrupacion de comunidades autonomas	7	Comunidades autonomas + Melilla Y Ceuta	17 1	Provincias	50 2
F	ZEAT + DOM	8	Régions	22 4	Départements	96 4
IRL		1		1	Planning regions	9
	Gruppi di regioni ²	11	Regioni	20	Provincie	95
L		1		1		1
NL	Landsdelen	4	Provincies	12	COROP-Regio's	40
Р	Continente + Regioes autonomas	1 2	Commissaoes de coordenação regional Regioes autonomas	5.	Grupos de Cancelhos	30
UK	Standard regions	11	Group of counties	35	Counties/Local authorities areas	65
EUR12		71		183		1044

A breakdown of Denmark into three regions is given in most of the tables and maps

Grouping for Community purposes
Source: Eurostat

Table A.2
Area and population of the regions of the Community

Area of the regions (1000 km²)

		NU	ITS 1			NU	TS 2		NUTS 3				
	Number	Min	Max	Average	Number	Min	Max	Average	Number	Min	Max	Average	
В	3	0.2	16.8	10.2	9	2.4	4.4	3.4	43	0.1	2.0	0.7	
DK	1	43.1	43.1	43.1	1	43.1	43.1	43.1	15	0.1	6.2	2.9	
D	16	0.4	70.6	22.3	40	0.4	17.5	8.9	543	0.03	2.9	0.7	
GR	4	3.8	56.8	33.0	13	2.3	19.2	10.2	51	0.33	5.4	2.6	
E	7	7.2	215.0	72.1	18	0.03	94.2	28.0	52	0.01	21.7	9.7	
F	9	12.0	145.6	60.4	26	1.1	83.5	20.9	100	0.11	83.5	5.4	
IRL	1	68.9	68.9	68.9	1	68.9	68.9	68.9	9	3.3	12.2	7.7	
1	11	13.6	44.4	27.4	20	3.3	25.7	15.1	95	0.21	7.5	3.2	
L	1	2.6	2.6	2.6	1	2.6	2.6	2.6	1	2.6	2.6	2.6	
NL	4	7.3	11.3	10.3	12	1.4	5.7	3.4	40	0.13	3.4	1.0	
P	3	0.8	88.9	30.7	7	0.8	27.0	13.1	30	0.8	8.6	3.1	
UK	11	7.3	78.8	22.2	35	0.7	31.7	7.0	65	0.4	26.1	3.8	
EUR12	71	0.2	215	33.3	183	0.03	94.2	12.9	1044	0.01	83.5	2.3	

Population of the regions – 1.1.1990 (1000)

		NUTS 1				NU	JTS 2			NU	TS 3	S 3	
	Number	Min	Max	Average l	Number	Min	Max	Average	Number	Min	Max	Average	
В	3	962	5754	3322	9	232	2248	1107	43	38	962	232	
DK	1	5141	5141	5141	1 2	5141	5141	5141	15	46	601	343	
D	16	684	17510	5017	40	489	5253	2007	543	17	3446	148	
GR	4	986	3507	2552	13	190	3507	785	- 51	21	3507	200	
E	7	1485	10477	5565	18	125	6920	2164	52	56	4878	749	
F	9	1509	10692	6304	26	156	10692	2182	100	73	2533	567	
IRL	1	3503	3503	3503	1	3503	3503	3503	9	198	1330	389	
ľ	11	1605	8926	5242	20	116	8926	2883 •	95	94	3990	607	
L	1	381	381	381	1	381	381	381	1	381	381	381	
NL	4	1596	6997	3737	12	217	3233	1246	40	56	1278	374	
P	3	238	9377	3289	7	238	3456	1410	30	52	1850	329	
UK	11	1589	17458	5219	35	277	6794	1640	65	73	6794	883	
EUR12	71	238	17510	4847	183	116	10692	1860	1044	17	6794	330	

		(PPS) 19	984-1993						
EUR12 = 100									
	1984	1987	1990	1993					
EUR12	100.0	100.0	100.0	100.0					
В	114.2	111.1	113.7	114.3					
DK	89.0	86.2	86.2	88.4					
D	108.1	105.2	106.5	104.6					
GR	52.4	51.6	51.2	55.1					
E	95.6	94.0	92.4	96.0					
F	113.4	114.4	116.2	116.7					
IRL	76.4	79.8	87.6	89.6					
	100.9	102.0	103.7	101.7					
L	105.9	103.0	104.9	101.2					
NL	130.7	120.4	120.1	117.5					
P	50.0	54.6	57.8	58.8					
UK	89.8	93.5	88.9	88.8					
Disparity	16.0	14.4	15.1	14.3					
Change	100.0	105.6	111.5	116.2					

	Disparities in GDP per head (PPS) in the Community, 1980-1991 (EUR12 = 100)							
	Average 10 weakest regions	Average 10 strongest regions	Average 25 weakest regions	Average 25 strongest regions	Disparity			
1980	44.0	145.8	54.9	135.3	26.6			
1981	44.0	149.2	53.7	137.7	28.4			
1982	44.7	149.4	53.8	138.5	28.2			
1983	43.8	151.0	53.5	138.2	28.3			
1984	42.6	150.6	52.8	138.5	28.6			
1985	43.2	152.1	52.6	139.3	29.0			
1986	42.6	151.4	51.9	138.3	28.5			
1987	41.7	151.9	52.1	138.7	28.2			
1988	41.0	152.4	52.7	137.5	28.2			
1989	41.1	152.8	53.5	138.0	27.9			
1990	40.5	150.6	53.1	137.4	27.9			
1991	41.8	151.6	54.4	137.0	27.9			
1991 ²	33.4	151.6	42.9	137.0	30.6			

Table A.4

NUTS 2: French Overseas Departments, Azores and Madeira not included
Disparity is the standard deviation weighted by the size of the population in each region
Including the new German Länder

Source: Eurostat

					Tabl	e A.5					
		and 2 hi	artematic little	outlier)	P100104754			han (2	(49) 9 (
€0	DP ne	r head	I (PPS)	in the	Memb	er Si	ales an	d the	EFIA	countri	es
											90,
				1980-1	CEK!	3086	6 = 100)			
				2.51	· 1			,			

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
В	107	106	107	106	106	104	103	102	103	104	104	104	107	106
DK	106	106	108	109	112	114	115	112	109	107	106	106	104	106
D	118	118	117	118	119	119	118	117	116	116	117	119	120	117
D (+ new Länder)												102	105	104
GR	52	52	52	51	51	51	51	49	49	49	47	47	49	49
E	72	71	71	71	71	70	71	72	73	74	75	78	76	76
F	113	114	116	114	113	112	111	110	110	111	111	110	109	109
IRL	63	65	65	64	64	65	63	64	64	67	71	72	75	78
1	103	104	103	103	103	104	104	104	104	104	104	105	104	104
L	116	115	117	117	119	120	125	119	122	128	127	127	128	132
NL	108	107	104	104	104	104	104	102	100	101	102	100	100	101
Р	53	54	54	53	51	51	52	54	54	55	56	59	61	60
UK	98	97	98	100	100	101	102	104	105	103	101	95	96	99s
AUS	108	107	108	109	108	108	107	105	105	106	106	106	107	107
NOR	102	103	102	105	109	111	113	111	106	103	102	103	105	105
SWE	112	113	113	113	115	115	114	115	112	111	108	103	98	98
FIN	97	98	101	101	102	103	102	103	104	106	103	95	86	86
EFTA	106	107	107	108	109	110	109	109	107	107	105	102	100	-
EUR3 ¹	54	55	55	54	53	53	53	53	53	54	54	56	56	57
EUR9 ²	103	104	103	104	104	104	104	104	104	104	104	103	103	103
EUR16 ³	100	100	100	100	100	100	100	100	100 .	100	100	100	100	100
Disparity (EUR12)	18.5	19.8	18.6	18.7	19.0	19.0	18.9	18.2	17.9	17.5	17.5	175 (14.8 ⁴)	17.5 (15.0)	16.8 (14.8)
Disparity (EUR16)	17.9.	18.2	18.0	18.2	18.5	18.5	18.4	17.7	17.4	17.0	16.9	16.9 (14.4 ⁴)	17.0 (14.6)	-

Greece, Ireland, Portugal
Others

Source: Eurostat, calculations DG XVI

EUR16 = EUR12 + Norway, Sweden, Austria, Finland Figures in brackets include the new German Länder

	Hear	a a la c		le A.							
	oner	nploy		t rate 3-199		EUR	2,				
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Unemployment rate EUR12	9.6	10.5	10.8	10.7	10.5	9.9	9.0	8.2	8.5	9.3	10.4
Average 25 highest	17.5	19.4	20.8	20.4	20.1	19.9	18.5	17.0	17.8	18.6	21.0
Average 25 lowest	5.4	5.4	5.3	4.7	4.6	4.1	3.4	2.9	2.8	3.3	4.1
Difference	12.1	14.0	15.6	15.7	15.3	15.8	15.1	14.1	15.0	15.4	16.9
Disparities ³ :											
Between Member States	3.3	3.9	4.4	4.3	4.2	4.1	3.6	3.4	3.5	3.4	4.3
Between all regions	4.1	4.8	5.2	5.3	5.5	5.4	5.2	4.9	4.9	5.2	5.9
Within Member States :										20 (1	
В	1.7	1.9	2.3	2.4	2.9	2.9	2.8	2.7	2.6	2.7	2.8
DK	1.5	1.2	1.0	0.7	0.9	0.9	1.0	0.9	0.7	0.5	0.6
D	1.7	2.0	2.2	2.2	2.2	2.2	2.0	1.8	1.6	1.7	1.5
GR	0.7	0.9	1.8	2.6	1.9	2.1	1.9	1.9	2.1	2.5	2.1
E	3.9	5.4	5.1	5.0	5.7	5.0	5.4	5.4	5.3	5.3	5.3
F	1.5	1.9	2.0	1.8	1.8	1.8	1.8	1.7	1.7	1.9	1.8
IRL		-	-	-	_	-	-	_	-	_	-
1	2.7	3.0	3.3	4.0	5.2	6.4	7.0	6.4	6.7	6.2	7.0
L	-		-	-	_		-	-	_	_	-
NL	1.8	1.4	1.1	1.0	1.0	1.1	1.1	1.2	0.8	1.0	1.0
P	1.6	1.9	1.9	2.8	2.5	3.2	2.5	2.1	1.6	1.2	1.3
UK	3.5	3.4	3.4	3.4	3.6	3.5	3.5	3.3	2.7	2.3	2.3

NUTS2: French Overseas Departments, Azores and Madeira not included
Data for 1983 to 1991 exclude the new German Länder
Weighted standard deviation
Source: Eurostat, calculations DG XVI

	% of total employment, 1993	% change 1981-1991	% change 1991-1993
В	3.1	11.4	-5.4
DK	0.3	30.5	-5.5
D ¹	43.9	15.1	-10.2
GR	0.1	-55.8	-5.2
E	8.3	0.9	-2
F	18.5	-25.4	-7
IRL	0.1	-67.7	-7.4
1	10.1	-26.2	-14.3
NL	1.6	15.3	-5.6
Р	0.9	16.7	-17
UK	13.1	-23	-6.8
EUR12	100	-9	-9.8

		ole A.8 e aerospace industi	гу
	% of total employment 1993	% change 1981-1991	% change 1991-1993
D ¹	17.5	24.2	-8.4
GR	1.1		-21.1
E	1.5	-9.3	-13.9
F	27	-0.4	-9.1
l ·	10.6	36.6	-14
UK	37.4	-16.3	-16.1
B, DK, IRL, NL	4.8		-6
EUR12	100	-0.3	-12.4

	Employment	Table A.9 in textiles and clothi	ng
	% of total employment, 1993	% change 1981-1991	% change 1991-1993
В	3.8	-16.4	-12.8
DK	0.9	-14.8	-5.5
D ¹	17.4	-28.7	-18.1
GR	3.2	-22.2	-20.8
E	9.5	-25.1	-19.8
F	14.6	-34	-12.4
IRL	1.1	-28.7	-9.2
1	19.8	-15.8	-9.7
L	0.04	8.8	-19.4
NL	1.6	6.1	-4.7
Р	8.2	-5.9	-20.3
UK	19.8	-26.8	-4.1
EUR12	100	-25	-13

West Germany only
Definition: NACE 43 + 453 + 455 + 456
Source: Visa database, Statistical Office of the European Communities

Table A.10
Defence-dependent NUTS 2 regions

		En	nployment shares (%)
	NUTS 2	Defence Industries only	Military only	Total Defence-related
GR	Voreio Aigaio	0.0	29.9	29.9
Е	Ceuta Y Melilla	0.0	22.9	22.9
Р	Acores	0.0	11.8	11.8
GR	Noto Aigaio	0.0	11.3	11.3
GR	Kriti	0.0	10.6	10.6
1	Friuli-Venezia Giulia	1.7	9.0	10.6
GR	Dytiki Makedonia	0.1	10.4	10.5
GR	Anatoliki Makedonia, Thraki	0.1	10.1	10.1
UK	Hampshire, Isle of Wight	1.2	7.8	9.0
D	Trier	0.1	8.7	8.8
UK	Cumbria	6.4	1.0	7.4
UK	Cornwall, Devon	1.6	5.3	6.8
UK	North Yorkshire	0.0	6.3	6.3
E	Madrid	0.6	5.6	6.2
D	Koblenz	0.1	6.0	6.1
F	Bretagne	2.5	3.6	6.1
D	Lüneburg	0.1	5.9	6.0
D	Bremen	2.7	3.1	5.8
F	Provence-Alpes-Côte d'Azur	2.1	3.8	5.8
UK	Avon, Gloucester, Wiltshire	1.3	4.3	5.5
D	Rheinhessen-Pfalz	0.1	5.1	5.2
D	Schleswig-Holstein	0.5	4.5	5.0
F	Aquitaine	2.4	2.6	4.9
	EC average	0.6	1.9	2.4

Regions listed include the highest ranking NUTS2 regions in all Member States where dependence twice or above the EC weighted average Source: European Commission (1992)

	Table A.11 Road transport infrastructure													
	Road surface per km ²	Road surface per 1000 inhabitants	Road surface composite indicator	Length of motorways composite ¹ indicator	Number of people killed in road accidents per 100,000 inhabitants									
	Index 1986	Index 1986	Index 1986	Index 1990	1990									
EUR12	100	100	100	100	31									
Belgium	328	145	236	266	45									
Denmark	51	62	57	117	33									
Germany (W)	176	101	139	195	24									
France	107	152	129	103	38									
Italy	107	81	94	124	23									
Luxembourg	222	224	223	207	35									
Netherlands	238	88	163	249	23									
UK	185	115	150	73	22									
Greece	23	45	34	9	69									
Spain	23	43	33	50	43									
Ireland	76	211	144	5	50									
Portugal	42	58	50	29	69									

G	ross ir	ivesi	men	it in i		Tabl infra	198 304 500 5		e, 19	75-19	989 (% of	GDF	?)	
-	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89
EUR12	1.1	1.0	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8
EUR8	1.1	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7
EUR4	0.8	0.8	0.8	0.6	0.5	0.4	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.8	1.0
Greece	0.7	0.7	0.6	0.5	0.5	0.3	0.4	0.4	0.5	0.5	0.6	0.5	0.4	0.4	0.4
Spain	1.0	1.0	1.0	0.6	0.5	0.4	0.4	0.5	0.7	0.5	0.5	0.6	0.7	0.9	1.1
Ireland	0.5	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	0.9	1.0	1.0	0.9	0.8	0.8
Portugal	0.1	0.1	0.4	0.5	0.5	0.6	0.7	0.6	0.5	0.3	0.4	0.5	0.7	0.8	0.9

		Rail transpo	Table A.13 rt infrastru	cture, 1990)	
	1	ength of rail line	es	Per	centage of rail	lines
	per km ²	per 1000 inh.	composite indicator Index	which is electrified	which is at least	with automatic block signals
Belgium	205	91	148	66	74	65
Denmark	100	122	111	11	34	na na
Germany (W)	195	112	153	43	46	na
France	113	157	135	37	46	35
Italy	96	73	85	59	35	25
Luxembourg	189	187	188	73	64	68
Netherlands	123	49	86	70	64	na
UK	125	77	101	29	69	57
Greece	34	65	49	0	10	na
Spain	51	97	74	48	. 19	13
Ireland	51	145	98	2	27	0
Portugal	63	87	75	15	14	13

	Gross i	nvest	lmen	t in ra		able Irastı		re, 1	976-1	989 ((% of	GDF	")	
	76	77	78	79	80	81	82	83	84	85	86	87	88	89
EUR12	0.19	0.19	0.19	0.18	0.20	0.19	0.18	0.19	0.20	0.19	0.19	0.19	0.22	0.19
EUR8	0.19	0.19	0.19	0.18	0.20	0.19	0.18	0.18	0.20	0.19	0.20	0.19	0.22	0.19
EUR4	0.25	0.23	0.13	0.19	0.22	0.22	0.22	0.28	0.24	0.13	0.16	0.15	0.21	0.22
Greece	0.06	0.06	0.04	0.05	0.09	0.04	0.08	0.06	0.07	0.09	0.12	0.11	0.10	0.13
Spain	0.29	0.27	0.16	0.24	0.28	0.29	0.28	0.36	0.31	0.15	0.17	0.16	0.26	0.26
Ireland	0.08	0.09	0.08	0.05	0.05	0.05	0.03	0.03	0.04	0.03	0.02	0.01	0.01	0.01
Portugal	0.32	0.24	0.13	0.09	0.06	0.08	0.13	0.12	0.06	0.11	0.17	0.17	0.15	0.11

Table A.15 Telecommunication infrastructures, 1992											
Number of telephone lines per 100 inhabitants	Percentage of subscibers connected to digital local exchanges	Number of faults per line per year									
44	na	na									
41	41	0.18									
58	28	0.20									
50	na	па									
51	75	0.09									
40	42	0.17									
50	31	0.17									
48	33	na									
46	47	0.15									
40	8	0.53									
34	28	0.30									
30	60	0.39									
27	26	0.50									
	Number of telephone lines per 100 inhabitants 44 41 58 50 51 40 50 48 46 40 34 30	Number of telephone lines per 100 inhabitants Percentage of subscibers connected to digital local exchanges 44 na 41 41 58 28 50 na 51 75 40 42 50 31 48 33 46 47 40 8 34 28 30 60									

	1987	1988	1989	1990	1991	1992
EUR12	0.59	0.59	0.65	0.70	0.70	na
Belgium	0.38	0.33	0.42	0.43	0.42	na
Denmark	0.49	0.56	0.47	0.41	0.34	na
Germany (W)	0.76	0.73	0.73	0.80	0.87	na
France	0.57	0.49	0.50	0.51	0.51	0.44
Italy	0.46	0.45	0.49	0.62	0.68	0.71
Luxembourg	0.49	0.54	0.62	0.60	0.67	na
Netherlands	0.35	0.43	0.62	0.52	0.56	na
UK	0.55	0.56	0.65	0.65	0.57	0.49
Greece	0.42	0.45	0.56	0.57	0.77	' na
Spain	0.73	0.93	1.33	1.38	1.10	0.70
Ireland	0.68	0.60	0.56	0.63	0.65	0.55
Portugal	0.76	1.07 .	1.12	1.34	1.41	1.16

										1							
																re	

	Land b	orders with E	UR12	Land bo	rders with:	All land	Coast
	Germany	France	Italy	other EFTA	other countries	borders	lines
Austria	729	0	375	182	1092	2378	0
Finland	0	0	0	1170	1207	2377	11090
Norway	7, 0	. 0	0 .	2297	161	2458	23090
Sweden	0	0	0	2095	0	2095	9106
Sum	729	0	375	5744	2460	9308	43286
Total borders ²	729	0	375	2872	2460	6436	

Automatic measures made on a 1:1,000,000 scale respectively (borders with Russia on a 1:10,000,000 scale).

Error in estimates is around 10%.

Double counting of borders between neighbouring countries has been eliminated.

Source: Eurostat

Region		Employr	ment (1,000))	En	nployment	(%)
negion	Agri.	Indu.	Serv.	Total	Agri.	Indu.	Serv
Ellada	876	1,016	1,952	3,844	22,8	26,4	50,8
Galicia	334	249	478	1,061	31,5	23,5	45,0
Asturias	57	122	195	374	15,2	32,5	52,3
Castilla-León	167	254	462	884	18,9	28,8	52,3
Castilla-La Mancha	96	165	257	518	18,5	31,9	49,6
Extremadura	74	65	167	307	24,3	21,3	54,5
Comunidad Valenciana	115	489	724	1,328	8,7	36,8	54,5
Andalucia	281	477	1,135	1,893	14,8	25,2	60,0
Murcia	45	107	192	344	13,1	31,0	55,9
Ceuta y Melilla	0	3	32	35	0,8	9,6	89,5
Canarias	35	90	307	431	8,0	20,8	71,2
España	1,438	4,176	7,407	13,021	11,0	32,1	56,9
Corse	8	17	60	85	9,3	20,4	70,3
rance	1,349	6,494	14,098	21,941	6,1	29,6	64,3
reland	165	317	631	1,113	14,8	28,5	56,7
Campania	289	410	1,205	1,904	15,2	21,6	63,3
Abruzzi	75	137	303	515	14,6	26,6	58,8
Molise	27	33	68	127	20,9	26,1	53,0
Puglia	173	323	852	1,349	12,8	24,0	63,2
Basilicata	49	56	113	218	22,6	25,6	51,8
Calabria	169	118	371	658	25,7	18,0	56,3
Sicilia	234	318	1,053	1,604	14,6	19,8	65,7
Sardegna	80	128	373	581	13,7	22,1	64,2
talia	2,235	6,915	14,121	23,271	9,6	29,7	60,7
lorte	281	611	524	1,415	19,9	43,1	37,0
Centro	236	196	234	666	35,5	29,4	35,1
isboa e vale do Tejo	141	369	849	1,358	10,4	27,2	62,5
lentejo	66	30	71	167	39,8	17,8	42,4
lgarve	31	20	63	114	27,3	17,5	55,2
cores	20	18	38	76	25,7	23,9	50,4
ladeira	25	32	44	101	25,1	31,3	43,6
ortugal	800	1,274	1,821	3,896	20,5	32,7	46,7
orthern Ireland	33	176	392	602	5,6	29,3	65,2
nited Kingdom	577	8,589	17,430	26,596	2,2	32,3	65,5
UR12	9,016	43,562	83,256	135,834	6,6	32,1	61,3
bjective 1	4,182	6,346	13,142	23,669	17,7	26,8	55,5

Unemp	loyme	ent ra		Table Obje		1 re	gions	s, 198	6-1993	
Region	1986	1987	1988	1989	1990	1991	1992	1993	Change 1986-91	Change 1986-93
Ellada	7.4	7.4	7.7	7.5	7.0	7.7	7.7	7.8	0.3	0.4
Galicia	13.9	13.4	13.2	12.4	11.9	12.4	16.0	17.0	-1.6	3.1
Asturias	18.8	19.7	20.2	17.4	17.4	16.1	17.4	19.6	-2.6	0.9
Castilla-León	18.1	17.6	17.8	17.4	15.5	14.5	17.0	19.2	-3.6	1.0
Castilla-La Mancha	15.4	15.1	16.6	14.8	13.3	13.6	15.0	18.6	-1.8	3.2
Extremadura	28.3	25.9	27.1	26.8	25.4	24.2	25.9	28.9	4.0	0.7
Comunidad Valenciana	19.7	20.1	18.3	15.3	14.1	15.9	18.4	22.8	-3.7	3.1
Andalucia	30.3	31.1	29.2	27.2	25.9	24.7	26.5	30.8	-5.6	0.5
Murcia	18.4	21.4	17.6	16.2	15.8	16.5	19.0	23.4	-1.9	4.9
Ceuta y Meiilla	28.7	29.8	35.4	31.6	29.7	29.7	25.1	21.9	1.0	-6.8
Canarias	26.5	25.5	22.5	22.5	23.1	24.4	24.4	26.7	-2.1	0.1
España	21.4	20.8	20.1	17.4	16.3	16.0	17.6	21.3	-5.4	-0.1
Corse	11.7	11.9	10.6	9.4	9.7	10.9	10.4	11.0	-0.8	-0.7
France	10.0	10.3	9.6	9.3	8.7	9.0	9.7	10.3	-1.0	0.4
Ireland	18.1	18.1	17.5	16.1	14.2	15.8	17.6	18.4	-2.3	0.2
Campania	16.6	21.5	23.0	22.3	18.6	20.4	20.1	22.8	3.7	6.2
Abruzzi	11.7	8.6	9.3	10.3	9.6	9.4	11.0	12.4	-2.4	0.7
Molise	7.1	12.2	12.4	13.1	11.3	14.7	13.8	15.6	7.6	8.5
Puglia	14.3	13.2	15.7	14.8	13.6	15.1	13.8	15.6	0.8	1.3
Basilicata	21.0	15.9	21.5	20.5	20.1	19.6	20.5	23.0	-1.4	2.0
Calabria	15.4	17.8	22.6	25.1	21.2	21.3	17.4	19.6	5.9	4.2
Sicilia	15.1	16.0	18.6	21.6	20.4	21.4	20.5	23.1	6.3	8.0
Sardegna	20.2	16.2	18.4	18.9	17.8	18.1	17.5	19.8	-2.1	-0.5
Italia	10.5	10.2	11.0	10.9	9.5	10.0	9.9	11.2	-0.6	0.6
Norte	6.7	4.9	3.6	3.0	2.6	2.7	3.1	4.2	-4.0	-2.5
Centro	5.6	5.5	3.7	3.0	2.1	2.4	2.2	3.4	-3.3	-2.2
Lisboa e vale do Tejo	11.3	9.7	8.8	6.9	5.8	4.5	4.7	6.0	-6.9	-5.3
Alentejo	14.9	11.9	14.6	11.5	9.7	9.0	7.0	8.1	-5.9	-6.8
Algarve	8.8	7.2	5.5	3.1	3.8	3.9	2.6	4.8	4.9	-4.0
Acores	5.0	3.7	2.2	2.5	3.1	3.8	3.1	4.6	-1.2	-0.4
Madeira	6.3	4.5	4.8	5.5	5.0	3.1	3.0	3.4	-3.2	-2.9
Portugal	8.6	7.0	6.0	4.8	4.1	3.6	3.7	4.9	-5.0	-3.8
Northern Ireland	17.7	18.6	17.1	17.3	17.1	16.3	15.6	15.0	-1.4	-2.7
United Kingdom	11.5	11.0	8.9	7.3	7.0	8.8	9.9	10.3	-2.7	-1.2
EUR12	10.7	10.5	9.9	9.0	8.2	8.5	9.3	10.4	-2.2	-0.3
Average Objective 1	15.4	15.5	15.8	15.2	13.9	14.3	14.8	16.7	-1.0	1.3

										No	Α	20								
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Region	1986	1987	1988	1989	1990	1991
Ellada	51	49	49	49	47	47
Galicia	56	56	57	58	57	59
Asturias	71	69	71	72	70	73
Castilla- León	66	67	67	66	66	67
Castilla- La Mancha	55	58	60	62	63	64
Extremadura	45	47	49	48	50	51
Comunidad Valenciana	72	73	73	74	76	78
Andalucia	53	55	55	56	58	60
Murcia	68	69	67	69	71	74
Ceuta Y Melilla	64	65	65	63	64	64
Canarias	70	72	74	74	73	77
España	71	72	73	74	75	78
Corse	82	81	80	79	80	80
France	111	110	110	111	111	110
Ireland	60	61	62	65	69	70
Campania	69	69	69	70	70	70
Abruzzi	89	90	89	90	90	91
Molise	78	78	80	79	79	79
Puglia	73	74	75	75	74	74
Basilicata	65	66	66	64	65	65
Calabria	60	61	58	61	57	57
Sicilia	70	71	68	67	68	68
Sardegna	75	75	75	74	74	74
Italia	103	103	103	103	102	105
Norte	46	45	47	49	50	52
Centro	38	39	39	39	39	41
Lisboa e vale do Tejo	70	75	72	74	.76	80
Alentejo	34	34	34	34	33	35
Algarve	39	40	47	46	48	50
Acores						
Madeira						
Portugal	52	54	54	55	56	59
Northern Ireland	79	78	78	77	76	72
United Kingdom	_a 102	104	105	103	101	95
EUR12	100	100	100	100	100	100
Average Objective 1	61	62	62	63	63	64

Region	Employment change 1986-91		nployed 2 = 100)
	(%)	1986	1991
Eliada	- W	56	55
Galicia	5.5	64	65
Asturias	4.5	89	90
Castilla – León	11.8	85	82
Castilla – La Mancha	8.7	76	88
Extremadura	12.9	72	79
Comunidad Valenciana	19.8	95	91
Andalucia	21.1	89	90
Murcia	26.5	96	89
Ceuta Y Melilla	27.2	114	92
Canarias	17.1	105	108
España	16.3	95	94
Corse	7.5	101	95
rance	3.6	114	117
reland	4.1	81	/94
ampania	2.9	83	88
Abruzzi	6.3	90	92
Molise	3.1	82	86
Puglia	2.5	87	92
Basilicata	4.9	76	76
Calabria	-2.2	74	76
Sicilia	2.0	89	90
Sardegna	8.5	90	87
alia	2.9	101	105
ortugal	3.4	53	61
lorthern Ireland	5.2	86	79
Inited Kingdom	5.6	94	88
UR12	6.4	100	100
verage Objective 1	6.4	75	78

Table A.22 Community initiatives, 1994-1999 (bn ECUs, 1994 prices)										
Interreg/Regen	2.9									
Rural Development (Leader II)	1.4									
Regis	0.6									
Employment Now Horizon Youthstart	1.4									
Industrial Change Adapt Rechar Resider Konver Retex Portuguese Textiles Industry SMEs	1.4 0.4 0.5 0.5 0.5 0.4 1.0									
Urban Policy	0.6									
PESCA (fisheries)	0.25									
Reserve	1.6									
TOTAL	13.45									

To meet the commitments agreed at Edinburgh and included in the regulations, at least 8.15 billion ECUs must go to Objective 1 regions and at least 5.2 billion ECUs to Greece, Spain, Ireland and Portugal.

Source: European Commission

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					R	egions	1				
Indicator	Period	Units	Mecklenburg -Vor-Pommern	Brandenburg	Sachsen-Anhalt	Sachsen	Thüringen	East Berlin	Total	Germany	EUR12+
Population	90	1000s	1976	2664	2995	4979	2713	1279	16434	79113	344149
Population change	90/80	% p.a.	0.9	0.0	-0.3	-0.5	-0.1	1.1	-0.2	0.2	0.3
Net migration	90	%	-2.1	-2.3	-2.6	-2.4	-2.5	-2.3	-2.2	0.8	0.
Territory	90	1000 km ²	23.6	29.1	20.6	18.3	16.3	0.4	108.2	356.9	2361.
Density	90	inhab/km²	82.0	89.0	139.0	260.3	161.0	3862.0	148.9	222.0	145.
Total employment change	92/90	% p. a.	-15.6	-12.2	-15.3	-12.7	-14.9	-11.9	-14.0	-2.0	0.0
Industrial employment change	92/90	% p. a.	-22.1	-21.7	-23.0	-27.8	-28.6	-24.4	-25.6	-8.4	0.0
Participation rate	91	%	53.0	54.4	53.5	52.7	52.6	55.2	53.3	48.9	45.
Unemployment rate	93	%	14.1	12.0	13.6	11.5	12.8	10.9	12.5	7.0	10.
Agriculture (% total emp.)	90	%	16.3	12.2	10.0	6.0	8.1	0.8	8.9	. 4.4	8.
Industry (% total emp.)	90	%	29.9	41.4	46.6	51.9	51.0	32.7	44.7	40.1	32.
Services (% total emp.)	90	%	53.8	46.4	43.4	42.1	40.9	66.5	46.4	55.5	59.
GDP per head (PPS)	91-92	EUR12 = 100	37.3	40.8	39.6	37.3	34.1	48.7	38.4	106.5	100.
GDP per head (ECU)	91-92	EUR12 = 100	40.8	44.6	43.4	40.8	37.3	53.4	42.1	117.0	100.0
GDP per person employed (PPS)	91-92	EUR12 = 100	35.4	37.3	35.6	36.9	•32.5	38.9	36.1	94.3	100.0
GDP per person employed (ECU)	91-92	EUR12 = 100	38.8	40.9	39.0	40.4	35.7	42.6	39.6	103.2	100.0

¹ New Länder included in Germany (except for employment structure) and EUR12 (except for employment structure and participation) Industrial employment change: for manufacturing and mining industries only enterprises with more than 20 employees Participation rate: Arbeitsmarkt-Monitor 7/91. Aggregate migration between East and West only Unemployment rates: LFS and DG XVI calculations

GDP: preliminary results for 1992

Table A.24 Sectoral changes in the new German Länder, compared to the old German Länder and EUR12

		New L	änder .		Old Länder	Germany	EUR12
	1989	1990	1991	1992	1990	1990	1990
Agriculture	10	8.9	6.2	4.4	3.7	4.4	8.1
Industry	45	44.7	41.6	36.6	38.6	40.1	32.3
Services	45	46.4	52.2	59	57.4	55.5	59.7

Source: National statistics

Rank	Region		GDP/head in PPS		Population 1991			
			average (89-90-91) EUR12=100	rate average (91-92-93)	Total (in millions)	cumulativ share (%)		
1	Thüringen	(D)	30.0	139.3	2.6	0.8		
2	Mecklenburg-Vorpommern Sachsen	(D) (D)	33.0 33.0	158.8 125.9	1.9	1.3 2.7		
4	Alenteio	(P)	33.9	85.1	0.5	2.9		
5	Sachsen - Anhalt	(D)	35.0	145.3	2.9	3.7		
6	Voreio Algaio	(GR)	35.2	100.8	0.2	3 3.8		
7	Brandenburg	(D)	36.0	129.4	2.6	4.5		
8	Ipeiros	(GR)	36.2	111.1	0.3	4.6		
9	Guadeloupe	(F)	39.0 39.6	250.5 28.3	0.4 1.7	4.7 5.2		
11	Dytiki Ellada	(P) (GR)	40.8	98.8	0.7	5.4		
12	Anatoliki Make, Thraki	(GR)	43.3	61.1	0.6	5.6		
13	Ionia Nisia	(GR)	43.7	44.7	0.2	5.6		
14	Thessalia	(GR)	43.7	78.6	0.7	5.9		
15	Réunion	(F)	45.0	304.2	0.6	6.0		
16 17	Kriti Kentriki Makedonia	(GR)	45.5	45.3 70.0	0.5 1.7	6.2 6.7		
18	Peloponnisos	(GR)	46.8 47.3	63.7	0.6	6.9		
19	Algarve	(P)	47.9	39.8	0.3	7.0		
20	Extremadura	(E)	49.5	279.9	1.1	7.3		
21	Dytiki Makedonia	(GR)	50.2	90.5	0.3	7.4		
22	Norte	(P)	50.2	35.0	3.5	8.4		
23	Notio Aigaio	(GR)	52.2	40.7	0.3	8.4		
24 25	Attiki Martinique	(GR)	52.3 53.0	112.6 239.9	3.5 0.3	9.5 9.6		
26	Guyane	(F) (F)	54.0	231.3	0.3	9.6		
27	Andalucia	(E)	57.8	290.5	6.9	11.6		
28	Calabria	(I)	57.9	206.4	2.2	12.2		
29	Sterea Ellada	(GR)	58.0	79.5	0.6	12.4		
30	Galicia	(E)	58.3	160.3	2.8	13.2		
31	Castilla - La Mancha Ceuta Y Melilla	(E)	63.1 63.6	167.2 271.7	1.7 0.1	13.7 13.7		
33	Basilicata	(1)	64.5	223.5	0.6	13.9		
34	Castilla - León	(E)	66.7	179.6	2.6	14.7		
35	Sicilia	(1)	67.5	230.4	5.2	16.2		
36	Ireland	(IRL)	68.0	183.3	3.5	17.2		
37	Campania	(1)	70.2	224.0	5.8	18.9		
38 39	Murcia Asturias	(E)	71.3 71.5	208.8 188.4	1.0 1.1	19.2 19.5		
40	Puglia	(1)	74.1	157.5	4.1	20.7		
41	Sardegna	(1)	74.2	196.2	1.7	21.2		
42	Cantabria	(E)	74.4	179.3	0.5	21.3		
43	Canarias	(E)	74.5	267.0	1.5	21.8		
44	Northern Ireland	(UK)	75.1	165.8	1.6	22.2		
45 46	Comunidad Valenciana Lisboa e vale do Tejo	(E) (P)	76.0 76.6	202.2 53.5	3.8 3.3	23.3		
47	Merseyside	(UK)	76.7	152.5	1.4	24.3		
48	Highlands, Islands	(UK)	76.9	114.1	0.3	24.8		
49	South Yorkshire	(UK)	77.5	124.5	1.3	25.1		
50	Hainaut	(B)	77.6	141.8	1.3	25.5		
51	Flevoland	(NL)	78.1	78.3	0.2	25.6		
52 53	Molise Corse	(I) (F)	78.8 79.8	156.5 114.7	0.3 0.3	25.7 25.7		
54	Corse Cornwall, Devon	(UK)	80.2	105.7	1.5	26.2		
55	Northumberland, Tyne, Wear	(UK)	80.4	126.7	1.4	26.6		
56	Clwyd, Dyfed, Gwynedd, Powys		81.1	92.7	1.1	26.9		
57	Lüneburg	(D)	81.9	49.9	1.5	27.4		
58	Namur	(B)	82.6	107.5	0.4	27.5		
59	Lincolnshire	(UK)	83.1	85.7	0.6	27.6		
60 61	Friesland Cleveland, Durham	(NL) (UK)	83.6 83.8	105.5 124.5	0.6 1.2	27.8 28.2		
62	Gwent, Mid Glamorgan	(UK)	84.5	106.0	1.8	28.7		

			able A.25		
					GDP per head ¹
100	\$15 - \$150 - \$150 - \$150 - \$17 - \$100 - \$150			\$100 market 1980 m	

Rank	Region		GDP/head in PPS		Populat	ion 1991
			average (89-90-91) EUR12=100	rate average (91-92-93)	Total (in millions)	cumulative share (%)
63	Rioja	(E)	84.6	125.8	0.3	28.7
64	Luxembourg	(B)	84.7	63.4	0.2	28.8
65	Aragón	(E)	84.8	125.4	1.2	29.2
66	Salop, Staffordshire	(UK)	84.8	82.3	1.4	29.6
67	Languedoc-Roussillon	(F)	85.1	141.6	2.1	30.2
68	Trier	(D)	86.5	40.7	0.5	30.3
69	Limousin	(F)	86.8	88.4	0.7	30.5
70	Essex	(UK)	86.8	89.0	1.5	31.0
71	Hereford, Worcs, Warwick	(UK)	87.5	80.0	1.2	31.3
72	Dumfries-Gall, Strathclyde	(UK)	88.4	125.0	2.5	32.0
73	Drenthe	(NL)	88.5	92.1	0.4	32.2
74	Gelderland	(NL)	88.9	75.8	1.8	[설명.] [
75	País Vasco	(E)	89.1	212.5	2.1	32.7
76	Overijssel	(NL)	89.7	77.2	[1] [2] [1] [2] [2] [2] [2] [2] [2] [2] [2] [2] [2	33.3
77	Nord - Pas-de-Calais	(F)	89.8		1.0	33.6
78	Øst for Storebit	(DK)	90.0	132.4	4.0	34.7
79	Kent	(UK)	90.0	111.7	0.6	34.9
80	Abruzzi	(UK) (I)	90.2	89.3	1.5	35.4
81	Derbyshire, Nottingham,			116.1	1.3	35.7
82	Poitou-Charentes	(UK)	90.3	98.6	2.0	36.3
83	Lancashire	(F)	90.5	121.0	1.6	36.8
84		(UK)	91.1	88.2	1.4	37.2
85	Bretagne Greater Manchester	(F)	91.4	93.0	2.8	38.0
86	# (UNING) 경기 전에 대한 경험을 보고 있는데 대한 경험 경기 위한 경험 경험 (UNING) 전 (UNING) 경기 기계	(UK)	91.7	109.9	2.6	38.7
87	Auvergne	(F)	91.7	105.6	1.3	39.1
Control of the Control	West Yorkshire	(UK)	92.2	99.9	2.1	39.7
88	Koblenz	(D)	92.4	36.8	1.4	40.1
89	Dorset, Somerset	(UK)	92.5	87.2	1.1	40.4
90	North Yorkshire	(UK)	92.6	62.5	0.7	40.6
91	Cataluña	(E)	92.7	150.8	6.0	42.4
92 93	Lorraine	(F)	93.1	95.6	2.3	43.1
	Weser-Ems	(D)	94.0	59.9	2.2	43.7
94	Bord-Centr-Fife-Lothian-Tay	(UK)	94.3	96.3	1.9	44.2
95	Madrid	(E)	94.4	143.6	4.9	45.6
96	Limburg	(NL)	94.8	76.1	1.1	46.0
97	West Midlands (County)	(UK)	95.0	133.6	2.6	46.7
98	Picardie	(F)	95.2	107.1	1.8	47.2
99	Basse-Normandie	(F)	95.2	90.7	1.4	47.6
100	Midi-Pyrénées	(F)	95.3	91.1	2.4	48.4
101	Münster	(D)	95.4	60.3	2.5	49.1
102	Humberside	(UK)	95.4	120.5	0.9	49.3
103	Oberpfalz	(D)	95.6	44.7	1.0	49.6
104	Liège	(B)	95.8	116.2	1.0	49.9
105	Navarra	(E)	95.9	118.0	0.5	50.0
106	Niederbayern	(D)	96.5	34.6	1.1	50.4
107	Schleswig-Holstein	(D)	96.9	51.3	2.6	51.1
108	Pays de la Loire	(F)	97.6	103.2	3.1	52.0
109	Hampshire, Isle of Wight	(UK)	97.9	83.1	1.7	52.5
110	Gießen	(D)	97.9	47.1	1.0	52.8
111	Baleares	(E)	98.3	123.3	0.7	53.0
112	Noord-Brabant	(NL)	98.6	74.7	2.2	53.6
113	Bourgogne	(F)	98.9	100.6	1.6	54.1
114	Umbria	(1)	98.9	94.7	0.8	54.3
115	Surrey, East-West Sussex	(UK)	99.4	71.4	2.4	55.0
116	Vest for Storeblt	(DK)	99.4	105.7	2.8	55.8
117	Unterfranken	(D)	99.6	37.2	1.2	56.2
118	Oost-Vlaander	(B)	99.7	58.6	1.3	56.6
119	East Anglia	(ÚK)	99.8	78.9	2.1	57.2
120	Provence-Alpes-Côte d'Azur	(F)	101.5	133.6	4.3	58.4
121	Bedford, Hertfordshire	(UK)	102.6	76.7	1.5	58.9
122	Centre	(F)	103.0	98.9	2.4	59.5
123	Cumbria	(UK)	103.3	81.3	0.5	59.7
124	Limburg	(B)	103.3	84.8	0.3	59.7

Table A.25	
Regions of the Community ranked according to their level of GDP per head	

Rank	Region		GDP/head in PPS		Population 1991				
			average (89-90-91) EUR12=100	rate average (91-92-93)	Total (in millions)	cumulative share (%)			
125	Aquitaine	(F)	103.3	120.3	2.8	60.7			
126	Oberfranken	(D)	103.9	39.1	1.1	61.0			
127	Cheshire	(UK)	104.0	84.6	1.0	61.3			
128	Arnsberg	(D)	104.2	66.4	3.7	62.4			
129	Franche-Comté	(F)	104.2	84.3	1.1	62.7			
130	Leicester, Northampton	(UK)	104.6	79.7	1.5	63.1			
131	Marche	(1)	104.7	66.7	1.4	63.5			
132	Detmold	(D)	106.0	49.8	1.9	64.1			
133	West-Vlaanderen	(B)	106.3	47.2	1.1	64.4			
134	Zuid-Holland	(NL)	106.3	75.1	3.2	65.3			
135	Avon, Gloucester, Wiltshire	(UK)	106.6	85.7	2.0	65.9			
136	Utrecht	(NL)	107.1	68.7	1.0	66.2			
137	Kassel	(D)	107.4	53.3	1.2	66.6			
138	Saarland	(D)	107.6	68.4	1.1	66.9			
139	Haute-Normandie	(F)	108.4	124.8	1.7	67.4			
140	Zeeland	(NL)	108.7	75.1	0.4	67.5			
141	Toscana	(1)	109.4	80.7	3.6	68.5			
142	Rhône-Alpes	(F)	109.7	99.5	5.4	70.1			
143	Freiburg	(P)	110.0	34.2	2.0	70.7			
	Champagne-Ardenne	(F)	110.7	100.6	1.3	71.0			
144	Berks, Bucks, Oxfordshire	(UK)	110.8	63.6	2.0	71.6			
145	Rheinhessen-Pfalz		110.9	44.9	1.9	72.2			
146		(D) (D)	111.1	29.4	1.6	72.6			
147	Schwaben		112.3	71.0	1.6	73.1			
148	Braunschweig	(D)	112.8	59.5	4.0	74.3			
149	Köln	(D)	112.9	30.4	1.6	74.7			
150	Tübingen	(D)		59.1	1.6	75.2			
151	Alsace	(F)	113.7		2.4	75.9			
152	Noord-Holland	(NL)	113.8	81.4 94.9	1.7	76.4			
153	Liguria	(1)	115.8		3.4	77.4			
154	Berlin	(D)	116.3	90.1 59.1	2.0	78.0			
155	Hannover	(D)	116.6		2.2	78.6			
156	Brabant	(B)	116.6	74.4	4.4	79.9			
157	Veneto	(1)	116.6	47.5	5.2	81.4			
158	Lazio	(1)	116.8	108.8		81.5			
159	Grampian	(UK)	117.3	55.1	0.5	82.8			
160	Piemonte	(1)	119.6	76.4	4.4				
161	Friuli-Venezia Giulia	(1)	121.6	57.5	1.2	83.2 83.4			
162	Trentino-Alto Adige	(1)	122.0	32.7	0.9	83.4 84.9			
163	Düsseldorf	(D)	122.8	67.9	5.2				
164	Karlsruhe	(D)	124.2	36.3	2.5	85.6			
165	Antwerpen	(B)	125.6	71.5	1.6	86.1			
166	Hovedstadsregionen	(DK)	126.7	93.9	1.7	86.6			
167	Mittelfranken	(D)	126.7	36.4	1.6	87.1			
168	Luxembourg	(L)	127.2	20.1	0.4	87.2			
169	Groningen	(NL)	127.4	112.6	0.6	87.3			
170	Emilia-Romagna	(1)	127.5	46.2	3.9	88.5			
171	Valle d'Aosta	(1)	129.6	82.8	0.1	88.5			
172	Lombardia	(1)	134.7	41.8	8.9	91.1			
173	Stuttgart	(D)	137.6	30.8	3.6	92.2			
174	Oberbayern	(D)	148.1	27.1	3.8	93.2			
175	Bremen	(D)	149.7	85.8	0.7	93.4			
176	Greater London	(UK)	151.2	131.2	6.8	95.4			
177	Darmstadt	(D)	162.9	35.0	3.5	96.4			
178	lle de France	(F)	166.8	86.3	10.7	99.5			
179	Hamburg	(D)	194.5	59.4	1.6	100.0			

Excludes Azores and Madeira for which no GDP/head figures are available.

NUTS2 regions, except new German länder (levell) for which GDP is 1991 only. EUR12 excludes new Länder.

Denmark is divided into 3 regions for statistical purposes.

For the D.O.M. (F) figures come from national sources (INSEE).

Source; Eurostat

		***		yment rate (91-92-93)	GDP/head in PPS average	Populat	ion 1991
Rank	Region		Rate	Index EUR12=100	(89-90-91) EUR12=100	Total (in millions)	cumulative share (in %
1	Réunion	(F)	37.0	304.2	45.0	0.6	0.2
2	Andalucia	(E)	27.4	290.5	57.8	6.9	2.2
3	Extremadura	(E)	26.3	279.9	49.5	1.1	2.5
4	Ceuta Y Melilla	(E)	25.6	271.7	63.6	0.1	2.5
5	Canarias	(E)	25.1	267.0	74.5	1.5 0.4	3.0
6	Guadeloupe Martinique	(F) (F)	24.0 24.0	250.5 239.9	39.0 53.0	0.4	3.1 3.2
8	Guyane	(F)	16.0	231.3	54.0	0.3	3.2
9	Sicilia	(1)	21.7	230.4	67.5	5.2	4.7
10	Campania	(1)	21.1	224.0	70.2	5.8	6.4
11	Basilicata	(1)	21.0	223.5	64.5	0.6	6.6
12	País Vasco	(E)	20.0	212.5	89.1	2.1	7.2
13	Murcia	(E)	19.7	208.8	71.3	1.0	7.5
14	Calabria	(1)	19.4	206.4	57.9	2.2	8.1
15	Comunidad Valenciana	(E)	19.0	202.2	76.0	3.8	9.2
16	Sardegna	(1)	18.5	196.2	74.2	1.7	9.7
17	Asturias	(E)	17.7	188.4	71.5	1.1	10.0
18	Ireland	(IRL)	17.3	183.3	68.0	3.5	11.0
19	Castilla - León	(E)	16.9	179.6	66.7	2.6	11.8
20	Cantabria	(E)	16.9	179.3	74.4	0.5	11.9
21	Castilla - La Mancha	(E)	15.7	167.2	63.1	1.7	12.4
22	Northern Ireland	(UK)	15.6	165.8 160.3	75.1 58.3	1.6	12.9 13.7
23	Galicia	(E) (D)	15.1 14.9	158.8	33.0	1.9	14.3
24	Mecklenburg-Vorpommern Puglia	(1)	14.9	157.5	74.1	4.1	15.4
26	Molise	(1)	14.7	156.5	78.8	0.3	15.5
27	Merseyside	(UK)	14.4	152.5	76.7	1.4	16.0
28	Cataluña	(E)	14.2	150.8	92.7	6.0	17.7
29	Sachsen - Anhalt	(D)	13.7	145.3	35.0	2.9	18.5
30	Madrid	(E)	13.5	143.6	94.4	4.9	20.0
31	Hainaut	(B)	13.3	141.8	77.6	1.3	20.3
32	Languedoc-Roussillon	(F)	13.3	141.6	85.1	2.1	20.9
33	Thüringen	(D)	13.1	139.3	30.0	2.6	21.7
34	West Midlands (County)	(UK)	12.6	133.6	95.0	2.6	22.5
35	Provence-Alpes-Côte d'Azur	(F)	12.6	133.6	101.5	4.3	23.7
36	Nord - Pas-de-Calais	(F)	12.5	132.4	89.8	4.0	24.8 26.8
37	Greater London	(UK)	12.3	131.2 129.4	151.2 36.0	6.8	27.6
38	Brandenburg	(D) (UK)	12.2 11.9	129.4	80.4	1.4	28.0
39 40	Northumberland, Tyne, Wear Sachsen	(D)	11.9	125.9	33.0	4.8	29.4
41	Rioja	(E)	11.8	125.8	84.6	0.3	29.4
42	Aragón	(E)	11.8	125.4	84.8	1.2	29.8
43	Dumfries-Gall,, Strathclyde	(UK)	11.8	125.0	88.4	2.5	30.5
44	Haute-Normandie	(F)	11.7	124.8	108.4	1.7	31.0
45 _	South Yorkshire	(UK)	11.7	124.5	77.5	1.3	31.4
46	Cleveland, Durham	(UK)	11.7	124.5	83.8	1.2	31.7
47	Baleares	(E)	11.6	123.3	98.3	0.7	31.9
48	Poitou-Charentes	(F)	11.4	121.0	90.5	1.6	32.4
49	Humberside	(UK)	11.3	120.5	95.4	0.9	32.6
50	Aquitaine	(F)	11.3	120.3	103.3	2.8	33.4
51	Navarra	(E)	11.1	118.0	95.9	0.5	33.6 33.9
52	Liège	(B)	10.9	116.2 116.1	95.8 90.2	1.0	34.2
53	Abruzzi	(I)	10.9	116.1	79.8	0.3	34.2
54	Corse Highlands, Islands	(F) (UK)	10.8	114.7	76.9	0.3	34.4
55 56	Attiki	(GR)	10.7	112.6	52.3	3.5	35.4
57	Groningen	(NL)	10.6	112.6	127.4	0.6	35.6
58	Øst for Storebælt	(DK)	10.6	111.7	90.0	0.6	35.7
59	Ipeiros	(GR)	10.5	111.1	36.2	0.3	35.8
60	Greater Manchester	(UK)	10.3	109.9	91.7	2.6	36.6
61	Lazio	(1)	10.2	108,8	116.8	5,2	38.1

		ble A.26		
				nemployment

			8	oyment rate e (91-92-93)	GDP/head in PPS average	Populat	ion 1991
Rank	Region		Rate	Index EUR12=100	(89-90-91) EUR12=100	Total (in millions)	cumulative share (in %
62	Namur	(B)	10.1	107.5	82.6	0.4	38.2
	Picardie	(F)	10.1	107.1	95.2	1.8	38.7
	Gwent, Mid Glamorgan	(UK)	10.0	106.0	84.5	1.8	39.2
	Cornwall, Devon	(UK)	10.0	105.7	80.2	1.5	40.5
	Vest for Storebælt	(DK)	10.0	105.7	99.4	2.8	40.1
	Auvergne	(F)	9.9	105.6	91.7	1.3	40.9
	Friesland	(NL)	9.9	105.5	83.6	0.6	41.0
	Pays de la Loire	(F)	9.7	103.2	97.6	3.1	41.9
	Voreio Aigaio	(GR)	9.5	100.8	35.2	0.2	42.0
	Bourgogne	(F)	9.5	100.6	98.9	1.6	42.8
	Champagne-Ardenne	(F)	9.5	100.6	110.7	1.3	42.4
	West Yorkshire	(UK)	9.4	99.9	92.2	2.1	43.4
	Rhône-Alpes	(F)	9.4	99.5	109.7	5.4	45.0
	Centre	(F)	9.3	98.9	103.0	2.4	45.7
	Dytiki Ellada	(GR)	9.3	98.8	40.8	0.7	45.9
	Derbyshire, Nottingham	(UK)	9.3	98.6	90.3	2.0	46.4
	Bord-Centr-Fife-Lothian-Tay	(UK)	9.1	96.3	94.3	1.9	47.0
	Lorraine	(F)	9.0	95.6	93.1	2.3	47.7
	Liguria	(1)	8.9	94.9	115.8	1.7	48.2
	Umbria	(1)	8.9	94.7	98.9	0.8	48.4
	Hovedstadsregionen	(DK)	8.8	93.9	126.7	1.7	48.9
	Bretagne	(F)	8.8	93.0	91.4	2.8	49.7
	Clwyd, Dyfed, Gwynedd, Powys	(UK)	8.7	92.7	81.1	1.1	50.0
	Drenthe	(NL)	8.7	92.1	88.5	0.4	50.2
	Midi-Pyrénées	(F)	8.6	91.1	95.3	2.4	50.9
	Basse-Normandie	(F)	8.5	90.7	95.2	1.4	51.3
	Dvtiki Makedonia	(GR)	8.5	90.5	50.2	0.3	51.3
	Berlin	(D)	8.5	90.1	116.3	3.4	52.3
	Kent	(UK)	8.4	89.3	90.2	1.5	52.8
	Essex	(UK)	8.4	89.0	86.8	1.5	53.2
	Limousin	(F)	8.3	88.4	86.8	0.7	53.4
	Lancashire	(UK)	8.3	88.2	91.1	1.4	53.8
	Dorset, Somerset	(UK)	8.2	87.2	92.5	1.1	54.2
	lle de France		8.1	86.3	166.8	10.7	57.2
		(F) (D)	8.1	85.8	149.7	0.7	57.4
	Bremen	(UK)	8.1	85.7	106.6	2.0	58.0
	Avon,Gloucester, Wiltshire		8.1	85.7	83.1	0.6	58.2
	Lincolnshire	(UK) (P)	8.0	85.1	33.9	0.5	58.4
	Alentejo		8.0	84.8	103.3	0.7	58.6
	Limburg	(B)	8			1.0	58.9
	Cheshire	(UK)	8.0	84.6	104.0	1.1	59.2
	Franche-Comté	(F)	7.9	84.3	104.2 97.9	1.7	59.2
	Hampshire, Isle of Wight	(UK)	7.8	83.1		0.1	59.7
	Valle d'Aosta	(1)	7.8	82.8	129.6	1.4	60.1
	Salop, Staffordshire	(UK)	7.7	82.3	84.8		60.1
	Noord-Holland	(NL)	7.7	81.4	113.8	2.4	60.8
	Cumbria	(UK)	7.7	81.3	103.3	0.5	:
	Toscana	(1)	7.6	80.7	109.4	3.6	62.0
	Hereford, Worcs, Warwick	(UK)	7.5	80.0	87.5	1.2	62.3
	Leicester, Northampton	(UK)	7.5	79.7	104.6	1.5	62.7
	Sterea Ellada	(GR)	7.5	79.5	58.0	0.6	62.9
	East Anglia	(UK)	7.4	78.9	99.8	2.1	63.5
	Thessalia	(GR)	7.4	78.6	43.7	0.7	63.7
	Flevoland	(NL)	7.4	78.3	78.1	0.2	63.8
	Overijssel	(NL)	7.3	77.2	89.7	1.0	64.1
	Bedford, Hertfordshire	(UK)	7.2	76.7	102.6	1.5	64.5
	Piemonte	(1)	7.2	76.4	119.6	4.4	65.8
	Limburg	(NL)	7.2	76.1	94.8	1.1	66.1
	Gelderland	(NL)	7.1	75.8	88.9	1.8	66.6
	Zuid-Holland	(NL)	7.1	75.1	106.3	3.2	67.6
	Zeeland	(NL)	7.1	75.1	108.7	0.4	67.7
122	Noord-Brabant (NL)		7.0	74.7	98.6	2.2	68,3

(00.00.04)	Rank	Region		8	oyment rate e (91-92-93)	GDP/head in PPS average	Populat	ion 1991
Brabant (B)	, matrix	Tiogion		Rate				cumulative
24	123	Brabant	(B)	7.0	74.4	116.6		
125 Surrey, East-West Sussex (UK) 6.7 71.0 99.4 2.4 70.1	124	Antwerpen	(B)	6.7	71.5	125.6	1.6	
126	125	Surrey, East-West Sussex	(UK)	6.7	71.4	99.4	2.4	
Utrecht			(D)	6.7	71.0	112.3	1.6	70.6
129 Saarland (D) 6.4 68.4 107.6 1.1 71.7	127	Kentriki Makedonia	(GR)	6.6	70.0	46.8	1.7	71.1
130 Düsseldorf DÜ			(NL)	6.5	68.7	107.1	1.0	71.4
Marche		Saarland	(D)	6.4	68.4	107.6	1.1	:
132 Pelponnisos (GR) 6.0 6.37 47.3 0.6 74.9			(D)	6.4	67.9	122.8	5.2	73.2
Peloponnisos GR 6.0 63.7 47.3 0.6 74.9	131	Marche	(1)	6.3	66.7	104.7	1.4	73.6
Berks, Bucks, Oxfordshire (UK) 6.0 63.6 110.8 2.0 75.4				6.3	66.4	104.2	3.7	74.7
Luxembourg (B)			(GR)	6.0	63.7	47.3	0.6	74.9
135 Luxembourg (B) 6.0 63.4 84.7 0.2 75.5 136 Nort Yorkshire (UK) 5.9 62.5 92.6 0.7 75.7 137 Anatoliki Make, Thraki (GR) 5.8 61.1 43.3 0.6 75.9 138 Minster (D) 5.7 60.3 95.4 2.5 76.6 139 Weser-Ems (D) 5.6 59.5 112.8 4.0 78.4 140 Köln (D) 5.6 59.5 112.8 4.0 78.4 141 Hamburg (D) 5.6 59.5 112.8 4.0 78.4 142 Alsace (F) 5.6 59.1 113.7 1.6 79.3 143 Hannover (D) 5.6 59.1 113.7 1.6 79.3 144 Salace (F) 5.6 59.1 113.7 1.6 79.3 145 Frill-Venezia Giulla (I) 5.4 57.5 121.6 1.2 80.6 146 Grampian (UK) 5.2 55.1 117.3 0.5 80.8 147 Liboa e vale do Tejo (P) 5.0 53.5 76.6 33 81.7 148 Kassel (D) 5.0 53.3 107.4 1.2 82.1 149 Schleswig-Holstein (D) 4.7 49.9 81.9 1.5 83.3 151 Detroid (D) 4.7 49.9 81.9 1.5 83.3 152 Veneto (I) 4.5 47.5 116.6 4.4 85.1 153 West-Vlaanderen (B) 4.4 47.2 106.3 1.1 85.4 154 Gießen (D) 4.2 44.9 110.9 1.9 87.5 155 Emilia-Romagna (I) 4.4 46.2 127.5 3.9 86.8 157 Rheinhessen-Pfaiz (D) 4.2 44.7 43.7 0.2 87.9 158 King (GR) 4.2 44.7 43.7 0.2 87.9 159 Lonbardia (II) 3.9 41.8 134.7 0.2 87.9 150 Derpfatz (D) 4.2 44.7 43.7 0.2 87.9 151 Detroid (D) 3.7 39.8 47.9 0.3 90.8 159 Oberfatz (D) 3.4 36.4 126.7 1.6 92.4 160 Mittelfranken (D) 3.4 36.4 126.7 1.6 92.4 170 Darmstadt (D) 3.4 36.4 126.7 1.6 92.4 171 Norte (P) 3.7 39.8 47.9 0.3 90.8 171 Norte (P) 3.2 33.7 0.0 0.3 96.1 171 Norte (P) 3.2 33.7 33.8 33.9 33.0 33.0 171 Norte (P)					63.6	110.8	2.0	
North Yorkshire		, ,		6.0	63.4	84.7	0.2	
Anatoliki Make, Thraki (GR) 5.8 61.1 43.3 0.6 75.9			(UK)	5.9	62.5	92.6	0.7	
Münster				5.8	61.1	43.3	0.6	
Month Mamburg Month Mo		Münster	(D)	5.7	60.3	95.4	2.5	76.6
Hamburg Alsace CF S.6 S9.4 194.5 1.6 78.8	139	Weser-Ems	(D)	5.6	59.9	94.0	2.2	77.2
Alsace	140		(D)	5.6	59.5	1128	4.0	78.4
Hannover D 5.6 59.1 116.6 2.0 79.9 144	141	Hamburg	(D)	5.6	59.4	194.5	1.6	78.8
144		Alsace	(F)	5.6	59.1	113.7	1.6	
Friuli-Venezia Giulla (I) 5.4 37.5 121.6 1.2 80.6	143	Hannover	(D)	5.6	59.1	116.6	2.0	79.9
Grampian (UK) 5.2 55.1 117.3 0.5 80.8 147 Lisboa e vale do Tejo (P) 5.0 53.5 76.6 3.3 81.7 148 Kassel (D) 5.0 53.5 76.6 3.3 81.7 149 Schleswig-Holstein (D) 4.8 51.3 96.9 2.6 82.8 150 Lüneburg (D) 4.7 49.9 81.9 1.5 83.3 151 Detmold (D) 4.7 49.8 106.0 1.9 83.8 152 Veneto (I) 4.5 47.5 116.6 4.4 85.1 153 West-Vlaanderen (B) 4.4 47.2 106.3 1.1 85.4 154 Gießen (D) 4.4 47.1 97.9 1.0 85.7 155 Emilia-Romagna (I) 4.4 46.2 127.5 3.9 86.8 156 Kriti (GR) 4.3 45.5 0.5 87.0 157 Rheinhessen-Pfalz (D) 4.2 44.7 95.6 1.0 87.8 158 Oberpfalz (D) 4.2 44.7 95.6 1.0 87.8 159 Lombardia (I) 3.9 41.8 134.7 8.9 90.5 150 Lombardia (I) 3.9 41.8 134.7 8.9 90.5 151 Trier (D) 3.8 40.7 86.5 0.5 90.7 162 Trier (D) 3.8 40.7 86.5 0.5 90.7 163 Acores (P) 3.7 39.8 47.9 0.3 90.8 165 Oberfranken (D) 3.5 36.8 92.4 1.4 91.9 166 Mittelfranken (D) 3.5 36.8 92.4 1.4 91.9 170 Darmstadt (D) 3.3 35.0 162.9 3.5 94.1 171 Note (P) 3.3 35.0 50.2 3.5 95.1 171 Note (P) 3.3 35.0 50.2 3.5 95.1 171 Note (P) 3.3 34.6 96.5 1.1 95.4 171 Freiburg (D) 3.2 34.2 110.0 2.0 96.0 171 Tibingen (D) 2.9 30.8 137.6 3.6 97.4 171 Tibingen (D) 2.9 30.8 137.6 3.6 97.4 171 Tibingen (D) 2.9 30.4 111.1 1.6 98.3 171 Oberbayern (D) 2.8 29.4 111.1 1.6 98.3 171 Oberbayern (D) 2.8 29.4 111.1 1.6 98.3 171 Oberbayern (D) 2.7 2.8 3.3 3.6 1.7 98.8 171 Oberbayern (D) 2.8 29.4 111.1 1.6 98.3 172 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9	144		(B)	5.5	58.6	99.7	1.3	80.3
Lisboa e vale do Tejo CP 5.0 53.5 76.6 3.3 81.7	145	Friuli-Venezia Giulia	(1)	5.4	57.5	121.6	1.2	80.6
Massel (D) 5.0 53.3 107.4 1.2 82.1	146		(UK)	5.2	55.1	117.3	0.5	80.8
Schleswig-Holstein (D) 4.8 51.3 96.9 2.6 82.8	147	Lisboa e vale do Tejo	(P)	5.0	53.5	76.6	3.3	81.7
Lineburg D				5.0	53.3	107.4	1.2	82.1
Detmold Detm	149		(D)	4.8	51.3	96.9	2.6	82.8
			(D)	4.7	49.9	81.9	1.5	83.3
West-Vlaanderen (B) 4.4 47.2 106.3 1.1 85.4	151	Detmold	(D)	4.7	49.8	106.0	1.9	83.8
Gießen			(1)	4.5	47.5	116.6	4.4	85:1
Emilia-Romagna (i) 4.4 46.2 127.5 3.9 86.8	153	West-Vlaanderen	(B)	4.4	47.2	106.3	1.1	85.4
Kriti Krit			(D)	4.4	47.1	97.9	1.0	85.7
157 Rheinhessen-Pfalz (D) 4.2 44.9 110.9 1.9 87.5 158 Oberpfalz (D) 4.2 44.7 95.6 1.0 87.8 159 Ionia Nisia (GR) 4.2 44.7 43.7 0.2 87.9 160 Lombardia (I) 3.9 41.8 134.7 8.9 90.5 161 Notio Aigaio (GR) 3.8 40.7 52.2 0.3 90.5 162 Trier (D) 3.8 40.7 86.5 0.5 90.7 163 Acores (P) 3.7 39.8 47.9 0.3 90.8 165 Oberfranken (D) 3.7 39.1 103.9 1.1 91.1 166 Unterfranken (D) 3.5 37.2 99.6 1.2 91.5 167 Koblenz (D) 3.5 36.8 92.4 1.4 91.9 168 Mittelfranken (D) 3.4 36.3 124.2 2.5 93.1 170 Darmstadt (D) 3.3 35.0 162.9 3.5 94.1 171 Norte (P) 3.3 35.0 50.2 3.5 94.1 172 Niederbayern (D) 3.2 34.2 110.0 2.0 96.0 174 Madelra (P) 3.2 33.7 0.0 0.3 96.1 175 Trentino-Alto Adige (I) 3.1 32.7 122.0 0.9 96.3 178 Schwaben (D) 2.9 30.4 112.9 1.6 97.8 179 Centro (P) 2.7 28.3 39.6 1.7 98.8 180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9	155	Emilia-Romagna	(1)	4.4	46.2	127.5	3.9	86.8
158		Kriti	(GR)	4.3	45.3	45.5	0.5	87.0
Ionia Nisia (GR) 4.2 44.7 43.7 0.2 87.9				4.2	44.9	110.9	1.9	87.5
160				4.2	44.7	95.6	1.0	87.8
Notio Algalo GR 3.8 40.7 52.2 0.3 90.5 162 Trier (D) 3.8 40.7 86.5 0.5 90.7 163 Acores (P) 3.8 40.4 0.0 0.2 90.7 164 Algarve (P) 3.7 39.8 47.9 0.3 90.8 165 Oberfranken (D) 3.7 39.1 103.9 1.1 91.1 166 Unterfranken (D) 3.5 37.2 99.6 1.2 91.5 167 Mittelfranken (D) 3.4 36.4 126.7 1.6 92.4 168 Karlsruhe (D) 3.4 36.3 124.2 2.5 93.1 170 Darmstadt (D) 3.3 35.0 162.9 3.5 94.1 171 Norte (P) 3.3 35.0 50.2 3.5 95.1 172 Niederbayern (D) 3.2 34.6 96.5 1.1 95.4 173 Freiburg (D) 3.2 34.2 110.0 2.0 96.0 174 Madeira (P) 3.2 33.7 0.0 0.3 96.1 175 Trentino-Alto Adige (I) 3.1 32.7 122.0 0.9 96.3 176 Stuttgart (D) 2.9 30.8 137.6 3.6 97.4 178 Schwaben (D) 2.8 29.4 111.1 1.6 98.3 179 Centro (P) 2.7 28.3 39.6 1.7 98.8 180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9			, , ,		44.7	43.7	0.2	87.9
Trier					1		8.9	90.5
Acores					: \		1	90.5
Acores			(D)		: :			
Oberfranken (D) 3.7 39.1 103.9 1.1 91.1 91.1 1.6 91.5 166 Unterfranken (D) 3.5 37.2 99.6 1.2 91.5 167 Koblenz (D) 3.5 36.8 92.4 1.4 91.9 168 Mittelfranken (D) 3.4 36.4 126.7 1.6 92.4 169 Karlsruhe (D) 3.4 36.3 124.2 2.5 93.1 170 Darmstadt (D) 3.3 35.0 162.9 3.5 94.1 171 Norte (P) 3.3 35.0 50.2 3.5 95.1 172 Niederbayern (D) 3.3 34.6 96.5 1.1 95.4 173 Freiburg (D) 3.2 34.2 110.0 2.0 96.0 174 Madeira (P) 3.2 33.7 0.0 0.3 96.1 175 Trentino-Alto Adige (I) 3.1 32.7 122.0 0.9 96.3 176 Stuttgart (D) 2.9 30.8 137.6 3.6 97.4 177 Tübingen (D) 2.9 30.4 112.9 1.6 97.8 178 Schwaben (D) 2.8 29.4 111.1 1.6 98.3 179 Centro (P) 2.7 28.3 39.6 1.7 98.8 180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9							1	
Unterfranken							1	
167					1		3	
Mittelfranken (D) 3.4 36.4 126.7 1.6 92.4 169 Karlsruhe (D) 3.4 36.3 124.2 2.5 93.1 170 Darmstadt (D) 3.3 35.0 162.9 3.5 94.1 171 Norte (P) 3.3 35.0 50.2 3.5 95.1 172 Niederbayern (D) 3.3 34.6 96.5 1.1 95.4 173 Freiburg (D) 3.2 34.2 110.0 2.0 96.0 174 Madelra (P) 3.2 33.7 0.0 0.3 96.1 175 Trentino-Alto Adige (I) 3.1 32.7 122.0 0.9 96.3 176 Stuttgart (D) 2.9 30.8 137.6 3.6 97.4 177 Tübingen (D) 2.9 30.4 112.9 1.6 97.8 178 Schwaben (D) 2								91.5
169 Karlsruhe (D) 3.4 36.3 124.2 2.5 93.1 170 Darmstadt (D) 3.3 35.0 162.9 3.5 94.1 171 Norte (P) 3.3 35.0 50.2 3.5 95.1 172 Niederbayern (D) 3.3 34.6 96.5 1.1 95.4 173 Frelburg (D) 3.2 34.2 110.0 2.0 96.0 174 Madelra (P) 3.2 33.7 0.0 0.3 96.1 175 Trentino-Alto Adige (I) 3.1 32.7 122.0 0.9 96.3 176 Stuttgart (D) 2.9 30.8 137.6 3.6 97.4 177 Tübingen (D) 2.9 30.4 112.9 1.6 97.8 178 Schwaben (D) 2.8 29.4 111.1 1.6 98.3 179 Centro (P)					:	92.4	1.4	91.9
Darmstadt Darm			(D)		1	126.7		92.4
Norte Norte Norte Norte Norte Norte Niederbayern Norte Niederbayern Norte Niederbayern Norte Niederbayern Norte Niederbayern Niederbayern Norte Niederbayern Niederbayern Norte Niederbayern Niederbayern Norte Niederbayern N					: 1		2.5	93.1
Niederbayern (D) 3.3 34.6 96.5 1.1 95.4			(D)				3.5	94.1
173 Frelburg (D) 3.2 34.2 110.0 2.0 96.0 174 Madeira (P) 3.2 33.7 0.0 0.3 96.1 175 Trentino-Alto Adige (I) 3.1 32.7 122.0 0.9 96.3 176 Stuttgart (D) 2.9 30.8 137.6 3.6 97.4 177 Tübingen (D) 2.9 30.4 112.9 1.6 97.8 178 Schwaben (D) 2.8 29.4 111.1 1.6 98.3 179 Centro (P) 2.7 28.3 39.6 1.7 98.8 180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9					1	50.2	3.5	95.1
174 Madeira (P) 3.2 33.7 0.0 0.3 96.1 175 Trentino-Alto Adige (I) 3.1 32.7 122.0 0.9 96.3 176 Stuttgart (D) 2.9 30.8 137.6 3.6 97.4 177 Tübingen (D) 2.9 30.4 112.9 1.6 97.8 178 Schwaben (D) 2.8 29.4 111.1 1.6 98.3 179 Centro (P) 2.7 28.3 39.6 1.7 98.8 180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9			(D)		1	96.5	1.1	95.4
175 Trentino-Alto Adige (I) 3.1 32.7 122.0 0.9 96.3 176 Stuttgart (D) 2.9 30.8 137.6 3.6 97.4 177 Tübingen (D) 2.9 30.4 112.9 1.6 97.8 178 Schwaben (D) 2.8 29.4 111.1 1.6 98.3 179 Centro (P) 2.7 28.3 39.6 1.7 98.8 180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9					1		i :	
176 Stuttgart (D) 2.9 30.8 137.6 3.6 97.4 177 Tübingen (D) 2.9 30.4 112.9 1.6 97.8 178 Schwaben (D) 2.8 29.4 111.1 1.6 98.3 179 Centro (P) 2.7 28.3 39.6 1.7 98.8 180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9					:		1	
177 Tübingen (D) 2.9 30.4 112.9 1.6 97.8 178 Schwaben (D) 2.8 29.4 111.1 1.6 98.3 179 Centro (P) 2.7 28.3 39.6 1.7 98.8 180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9			(1)		: :			
178 Schwaben (D) 2.8 29.4 111.1 1.6 98.3 179 Centro (P) 2.7 28.3 39.6 1.7 98.8 180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9					:	137.6	3.6	97.4
179 Centro (P) 2.7 28.3 39.6 1.7 98.8 180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9			(D)		: 1		1.6	
180 Oberbayern (D) 2.5 27.1 148.1 3.8 99.9			(D)		1 1			
							1.7	98.8
							3.8	99.9

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	T	Popu	alation		L	abour	marke	t ¹			Ecor	omy		
· ·						Une	mploy rate	ment		e of sec in tota syment		avera	three age 19 IR12=1	89-9
Region	Population (1991) EUR12=100	Population change % pa (1981-1991)	258 Density inhab/(km²) (1991)	15-64 as % tot. pop. (1990)	Activity rate % (1990)	Rate 1993	Average 91-92-93 EUR12=100	Unem-ployment change 1988-93 (percen-tage points)	Agriculture	Industry	Services	per inhab. (PPS)	per person employed (PPS)	per person employed (ECU)
elgique-Belgie Vlaams Gewest	2,9 1,7	0,1 0,2	328 428	67,1 67,8	39,5 40,4	8,8 6,6	82,8 61,0	-1,4 -1,6	2,7 2,9	30,5 33,3	66,8 63,8	104,4 105,7	116,6 112,6	116 112
Région Wallonne	0,9	0,1	194	66,3	38,4	12,0	116,1	-1,2	3,1	28,1	68,8	84,2	100,2	99,
Bruxelles-Brussel	0,3	-0,4	5922	65,3	38,0	11,3	107,8	-0,8	0,2	20,2	79,6	164,4	201,2	200
Antwerpen	0,5	0,2	561	67,6	38,5	7,7	71,5	-1,5	1,6	35,7	62,7	125,6	139,8	139
Brabant	0,7	0,1	671	66,9	40,3	7,9	74,4	-1,0	1,6	22,9	75,5	116,6	128,4	12
Hainaut Liège	0,4	-0,2	339 260	66,1	37,0	14,6	141,8	-0,8	2,8	30,5	66,7	77,6	97,5	97
Limburg	0,3	-0,1 0,5	311	66,7 69,8	39,3 39,7	11,9	116,2 84,8	-1,1 -4,1	2,3 2,9	29,4 37,9	68,3 59,2	95,8 103,3	110,7 119,6	110
Luxembourg	0,1	0,3	53	64,6	39,3	6.8	63,4	-2,7	8,0	24.4	67.6	84,7	94.2	93.
Namur	0,1	0,4	116	65,8	38,6	11,2	107,5	-1,3	2,8	20,8	76,3	82,6	100,3	99
Oost-Vlaanderen	0,4	0,0	449	67,5	41,1	6,5	58,6	-1,2	2,7	33,6	63,7	99,7	103,5	103
West-Vlaanderen	0,3	0,2	354	66,8	41,0	5,3	47,2	-0,7	5,3	35,6	59,1	106,3	109,5	109
anmark	1,5	0,0	120	67,3	56,7	10,6	102,4	4,5	5,7	27,4	66,3	106,3	84,1	109
Hovedstadsregionen	0,5	-0,2	601	69,0	0,0	9,8	93,9	4,8	0,0	0,0	0,0	126,7	93,6	121
Øst for Storebælt, Ex, Hovedst	0,2	0,0	84	65,7	0,0	11,3	111,7	3,8	0,0	0,0	0,0	90,0	73,0	94
Vest for Storebælt eutschland	23,3	0,2 2,6	86 225	66,6	0,0 49,1	10,9 7,0	105,7	4,3 0,6	0,0	0,0 40,3	0,0 55,5	99,4 117,9	80,0 105,2	10
Baden-Württemberg	2,9	0,5	280	69.8	51,3	4,1	32,8	0,5	3,4	46,2	50,3	124,5	105,6	11
Stuttgart	1,1	0,5	355	70,1	52,7	4,0	30,8	0,8	3,3	47,9	48.9	137,6	114,5	12
Karlsruhe	0,7	0,5	372	70,3	51,1	4,3	36,3	0,0	1,2	43,6	55,2	124,2	107,7	11:
Freiburg	0,6	0,5	215	69,3	50,6	4,3	34,2	0,6	4,2	45,8	50,0	110,0	92,4	10
Tübingen	0,5	0,7	186	69,2	49,5	3,8	30,4	0,5	6,2	47,1	46,7	112,9	97,7	10
Bayern	3,4	0,4	164	69,3	52,6	3,9	33,0	-0,5	5,9	41,4	52,7	120,9	98,0	10
Oberbayern Niederbayern	1,1	0,3	220 106	70,7	54,1	3,1	27,1	-1,1	3,9	35,7	60,5	148,1	117,9	130
Niederbayern Oberpfalz	0,3 0,3	0,7	105	68,4 68,9	53,2 51,2	4,0 5,1	34,6 44,7	-0,3 -0,4	10,5 7,9	42,5 43,6	47,0 48,4	96,5 95,6	77,6 79,6	85 87
Oberfranken	0,3	0,3	150	68,3	53,0	4,5	39,1	0,0	6,0	43,6	45,4	103,9	83,8	92
Mittelfranken	0,5	0,4	224	69,4	51,5	4,3	36,4	-0,5	4,5	44,7	50,8	126,7	102.8	11:
Unterfranken	0,4	0,4	149	68,6	50,6	4,4	37,2	0,2	6,3	44,5	49,2	99,6	83,8	92
Schwaben	0,5	0,5	166	67,9	51,6	3,6	29,4	-0,2	7,4	43,1	49,5	111,1	91,0	10
Berlin	1,0	6,1	3876	70,0	53,3	9,2	90,1	1,6	0,7	31,0	68,3	116,3	97,6	10
Brandenburg	0,7	0,0	88	0,0	0,0	12,0	129,4	0,0	8,7	36,4	54,9	36,0	0,0	0,
Bremen Hamburg	0,2 0,5	-0,2 -0,1	1691 2209	69,4 69,8	47,2 51,1	8,7 5,6	85,8 59,4	-2,5 -4,7	1,1	29,2 26,2	69,7 72,8	149,7	144,0 163,9	150
Hessen	1,7	0,2	276	69,8	49,7	4,6	40,7	-0,2	2,6	37,3	60,1	194,5 140,0	118,7	130
Darmstadt	1,0	0,3	483	70,8	50,9	4,0	35,0	-0,4	1,3	36,0	62,7	162,9	134,1	14
Gießen	0,3	0,2	189	69,3	47,9	5,4	47,1	0,3	2,9	41,2	55,9	97,9	87,1	96
Kassel	0,4	0,1	148	67,9	47,6	5,8	53,3	0,0	6,3	38,3	55,3	107,4	96,0	10:
Mecklenburg-Vorpommern	0,5	0,0	80	0,0	0,0	14,1	158,8	0,0	13,2	28,4	58,3	33,0	0,0	0,
Niedersachsen	2,2	0,1	158	69,0	47,3	6,4	60,1	-1,5	4,8	36,9	58,2	101,9	94,6	10
Braunschweig Hannover	0,5	0,0	204	69,0	46,2	7,6	71,0	-0,4	2,2	42,3	55,5	112,3	105,5	110
Lüneburg	0,6 0,4	0,0	230 99	69,2	49,0	6,3	59,1	-1,8	3,2	35,7	61,1	116,6	105,9	110
Weser-Ems	0,4	0,2	149	68,9 68,9	48,1 46,0	5,2 6,5	49,9 59,9	-1,3 -2,0	6,3 7,4	33,8 36,4	59,9 56,2	81,9 94,0	74,2 89,6	81 98
Nordrhein-Westfalen	5,1	0,3	514	69,9	46,0	6,6	62,5	-1,7	2,0	42,4	55,6	110,8	108,8	120
Düsseldorf	1,5	0,0	993	70,2	45,9	7,1	67,9	-1,7	1,7	42,5	55,7	122,8	120,8	133
Dusseldon		V9 U	113	10,2	7007 1	191 1	01.7	-1./	1,1	4400 3	22.1	1440		

Principal indic	ators	s for			e A.: ions		he (Com	mur	nity	(NUT	ΓS 2)	
			ulation				r mark					nomy		***************************************
						Un	employ rate			re of se in tota oymen		ave	P three age 19 UR12=	989-9
Region	Population (1991) EUR12=100	Population change % pa (1981-1991)	Density inhab/(km²) (1991)	15-64 as % tot. pop. (1990)	Activity rate % (1990)	Rate 1993	Average 91-92-93 EUR12=100	Unem-ployment change 1988-93 (percen-tage points)	Agriculture	Industry	Services	per inhab. (PPS)	per person employed (PPS)	per person employed (ECU)
Detmold Arnsberg	0,6 1,1	0,3 0,1	295 470	68,2 69,5	46,6 45,1	5,6 7,1	49,8 66,4	-0,9 -1,9	2,1	46,5 45,3	51,4 53,1	106,0 104,2	102,0 103,7	112,
Rheinland-Pfalz	1,1	0,3	193	68,9	47,6	4,7	41,3	-0,7	4,2	41,0	54,7	100,9	94,0	103,
Koblenz Trier	0,4	0,2	176	68,0	47,7	4,1	36,8	-1,1	3,3	40,9	55,8	92,4	86,0	94,8
Rheinhessen-Pfalz	0,1	0,2	99	67,9	45,8 48,0	4,3 5,3	40,7	-1,8 -0,1	8,8 3,9	34,6	56,7	86,5	87,5	96,6
Saarland	0,3	0,0	419	70,1	44,8	7,4	68,4	-0,1	1,0	38,3	53,4	110,9 107,6	101,5	111,
Sachsen	1,4	0,0	255	0,0	0,0	11,5	125,9	0,0	4,1	47,2	48,6	33,0	0,0	0,0
Sachsen - Anhalt	0,8	0,0	137	0,0	0,0	13,6	145,3	0,0	8,1	42,5	49,4	35,0	0,0	0,0
Schleswig-Holstein Tühringen	0,8	0,0	168 158	69,4	50,5	5,3	51,3	-2,0	4,8	29,1	66,1	96,9	88,1	97,3
Ellada	3,0	0,6	77	0,0	0,0 40,6	12,8 7,8	139,3 87,5	0,0	6,6	47,0 25,7	46,4 52,1	30,0 48,1	0,0 52,8	39,3
Voreia Ellada	1,0	0,6	58	0,0	41,9	6,4	71,8	-0,8	31,2	26,3	42.5	45.8	50,9	37,9
Anatoliki Makedonia, Thraki	0,2	0,0	40	0,0	45,1	5,5	61,1	-3,5	43,0	20,3	36,7	43,3	42,2	31,4
Kentriki Makedonia Dytiki Makedonia	0,5	0,9	90	0,0	40,9	6,2	70,0	-0,6	25,1	28,4	46,5	46,8	53,1	39,5
Thessalia	0,1	0,2	31 52	0,0	43,5 41,2	8,1 7,0	90,5	2,1	29,5	32,2	38,4	50,2	62,3	46,4
Kentriki Ellada	0,7	0,6	45	0,0	43,1	7,0	78,6 81,7	0,1	36,1 39,8	24,5	39,4 38,8	43,7 46,1	49,2 50,8	36,6 37,8
Ipeiros	0,1	0,4	37	0,0	42,5	9,9	111,1	4,9	34.8	22,5	42,7	36,2	41.1	30,6
Ionia Nisia	0,1	0,4	84	0,0	45,0	4,0	44,7	0,6	35,7	17,7	46,6	43,7	41,3	30,7
Dytiki Ellada Sterea Ellada	0,2	0,7	62	0,0	43,4	8,8	98,8	1,6	39,0	19,4	41,7	40,8	42,1	31,3
Peloponnisos	0,2	0,7	37 39	0,0	40,9 44,5	7,1 5,7	79,5 63,7	0,2 -0,1	38,3 45,5	27,2 19,5	34,5 35,0	58,0 47,3	73,0	54,4
Attiki	1,0	0,6	910	0,0	38,0	10,0	112,6	0,0	1,3	29,6	69,2	52,3	51,2 56,2	38,1 41,8
Nisia	0,3	0,6	57	0,0	41,6	4,9	54,7	0,6	31,6	18,1	50,4	45,2	51,9	38,6
Voreio Aigaio Notio Aigaio	0,1	0,1	52	0,0	35,0	9,0	100,8	3,6	20,7	17,3	61,9	35,2	42,3	31,5
Kriti	0,1	1,0 0,7	49 64	0,0	37,7 46,5	3,6 4,0	40,7 45,3	-1,5 0,5	8,4 45,0	23,7 15,9	68,0 39,1	52,2	67,2	50,0
España	11,3	0,4	77	66,7	38,9	21,3	194,4	1,2	10,9	33,0	56,1	45,5 75,7	48,8 95,8	36,3 83,4
Noroeste	1,3	0,1	98	66,6	40,8	17,8	169,1	2,0	25,0	28,3	46,7	63,5	72,9	63,5
Gal ic ia Asturias	0,8	0,0	95 106	66,3	41,9	17,0	160,3	3,8	30,2	25,8	44,0	58,3	63,0	55,0
Cantabria	0,3	0,0	99	67,3 66,3	38,8 38,9	19,6 19,2	188,4 179,3	-0,5 -2,7	16,1	33,6 32,3	50,4 55,5	71,5 74,4	91,1 96,0	79,3 83,5
Noreste	1,2	0,0	59	68,4	39,5	18,6	171,0	0,6	6,7	39,8	53,4	88,4	108,5	94,5
País Vasco	0,6	-0,2	293	70,2	40,6	22,3	212,5	0,6	2,9	42,0	55,1	89,1	113,2	98,6
Navarra Rioja	0,2	0,4	50	67,3	39,2	12,5	118,0	-1,6	7,0	41,1	51,8	95,9	114,8	100,1
Aragón	0,1	0,5 0,3	52 25	66,3 66,1	37,6 38,1	13,6	125,8 125,4	0,3	12,0	41,0	47,0	84,6	97,3	84,7
Madrid	1,4	0,3	612	68,0	38,5	16,5	143,6	1,3	12,0	35,3 28,6	52,7 70,4	84,8 94,4	100,2 117,3	87,3 102,2
Centro	1,6	0,6	25	65,4	37,0	-21,0	196,0	1,7	18,0	31,4	50,6	62,0	84,2	73,4
Castilla - León	0,8	0,4	28	66,1	38,7	19,2	179,6	1,4	18,2	30,0	51,8	66,7	87,1	75,9
Castilla - La Mancha Extremadura	0,5	0,6	22	64,6	35,4	18,6	167,2	2,0	16,0	37,2	46,8	63,1	83,8	73,1
Extremadura	0,3	0,9	27 174	65,2 67,0	35,7	28,9 19,6	279,9	1,8	21,0	25,1	53,9	49,5	76,8	66,9
Cataluña	1,7	0,0	188	67,7	41,5 42,5	18,0	167,3 150,8	0,6	5,4 3,5	40,0 42,8	54,6 53,7	87,0 92,7	99,8 104,4	86,9 90,9
Comunidad Valenciana	1,1	0,4	163	66,4	39,9	22,8	202,2	4,5	9,1	37,1	53,8	76,0	90,6	78,9
Baleares	0,2	0,5	136	65,0	41,0	15,7	123,3	3,7	3,7	29,8	66,5	98,3	108,0	94,0
Sur Andalucia	2,4 2,0	1,0	82 80	65,4 65,4	36,0 35,6	29,7	279,4 290,5	1,9	15,7	27,5	56,7	59,6	89,4	77,9

Principal indic	ators	tor	ine	egic	ons	innun	le U	Omir Omir	nuni	ty (i	NUI	*******************************		
	T	Popu				bour r					Econ			
							nployr rate	nent		of sec n total yment		avera	three- ge 198 R12=1	9-91
Region	Population (1991) EUR12≈100	Population change % pa (1981-1991)	Density inhab/(km²) (1991)	15-64 as % tot. pop. (1990)	Activity rate % (1990)	Rate 1993	Average 91-92-93 EUR12=100	Unem-ployment change 1988-93 (percen-tage points)	Agriculture	Industry	Services	per inhab. (PPS)	per person employed (PPS)	per person employed (ECU)
Murcia Ceuta Y Melilla	0,3 0,0	1,0 1,0	91 4071	65,1 65,5	38,3 35,9	23,4 21,9	208,8 271,7	5,8 -13,4	15,9 1,2	31,6 12,0	52,5 86,8	71,3 63,6	92,3 97,6 101,3	80, 85, 88,
Canarias	0,4	0,6	206	67,6	38,6	26,7	267,0 102,7	4,2 0,7	7,8 6,0	19,4 30,0	72,8	74,5 111,6	115,7	119
France	16,5	0,5	105 898	65,9 69,0	44,5 49,5	10,3	86,3	0,7	0,0	25,3	74,1	166,8	149,7	154
lle de France Bassin parisien	3,0	0,4	71	64,9	43,4	10,5	103,9	0,4	8,2	34,3	57,1	101,9	108,6	112
Champagne-Ardenne	0,4	0,0	53	65,5	42,6	10,1	100,6	-0,3	11,8	34,8	53,2	110,7	122,0	126
Picardie	0,5	0,5	94	65,3	43,1	11,0	107,1	0,0	5,1	39,3	55,5	95,2 108,4	109,6 105,7	113
Haute-Normandie	0,5	0,6	142	65,4	44,4	12,1	124,8 98,9	0,8	6,2 8,2	34,5 34,4	59,0	103,0	111,9	115
Centre	0,7	0,6	61	64,5 64,7	42,8 43,3	8.9	90,7	0,1	9.0	30,6	59.0	95,2	93,5	96
Basse-Normandie Bourgogne	0,5	0,1	51	64,2	44,1	10,3	100,6	1,0	9,9	31,3	58,7	98,9	110,2	113
Nord - Pas-de-Calais	1,2	0,1	320	64,7	39,2	13,2	132,4	-0,1	3,2	36,3	60,3	89,8	110,6	114
Est	1,5	0,2	105	66,9	44,3	8,2	80,1	0,0	4,1	38,0	57,6 58,2	102,2 93,1	103,9 102,4	10:
Lorraine	0,7	-0,1	98 197	66,7	41,4	9,6 6,4	95,6 59,1	0,1	4,7	36,8 37,5	59.4	113,7	101,2	10
Alsace Franche-Comté	0,5	0,5	68	65,6	46.0	8.6	84,3	-1.0	5,6	41,0	53,3	104,2	112,2	11:
Ouest	2,2	0.5	88	64,5	44,3	10,0	102,7	0,0	11,0	28,8	59,7	93,7	96,0	99
Pays de la Loire	0,9	0,6	96	64,5	44,7	10,2	103,2	-0,1	9,2	32,2	58,5	97,6	97,4	10
Bretagne	0,8	0,4	103	64,7	44,3	8,9	93,0	-0,4	11,6	24,3	63,0	91,4	91,3	94 10
Poitou-Charentes	0,5	0,2	62	64,1	43,1	11,6 10,2	121,0	0,9	13,9	30,0 26,0	55,9	90,5 98,0	102,7 103,8	10
Sud-Ouest	1,7 0,8	0,5	58 68	65,1 65,2	43,6 43,9	11,9	120,3	0,7	12,3	25,6	61,9	103,3	115,1	11
Aquitaine Midi-Pyrénées	0,8	0,5	54	65,6	43,4	9,0	91,1	0,2	11,9	25,8	62,1	95,3	94,1	97
Limousin	0,2	-0,2	42	63,6	43,1	8,4	88,4	0,0	13,5	28,4	58,0	86,8	96,3	99
Centre-Est	2,0	0,6	97	66,3	45,3	10,5	100,6	2,2	5,4	34,8	59,5	106,2 109,7	108,8	11
Rhône-Alpes	1,6	0,8	124	66,5 65,4	45,4 44,9	10,7 9,7	99,5	2,8	3,6 13,4	35,6 31,3	60,5 55,1	91,7	95,7	98
Auvergne Méditerranée	0,4 1,9	-0,1 1,0	51 100	64,8	41,4	13,5	135,5	1,3	5,6	22,1	72,1	95,5	115,2	11
Languedoc-Roussillon	0,6	1,2	78	64,4	39,0	13,7	141,6	-0,5	9,3	21,7	68,8	85,1	109,8	11
Provence-Alpes-Côte d'Azur	1,3	0,9	138	65,0	42,7	13,5	133,6	2,1	3,7	22,2	73,8	101,5	115,1	11
Corse	0,1	0,6	29	65,5	42,5	11,0	114,7	0,4	7,5	22,3	70,2	79,8 38,4	224,1	23
Départements d'Outre-Mer	0,4	1,7	17 236	64,3 65,4	0,0	10,3 26,1	99,2	0,7	0,0	0,0	0,0	39,0	0,0	0
Guadeloupe Martinique	0,1	1,0	333	66,0	0,0	25,0	239,9	-7,1	0,0	0,0	0,0	53,0	0,0	0
Guyane	0,0	8,9	2	61,3	0,0	24,1	231,3	-Q,1	0,0	0,0	0,0	54,0	0,0	0
Réunion	0,2	1,6	243	63,2	0,0	31,7	304,2	-5,2	0,0	0,0	0,0	45,0	0,0	83
reland	1,0	0,3	188	61,2	38,3 41,5	18,4	183,3	0,8	13,9	28,9	56,8	68,0	83,4 113,1	11
talia Nord Ouest	16,4 1,8	0,2	179	69,4	43,0	8,7	80,5	0,9	6,1	37,0	56,9	118,8	122,1	12
Piemonte	1,2	-0,3	170	69,7	43,9	8,2	76,4	0,8	6,8	41,9	51,4	119,6		
Valle d'Aosta	0,0	0,3	35	71,3	45,3	4,9	82,8	0,9	9,8	26,5	63,8	129,6	125,2	
Liguria	0,5	-0,6	310	68,3	40,6	10,1	94,9	1,3	3,9	24,0	72,1	115,8	128,3 129,6	12 12
Lombardia	2,6 1,9	0,0	371 162	71,2	44,3	4,5	41,8	-0,3 -1,3	3,2 7,4	43,1	53,7	134,7 118,3		
Nord Est Trentino-Alto Adige	0,3	0,1	65	69.3	44,0	3,1	32,7	-1,2	10,2	25,3	64,5	122,0		11
Veneto	1,3	0,1	238	70,6	43,2	5,0	47,5	-1,2	7,1	41,6	51,3	116,6		
Friuli-Venezia Giulia	0,3	-0,3 -0,1	153 177	69,0 69,4	41,3 45,6	5,9 4,7	57,5 46,2	-1,8 -1,1	5,9 8,6	31,8 35,1	62,4 56,3	121,6 127,5	128,9 119,7	

4	I	Pop	ulation	 I	I	abou	r marke	et ¹	T		Ecoi	nomy		
					-	Und	employ rate	ment		e of se in tota oymen	ctors	GDI	three age 19 JR12=	89-9
Region	Population (1991) EUR12=100	Population change % pa (1981-1991)	Density inhab/(km²) (1991)	15-64 as % tot. pop. (1990)	Activity rate % (1990)	Rate 1993	Average 91-92-93 EUR12=100	Unem-ployment change 1988-93 (percen-tage points)	Agriculture	Industry	Services	per inhab. (PPS)	per person employed (PPS)	per person employed (ECU)
Centro Toscana	1,7	0,0	140 154	68,3 68,6	43,5 43,3	7,9 8,1	79,1 80,7	-0,3 -0,4	7,3 5,5	34,7 33,6	58,1 60,9	106,7 109,4	109,9	107,
Umbria	0,2	0,2	96	67,9	41,2	9,2	94,7	-0,6	9,6	33,4	57,0	98,9	114,4	112,
Marche	0,4	0,2	147	68,0	45,3	6,6	66,7	-0,2	10,1	38,0	51,8	104,7	101,1	99,3
Lazio	1,5	0,4	299	70,5	42,3	11,0	108,8	0,3	5,0	19,8	75,3	116,8	127,2	125,
Campania Abruzzi-Molise	1,6	0,7	414	66,9	37,8	22,8	224,0	-0,2	12,0	24,8	63,2	70,2	93,0	91,4
Abruzzi	0,5	0,4	104	67,2	41,7	13,1	124,8	3,1	14,1	27,3	58,6	87,8	95,6	94,0
Molise	0,1	0,2	75	66,2	42,0	12,4 15,6	116,1	3,1 3,2	12,4 21,0	28,3	59,3	90,2	97,4	95,8
Sud	1,9	0,5	151	66,6	37.9	17,6	178,9	-0,9	17,0	22,9	55,7 60,1	78,8 68,1	88,7 91,9	87,3 90,3
Puglia	1,2	0,6	208	67.1	37,8	15,6	157,5	-0,1	15,6	23,8	60,5	74.1	97,4	95,7
Basilicata	0,2	0,2	61	66,3	39,4	23,0	223,5	1,5	20,3	24,1	55,6	64,5	83,5	82,1
Calabria	0,6	0,5	137	65,9	37,8	19,6	206,4	-3,0	18,9	20,4	60,7	57,9	83,4	82,0
Sicilia	1,4	0,6	193	66,3	36,4	23,1	230,4	4,5	14,4	21,8	63,8	67,5	94,6	93,0
Sardegna Luxembourg (Grand-Duché)	0,5	0,5	68	69,0	40,1	19,8	196,2	1,4	13.8	25,2	61,0	74,2	94,2	92,5
Nederland	4,4	0,4	150 367	69,3 69,0	42,1 46,4	2,4	20,1	0,4	3,5	28,9	67,6	127.2	121,9	122,1
Noord-Nederland	0,5	0,0	140	67,6	40,4	8,2 10,6	79,0 104,5	-1,0 -1,1	4,3 5,0	25,4	69,6	101,3	98,4	100,6
Groningen	0,2	0,0	187	68.8	43,7	10,0	112,6	-2,8	3,9	26,8 25,7	67,6 69,8	100,2 127,4	111,3 146,1	113,8
Friesland	0,2	0,2	104	66,4	42,2	11.1	105,5	0,2	6,8	26,8	65,7	83,6	91,3	149,3 93,3
Drenthe	0,1	0,5	166	67,7	42,9	9,6	92,1	-0,5	3,9	28,3	67,4	88,5	94,2	96,4
Oost-Nederland	0,9	0,9	281	68,3	45,8	7,9	76,5	-1,6	6,1	27,9	65,5	88,4	85,8	87,7
Overijssel Gelderland	0,3	0,0	301	67,9	44,1	8,3	77,2	-1,8	6,3	30,9	62,4	89,7	91,7	93,7
Flevoland	0,5	0,6 11,9	354 94	68,8	46,9	7,7	75,8	-1,6	5,8	26,9	66,7	88,9	85,2	87,0
West-Nederland	2,0	0,5	623	66,0 68,8	45,6 47,4	7,6 7,9	78,3 76,1	-0,6	8,0	22,9	68,9	78,1	63,4	64,8
Utrecht	0,3	1,3	719	69,4	49,4	6,6	68,7	-0,7 -1,3	3,3	20,5	75,5 79,8	109,1 107,1	103,8 86,2	106,1
Noord-Holland	0,7	0,3	685	69,7	48,9	8,7	81,4	-0,6	2,6	20,0	76,9	113,8	108,2	110,0
Zuid-Holland	0,9	0,4	978	68,3	45,9	7,7	75,1	-0,6	3,9	21,2	74,1	106,3	105,7	108,0
Zeeland	0,1	0,2	118	65,8	45,8	9,1	75,1	1,2	7,1	28,0 .	64,6	108,7	111,0	113,0
Zuid-Nederland	1,0	0,5	457	70,7	46,3	8,0	75,1	-1,3	4,7	33,4	61,4	97,3	92,2	94,3
Noord-Brabant	0,6	0,6	436	70,6	46,6	8,0	74,7	-1,2	4,8	33,5	61,2	98,6	91,6	93,6
Limburg Portugal	0,3 2,9	0,3	504 107	70,7 66,0	45,7 47,4	8,0	76,1	-1,4	4,5	33,3	61,8	94,8	93,6	95,6
Continente	2,7	0,1	107	66,3	47,4	4,9 4,9	42,8 43,2	-1,1 -1,2	17,4 17,2	34,0 34,2	48,5 48,5	56,5 56,5	45,5 47,8	26,8
Norte	1,0	0,2	163	66,1	47,8	4,2	35.0	0,5	18,4	43,0	38,5	50,2	47,8	28,2
Centro	0,5	-0,1	73	64,5	46,7	3,4	28,3	-0,3	31,3	33,3	35,3	39,6	34,6	20,4
Lisboa e vale do Tejo	1,0	0,2	275	68,2	48,9	6,0	53,5	-2,8	7,6	27,1	65,1	76,6	64,9	38,2
Alentejo	0,2	-0,5	20	63,3	43,4	8,1	85,1	-6,4	22,0	28,5	49,5	33,9	35,0	20,6
Algarve Acores	0,1	0,5 -0,2	68	62,9	43,9	4,8	39,8	-0,7	17,0	20,8	62,0	47,9	49,0	28,8
Madeira	0,1	0,1	106 318	57,3 62,0	38,0 47,4	4,6	40,4 33,7	2,4	21,9	24,0	54,0	0,0	0,0	0,0
Jnited Kingdom	16,7	0,2	237	65,4	50,9	3,4 10,3	102,5	-1,4 1,5	21,8	32,9 30,9	45,3 65,9	0,0 99,1	0,0	0,0
North	0,9	-0,2	201	65,5	48,2	11,4	118,5	-1,1	1,7	34,9	62,0	85,3	83,7	83,9 78,8
Cleveland, Durham	0,3	-0,3	386	65,9	0,0	12,0	124,5	-1,4	0,0	0,0	0,0	83,8	82,1	77,3
Cumbria	0,1	0,2	72	65,5	0,0	8,3	81,3	0,6	0,0	0,0		103,3	96,4	90,8
Northumberland, Tyne and Wear	0,4	-0,2	258	65,3	0,0	12,1	126,7	-1,4	0,0	0,0	0,0	80,4	79,4	74,7
Yorkshire and Humberside Humberside	1,4	0,1	323	65,3	49,9	10,2	104,2	-0,2	2,5	34,8	61,7	89,0	83,4	78,5
North Yorkshire	0,3	0,0	250 87	64,7	0,0	11,7	120,5	0,4	0,0	0,0	0,0	95,4	93,1	87,6

Region	Population L					abour market 1			Economy					
	000000000000000000000000000000000000000			15-64 as % tot. pop. (1990) Activity rate % (1990)		Unemployment rate			Share of sectors ' in total employment (1991)			GDP three-year average 1989-91 EUR12=100		
	Population (1991) EUR12=100	Population change % pa (1981-1991)			%	Rate 1993	Average 91-92-93 EUR12=100	Unem-ployment change 1988-93 (percen-tage points)	Agriculture	Industry	Services	per inhab. (PPS)	per person employed (PPS)	per person employed (ECU)
South Yorkshire	0,4	-0,2	835	65,8	0,0	11,9	124,5	-1,6	0,0	0,0	0,0	77,5	74,8	70,4
West Yorkshire	0,6	0,0	1022	65,0	0,0	9,8	99,9	0,4	0,0	0,0	0,0	92,2	84,4	79,5
East Midlands	1,2	0,5	258	65,8	51,9	9,0	89,6	1,1	2,7	38,0	58,5	94,5	82,5	77,
Derbyshire, Nottinghamshire	0,6	0,2	410	66,0	0,0	9,9	98,6	0,5	0,0	0,0	0,0	90,3	79,7	75,
Leicestershire, Northampton	0,4	0,7	301	65,8	0,0	8,2	79,7	2,3	0,0	0,0	0,0	104,6	87,2	82,
Lincolnshire	0,2	0,7	100	65,6	0,0	8,4	85,7	0,1	0,0	0,0	0,0	83,1	76,4	71, 79,
East Anglia	0,6	0,9	165	64,4	53,0	8,4	78,9	2,7	4,0	29,2	66,3	99,8	84,3	95.
South East	5,1	0,3	648	65,8	52,9	10,5	97,9	4,4	1,2	25,4	72,5	119,0	101,4	77.
Bedford, Hertfordshire	0,4	0,4	530	66,5	0,0	8,3	76,7	4,2	0,0	0,0	0,0	102,6	82,2	83,
Berks, Bucks, Oxfordshire	0,6	1,0	344	67,5	0,0	6,9	63,6	3,6	0,0	0,0	0,0	110,8	88,2	79,
Surrey, East-West Sussex	0,7	0,3	450	63,3	0,0	8,0	71,4	4,4	0,0	0,0	0,0	99,4	84,8	
Essex	0,4	0,4	422	65,2	0,0	9,8	89,0	4,5	0,0	0,0	0,0	86,8	74,2	69,
Greater London	2,0	-0,1	4360	66,5	0,0	13,9	131,2	5,1	0,0	0,0	0,0	151,2	131,2	123
Hampshire, Isle of Wight	0,5	0,5	411	65,7	0,0	8,9	83,1	3,4	0,0	0,0	0,0	97,9	83,2	78,
Kent	0,4	0,3	412	65,0	0,0	9,6	89,3	3,7	0,0	0,0	0,0	90,2	78,5	73,
South West	1,4	0,7	198	64,0	50,8	9,6	92,1	2,9	4,6	29,0	65,6	94,8	82,8	77, 82,
Avon, Gloucester, Wiltshire	0,6	0,5	278	65,3	0,0	8,9	85,7	3,1	0,0	0,0	0,0	106,6	87,9	
Cornwall, Devon	0,4	0,8	147	63,1	0,0	10,9	105,7	2,2	0,0	0,0	0,0	80,2	75,3 81,9	70, 77.
Dorset, Somerset	0,3	1,0	185	62,8	0,0	9,1	87,2	3,7	0,0	0,0	0,0	92,5	80,6	75.
West Midlands	1,5	0,1	405	65,8	51,6	10,9	107,1	1,1	2,1	39,1	57,7	90,5	75,8	71,
Hereford, Worcs, Warwick	0,3	0,4	199	66,3	0,0	8,5	80,0	1,7	0,0	0,0	0,0	87,5 84,8	74,2	69,
Salop, Staffordshire	0,4	0,4	235	66,7	0,0	8,4	82,3	0,6	0,0	0,0	0,0	95,0	86,8	81,
West Midlands (County)	0,8	-0,3	2924	65,1	0,0	13,3	133,6	1,2	0,0	0,0	64,4	90,0	84,2	79,
North West	1,9	-0,1	872	65,1	49,6	10,5	110,8	-0,6	1,5	33,3	0,0	104,0	95,0	89
Cheshire	0,3	0,3	414	66,5	0,0	8,4	84,6	-0,1	0,0	0,0	0,0	91,7	84,6	79
Greater Manchester	0,7	-0,1	1996	65,4	0,0	10,5	109,9 88,2	-0,2 -0,4	0,0	0,0	0,0	91.1	83,7	78
Lancashire	0,4	0,1	460	64,3	0,0	8,6 14,0	152,5	-1,8	0,0	0,0	0,0	76,7	77,0	72
Merseyside	0,4	-0,6	139	64,6 64,4	0,0 47,3	9,7	101,0	-1,0	3,1	32,7	62,9	83,2	82,4	77,
Wales	0,8	0,2	1			9,0	92,7	-1,0	0,0	0.0	0.0	81,1	82,0	77.
Clwyd, Dyfed, Gwynedd, Powys	0,3	0,5	65	63,8	0,0	10,1	106,0	-0,8	0,0	0,0	0,0	84,5	81,7	76,
Gwent, Mid-S-W Glamorgan	0,5	0,1	488 65	64,7 66,3	50,1	10,1	106,6	-2,3	3,0	30,2	65,9	92,8	86,5	81,
Scotland Section Toy	1,5	-0,1 0,0	103	66,4	0,0	9,1	96,3	-1,8	0,0	0,0	0,0	94,3	0,0	0,
Bord-Centr-Fife-Lothian-Tay	0,5		1		0,0	11,4	125,0	-2,9	0,0	0,0	0,0	88,4	0,0	0,0
Dumfries-Galloway, Strathclyde	0,7	-0,4 0,6	122	66,3 64,6	0,0	13,4	114,1	0,6	0,0	0,0	0,0	76,9	0,0	0,
Highlands, Islands	0,1	1	58	66,9	0,0	5,6	55,1	-2,1	0,0	0,0	0,0	117,3	0,0	0,
Grampian	0,1	0,7	113	62,8	44,1	15,0	165,8	-2,1	4,5	28,0	66,4	75,1	81,7	76
Northern Ireland	0,5 100,0	0,2	153	65,3	45,3	10,4	100,0		6,4	33,2	60,2	100,0	100,0	
UR12 Veighted standard deviation	0,0	0,8	154	2,0	4,7	5,3	50,4	1,6	6,0	6,6	7,3	24,2		25,

All employment and unemployment data based on the Labour Force Survey.

Source: Eurostat

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